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# Salesforce Spring '20 Release Notes

Salesforce, Spring '20

Connect to your customers in a whole new way





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# SALESFORCE SPRING '20 RELEASE NOTES

The Spring '20 release delivers expanded innovations across the entire Customer 360 platform, empowering you to get a single shared view of your customer and deliver more moments that matter.

## IN THIS SECTION:

### [How to Use the Release Notes](#)

Our release notes offer brief, high-level descriptions of enhancements and new features. We include setup information, tips to help you get started, and best practices to ensure your continued success.

### [Get Ready for the Release](#)

Reading the release notes is a great step in preparing for the release. These other resources help get you, your org, and your users ready for what's coming your way. We add resources throughout the release when they become available, so check back often.

### [How and When Do Features Become Available?](#)

Some features in Spring '20 affect all users immediately after the release goes live. Consider communicating these changes to your users beforehand so that they're prepared. Other features require direct action by an administrator before users can benefit from the new functionality.

### [Supported Browsers](#)

We've made some changes to our supported browsers documentation, making it easier to find what you need. Supported browsers for Salesforce vary depending on whether you use Salesforce Classic or Lightning Experience.

### [Salesforce Overall: Tools to Help You Transition to Lightning Experience, Guide Your Users, and Boost Productivity](#)

Get ready for Lightning Experience with an enhanced Lightning Experience Configuration Converter, and guide your users with customizable in-app prompts. Empty your Recycle Bin in Lightning Experience with a single click and manage your deleted reports and dashboards. Work faster with App Launcher enhancements, use the latest Lightning Experience features with the Lightning Extension, and literally say "Hello!" to Einstein with Einstein Voice Assistant.

### [Salesforce CMS: B2C Commerce Page Designer Integration, Multiple Varied Channels, CMS Home, and Flexible Layouts](#)

Reuse your Salesforce CMS content across varied channels, both inside and outside Salesforce, including B2C Commerce Page Designer, Marketing Cloud, and Heroku. CMS Home makes it easy to jump into CMS Workspaces and Experience Builder from the Salesforce CMS app. And with flexible layouts, you can achieve the optimal layout for your custom content pages.

### [Salesforce Essentials: Email-to-Case Enhancements, New Service Features, Improved Mobile App and In-App Subscription Management](#)

Get your support emails into Salesforce faster by directly connecting your Google account to Email-to-Case. Tidy your case list with Case Merge. If you use Chat & Messaging, offer customers a menu of ways to contact you with a channel menu in your embedded chat window. The Salesforce mobile app reflects your personalized navigation in Essentials and prioritizes the information you use the most.

### [Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\), Resolve Cases Faster with Article Recommendations, and Predict the Future Using Filters](#)

Einstein Voice Assistant lets your users add and update Salesforce data conversationally, using their voice. Your agents can resolve cases faster using Einstein's knowledge article recommendations. Build custom predictions based on filter logic without needing to create fields to predict.

### [Sales: High Velocity Sales Email Branching and Email Scheduling, Task-Queue Assignment, and Revenue Recognition Reports for Salesforce Billing](#)

High Velocity Sales managers can branch sales cadences based on email engagement, and sales reps can schedule when emails are sent. Let reps share their workload by assigning tasks to queues. Use Salesforce Billing Revenue Recognition API to report on revenue recognition at any stage of the sales and finance process. Einstein Opportunity Scoring is available without a Sales Cloud Einstein license. Collaborative Forecasts now supports inline editing in the opportunity list. Sales reps can specify email arrival times to increase the chances of an email being read. And Pardot adds new analytics tools, including a dashboard for Einstein Behavior Scoring and an Account-Based Marketing analytics app template.

### [Service: Channel Menu, Einstein Article Recommendations, Case Merge, WhatsApp Messaging Channels, and Shifts for Field Service](#)

Connect with customers using the channels they prefer by adding an Embedded Service Channel Menu to your website. Help your agents resolve cases faster with Einstein Article Recommendations. Combine duplicate cases with Case Merge. Message with customers internationally using WhatsApp. Set up shifts for Field Service to schedule work that's outside of the usual schedule, such as holiday hours or occasional overtime (beta).

### [Commerce: Introducing Salesforce Order Management](#)

Salesforce Order Management brings the power of the Salesforce Platform to the world of ecommerce with tools to help you manage every step of the order lifecycle.

### [Analytics: Faster Report Editing, Dashboard Builder Enhancements, Direct Data Querying, Einstein Discovery What-If Analysis](#)

Analytics includes Reports & Dashboards, Einstein Analytics, and Einstein Discovery. The Spring '20 Analytics improvements focus on increasing connections and productivity alongside a simplified experience. Build reports faster with a new feature that lets you switch live updates to the report preview on or off. Dashboard builder's collaborative version management, targeted faceting, and interaction building, can all be completed with clicks not code. Query live Salesforce data directly in Einstein Analytics with Direct Data. Build a predictive model in Einstein Discovery and use what-if analysis to determine possible future outcomes.

### [Communities: Report Builder for Communities, ExperienceBundle, Enhanced Security, and Channel Menu](#)

Your partners and customers can now create and run reports on communities and portals. With the ExperienceBundle metadata type, quickly update and deploy Lightning communities programmatically using your preferred development tools. Various security enhancements help keep your data safe. And help service agents contact customers on a variety of channels using the Service Cloud's Channel Menu. Create and modify Lightning community audiences programmatically.

### [Chatter Feeds: Absolute or Relative Time Stamps in Case Feeds](#)

Choose how to display time stamps for case feed posts and comments.

### [Files: Retiring Support for Adobe Flash Rendition](#)

Prepare to switch your file rendition in the Chatter REST API from Adobe Flash to SVG.

### [Mobile: An Upgraded Experience for All](#)

In Spring '20, all active Salesforce mobile app users get upgraded to the new Salesforce mobile app. Admins and users alike can take advantage of expanded customization options, powerful Lightning functionality, and improved performance. Mobile Publisher for Communities gets even better with Apple Wallet access and a new app specifically for testing.

### [Salesforce Sustainability Cloud: Trusted Platform to Achieve Carbon Neutrality](#)

Gain critical insights about your carbon footprint. Using global emission factors to calculate greenhouse gas emissions, Sustainability Cloud helps you collect, categorize, and analyze energy usage and greenhouse gas emissions data throughout your organization's business activities. And because it's built on top of the Salesforce Lightning Platform, you have access to tools that facilitate collaboration, project management, and reporting.

### [Industries: Easier Setup, More Flexibility, Bigger Impact](#)

Our vertical solutions now include Salesforce Emergency Response Management, which helps you deliver resources and services faster when people need it most. In Health Cloud, you get contact tracing and monitoring, plus easier setup for care plans and more options for finding the right care provider. Financial Services Cloud brings you more visibility into distributors and a new API for creating mortgages. Consumer Goods Cloud helps field reps maximize their impact and track stock levels, and Manufacturing Cloud offers account managers greater control and improved visibility into sales agreements and account forecasts.

### [myTrailhead: A Fresh New Look for Trailmaker Content, and Customer-Created Subdomains](#)

Trailmaker Content gets a makeover. Customers can set up their own myTrailhead subdomain. Support for Internet Explorer 11 (IE 11) is ending.

### [Customization: Lightning Flow Enhancements, Globalization Improvements, and Einstein Updates](#)

Build flows and processes more efficiently with enhancements to Flow Builder, flow management, and Process Builder. More easily manage your translations, currency, and international dates and times. Build, configure, and manage predictions and recommendations with updates to Einstein Prediction Builder and Einstein Next Best Action.

### [Security, Privacy, and Identity: More Identity Verification Options, My Domain Changes, Real-Time Event Monitoring Threat Detection \(Beta\), and Encryption for Platform Events](#)

Give your users more authentication options by allowing them to authenticate with their Apple ID, Face ID, or Touch ID. Or set stricter requirements by only allowing authentication by SMS. Restrict external user access to Salesforce APIs through connected apps. My Domain certificates and URL formats are changing. Use Real-Time Event Monitoring platform events to detect common threats to your org (Beta). And Encrypt all your platform events including Salesforce Event Monitoring streamed events.

### [Deployment: Faster Availability of Uploaded Change Sets and New Change Set Components](#)

Uploaded change sets are available for deployment sooner. New change set components are available.

### [Development: Create Your Own Salesforce App](#)

Whether you're using Lightning components, Visualforce, Apex, or our APIs with your favorite programming language, these enhancements help you develop amazing applications, integrations, and packages for resale to other organizations.

### [Quip: Related Lists, Admin Insights, Filtered Salesforce Reports, New Quip Process Builder and Flow Builder Actions, Simplified Setup, and More](#)

Connect your Salesforce orgs to Quip faster than ever. Bring your filtered reports to Quip and embed them on Salesforce records to have them filter dynamically. Automate your business workflows with new Quip actions in Process Builder and Flow Builder. View and edit your related Salesforce lists views with the updated Salesforce List Live App.

### [Marketing: Interactive Email, Data Mapping Visualizer, and Distributed Marketing Quick Send for SMS](#)

Marketing Cloud is the premier platform for delighting customers with 1:1 customer journeys. It enables you to build a single view of your customer, leveraging data from any source. Plan and optimize unique customer journeys based on your business objectives. Deliver personalized content across every channel and device at precisely the right time. Measure the impact of each interaction on your business so that you can optimize your approach in real time and deliver better results.

### [Critical Updates and Security Alerts](#)

Salesforce periodically releases updates that improve the performance, logic, and usability of Salesforce, but which can affect your existing customizations. These are the updates available in the Critical Update Console in Spring '20. Also review updates on the Security Alerts page, and previously released and newly enforced critical updates.

### [Spotlight on Content](#)

Learn about Salesforce in-app content, tips for transitioning to Lightning Experience, our new technical requirements and performance best practices hub, and the Sustainability Cloud. We added Trailhead modules and projects, and updated instructional videos. We also updated our Trust and Compliance documentation.


### [Other Salesforce Products and Services](#)

# How to Use the Release Notes

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Our release notes offer brief, high-level descriptions of enhancements and new features. We include setup information, tips to help you get started, and best practices to ensure your continued success.

- We offer [PDF](#) and [HTML](#) versions.
- For the HTML version, your browser's settings determine the language you see. To change the language, scroll to the bottom, click **Change Language**, and select a language.
- The release notes include details about new and modified features. For information on known issues, visit the [Salesforce Known Issues](#) site.

 **Note:** Until the new release is available to you, links from release notes to Salesforce Help, implementation guides, developer guides, and other documentation don't work. And sometimes the links point to material from the previous release.

Some of our documentation has preview versions available several weeks before the release. To access a preview version on [Salesforce Developers](#), select **Preview** from the Documentation Version dropdown list.

## IN THIS SECTION:

### [Use Filters to Zero In on the News That Matters Most](#)

The filters narrow down the list of release notes on the right side of your screen, not the content on the left.

### [Know What's in Salesforce Lightning Experience and What's in Salesforce Classic](#)

Everybody's excited about Lightning Experience and everything it offers. But we also understand that lots of orgs continue to use Salesforce Classic—either exclusively or in tandem with Lightning Experience as it evolves.

### [You Asked for It!](#)

We delivered the features you asked for on IdeaExchange.

### [Release Note Changes](#)

Read about changes to the release notes, with the most recent changes first.

### [Your Feedback Matters](#)

We know how important our documentation is to your company's success. We want to know what works for you and what doesn't.

## Use Filters to Zero In on the News That Matters Most

The filters narrow down the list of release notes on the right side of your screen, not the content on the left.

### **Experience**

See which features are available in Lightning Experience, the Salesforce app (Mobile), and Salesforce Classic.

### **Edition**

Which feature enhancements are available to you depends on your edition. Filter the release notes to show only the enhancements that are available in your edition.

### **Feature Impact**

Some features require you to enable or configure them before users can get the benefits. As an admin, filter the release notes to focus on or hide just those features. Or maybe you want to see only the features that are automatically enabled for your users.

### **Product Area**

See only the products that your org uses. If your org does sales but not support, set up your release notes so that only the sales-related news appears.

To narrow down the list of release notes, click **Show Filters** on the right side.

**Experience**

Lightning Experience

Mobile

Salesforce Classic

**Edition**

Professional Edition ▼

**Feature Impact**

Enabled for users ▼

**Product Area**

Analytics

API

Chatter

Email Integration

Communities

Data.com

Force.com Customization

Force.com Development

Mobile

Sales

Service

Work.com

[Fewer Product Areas](#) [Reset](#)

You can share your filtered list of release notes with anyone. Select filters, copy the URL, and then distribute that URL however you want.

## Know What's in Salesforce Lightning Experience and What's in Salesforce Classic

Everybody's excited about Lightning Experience and everything it offers. But we also understand that lots of orgs continue to use Salesforce Classic—either exclusively or in tandem with Lightning Experience as it evolves.

One key to success during this time of transition is understanding what's available in one, both, or all the Salesforce experiences. To guide you, we added experience information to the applicable release notes at the highest level: for entire clouds or for individual features within clouds. Let's look at a couple of examples.

- A new Service Cloud feature is available in *both desktop experiences*, so the **Where** section of the release note says, "This change applies to Lightning Experience and Salesforce Classic."
- A new Sales Cloud feature is available in Lightning Experience *only*, so the **Where** section of the release note says, "This change applies to Lightning Experience only."

If a *key* feature is also available in the Salesforce app, we mention that in the **Where** section of the release note. But you can also check the Mobile section for a complete list of what's new.

## You Asked for It!

We delivered the features you asked for on IdeaExchange.

**IdeaExchange**

**Idea delivered**

**Salesforce Overall**

**IdeaExchange**

More Than 4 Fields on Related List in Lightning Experience

**Idea delivered**

Power Up Your Related Lists with Enhanced Related Lists (Generally Available)

**Sales**

Email Deliverability Changes Not Tracked in Audit Log

Track Changes to Send Email Access Level  
Monitor More Changes in the Setup Audit Trail

Allow Task(s) to be assigned to a Queue

Activities: Assign Tasks to a Queue to Share Work Efficiently

Inline Edit of Opportunities from the Forecast Tab

Update Multiple Deals from the Forecasts Page in Lightning Experience

Configure Opportunity Team Related List in Lightning Experience

Account and Opportunity Team Related List Customization Is Supported

Product Filter in Lightning Experience - When Adding to Opportunity or Quote

Use Filters to Narrow Opportunity Product Searches in Lightning Experience (*partially delivered*)Opportunity Cloning Should Clone the Contact Roles Too  
Lightning - Include Clone with Products Action on Opportunities  
Cloning a Campaign Should Clone Campaign Member Status Options in Lightning

Clone Opportunities or Campaigns Along with Their Related Records

Log an email set for Send Later in SalesforceIQ Inbox

Schedule and Manage Scheduled Emails in Lightning Experience  
Schedule and Manage Scheduled Emails in High Velocity Sales

Allow Prospects to Opt Back In

Enjoy More Control Over Prospect Resubscribe Messaging on Forms

Allow Users to Disable Email Message Threading in the Inbox App for Android

View Emails Without Conversation Threading in Inbox for Android

**Chatter**

Show exact date time of Chatter post or activity in Lightning Case Console feed

Set the Date and Time Stamp Format for Case Feed Items

**Mobile**

Path on Salesforce1 Not Showing Dependent Fields

Update Paths with Dependent Picklists on Mobile Devices

**Industries**

Add Edit and Clone functions to Action Plan Templates

Create Copies of Action Plan Templates with Deep Cloning

**Customization**

Save While Inside Screen Element of Flow Builder

Reference a Newly Created Screen Field Without Leaving the Screen Editor

Support for sObject Collection Variables in Invocable Methods for Flows

Build Invocable Actions That Work for Multiple Objects

Save-All-Fields Option in Fast Lookup in Flow

Configure Get Records Elements Without Selecting Fields

**IdeaExchange****Idea delivered**

Read into sObject Variable Directly in the Flow

Flow Editor—Limit Selection of Object Fields to Those Actually Available

Include a "Select All" Option for sObject Fields in Flow

**Development**

Ability to Create 301 Redirects via API

Apex: New and Changed Items

Ability to Create a 301 Redirect from One URL to Another (partially delivered)

Apex: New and Changed Items

## Release Note Changes

Read about changes to the release notes, with the most recent changes first.

### May 27, 2020

**Open Hyperlinks in Formula Fields Correctly (Previously Released Critical Update)**

Updated activation date for the critical update.

**Enforce Sharing Controlled by Parent for Google Docs Related to Salesforce Records (Critical Update)**

Updated title for clarity.

**Metadata API**

Added information about the new `activeViewId` and `preferredDomain` properties on the ExperienceBundle type.

**Event Monitoring: New Threat Detection Real-Time Events (Beta), Legacy Transaction Security Retiring, Event Monitoring Analytics App Improvements**

Deleted the "Event Monitoring Analytics App Performance Improvements" release note. The note included changes to the Event Monitoring Analytics App that were gated last-minute and pushed to the Summer '20 release instead. The note was moved to the Security, Identity, and Privacy section of the Summer '20 Release Notes.

### May 20, 2020

**Introducing Salesforce Emergency Response Management on page 354**

Added release notes introducing Emergency Response Management for Public Sector and Emergency Response Management for Public Health.

**Restrict Reflective Access to Non-Global Constructors in Packages (Critical Update)**

Added activation date for the critical update.

**New and Changed Objects**

Added information about the new `FirstCallDateTime` and `FirstEmailDateTime` fields on the Contact object.

### May 13, 2020

**New and Changed Objects**

Added information about the new `Queued` value for the `state` field on the ActionCadenceStepTracker object.

**Create Smart Transfers over SMS with Agent Availability**

Added clarification around the behavior of a bot when no agents are available.

## May 6, 2020

**Required Setting Change for Microsoft Office 365 Customers**

Microsoft moved the Basic Authentication retirement from October 2020 to the second half of 2021. This change updates our release note and our See Also link to a resource that reflects the new date.

**Enforce Sharing Controlled by Parent for Google Docs Related to Salesforce Records (Critical Update)**

This update enables admins to set sharing permissions to "Controlled by Parent" for Google Docs. Only users with access to a record can see any Google documents related to the record.

**Streamline Your Flows with the Review Inbound or Outbound Service Appointment Component**

Added this new release notes topic to announce the new Review Inbound or Outbound Service Appointment flow screen component for Lightning Scheduler flows.

## April 22, 2020

**Use an Updated API Version for Social Sign-On on page 466**

Added information on a Facebook API upgrade.

**Restore Access If Service Is Interrupted Before December 2020**

Corrected a reference to the Salesforce for Outlook retirement date, which is December 2020.

**Enhance Your Account Reports with Territory Details**

Added the Accounts report to the list of standard reports that now include territory details.

## April 15, 2020

**Opt Out of Guest User Security Policies Before Summer '20 (Critical Update) on page 324**

Clarified that this Critical Update also affects the activation of the **Assign new records created by Salesforce Sites guest users** setting. The Critical Update name was also updated.

**Prepare for Google Chrome's Changes in SameSite Cookie Behavior That Can Break Salesforce Integrations on page 76**

Google has temporarily rolled back the SameSite changes until the summer of 2020.

**Salesforce for Outlook Is Being Retired in December 2020**

To help admins prepare for migration, added a See Also link from this release note to the new [Compare Salesforce for Outlook to the Next-Generation Products](#) documentation.

**Find Version-Specific Salesforce for Outlook Release Notes**

Adding a reminder that admins can find version-specific Salesforce for Outlook release notes in the Outlook/Gmail integrations, and Inbox Trailblazer Community.

## April 8, 2020

**Use the Readiness Check to Guide Your Lightning Experience Transition**

Added an announcement that the Readiness Check has been updated for Spring '20.

**Removed: Prepare for the Certificate Change for My Domains**

Removed the release note because we canceled the scheduled certificate change. See the [Certificate Changes Trailblazer Community](#) for updates.



**Install Linting in Salesforce DX Projects with Ease**

Added a release note explaining that now it's easier to install linting for Lightning Web Components in a Salesforce DX project.

**Salesforce for Outlook Is Being Retired in December 2020**

Added the Salesforce for Outlook retirement announcement and resources available to date.

**Opt Out of Turning Off Community-Specific Setting for Guest Users to See Other Members (Critical Update) on page 324**

Added a release note about a new critical update for opting out of turning off the **Let guest users see other members of this community** setting in the Winter '21 release.

## April 1, 2020

**Help Your Agents Resolve Cases Faster with Einstein Article Recommendations (Generally Available)**

Updated the minimum article requirement from 400 to 100 English articles.

**Get Your Colleagues on the Same Page with Link Sharing**

In addition to record pages, users can now share list view pages, object home pages, and Lightning app pages from the Salesforce mobile app.

**Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile (Critical Update, Postponed) on page 500**

The enforcement of this critical update has been postponed until Winter '21.

**New and Changed Objects on page 556**

Documented three new Einstein Voice Assistant objects.

**Metadata API on page 583**

Documented five new Einstein Voice Assistant metadata types.

**Tooling API on page 582**

Documented five new Einstein Voice Assistant objects.

## March 25, 2020

**Metadata API**

Added information for the new `object` and `sortField` fields on the `StrategyNodeRecommendationLoad` subtype of the `RecommendationStrategy` type.

**Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile (Critical Update, Postponed)**

Clarified that this critical update also applies to flows.

**Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile (Critical Update, Postponed)**

Clarified that this critical update also applies to flows.

**Opt Out of Guest User Security Policies Before Summer '20 (Critical Update)**

This critical update allows orgs to opt out of the automatic enabling of two settings aimed at increasing data security for guest users.

**Ensure Guest User Access to Emails Created with Visualforce Email Templates**

The security upgrades for guest users require changes to Classic Visualforce email templates.

**Go On a Better Round-Trip Between Full Feed and Feed Item Detail**

Added information about Back button behavior with Compact Feed.

## March 18, 2020

### Schedule and Manage Scheduled Emails in Lightning Experience

Clarified that enhanced email must be enabled for orgs that want to use Send Later.

### Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile (Critical Update, Postponed) on page 500

The enforcement of this critical update has been postponed from April 5 until May 7.

### Enable Dependency Access Checks In Lightning Components (Critical Update, Postponed) on page 502

The enforcement of this critical update has been postponed until Winter '21.

### Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile (Critical Update, Postponed) on page 503

The enforcement of this critical update has been postponed until Winter '21.

### Use with sharing for @AuraEnabled Apex Controllers with Implicit Sharing (Critical Update, Postponed) on page 501

The enforcement of this critical update has been postponed until Spring '21.

### Enforce Access Modifiers on Apex Properties in Lightning Component Markup (Critical Update, Postponed) on page 504

The enforcement of this critical update has been postponed until Summer '21.

### Disable Access to Non-global Apex Controller Methods in Managed Packages (Critical Update, Postponed) on page 502

The enforcement of this critical update has been postponed until Summer '21.

### Add Field Recalculations and Mass Updates to Your Processes and Flows

Process Builder and Flow Builder now include standard Manufacturing Cloud actions to perform recalculations and mass updates to account forecast and sales agreement fields.

### Manufacturing Cloud Has New Invocable Actions

Use invocable actions to perform recalculations and mass updates to account forecast and sales agreement fields instantly.

### Edit Data Classification for Custom Fields in Managed Packages

Added information on a new component for managed packages.

## March 11, 2020

### Gain Insight on Einstein Search by Viewing Search Result Filters (Beta)

Explained that Einstein Search result filters are displayed for conversational searches.

### Get Search Suggestions Tailored to Your Work to Find Records Faster (Beta)

Added information about personalized search suggestions.

### Enable Einstein Search Personalization for an Org of Any Size and Try It in a Sandbox Org (Beta)

Updated Einstein Search personalization org requirements and the availability of personalization in sandbox orgs.

### Show What Matters Most with Profile-Specific Search Results Layouts

Noted that profile-specific search layouts are now generally available.

### Require Secure HTTPS Connections (Critical Update)

Clarified that the critical update doesn't remove the Require secure connections (HTTPS) setting.

### Get Personalized Search Results for Cases and Leads (Beta)

Added information that personalized search results are available for cases and leads.

### WhatsApp: Now Available for Einstein Bots

Removed a reference to Facebook Messenger.

### Require Permission to View Record Names in Lookup Fields (Critical Update)

Updated the critical update's enforcement date to the Winter '21 release.

**Help Your Agents Resolve Cases Faster with Einstein Article Recommendations (Generally Available)**

Indicated that Einstein Article Recommendations is also available in Performance edition.

**March 6, 2020****Ensure That Your Guest User Sharing Rules Provide Intended Access**

Added a release note about the reminder about user access that is displayed when you create guest user sharing rules.

**March 4, 2020****Help Your Chat Agents Respond Faster with Einstein Reply Recommendations (Pilot)**

Corrected the number of required English chat transcripts from 1,000 to 10,000, and added a note that Reply Recommendations also offer limited support for other languages.

**Try Einstein Case Classification At No Additional Cost**

Added information about what's included in the paid version of Einstein Case Classification.

**Analytics Mobile Apps: Upgrade to the Spring '20 Versions of Einstein Analytics for iOS and Android**

Added information about enhancements to Einstein Analytics for iOS and Android.

**Manufacturing Cloud Has New and Changed Metadata Types**

Added information on the IndustriesManufacturingSettings metadata settings type.

**Validate Salesforce Merge Field Syntax When Saving Email Templates**

Clarified when Salesforce Merge Language merge fields are verified.

**Prepare for the Updated Email Bounce Warning**

Added information about changes to the email bounce warning.

**New, Changed, and Deprecated Calls**

Updated to show that the default setting for the `collateSubrequests` field is now `false`.

**Metadata API**

Corrected a field name on the FlowActionCall subtype of Flow for mapping generic sObject inputs or outputs to a specific object.

**New and Changed Objects on page 556**

Listed the five new fields of the AllInsightReason object.

**Enforce Data Access in Flow Formulas (Critical Update)**

Clarified that this critical update enforces data access when a flow uses a formula resource or a formula field on a record variable to access a field on a record.

**Test Configuration Changes with Pardot Sandboxes (Beta)**

Added a release note announcing the Pardot Sandboxes beta release.

**App Store and Google Play Updates**

Added a release note for Salesforce mobile app App Store and Google Play updates, including notes for the 224.010 update.

**February 26, 2020****Create Content with Efficiency and Ease Using the Redesigned Trailmaker Content**

Updated the month when design changes to Trailmaker Content are available.

**Support for Internet Explorer (IE11) on myTrailhead Is Ending**

Added a release note about the end of support for IE11 on myTrailhead.

**Freeze JavaScript Prototypes Session Setting Removed**

Added a release note about the removal of the Freeze JavaScript Prototypes setting.

**Get Improved Code Coverage Results for Your Apex Tests**

Added information about how code coverage results are calculated for Apex tests.

**New and Changed Aura Components**

Added a change to the `lightning:input` component stating that date and time inputs now use the Salesforce locale, and clarified how Salesforce locale is used for number inputs.

**Changes to Action Plans License**

Added a release note about the objects no longer available with the Action Plan license.

**Changes to Action Plans License**

Added a release note about the objects available with the Consumer Goods permission set.

**REMOVED: Permission Changes for Queues**

We removed this feature from the Spring '20 release as we make improvements.

**Gain Insights on Data Directly in Snowflake (Beta)**

Added a release note about the availability of Einstein Analytics Direct Data for Snowflake (Beta).

## February 19, 2020

**Lightning Sync: Connect Microsoft Exchange with Salesforce Using NTLM Authentication Protocol**

Customers are no longer required to contact Salesforce Customer Support to connect Exchange and Salesforce using NTLM. Also, starting on February 19, 2020, if basic and NTLM are enabled, Lightning Sync gives connection preference to basic. Earlier in Spring '20, Lightning Sync gave preference to NTLM.

**New and Changed Aura Components**

Added a change to the `lightning:input` component to clarify that the buttons for changing the number value are removed.

**New and Changed Lightning Web Components**

Added a change to the `lightning-input` component to clarify that the buttons for changing the number value are removed.

**Get Familiar with JSON Changes for Dashboard Designer**

Added information about JSON changes that give you more ways to manage query faceting.

**Legacy Folder Sharing Is Retiring in Winter '21 on page 254**

Added a release note announcing the retirement of legacy folder sharing for reports and dashboards.

**Try Einstein Prediction Builder At No Additional Cost**

Corrected edition information.

**Support Has Changed for the New Salesforce Mobile App Tablet Experience**

Clarified that the new, narrow view tablet experience is available only to customers who opted in to the new Salesforce mobile app during the pilot or Winter '20.

**React to Asset Loaded with Analytics Web SDK**

Added `wave:assetLoaded` event for users to listen for Analytics assets to finish loading on the first load and on subsequent resets and then react as needed.

**Get Things Right with Right-to-Left Layout and Languages (Generally Available)**

Clarified limitations. Updated the linked help page on right-to-left language support, summarizing limitations for Lightning Experience and Salesforce Classic. Added a link to a new help page detailing right-to-left language search limitations.

**Review Trust and Compliance Documentation**

Added trust and compliance documentation.

### Tooling API

Added a release note for a field that was added in API version 38.0 to the FieldDefinition and EntityParticle objects.

### New and Changed Objects

Added the CspTrustedSite object.

## February 12, 2020

### Create Scratch Orgs With More Features

We've added many new features for scratch orgs.

### Run Macros Faster on Record Home Pages on page 238

Clarified that a single notification toast is displayed after a macro is completed regardless of the number of submit actions contained the macro.

### Build Your Own Beautiful Analytics Apps Fast with the Design Analytics Template

Announcing new Analytics prebuilt app template that customers can use as starting point for app design.

### Packaging and Changesets Include User Extended Metadata (XMD)

Added clarification that packaged User Extended Metadata (XMD) cannot be edited via the UI in the destination organization.

### Manage How Records Open from an Embedded Dashboard

Added information about a setting that controls how records open from a dashboard widget.

### Simplified Configuration for the Outlook Integration

Removed this release note. The simplified configuration for Outlook is available as a closed pilot at this time.

### Einstein Bots: Changed Behavior to Dropdown fields on Bot Overview Page

Clarified that the behavior of the Custom Chatbot User field and the Deployment field on the Bot Overview page have been changed from displaying all by default to type ahead search.

### Add Templates to Existing Care Plans Faster with a New Button

Updated the screenshot and How section to document Lightning Experience instead of Salesforce Classic.

### Deployment: Uploaded change sets are available for deployment sooner

Added information about improved time to availability for uploaded change sets.

### Salesforce CLI: New and Changed Commands

Added new and changed CLI commands for v48.

### Prepare for Google Chrome's Changes in SameSite Cookie Behavior That Can Break Salesforce Integrations on page 76

Added the Outlook and Gmail integrations to the list of places that cookies don't work for non-secure (HTTP) browser access.

Added instructions for checking that your Salesforce Classic Canvas connected app works with HTTPS and for updating the URLs to use HTTPS.

### Files: Retiring Support for Adobe Flash Rendition

Added the plan to retire Adobe Flash support file renditions in the Winter '21 release.

### Accelerate Business Performance with Einstein Analytics for Consumer Goods on page 387

Updated the screenshot and revised the add-on license details in the How section.

## February 5, 2020

### Use Filters to Narrow Opportunity Product Searches in Lightning Experience on page 136

Corrected the note indicating which fields the quick filter shows. The filter shows Product object fields that are included in the price book entry search layout rather than the multiline editor layout.

**Change the Case Owner on the Case Related Record Component Via Inline Edit on page 236**

Added release note describing behavior changes when agents update the Case Owner field on the Case related record component.

**Strengthen Forecasting and Get Deeper Insight Into Product Demand with Einstein Analytics for Manufacturing**

Announced new dashboards to improve forecasting and help Manufacturing Cloud customers anticipate demand.

**Spotlight on Content**

Added information about our latest content enhancements, including in-app content, transition tips for Lightning Experience, our new technical requirements and performance best practices hub, and Sustainability Cloud. We also added Trailhead modules and projects and updated videos.

**Hire Confidently with Enhanced Salesforce Consultant Reviews on AppExchange**

Added a release note announcing the new Salesforce consultant review experience on AppExchange.

**REMOVED: Share Code Between Visualforce Pages in the Same Namespace with @namespaceAccessible**

This feature isn't ready for showtime yet, so we're removing it for now while we make improvements.

**New Permissions for Previewing Quote Documents**

Added a release note about new permissions required for using the quote's Preview Documents button.

**Legacy Inbox: Supplemental Contact Information Scheduled for Retirement**

Added a release note about the retirement of Supplemental Contact Information in the Legacy Inbox application.

**Use More API Calls**

Clarified that this change does not apply to the Developer Edition.

**Metadata API**

Added information about the new `sortIndex` field on the `WaveXmdRecordDisplayLookup` metadata type.

**Export up to 5 Reports at Once Per User**

Added a release note announcing a limit of 5 concurrent report exports per user. Formatted report exports from Lightning Experience don't count against the limit.

**Changes to Managing User Preferences**

Removed information about access changes to user roles because this change was removed from the Spring '20 release.

**Get Your Colleagues on the Same Page with Link Sharing**

Clarified that the shared links are Lightning URLs.

**Update Attribute Values for Snapshots Created by Jest Tests**

Added a release note about snapshot attribute value behavior and how to fix test failures.

**Prepare for Google Chrome's Changes in SameSite Cookie Behavior That Can Break Salesforce Integrations**

Added information about communities, portals, and sites.

**Boost Productivity for Your Mobile Users with Einstein Voice Assistant (Beta)**

Updated beta disclaimer language.

**Einstein Voice Assistant: Get More Done on the Run (Beta)**

Updated beta disclaimer language.

**Customize Number Formatting in Lenses and Dashboards**

Added clarification that specified custom delimiters are not honored in CSV downloads.

**Generate Valid HTML Output from Formulas in Processes and Flows (Critical Update, Retired)**

Retired this critical update.

**Mobile Cards Are Not Available in the New Salesforce Mobile App**

Added a release note announcing that mobile cards have been replaced by Lightning components.

**Create Care Plans with a Single Flow**

Added a caution statement about potential conflicts with existing custom triggers. Also added a See Also link to a knowledge article with a solution for this conflict.

**January 29, 2020****Apex Mobile User (Salesforce Internal Use Only) Field Was Removed**

Added API name (UserPermissionsMobileUser) of Apex Mobile User (Salesforce Internal Use Only) field.

**FullContact Connector Is Scheduled for Retirement on January 31, 2020**

Announcing the FullContact connector retirement.

**Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile (Critical Update, Postponed)**

The enforcement of this critical update has been postponed to Summer '20.

**Turn Customer Survey Data into Actionable Intelligence with Customer Lifecycle Analytics**

Announcing the new Customer Lifecycle Analytics app.

**Removed ID Fields from Topics Components**

Removed dynamically generated ID fields from topics components.

**Boost Productivity for Your Mobile Users with Einstein Voice Assistant (Beta)**

Added information about navigating to Einstein Voice Assistant in the new Salesforce mobile app.

**Secure Guest Users' Org-Wide Defaults and Sharing Model (Security Alert, Enforced)**

Clarified the enforcement date of the security alert.

**Untangle Your Dependencies with MetadataComponentDependency Queries in Production and Sandbox Orgs (Beta) on page 518**

Announcing the availability of Tooling API MetadataComponentDependency (Dependency API) in production (Prod) orgs.

**January 22, 2020****You Asked for It!**

Added Ideas that we delivered.

**Sales Cloud Einstein: Enjoy Simplified Data Requirements**

Updated the Einstein Opportunity Scoring example with the correct two-year time frame.

**Get Search Results for More Objects**

Added information about objects that are now searchable.

**Permission Changes for Collaborative Forecasts and Fiscal Year Settings**

Added information about Metadata API types.

**Prevent Using Standard External Profiles for Self-Registration and User Creation (Security Alert and Critical Update, Enforced)**

Added information about enabling pref for force.com and legacy portal users.

**Health Cloud Has New and Changed Objects**

Added information about new validation rules in Health Cloud objects CarePlanTemplateGoal\_\_c and CarePlanTemplateTask\_\_c.

**Use with sharing for @AuraEnabled Apex Controllers with Implicit Sharing (Critical Update, Postponed) on page 501**

Clarified behavior for orgs created before Spring '18.

**Keep Track of Customer Consent Preferences**

Added a release note about the Party Consent object.

**Secure Guest Users' Org-Wide Defaults and Sharing Model (Security Alert, Enforced)**

Added information about Apex managed sharing.

**Welcome to the New Salesforce Mobile App**

Added in-line links to more detailed related release notes for features, where available.

**Encrypt Recommendation Description Information**

Added a release note announcing that you can encrypt Next Best Action recommendation descriptions.

**Do More in the Mobile App with Global Actions**

Changed "Salesforce Mobile and Lightning Experience Actions" to "Quick Actions in the Salesforce Classic Publisher".

**Help Your Agents Resolve Cases Faster with Einstein Article Recommendations (Generally Available)**

Clarified that Einstein Article Recommendations are available only for articles written in English, and that a knowledge base of 400 or more articles is needed.

## January 15, 2020

**New and Changed Objects**

Added a new release note entry for the LegalEntity object.

**Metadata API**

Added a description of the new EmbeddedServiceMenuSettings type.

**Get Things Right with Right-to-Left Layout and Languages (Generally Available)**

Added details from help on Right-to-Left Support for Communities.

**Enable Dependency Access Checks In Lightning Components (Critical Update, Postponed) on page 502**

Added a new critical update.

**Use with sharing for @AuraEnabled Apex Controllers with Implicit Sharing (Critical Update, Postponed) on page 501**

This critical update has been postponed.

**Fine-Tune Your Pipeline with Einstein Referral Scoring (Generally Available)**

Added information about the permission set required to use the Einstein Top Referrals component.

**DOM API Changes May Require UI Test Updates**

Alerting customers that automated UI tests may fail and where to find help to fix failed tests.

**Try Einstein Case Classification At No Additional Cost**

Added a new release note about Einstein Case Classification.

**See a Preview of Related List Records (Beta)**

Added a release note to describe the related lists preview behavior.

**Require Secure HTTPS Connections (Critical Update)**

Added a release note about HTTPS connections being required.

**Use the Readiness Check to Guide Your Lightning Experience Transition**

Added an announcement that the Readiness Check has been updated for Spring '20.

## January 8, 2020

**Financial Services Cloud Has New and Changed Objects**

Updated two release note entries to clarify that the RenewalChannel field on the Claim object and the FnoIChannel field on the InsurancePolicy object have been deprecated and not removed.



**Permission Set Groups: Greater Flexibility in Granting Permissions (Generally Available) on page 446**

Updated Permission Set Group entries to include that the change and feature applies to Salesforce Classic.

## January 1, 2020

**Get Things Right with Right-to-Left Layout and Languages (Generally Available)**

Clarified Lightning Right-to-Left (RTL) Language Support is now available for Financial Service Cloud, with support for Hebrew still in beta.

**Combine Duplicate Cases with Case Merge (Generally Available)**

Changed soft-delete time frame to 15 days and clarified what happens when you delete merged cases vs when you save merged cases. [Help doc]: Changed the limitation about "Cases that are in an Omni-Channel queue can't be merged." to "Duplicate cases that are pending in an Omni-Channel queue or that are assigned to an agent, where the status is either Assigned or Opened, can be merged."

**Build Smart Schedules with Enhanced Optimization (Generally Available)**

Added shift availability (beta), consecutive work (beta), and extended match work rules to the list of features that Enhanced Optimization supports.

**Schedule an Appointment That Immediately Follows Another (Beta)**

Updated the dependency name to `Immediately Follow`.

**Build Invocable Actions That Work for Multiple Objects**

Deleted all references to the `enforceSingleMember` attribute from the code.

**Hit Limits Less Often with More Efficient Record Update Processing**

This RN now emphasizes that this applies to both Process Builder and Flow (not just Flow).

**Metadata API**

Added descriptions of six new fields on the `CaseSettings` Metadata API type.

**Use Event Monitoring Logs to Track CPU Time Consumed by Apex Triggers**

Added a release note announcing that the `CPU_TIME` field in Apex Trigger Events is now populated.

**Attach Actions to Asynchronous Apex Jobs Using Transaction Finalizers (Pilot)**

Added information that the feature is available only in scratch orgs that have enabled it at org creation time.

**Prevent Identity Verification by Email for Users With Other Verification Methods on page 591**

Added a description of the `canConfirmIdentityBySmsOnly` setting on the `SessionSettings` subtype of the `SecuritySettings` metadata type.

**Allow Users to Connect Orgs as a Data Source to Cross-Cloud Applications**

Added a description of the `Connect Org to Customer 360 Data Manager` permission.

**Route Chats Directly to Agents Who Aren't in the Queue**

Added a release note announcing that an Omni-Channel routing limitation no longer exists.

**Power Up Your Related Lists with Enhanced Related Lists (Generally Available)**

Added a release note announcing that Enhanced Related Lists are generally available.

**Automate Fulfillment and Payment Capture with Flows**

Clarified that all three managed flows and the process provided with Salesforce Order Management are templates that you clone and customize to meet your business requirements.

**Tooling API**

Added the `RunInMode` field on the Flow object.

**Metadata API**

Added information about a new enum value for the `standardLabel` field on the `QuickAction` Metadata API type.

### New Salesforce Mobile App: A Major Upgrade, Plus Navigation and Search Improvements

Updated availability statements throughout the Mobile section to more accurately reflect availability of new Salesforce mobile app features. Lightning-powered customization options will be available when Spring '20 rolls out to your org. If your users are running the most recent version of the Salesforce mobile app available in the App Store or Google Play, they see improved navigation and Lightning features. All other changes, including Einstein Voice Assistant (Beta), search Recommended Result, and the Einstein Analytics navigation item, will be available in a mobile app update the week of February 17, 2020.

### Work Capacity Data Model No Longer Available

Added a release note announcing the removal of the Work Capacity data model.

### New and Changed Objects

Added list of object no longer available because of the Work Capacity data model removal.

## December 16, 2019

### Salesforce Spring '20 Release Notes

Published preview release notes.

## Your Feedback Matters

We know how important our documentation is to your company's success. We want to know what works for you and what doesn't.

- **Trailblazer Community**—Post your feedback in the [Release Readiness Trailblazers](#) group. To help us track and respond to your feedback, use a hashtag that indicates the release, such as #Winter20Feedback.
- **Feedback forms**—As you work with our documentation in Salesforce Help, release notes, or developer guides, look for the feedback form and vote up or down. Add comments if you have them.
- **Twitter**—When you follow @salesforcedocs on Twitter, you receive notices whenever we publish new documentation or make significant updates to existing documentation. Tweet us at [@salesforcedocs](#).

## Get Ready for the Release

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Reading the release notes is a great step in preparing for the release. These other resources help get you, your org, and your users ready for what's coming your way. We add resources throughout the release when they become available, so check back often.

## What's New This Release

- [Release Overview Deck \(ROD\)](#). Create internal training for your users, review setup screens, and learn how to use features.
- [Release Matrix](#). Quickly see which features immediately affect your users.
- [Spring '20 Pre-release Signup](#). Sign up for a pre-release org to get early access to the new features.
- [Release Readiness Live](#). Register and make the most of the new features.
- [Release Demos](#). Get quick video overviews of what's coming this release.
- [Spring '20 Release Website](#). Check out the new features.
- [Spring '20 Release Highlights Module](#). Get the Spring '20 Trailhead badge.
- [Release in a Box](#). Use this kit to prepare and present the new release to your org and users.

## Release Readiness Essentials

- [Release Readiness Trailblazers](#). Access resources and experts for all things release readiness.
- [Release Milestones](#). See key dates for the release.
- [Trust Status Maintenances](#). See sandbox and other release dates and times. Click Instances and your instance to see your maintenance dates.
- [Sandbox Refresh Calculator](#). Plan if and when you need to refresh your existing sandbox orgs.
- [Sandbox Preview Video](#). Learn how to navigate the sandbox preview process.
- [Sandbox Preview Instructions](#). Get early access to new features in your sandbox.
- [Customer Success Event Calendar](#). Register for release overview webinars and access recordings.
- [Certification Release Maintenance Schedule](#). Keep your certification updated in Trailhead.
- [Prepare for Salesforce Releases](#). Use Trailhead to create your release strategy.
- [Releases Email Journey](#). Prepare for releases by subscribing to emails.

## How and When Do Features Become Available?

Some features in Spring '20 affect all users immediately after the release goes live. Consider communicating these changes to your users beforehand so that they're prepared. Other features require direct action by an administrator before users can benefit from the new functionality.

## Supported Browsers

We've made some changes to our supported browsers documentation, making it easier to find what you need. Supported browsers for Salesforce vary depending on whether you use Salesforce Classic or Lightning Experience.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<a href="#">Supported Browsers for Lightning Experience</a>	✓			
<a href="#">Supported Browsers for Salesforce Classic</a>	✓			
<a href="#">Supported Browsers for Einstein Analytics</a>	✓			

## Salesforce Overall

Get ready for Lightning Experience with an enhanced Lightning Experience Configuration Converter, and guide your users with customizable in-app prompts. Empty your Recycle Bin in Lightning Experience with a single click and manage your deleted reports and dashboards. Work faster with App Launcher enhancements, use the latest Lightning Experience features with the Lightning Extension, and literally say "Hello!" to Einstein with Einstein Voice Assistant.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Lightning Experience Transition: Critical Update, Configuration Converter, Readiness Check</b>				
<b>Turn On Lightning Experience Critical Update Activates Starting January 7, 2020</b>				
Lightning Experience is Permanent After It's Enabled		✓		
Default User Experience After Lightning Experience Is Turned On		✓		
<b>Lightning Experience Configuration Converter: New Home Tab, Convert JavaScript Alerts</b>				
Manage All Lightning Experience Configuration Converter Tabs from One Place (Beta)		✓		
Convert JavaScript Alerts to Lightning Components		✓		
Convert JavaScript Buttons on Contract and Task Objects		✓		
<b>Use the Readiness Check to Guide Your Lightning Experience Transition</b>		✓		
<b>Lightning Experience Engagement: In-App Guidance Prompts</b>				
<b>In-App Guidance: Profile Filtering, Videos, and Translation Support</b>				
Specify Profiles When Creating Prompts			✓	
Add Videos to Docked Prompts			✓	
Use Translation Workbench to Maintain Prompt Labels			✓	
Customize When Prompts Appear to Users			✓	
Other User Interface Changes: Prompts	✓			
<b>Delayed Availability: Give Feedback to Salesforce (not immediately available)</b>	✓			
<b>Prepare for Google Chrome's Changes in SameSite Cookie Behavior That Can Break Salesforce Integrations</b>	✓			
<b>Empty the Recycle Bin in One Step</b>		✓		
<b>Access Reports and Dashboards in the Recycle Bin</b>	✓			
<b>Get a Boost with App Launcher Enhancements</b>	✓			

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Try New Lightning Experience Features with the Lightning Extension for Chrome (Generally Available)	✓			
Einstein Voice Assistant: Get More Done on the Run (Beta)	✓			
Simplify Logins and Profiles on Salesforce-Related Sites with Trailblazer.me	✓			
<b>Search</b>				
Enable Einstein Search Personalization for an Org of Any Size and Try It in a Sandbox Org (Beta)			✓	
Get Personalized Search Results for Cases and Leads (Beta)			✓	
Gain Insight on Einstein Search by Viewing Search Result Filters (Beta)	✓			
Get Search Suggestions Tailored to Your Work to Find Records Faster (Beta)	✓			
Create a Filtered List of Records Using New Time-Related Conditions (Beta)	✓			
See a Preview of Related List Records (Beta)	✓			
Show What Matters Most with Profile-Specific Search Results Layouts			✓	
See the Related Account When You Search for Contacts or Opportunities	✓			
Get Search Results for More Objects	✓			
<b>Salesforce Surveys: Customizable Participant Journey</b>				
Insert Responses from a Previous Question	✓			
Jazz Up Your Surveys with Images	✓			
Improve Your Net Promoter Score® with a Color-Coded Scale	✓			
Display Questions Based on Participant Responses	✓			

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Let Participant Responses Determine Their Path	✓			
Move to the Next Page with One Less Click	✓			
Enjoy an Enhanced User Experience	✓			
Question Type Names Changed	✓			
Turn Customer Survey Data into Actionable Intelligence with Customer Lifecycle Analytics			✓	
Permission Change for Survey Email Branding		✓		
<b>Lightning Scheduler: Guest User Scheduling, Chronos for Lightning Scheduler, and Simplified Setup</b>				
Let Guest Users Schedule Inbound Appointments			✓	
Simplify Setup with Lightning Scheduler Setup Assistant			✓	
Pair Lightning Scheduler with Einstein Bots			✓	
Enforce Skill Matching		✓		
Access a Service Appointment from an Assigned Resource		✓		
Streamline Your Flows with the Review Inbound or Outbound Service Appointment Component			✓	
Do More with Lightning Scheduler API Calls		✓		
Navigate to a Record's Create Page with Default Field Values		✓		
Power Up Your Related Lists with Enhanced Related Lists (Generally Available)			✓	
Require Secure HTTPS Connections (Critical Update)			✓	
Open Hyperlinks in Formula Fields Correctly (Previously Released Critical Update)			✓	

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<a href="#">Keep Working with Tab-Focused Dialogs (Previously Released Critical Update)</a>			✓	

## Salesforce CMS

Reuse your Salesforce CMS content across varied channels, both inside and outside Salesforce, including B2C Commerce Page Designer, Marketing Cloud, and Heroku. CMS Home makes it easy to jump into CMS Workspaces and Experience Builder from the Salesforce CMS app. And with flexible layouts, you can achieve the optimal layout for your custom content pages.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<a href="#">Use Your Salesforce CMS Content with B2C Commerce Page Designer</a>		✓		
<a href="#">Deliver Engaging Content Across Multiple Channels and Sites</a>		✓		
<a href="#">Access All Things CMS from CMS Home</a>		✓		
<a href="#">Channel Content to Other Internal and External Endpoints</a>		✓		
<a href="#">Manage CMS Workspaces and Channels</a>		✓		
<a href="#">Enhance CMS Content with Flexible Layouts</a>		✓		
<a href="#">Delete Content from Your Salesforce CMS Workspaces</a>		✓		
<a href="#">Enhance Your Custom Content Types with Date, Datetime, and URL Nodes</a>		✓		
<a href="#">Help Your Users Find the CMS Content They Need</a>		✓		
<a href="#">Add More Videos to Your Salesforce CMS Workspace</a>	✓			

## Essentials

Get your support emails into Salesforce faster by directly connecting your Google account to Email-to-Case. Tidy your case list with Case Merge. If you use Chat & Messaging, offer customers a menu of ways to contact you with a channel menu in your embedded chat window. The Salesforce mobile app reflects your personalized navigation in Essentials and prioritizes the information you use the most.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<a href="#">Get Connected Faster with Enhancements to Email-to-Case</a>			✓	
<a href="#">Merge Duplicate Cases to Clear Up Your Support To-Dos (Generally Available)</a>	✓			
<a href="#">Run Your Small Business from Anywhere with the New Salesforce Mobile App</a>				
<a href="#">Give Customers a Menu of Conversation Channels (Generally Available)</a>			✓	

## Sales

High Velocity Sales managers can branch sales cadences based on email engagement, and sales reps can schedule when emails are sent. Let reps share their workload by assigning tasks to queues. Use Salesforce Billing Revenue Recognition API to report on revenue recognition at any stage of the sales and finance process. Einstein Opportunity Scoring is available without a Sales Cloud Einstein license. Collaborative Forecasts now supports inline editing in the opportunity list. Sales reps can specify email arrival times to increase the chances of an email being read. And Pardot adds new analytics tools, including a dashboard for Einstein Behavior Scoring and an Account-Based Marketing analytics app template.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>High Velocity Sales</b>				
<b>Sales Cadences</b>				
<a href="#">Customize Outreach Based on Email Engagement</a>	✓			
<a href="#">Send Emails Automatically from Sales Cadences</a>	✓			
<a href="#">Preview Linked Sales Cadences</a>	✓			
<a href="#">View Call Result Groupings When Building Sales Cadences</a>	✓			
<a href="#">Schedule and Manage Scheduled Emails in High Velocity Sales</a>			✓	
<b>High Velocity Sales Reporting: Lead Performance Dashboard and Operational Report Improvements</b>				
<a href="#">See How Fast Your Team Is Working Their Leads (Beta)</a>	✓			
<a href="#">See More Information in Sales Cadence Reports</a>			✓	



Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<a href="#">Give Reps the Weekend off from Sales Cadences</a>			✓	
<a href="#">Use the API to Inspect Sales Cadences</a>		✓		
<a href="#">See More Details in the Work Queue</a>	✓			
<a href="#">Enable Inbox Features for High Velocity Sales in a New Location</a>			✓	
<a href="#">Sales Users Can Filter Sales Cadence Steps in the Activity Timeline</a>	✓			
<a href="#">Keep Sales Cadences Moving Without a Built-In Calling Solution</a>	✓			
<a href="#">Sales Cloud Einstein</a>	✓			
<b>Core Sales Features</b>				
<b>Opportunities</b>				
<a href="#">Focus on the Right Deals with Opportunity Scores (not immediately available)</a>			✓	
<a href="#">Use Filters to Narrow Opportunity Product Searches in Lightning Experience</a>	✓			
<b>Collaborative Forecasts</b>				
<a href="#">Update Multiple Deals from the Forecasts Page in Lightning Experience</a>	✓			
<a href="#">Get More Options for Territory Forecasts</a>			✓	
<b>Enterprise Territory Management</b>				
<a href="#">Enhance Your Account Reports with Territory Details</a>	✓			
<a href="#">Get More Territory Forecast Types</a>			✓	
<b>Contacts</b>				
<a href="#">Automate Processes for Opportunity Contact Roles</a>			✓	
<a href="#">Use Account Criteria to Search Contacts for List Emails in Lightning Experience</a>	✓			
<b>Leads</b>				
<a href="#">Price Book Entries</a>	✓			
<a href="#">Path</a>			✓	

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Other Changes in Core Sales Features</b>				
Clone Opportunities or Campaigns Along with Their Related Records			✓	
Account and Opportunity Team Related List Customization Is Supported			✓	
Enable Manual Account Sharing in Enterprise Territory Management (Critical Update, Enforced)			✓	
Customizable Forecasting Is Being Retired		✓		
Original Territory Management Is Being Retired		✓		
Permission Changes for Collaborative Forecasts and Fiscal Year Settings		✓		
Permission Changes to Original Territory Management		✓		
Enforce Sharing Controlled by Parent for Google Docs Related to Salesforce Records (Critical Update)		✓		
<b>Productivity Features</b>				
<b>Email Experience</b>				
Schedule and Manage Scheduled Emails in Lightning Experience			✓	
Use Drafts to Perfect Your List Emails	✓			
Quickly Identify Contacts for List Emails with Account Criteria in Lightning Experience	✓			
Enable Compliance BCC Emails in Professional Edition			✓	
Set Up Enhanced Email Relays (not immediately available)		✓		
Prepare for the Updated Email Bounce Warning	✓			
Get Ready for Email Address Internationalization in Summer '20		✓		
Track Changes to Send Email Access Level		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Email Certificate Authority List Was Standardized		✓		
<b>Email Templates</b>				
Validate Salesforce Merge Field Syntax When Saving Email Templates		✓		
Manage Email Templates from the Template Home Page		✓		
Update Visualforce Email Templates for Guest Users			✓	
<b>Activities</b>				
<b>Einstein Activity Capture</b>				
See the Whole Conversation with Email Threading	✓			
Find Einstein Activity Capture User Settings in New Location	✓			
Connect Salesforce to Your Microsoft Exchange Endpoint			✓	
<b>Inbox Mobile App</b>				
<b>Legacy Inbox App</b>				
<b>Notes</b>				
<b>Calendar</b>				
View Event Details Faster Than Ever	✓			
Create Object Calendars from the API		✓		
<b>Lightning News</b>				
<b>Gmail™ Integration</b>				
Know Which Recipients Have Email Restrictions in the Gmail Integration	✓			
Classify the Events Logged to Salesforce from the Gmail Integration	✓			
Work More Efficiently with Email Templates in the Gmail Integration	✓			
Schedule High Velocity Sales Emails to Send Later	✓			

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Enable Inbox Features for the Gmail Integration in New Location</b>	✓			
<b>Integration with Microsoft®</b>				
<b>Outlook® Integration</b>				
Know Which Recipients Have Email Restrictions in the Outlook Integration	✓			
Classify the Events Logged to Salesforce from the Outlook Integration	✓			
Work More Efficiently with Email Templates in the Outlook Integration	✓			
Schedule High Velocity Sales Emails to Send Later	✓			
Enable Salesforce Inbox Features in New Location	✓			
<b>Lightning Sync for Microsoft® Exchange®</b>				
Connect Microsoft Exchange with Salesforce Using NTLM Authentication Protocol				✓
Required Setting Change for Microsoft Office 365 Customers			✓	
<b>Salesforce for Outlook</b>				
Salesforce for Outlook Is Being Retired in December 2020			✓	
Restore Access If Service Is Interrupted Before December 2020			✓	
Find Version-Specific Salesforce for Outlook Release Notes			✓	
<b>Salesforce CPQ and Billing</b>				
<b>Salesforce CPQ</b>				
Order Usage-Based Products with Evergreen Subscriptions	✓			
Do More with Improved Price Rules in the Configurator	✓			
Apply Edit Rules Efficiently in the Configurator	✓			

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Logic Updated for Percent Values in Price Action Formulas	✓			
Expand or Collapse Bundles by Default			✓	
Enable Manual Edits for Quote Line Consumption Rates			✓	
Transition from Managed Package Licenses to Permission Set Licenses			✓	
Prevent Creation of Backdated Amendments				✓
New Permissions for Previewing Quote Documents	✓			
<b>Salesforce Billing</b>				
Recognize Revenue Anywhere	✓			
Create Finance Periods for Custom Date Ranges	✓			
Automate Conversion of Negative Invoice Lines	✓			
Fixed Bug Preventing Users from Accessing Billing Visualforce Pages				
<b>Pardot</b>				
<b>Explore Factors That Determine Behavior Scoring</b>			✓	
<b>Use Einstein Discovery Predictions to Enhance Account-Based Marketing Strategy (Pilot)</b>			✓	
<b>Explore Engagement History Data on Leads and Contacts</b>			✓	
<b>See Most Engaged Accounts on Campaign Records</b>			✓	
<b>See Engagement Activities on List Email Records</b>	✓			
<b>Reveal Relationships Between Accounts and Campaigns</b>			✓	
<b>Dataset Changes in B2B Marketing Analytics Apps</b>	✓			

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Retiring B2B Marketing Analytics Legacy Apps</b>				
<b>FullContact Connector Is Scheduled for Retirement on January 31, 2020</b>	✓			
<b>Test Configuration Changes with Pardot Sandboxes (Beta)</b>			✓	
<b>Other Changes in the Sales Cloud</b>				
<b>Data.com</b>			✓	

## Service

Connect with customers using the channels they prefer by adding an Embedded Service Channel Menu to your website. Help your agents resolve cases faster with Einstein Article Recommendations. Combine duplicate cases with Case Merge. Message with customers internationally using WhatsApp. Set up shifts for Field Service to schedule work that's outside of the usual schedule, such as holiday hours or occasional overtime (beta).

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Einstein for Service</b>				
<b>Einstein Article Recommendations (Generally Available)</b>			✓	
<b>Einstein Reply Recommendations (Pilot)</b>				✓
<b>Einstein Bots</b>				
Create Tailored Chatbot Experiences with Conditional Messaging	✓			
Handle Errors Gracefully Using Conversation Repair	✓			
Train Your Bot Faster with the Upgraded Model Management Dashboard	✓			
Improve Your Bot with Granular Conversation Logs	✓			
Create Smart Transfers over SMS with Agent Availability	✓			
Increase Customer Engagement with the Chatbot Typing Indicator	✓			

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
WhatsApp: Now Available for Einstein Bots	✓			
Einstein Bots: Other Bot Updates	✓			
<b>Einstein Case Classification</b>				
Improve Einstein Field Value Predictions with Segments and Example Data			✓	
Manage Multiple Models with a New Setup Page Experience			✓	
Improve Predictions with More Data			✓	
Try Einstein Case Classification At No Additional Cost		✓		
<b>Field Service</b>				
<b>Flex Your Field Service Scheduling with Ad Hoc Shifts (Beta)</b>				✓
<b>Schedule an Appointment That Immediately Follows Another (Beta)</b>		✓		
<b>Build Smart Schedules with Enhanced Optimization (Generally Available)</b>		✓		
<b>Assign Work to the Minimally Qualified or Most Skilled Resource</b>		✓		
<b>Improve Field Service Wellness with Health Check (Generally Available)</b>		✓		
<b>Get the Lowdown on Work Orders Generated from Maintenance Plans</b>			✓	
<b>Work Capacity Data Model No Longer Available</b>				
<b>Field Service Mobile App</b>				
Stay Informed with an Improved Offline Priming UI			✓	
Protect Sensitive Data with Security Attributes			✓	
Do More in the Mobile App with Global Actions			✓	
Run Service Report Flows in Android			✓	
<b>Channels</b>				

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Messaging</b>				
Reach More Customers More Quickly with Short Codes in the US				✓
Support Your Customers with WhatsApp (Generally Available)			✓	
Stay in the Clear with Consent Management		✓		
Strike Up Conversations from More Record Types	✓			
Create Unique Sensitive Data Rules for Messaging			✓	
Say Arrivederci to Messaging Support for SMS in Italy	✓			
<b>Embedded Service for Mobile Apps</b>	✓			
<b>Embedded Service for Web</b>				
Hello! Meet the Channel Menu (Generally Available)			✓	
Set Language for Labels in the Code Snippet			✓	
Load Embedded Chat Quicker		✓		
Improve Mobile Accessibility for Web Chat			✓	
Customize Chat with Lightning Web Components			✓	
<b>Knowledge</b>				
<b>Compare Versions of an Article to See What Changed (Beta)</b>			✓	
<b>Spread Knowledge by Linking to Articles in Chat and Messaging</b>			✓	
<b>Show or Hide Field Labels and Skip Related Files from Inserted Articles</b>			✓	
<b>Resize Images in Rich Text Fields in Google Chrome</b>	✓			
<b>Control File Attachments for Drafts and Draft Translations</b>	✓			
<b>Set the Default Access for Files Attached to Articles</b>			✓	



Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Find and Organize Articles with More Data Categories</b>				<input checked="" type="checkbox"/>
<b>Routing</b>				
<b>Keep Your Omni-Channel Supervisor Filters</b>	<input checked="" type="checkbox"/>			
<b>Make More Room to Work—Minimize the Omni-Channel Widget When Work Is Accepted</b>			<input checked="" type="checkbox"/>	
<b>Route Chats Directly to Agents Who Aren't in the Queue</b>	<input checked="" type="checkbox"/>			
<b>Case Management</b>				
<b>Cases</b>				
Combine Duplicate Cases with Case Merge (Generally Available)			<input checked="" type="checkbox"/>	
Customize How Timestamps Display in the Case Feed			<input checked="" type="checkbox"/>	
View and Edit Case Details from the List View with Case Hover in Lightning Experience	<input checked="" type="checkbox"/>			
Choose Whether to Show or Hide Closed Statuses in the Case Status Field			<input checked="" type="checkbox"/>	
Save Time with Case Escalation Marker	<input checked="" type="checkbox"/>			
View Followers from the Case Record Home Page in Lightning Experience	<input checked="" type="checkbox"/>			
Insert Code Samples into Case Feed Emails	<input checked="" type="checkbox"/>			
Change the Case Owner on the Case Related Record Component Via Inline Edit	<input checked="" type="checkbox"/>			
<b>Productivity</b>				
Automate Repetitive Tasks with Bulk Macros in Lightning Experience			<input checked="" type="checkbox"/>	
Run Macros Faster on Record Home Pages	<input checked="" type="checkbox"/>			
Filter Actions by Status in the Actions & Recommendations History Tab	<input checked="" type="checkbox"/>			

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Make Actions & Recommendations Deployments Mandatory (Critical Update, Enforced)	✓			

## Commerce

Salesforce Order Management brings the power of the Salesforce Platform to the world of ecommerce with tools to help you manage every step of the order lifecycle.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Salesforce Order Management: Manage, Fulfill, and Service Orders at Scale (Generally Available)</b>				
Improve Efficiency with the Order Management Console	✓			
Simplify Order Management with a Single View of Order History	✓			
Automate Fulfillment and Payment Capture with Flows	✓			
Connect Commerce with Service	✓			
Integrate with Supply Chain Partners for End-to-End Automation	✓			

## Analytics

Analytics includes Reports & Dashboards, Einstein Analytics, and Einstein Discovery. The Spring '20 Analytics improvements focus on increasing connections and productivity alongside a simplified experience. Build reports faster with a new feature that lets you switch live updates to the report preview on or off. Dashboard builder's collaborative version management, targeted faceting, and interaction building, can all be completed with clicks not code. Query live Salesforce data directly in Einstein Analytics with Direct Data. Build a predictive model in Einstein Discovery and use what-if analysis to determine possible future outcomes.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Reports and Dashboards</b>				
Turn Off Automatic Updates to the Report Preview to Edit Reports Faster (Generally Available)	✓			

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Attach Formatted Spreadsheets to Report Subscriptions (Beta)</b>				✓
<b>Filter Reports by Field Comparisons with Field-To-Field Filters (Generally Available)</b>	✓			
<b>Count Unique Values in Report Results (Generally Available)</b>	✓			
<b>Exclude the Confidential Information Disclaimer from Formatted Report Exports</b>		✓		
<b>Work with Reports and Dashboards in a Right-to-Left Language (Generally Available)</b>	✓			
<b>Export up to 5 Reports at Once Per User</b>		✓		
<b>Legacy Folder Sharing Is Retiring in Winter '21</b>			✓	
<b>Einstein Analytics</b>				
<b>Data Integration</b>				
Visualize Where Dataset, Lens, Dashboard, and Story Data Originates			✓	
Analyze 10X More Data Using the Einstein Analytics Plus License		✓		
Sync from Mulesoft-Connected Data Sources		✓		
Sync Data from Mulesoft-Connected SAP SuccessFactors		✓		
Bring Your Customer 360 Global Profile Data into Analytics (Beta)		✓		
Connect to Your Data in SugarCRM, Zendesk, Teradata, Google Cloud Storage, SAP SuccessFactors, and Zuora AQuA[Pilot]				✓
Connect to External Salesforce Object Data with Specialized Connectors [Pilot]		✓		
Sync Your Google BigQuery Standard SQL Data		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<a href="#">Sync Marketing Cloud Data with OAuth 2.0 Authentication</a>		✓		
<a href="#">Schedule Data Sync for Your Local Objects with More Granularity</a>		✓		
<a href="#">Filter Data Synced from External Connections</a>		✓		
<a href="#">New Limits for Microsoft Azure SQL Database and Netsuite Connectors</a>		✓		
<a href="#">New Connector Sync Limits for FIPS 140-2 Validated Encryption Orgs</a>		✓		
<a href="#">Provide Dataset Row-Level Access to More Users Automatically</a>		✓		
<a href="#">Save More Dataflows</a>		✓		
<a href="#">Prepare for Automated Schedule Removals in Sandbox and Developer Edition Orgs</a>		✓		
<a href="#">With Pre-Flight Check, Stay Updated as You Enable Einstein Analytics</a>		✓		
<a href="#">Use Current or New Amazon SSL/TLS Certificates from Connected RDS and Aurora Systems</a>		✓		
<b>Prebuilt Templates and Apps</b>				
<a href="#">Build Your Own Beautiful Analytics Apps Fast with the Design Analytics Template</a>		✓		
<a href="#">Accelerate Retail Business Results with Einstein Analytics for Consumer Goods</a>			✓	
<a href="#">Get Instant Insights into Survey Data with Einstein Analytics for Salesforce Surveys</a>			✓	
<a href="#">Create the Latest Version of the Einstein Adoption Analytics App Without Installing a Managed Package</a>		✓		
<a href="#">Improve the Reliability of Einstein Discovery Predictions with the Accuracy Analytics Template</a>		✓		
<b>App Building</b>				
<a href="#">With Direct Data, Explore Salesforce Data Without Datasets</a>		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Explore Multiple Datasets with a Single Query (Beta)	✓			
Easily Identify Fields in Measure and Group Selectors	✓			
Bindings Are Now Called Interactions	✓			
Creating Interactions Just Got Easier with the Advanced Interaction Editor	✓			
Create Dynamic Reference Lines in Charts Without Code	✓			
Specify Targeted Faceting Without Code	✓			
Manage How Records Open from an Embedded Dashboard			✓	
Add Any URL to Widget Custom Onboarding		✓		
Check Out the Refreshed Einstein Analytics Record Actions	✓			
Display Grand Totals and Subtotals in Tables	✓			
Customize Number Formatting in Lenses and Dashboards	✓			
Streamlined Number Behavior in Charts and Widgets	✓			
Packaging and Changesets Include User Extended Metadata (XMD)	✓			
Meet Compact Form 2.0 (Beta)		✓		
Gain Insights on Data Directly in Snowflake (Beta)			✓	
Collaborate on a New Version of a Dashboard Behind the Scenes with Publisher Feature (Generally Available)	✓			
Fine-Tune Control Over Data Integration with Multiple Dataflows in an Analytics Template		✓		
Import Data from Multiple Sources to Apps by Adding Connectors to Analytics Templates		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<a href="#">Transform Your JSON Content Anywhere in Lightning Experience</a>		✓		
<a href="#">React to Asset Loaded with Analytics Web SDK</a>		✓		
<a href="#">Get Familiar with JSON Changes for Dashboard Designer</a>		✓		
<b>Einstein Discovery</b>				
<a href="#">Amplify Live Prediction Scoring with External Data</a>		✓		
<a href="#">Simulate Future Outcomes with What Could Happen Insights</a>		✓		
<a href="#">Keep Track of Story Changes</a>		✓		
<a href="#">Get the Best Predictions of Three Different Models (Pilot)</a>				✓
<a href="#">Smart Feature Selection for Logistic Models</a>		✓		
<a href="#">Identify Key Drivers Before Creating a Story</a>		✓		
<a href="#">Crunch More Data with Einstein Discovery (Pilot)</a>				✓
<a href="#">Deploy Models Without Salesforce Objects</a>		✓		
<a href="#">Quickly Drill Down Into Insights</a>		✓		
<a href="#">Retiring Einstein Discovery Classic</a>		✓		
<b>Analytics for Everyone</b>				
<a href="#">Stay on Track with the Einstein Analytics Watchlist (Beta)</a>	✓			
<a href="#">Email Notifications to Multiple Recipients</a>	✓			
<a href="#">Preview and Customize Subscriptions (Beta)</a>			✓	
<a href="#">Earn Trailhead Badges for Learning in the Analytics Studio</a>	✓			
<a href="#">Mobile Apps</a>	✓			

## Communities

Your partners and customers can now create and run reports on communities and portals. With the ExperienceBundle metadata type, quickly update and deploy Lightning communities programmatically using your preferred development tools. Various security enhancements help keep your data safe. And help service agents contact customers on a variety of channels using the Service Cloud's Channel Menu. Create and modify Lightning community audiences programmatically.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Lightning Communities</b>				
<b>Report Builder for Lightning Communities (Generally Available)</b>	✔			
<b>View Reports in Lightning Communities (Generally Available)</b>	✔			
<b>Stretch Your Flexible Layouts Further</b>		✔		
<b>Use the New Page Name Attribute for Community Navigation</b>		✔		
<b>Account and Opportunity Team Related List Customization Supported in Communities</b>			✔	
<b>Updated Search Route Parameter on Community Search Pages</b>		✔		
<b>Go On a Better Round-Trip Between Full Feed and Feed Item Detail</b>	✔			
<b>Create More Audiences, Search Using Wildcards, and Sort</b>		✔		
<b>Add the Record Related List Component to Your Help Center</b>		✔		
<b>Create Dazzling Experiences Across Channels with Salesforce CMS</b>		✔		
<b>Removed ID Fields from Topics Components</b>		✔		
<b>Developer Productivity</b>				
<b>Update and Deploy Lightning Communities with ExperienceBundle (Generally Available)</b>				
Programmatically Create and Publish Communities in Scratch Orgs		✔		
Do More with ExperienceBundle		✔		
<b>Personalize Your Community Via the API (Generally Available)</b>		✔		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Build Fast, Efficient Experiences with a New LWC-Based Template (Developer Preview)			✓	
Use Relaxed CSP in Lightning Components for Communities			✓	
<b>Guest User Sharing</b>				
Secure Guest Users' Org-Wide Defaults and Sharing Model (Security Alert, Enforced)			✓	
Secure Object Permissions for Guest Users (Security Alert)		✓		
Removed View All Users and Other Permissions from Guest User Profiles in Sandbox Environments		✓		
View All Users and Other Permissions Disabled in Guest User Profiles (Security Alert, Enforced)		✓		
Automatically Assign Records Created by Guest Users to a Default Owner (Previously Released Security Alert)			✓	
Retiring Some User Permissions on the Guest User Profile		✓		
Opt Out of Guest User Security Policies Before Summer '20 (Critical Update)			✓	
Opt Out of Turning Off Community-Specific Setting for Guest Users to See Other Members (Critical Update)			✓	
Ensure That Your Guest User Sharing Rules Provide Intended Access		✓		
Ensure Guest User Access to Emails Created with Visualforce Email Templates			✓	
<b>Sharing and Security</b>				
Let Community Users Log In with Their Apple ID		✓		



Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Verify Your Community Domain for External Services		✓		
Verify Identity by Text Message Instead of Email		✓		
Switch Lightning Locker On and Off in the UI		✓		
Limit API Access to Installed Connected Apps				✓
Block Certain Fields in the User Record for Orgs with Communities and Portals (Security Alert and Critical Update, Enforced)			✓	
Set External Access Levels for More Standard Objects (Generally Available)		✓		
Prevent Using Standard External Profiles for Self-Registration and User Creation (Security Alert and Critical Update, Enforced)			✓	
<b>Other Changes in Communities</b>				
Talk to Customers Where They Want with the Channel Menu			✓	
Display Warning When a Community Is Accessed with an Unsupported Browser		✓		
External Account Hierarchy (Beta)				
Use a Permission Set to Assign the Delegated External User Administrator Permission		✓		
Name Change for Community Workspaces and Builder		✓		
Experience Workspaces Is No Longer Supported in Microsoft Internet Explorer		✓		

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## Chatter Feeds

Choose how to display time stamps for case feed posts and comments.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<a href="#">Set the Date and Time Stamp Format for Case Feed Items</a>			✓	

## Files

Prepare to switch your file rendition in the Chatter REST API from Adobe Flash to SVG.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<a href="#">Switch Your File Rendition Resource with the Chatter REST API</a>			✓	

## Mobile

In Spring '20, all active Salesforce mobile app users get upgraded to the new Salesforce mobile app. Admins and users alike can take advantage of expanded customization options, powerful Lightning functionality, and improved performance. Mobile Publisher for Communities gets even better with Apple Wallet access and a new app specifically for testing.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>New Salesforce Mobile App</b>				
<a href="#">Welcome to the New Salesforce Mobile App</a>		✓		
<a href="#">Everything That's New in the New Salesforce App</a>			✓	
<a href="#">App Store and Google Play Updates</a>	✓			
<a href="#">Salesforce Mobile App Requirements</a>	✓			
<a href="#">Support Has Changed for the New Salesforce Mobile App Tablet Experience</a>			✓	
<a href="#">Plan for Salesforce Mobile Web Browser Experience's Retirement</a>	✓			
<a href="#">Access Einstein Analytics on the Go With the New Mobile Navigation Item</a>	✓			
<a href="#">Mobile Cards Are Not Available in the New Salesforce Mobile App</a>			✓	

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<a href="#">Customize More of the Navigation Bar</a>			✓	
<a href="#">See More Details When You Search</a>	✓			
<a href="#">Find the Right Record Fast with Recommended Result on Mobile (Beta)</a>			✓	
<a href="#">Account and Opportunity Team Related List Customization Supported on Mobile Devices</a>			✓	
<a href="#">Update Paths with Dependent Picklists on Mobile Devices</a>			✓	
<a href="#">Get Your Colleagues on the Same Page with Link Sharing</a>	✓			
<a href="#">Boost Productivity for Your Mobile Users with Einstein Voice Assistant (Beta)</a>	✓			
<a href="#">Shield Your Data with Enhanced Mobile Security Updates</a>				✓
<a href="#">Enable the New Salesforce Mobile App (Critical Update)</a>			✓	
<b>Mobile Publisher</b>				
<a href="#">Test Your Mobile Communities with the Playground App (Beta)</a>			✓	
<a href="#">Add a Pass to Apple Wallet (iOS Only)</a>			✓	
<b>Other Mobile Enhancements</b>				
<a href="#">MobileSession Object Was Removed</a>		✓		
<a href="#">Apex Mobile User (Salesforce Internal Use Only) Field Was Removed</a>		✓		
<a href="#">Track Changes to Connected App and Notification Delivery Settings</a>		✓		

## Sustainability

Gain critical insights about your carbon footprint. Using global emission factors to calculate greenhouse gas emissions, Sustainability Cloud helps you collect, categorize, and analyze energy usage and greenhouse gas emissions data throughout your organization's business activities. And because it's built on top of the Salesforce Lightning Platform, you have access to tools that facilitate collaboration, project management, and reporting.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Report and Reduce Your Carbon Footprint</b>			✓	

## Industries

Our vertical solutions now include Salesforce Emergency Response Management, which helps you deliver resources and services faster when people need it most. In Health Cloud, you get contact tracing and monitoring, plus easier setup for care plans and more options for finding the right care provider. Financial Services Cloud brings you more visibility into distributors and a new API for creating mortgages. Consumer Goods Cloud helps field reps maximize their impact and track stock levels, and Manufacturing Cloud offers account managers greater control and improved visibility into sales agreements and account forecasts.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Introducing Salesforce Emergency Response Management</b>				
<b>Introducing Contact Tracing for Employees</b>		✓		
<b>Introducing Emergency Response Management for Public Health</b>			✓	
<b>Introducing Emergency Response Management for Public Sector</b>			✓	
<b>Emergency Response Management Has New and Changed Objects</b>		✓		
<b>Financial Services Cloud</b>				
<b>Mortgage for Financial Services Cloud: New Mortgage Lending API, Create Loan Applications from Accounts</b>				
Enhance Mortgage Lending with API Calls		✓		
Create Loan Applications from Accounts or Opportunities	✓			
<b>Document Tracking and Approvals: Track Documents with Action Plans, Set Item Deletion Rules</b>				
Streamline Document Tracking with Action Plans			✓	
Clean up Document Checklists While Keeping Attachments			✓	
<b>Insurance for Financial Services Cloud: Distributor Performance Management, Producer Life Event Management, Producer Relationship Cards, and Enhanced Metrics and Charts</b>				

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Monitor Distributor Performance with the Distributor Performance Dashboard and Metrics			✓	
Develop Deeper Bonds with Producers with the Life Events or Business Milestones Component			✓	
Keep Key Producer Information Handy with Producer Relationship Cards			✓	
Include Multi-Producer Policies When Calculating Policy-Related Metrics and Charts			✓	
<b>Action Plans: Action Plan Template Cloning and Packaging</b>				
Create Copies of Action Plan Templates with Deep Cloning		✓		
Share Action Plan Templates Using Packaging		✓		
Associate Document Checklist Items with Action Plan Templates			✓	
Changes to Action Plans License			✓	
<b>Enhanced Usability for Financial Services Cloud</b>	✓			
<b>Fine-Tune Your Pipeline with Einstein Referral Scoring (Generally Available)</b>			✓	
<b>Financial Services Cloud Has New and Changed Objects</b>		✓		
<b>REST API</b>		✓		
<b>Health Cloud</b>				
<b>Protect Your Community with Emergency Response Management</b>			✓	
<b>Templates and Improved Usability for Care Plans</b>				
Create Care Plans with a Single Flow	✓			
Create Care Plan Templates That Fit Your Use Case		✓		
Categorize Templates, Problems, and Goals		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Add Templates to Existing Care Plans Faster with a New Button			✓	
Customize Task Names and Dates During Care Plan Creation	✓			
Change Task Status with Fewer Clicks	✓			
Create Care Plans Faster with Fewer Clicks	✓			
<b>Customize Provider Relationship Cards</b>				✓
<b>More Options for Helping Users Find Care Providers</b>				✓
<b>Create and Customize Care Programs More Efficiently</b>				
Copy Existing Consent Forms for a New Care Program				✓
Customize the Disclaimer Message for Capturing Electronic Signatures				✓
Include Care Plans in the Program Enrollment Flow				✓
Keep Track of Your Patients' Communication Preferences		✓		
<b>Access Control Changes</b>				✓
<b>Magnify Patient Care Delivery Expertise With Einstein Analytics for Healthcare Enhancements</b>				✓
<b>Health Cloud Has New and Changed Objects</b>		✓		
<b>Consumer Goods Cloud: Optimized Visit Sequences, Stock Level Monitoring, and Improved Business Performance</b>				
<b>Accelerate Business Performance with Einstein Analytics for Consumer Goods</b>			✓	
<b>Simplify Retail Execution with Sales Agreements for Consumer Goods Cloud</b>			✓	
<b>Get Optimized Visit Sequences with Salesforce Maps</b>			✓	
<b>Find Product Details on Mobile Devices Using the Barcode Scanner</b>			✓	
<b>Track Key Performance Indicators for Product Categories</b>			✓	

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Save Reusable Tasks and Use Them Across Templates</b>			✓	
<b>Changes to Action Plans License</b>			✓	
<b>More Control of Object Detection Data</b>				
Store Your Einstein Object Detection Data Locally	✓			
Control Access to Einstein Object Detection			✓	
Disable Einstein Object Detection Models	✓			
Increase Productivity with New Key Performance Indicator Type			✓	
<b>Consumer Goods Cloud Has New and Changed Objects</b>		✓		
<b>Manufacturing Cloud: Enrich Your Experience with Sales Agreement and Account Forecast Enhancements</b>				
<b>Use Your Metrics to Customize Account Forecasts</b>			✓	
<b>View Forecast Revenue Metrics in Your Account's Currency</b>	✓			
<b>Add New Products to Account Forecast with One Click</b>	✓			
<b>Find Agreement Terms and Account Forecasts by Product</b>	✓			
<b>Update Multiple Values in Agreement Terms and Account Forecasts</b>	✓			
<b>Monitor Revenue Realization and Account Performance with Dashboards (Beta)</b>			✓	
<b>Strengthen Forecasting and Get Deeper Insight Into Product Demand with Einstein Analytics for Manufacturing</b>			✓	
<b>Use the Manufacturing Partner Community Template with a New License</b>			✓	
<b>Add Field Recalculations and Mass Updates to Your Processes and Flows</b>		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<a href="#">Manufacturing Cloud Has New and Changed Metadata Types</a>		✓		
<a href="#">Manufacturing Cloud Has New Tooling APIs</a>		✓		
<a href="#">Manufacturing Cloud Has New Invocable Actions</a>		✓		
<a href="#">Shared Industries Metadata API</a>		✓		

## myTrailhead

Trailmaker Content gets a makeover. Customers can set up their own myTrailhead subdomain. Support for Internet Explorer 11 (IE 11) is ending.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<a href="#">Create Content with Efficiency and Ease Using the Redesigned Trailmaker Content</a>	✓			
<a href="#">Create Your Own myTrailhead Subdomain in a Flash</a>			✓	
<a href="#">Support for Internet Explorer (IE11) on myTrailhead Is Ending</a>	✓			

## Customization

Build flows and processes more efficiently with enhancements to Flow Builder, flow management, and Process Builder. More easily manage your translations, currency, and international dates and times. Build, configure, and manage predictions and recommendations with updates to Einstein Prediction Builder and Einstein Next Best Action.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Lightning Flow</b>				
<b>Flow Builder</b>				
<a href="#">Update New and Changed Records 10 Times Faster by Using Before-Save Updates in Flows</a>		✓		



Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Configure Action and Create Records Elements Without Creating Variables		✓		
Configure Get Records Elements Without Selecting Fields		✓		
Deactivate Your Flow Without Leaving Flow Builder		✓		
Build Invocable Actions That Work for Multiple Objects		✓		
Run Flows Without Worrying About User Permissions with System Mode		✓		
Select Related Record Values from Record Variables with One Click		✓		
Reference a Newly Created Screen Field Without Leaving the Screen Editor		✓		
Work More Efficiently in Flow Builder with Keyboard Shortcuts		✓		
Locate Resources Quickly in the Manager Toolbox Using API Name, Label, or Description		✓		
Make It Easy for Admins to Find Your Actions by Categorizing Them		✓		
Guide the Configuration of Your Invocable Actions with Custom Property Editors (Pilot)		✓		
<b>Lightning Flow Management</b>				
Cloud Flow Designer Is No Longer Available		✓		
Hit Limits Less Often with More Efficient Record Update Processing	✓			
Enforce Data Access in Flow Formulas (Critical Update)			✓	
Make Flows Respect Access Modifiers for Legacy Apex Actions (Critical Update)			✓	
Evaluate Criteria Based on Original Record Values in Process Builder (Previously Released Critical Update)			✓	
Enable Partial Save for Invocable Actions (Critical Update, Enforced)		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Return Null Values in Process and Flow Formulas (Critical Update, Enforced)			✓	
Require User Access to Apex Classes Invoked by Flow (Critical Update, Postponed)			✓	
Generate Valid HTML Output from Formulas in Processes and Flows (Critical Update, Retired)			✓	
Save Successful Record Changes in a Batch from Failed Actions in Processes and Flows	✓			
Desktop Flow Designer Was Retired		✓		
<b>Process Builder</b>				
Automate Opportunity Contact Role Creation and Updates with Lightning Flow		✓		
View Processes That Subscribe to a Platform Event		✓		
Stop Automated Field Updates from Suppressing Email Notifications (Critical Update, Enforced)			✓	
<b>Globalization</b>				
<b>Keep Your Translations Up to Date</b>		✓		
<b>Get Things Right with Right-to-Left Layout and Languages (Generally Available)</b>	✓			
<b>Enable ICU Locale Formats (Previously Released Critical Update)</b>			✓	
<b>Prepare for Language and Locale Format Changes</b>		✓		
<b>Use Advanced Currency Management in Lightning Experience</b>	✓			
<b>Connect with Customers Who Speak and Read Persian</b>	✓			
<b>Other Translation Workbench Changes</b>	✓			
<b>Einstein Prediction Builder: Try Einstein Prediction Builder, Make Informed Predictions with Trusted AI Help, and Build Filter-Based Predictions</b>				

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Predict the Future Using Filters in Einstein Prediction Builder			✓	
Show Top Predictors on Records with Einstein Prediction Builder			✓	
Try Einstein Prediction Builder At No Additional Cost			✓	
Make Informed Predictions with Trusted AI Help in Einstein Prediction Builder			✓	
<b>Einstein Next Best Action</b>				
Analyze Next Best Action Usage with Recommendation Strategy Metrics		✓		
Create Recommendations from the Records of Any Salesforce Object		✓		
Launch Flows When Recommendations are Rejected		✓		
Changes to Platform Status Alert Events		✓		
Encrypt Recommendation Description Information		✓		
<b>Lightning App Builder</b>				
Design Record Pages, Choose Templates, and Configure Components with Mobile in Mind		✓		
Improve Your Lightning Pages with Guidance for App Builder		✓		
Add More Components to a Lightning Page Region		✓		
Display Order Details with Order Management Components		✓		
<b>External Data</b>				
Integrate with Third-Party Services without Exposure to Public Internet (Pilot)			✓	
Changed Encryption Method for External Data Credentials		✓		
<b>Permission Set Groups</b>				

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Group Permission Sets Based on User Job Function for Easier Assignment (Generally Available)		✓		
Track Permission Set Edits with a New Confirmation Menu		✓		
Manage Permissions in Permission Set Groups with a Muting Permission Set (Generally Available)		✓		
<b>Sharing</b>				
External Org-Wide Defaults Are Enabled by Default in All New Orgs		✓		
The External Sharing Model Can No Longer Be Disabled		✓		
Safeguard Your Data by Setting External Access Levels for the Lead and Campaign Objects (Generally Available)		✓		
Changes to Sharing API Access		✓		
<b>AppExchange</b>				
Manage AppExchange Installs and Settings with Ease Using Trailblazer.me	✓			
Hire Confidently with Enhanced Salesforce Consultant Reviews on AppExchange	✓			
<b>General Setup</b>				
Require Customize Application Permission for Direct Read Access to Custom Settings (Critical Update, Enforced)			✓	
Protect Custom Settings in Developer and Scratch Orgs		✓		
Control Who Gets Read Access to Custom Settings		✓		
Make More Connections the Enhanced External Services Way (Generally Available)		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<a href="#">Require Permission to View Record Names in Lookup Fields (Critical Update)</a>			✓	
<a href="#">Secure Your Sandbox Data with Salesforce Data Mask</a>		✓		
<a href="#">Permission Changes for Administrator Tasks</a>		✓		
<a href="#">Changes to Managing User Preferences</a>		✓		

## Security, Privacy, and Identity

Give your users more authentication options by allowing them to authenticate with their Apple ID, Face ID, or Touch ID. Or set stricter requirements by only allowing authentication by SMS. Restrict external user access to Salesforce APIs through connected apps. My Domain certificates and URL formats are changing. Use Real-Time Event Monitoring platform events to detect common threats to your org (Beta). And Encrypt all your platform events including Salesforce Event Monitoring streamed events.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Authentication and Identity</b>				
<a href="#">Let Users Log In to Salesforce with Their Apple ID</a>		✓		
<a href="#">Verify Your Domain Name for External Services</a>		✓		
<a href="#">Prevent Identity Verification by Email</a>		✓		
<a href="#">Limit API Access for External Users</a>				✓
<a href="#">Apply the Request Signature Method to Your Single Logout Settings</a>		✓		
<a href="#">The OAuth Approval Page Timeout Has Increased</a>		✓		
<a href="#">Discover the Session Status for Content, Visualforce, and Lightning Pages</a>		✓		
<a href="#">Allow Users to Connect Orgs as a Data Source to Cross-Cloud Applications</a>		✓		
<a href="#">Use an Updated API Version for Social Sign-On</a>		✓		
<b>Domains</b>				

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Use Custom Domains for Sandboxes (Pilot)</b>				
<b>Route My Domains Through Salesforce Edge (Previously Released Critical Update)</b>				
<b>Stabilize the Hostname for My Domain URLs in Sandboxes (Previously Released Critical Update)</b>				
<b>Stabilize URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files (Previously Released Critical Update)</b>				
<b>Get Stabilized My Domain URLs in New and Refreshed Sandboxes</b>				
<b>Salesforce Shield</b>				
<b>Shield Platform Encryption: Encryption for Platform Events</b>				
Encrypt Platform Events				
Remove the Manage Encryption Keys Permission from the System Admin Profile (Previously Released Critical Update)				
Encrypt the Next Best Action Recommendation Description Field				
<b>Event Monitoring: New Threat Detection Real-Time Events (Beta), Legacy Transaction Security Retiring, Event Monitoring Analytics App Improvements</b>				
Detect Threats to Your Org (Beta)				
Determine If an Apex Request Is Counted as a Long-Running Request in the EventLogFile				
Migrate Legacy Policies (Critical Update)				
<b>Data Protection and Privacy</b>				
<b>Track Customer Consent Preferences</b>				
<b>Manage Communication Subscriptions</b>				
<b>Store Multiple Contact Points and Consent Information</b>				

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<a href="#">Edit Data Classification for Custom Fields in Managed Packages</a>			✓	
<b>Other Changes</b>				
<a href="#">Automatically Assign Records Created by Guest Users in Salesforce Sites to a Default Owner</a>			✓	
<a href="#">Whitelist Trusted URLs</a>		✓		
<a href="#">Changes to Session-Security-Level Policies</a>		✓		
<a href="#">Monitor More Changes in the Setup Audit Trail</a>		✓		
<a href="#">Changes to Named Credentials</a>			✓	

## Deployment

Uploaded change sets are available for deployment sooner. New change set components are available.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<a href="#">Deploy Customizations Sooner After Uploading a Change Set</a>		✓		
<a href="#">New and Changed Components for Change Sets</a>		✓		

## Development

Whether you're using Lightning components, Visualforce, Apex, or our APIs with your favorite programming language, these enhancements help you develop amazing applications, integrations, and packages for resale to other organizations.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Lightning Components</b>				
<a href="#">The @track Decorator Is No Longer Required for Lightning Web Components</a>		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Wire Adapters Not Guaranteed to Emit Objects with Strict Equality		✓		
Style Lightning Web Components with Custom Aura Design Tokens		✓		
Smarter Source Tracking for Lightning Web Components in Scratch Orgs		✓		
Lightning Base Components: Open Source			✓	
Aura Components in the ui Namespace Are Deprecated			✓	
Aura's JavaScript API Reference Documentation Moved to the Developer Guide		✓		
Manage Resource Loading for CSP Trusted Sites		✓		
Use Components in Lightning Communities with Lightning Locker Disabled			✓	
Navigate Users to a Record's Create Page with Default Field Values		✓		
Lightning Locker Sanitizes insertHTML Content		✓		
Communicate Across Salesforce UI Technologies with Lightning Message Service (Beta)		✓		
Increase Productivity with Local Development for Lightning Web Components (Beta)		✓		
DOM API Changes May Require UI Test Updates		✓		
Update Attribute Values for Snapshots Created by Jest Tests		✓		
Freeze JavaScript Prototypes Session Setting Removed		✓		
Install Linting in Salesforce DX Projects with Ease		✓		



Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<b>Critical Updates: Profile-Based Access for @AuraEnabled Apex Classes, and More</b>				
API Only Users Can Access Only Salesforce APIs (Critical Update, Enforced)			✓	
Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile (Critical Update, Postponed)			✓	
Use with sharing for @AuraEnabled Apex Controllers with Implicit Sharing (Critical Update, Postponed)			✓	
Disable Access to Non-global Apex Controller Methods in Managed Packages (Critical Update, Postponed)			✓	
Enable Dependency Access Checks In Lightning Components (Critical Update, Postponed)				
Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile (Critical Update, Postponed)			✓	
Enforce Access Modifiers on Apex Properties in Lightning Component Markup (Critical Update, Postponed)			✓	
Prevent Creation of Function Expressions in Dynamically Created Aura Components (Previously Released Critical Update)			✓	
<b>Security Alerts: Restricted Access to @AuraEnabled Apex Methods Based on User Profile</b>				
Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile (Security Alert)			✓	
Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile (Security Alert)			✓	
<b>Einstein Platform Services</b>				
<b>Einstein Vision: More Detailed Error Messages</b>				
Get More Detailed Error Messages for Einstein Object Detection Training API Calls		✓		
<b>Einstein Language: New Model Metrics</b>				

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Better Understand Your Model with New Elements in Language API Model Metrics Response		✓		
<b>Einstein Platform</b>				
Run Einstein Predictions in a Sandbox Org			✓	
<b>Visualforce</b>				
Communicate Across Salesforce UI Technologies with the Lightning Message Service API (Beta)		✓		
Prevent Security Vulnerabilities with Type Checking for Remote Methods with ID Parameters		✓		
Remove Instance Names from URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files (Previously Released Critical Update)			✓	
Permission Changes for Visualforce Access Metrics		✓		
<b>Apex</b>				
Enable Field- and Object-Level Permissions Checking Using WITH SECURITY_ENFORCED in SOQL Queries (Generally Available)		✓		
Enforce Field- and Object-Level Security in Apex (Generally Available)		✓		
Attach Actions to Asynchronous Apex Jobs Using Transaction Finalizers (Pilot)		✓		
Restrict Reflective Access to Non-Global Constructors in Packages (Critical Update)		✓		
Enable Improved Caching of Org Schema (Critical Update)		✓		
Use Generic sObject Data Types in Invocable Methods and Invocable Variables		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Use Event Monitoring Logs to Track CPU Time Consumed by Apex Triggers		✓		
API				
Find Related Object Documentation More Easily	✓			
Untangle Your Dependencies with MetadataComponentDependency Queries in Production and Sandbox Orgs (Beta)		✓		
Improved Symbol Table Generation		✓		
Use More API Calls		✓		
No Maximum Daily Cap for API Calls		✓		
View Monthly API Calls with a New Usage-Based Entitlement		✓		
Custom Metadata Types				
Require Customize Application Permission for Direct Read Access to Custom Metadata Types (Critical Update, Enforced)			✓	
Protect Custom Metadata Types in Developer and Scratch Orgs		✓		
Salesforce CLI				
Save Time and Reduce Errors with Autocomplete		✓		
View Progress When Deploying Metadata		✓		
Eliminate the Guesswork with Enhanced Standard DX Templates		✓		
Get Improved Code Coverage Results for Your Apex Tests		✓		
Scratch Orgs: New Features				
Create Scratch Orgs with More Features		✓		
Sandboxes				
Clone a Sandbox with a Version Different from Production		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Secure Your Sandbox Data with Salesforce Data Mask		✓		
<b>AppExchange Partners</b>				
Analyze Lightning Page Usage and Company Information with AppExchange App Analytics				✓
<b>Packaging</b>				
Skip Validation to Quickly Iterate Package Development		✓		
Create and Install Package Versions Faster		✓		
Update Managed Packages for External Sharing Model Changes		✓		
View More Packaging Details in List and Report Salesforce CLI Commands		✓		
Determine How Many Components Display in Package Manager			✓	
Update Flows in Unlocked Packages		✓		
<b>Change Data Capture</b>				
Expanded Object Support for Change Data Capture		✓		
Enrich Change Event Messages with Fields That Are Always Included (Pilot)				✓
Change Events Are No Longer Blocked When Encryption Is Not Enabled		✓		
<b>Platform Events</b>				
Encrypt Platform Event Messages in the Event Bus		✓		
Get Your Platform Event Entitlement Based on Your Contract Start Date		✓		

## Quip

Connect your Salesforce orgs to Quip faster than ever. Bring your filtered reports to Quip and embed them on Salesforce records to have them filter dynamically. Automate your business workflows with new Quip actions in Process Builder and Flow Builder. View and edit your related Salesforce lists views with the updated Salesforce List Live App.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<a href="#">Import Related Lists into a Quip Document</a> (not immediately available)	✓			
<a href="#">Get Insights on Quip for Customer 360 Usage</a> (not immediately available)			✓	
<a href="#">Dynamically Filter Live Salesforce Reports from Quip</a> (not immediately available)	✓			
<a href="#">Get Summarized Salesforce Reports in Quip</a> (not immediately available)	✓			
<a href="#">Keep Your Quip Templates Up-to-Date with Dynamic Live Apps</a> (not immediately available)	✓			
<b>Automate Workflows with New Quip Process and Flow Builder Actions</b>				
<a href="#">Add Users with Different Access Levels to a Quip Document</a>		✓		
<a href="#">Mark a Document as Complete with Lock Edits</a>		✓		
<a href="#">Add Live Apps to a Quip Template</a>	✓			
<a href="#">Update Cloned Documents Using Text Detection</a>		✓		
<a href="#">Control When and Where Your Quip Content Is Shared</a>		✓		
<a href="#">Copy Comments from a Quip Template</a>	✓			
<a href="#">Quip Component Is Now the Quip Associated Documents Component</a>	✓			
<a href="#">Use Ready-Made Quip Templates in Salesforce</a>	✓			
<a href="#">See Quip Documents Linked to Related Records</a>	✓			
<a href="#">Log In to Quip with Multiple SSOs</a>			✓	
<a href="#">Use Salesforce Live Apps Without Reconnecting</a> (not immediately available)	✓			
<a href="#">Set Up Quip for Salesforce In Fewer Steps</a>			✓	

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
<a href="#">Add Quip Slides to Salesforce Records</a>	✓			
<a href="#">Mail Merge Lookup Field Limit Removed</a>	✓			
<a href="#">Use Rich-Text Editing for Quip Documents from the Files Tab</a>	✓			

## Supported Browsers

We've made some changes to our supported browsers documentation, making it easier to find what you need. Supported browsers for Salesforce vary depending on whether you use Salesforce Classic or Lightning Experience.

### IN THIS SECTION:

#### [Supported Browsers for Lightning Experience](#)

See the supported browsers and limitations for Lightning Experience.

#### [Supported Browsers for Salesforce Classic](#)

Salesforce Classic supports Microsoft® Internet Explorer® 11 and Apple® Safari® version 12.x on macOS. The most recent stable versions of Microsoft Edge, Mozilla® Firefox®, and Google Chrome™ are also supported.

#### [Supported Browsers for Einstein Analytics](#)

The supported browsers for Einstein Analytics are Microsoft® Edge, Microsoft Internet Explorer® 11, and the most recent stable versions of Mozilla® Firefox® and Google Chrome™. Analytics isn't supported on Apple® Safari®.

## Supported Browsers for Lightning Experience

See the supported browsers and limitations for Lightning Experience.

**Where:** Lightning Experience is available in the Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

### Note:

- Salesforce doesn't support non-browser applications that embed WebView or similar controls to render content for Salesforce Classic, Lightning Experience, or Salesforce mobile web. Examples of approaches that embed this type of control include Salesforce Mobile SDK, Microsoft's WebBrowser Control, Electron's embedded Chromium browser, iOS's UIWebView and WKWebView, and Android's WebView.
- You can't access Lightning Experience in a mobile browser. Instead, we recommend using the Salesforce app when you're working on a mobile device. For a list of supported mobile browsers on Salesforce, see [Requirements for the Salesforce App](#).
- Lightning Experience doesn't support incognito or other private browsing modes.
- As a beta feature, we're allowing admins to give iPad iOS 12.0 users access to the full desktop version of Lightning Experience on their devices. For more information, see [Lightning Experience on iPad Browsers \(Beta\)](#). Also, Apple released a new operating system for iPad called iPadOS in fall 2019. By default, accessing Salesforce via Safari on iPadOS will load the desktop browser user experience rather than the previous Salesforce mobile browser experience. For more information, see the knowledge article [Salesforce on the New iPadOS Operating System](#).

**Important:** Support for Internet Explorer 11 to access Lightning Experience is retiring beginning in Summer '16.

- You can continue to use IE11 to access Lightning Experience until December 16, 2017.
- If you opt in to [Extended Support for IE11](#), you can continue to use IE11 to access Lightning Experience until December 31, 2020.
- IE11 has [significant performance issues](#) in Lightning Experience.
- It is strongly recommended that you do not use Internet Explorer 11 with Community Builder.
- This change doesn't impact Salesforce Classic.

	Microsoft® Internet Explorer®	Microsoft® Edge	Google Chrome™	Mozilla® Firefox®	Apple® Safari®
Lightning Experience	IE 11 (EOL December 31, 2020)	Latest	Latest	Latest	Latest
Lightning Communities	IE 11	Latest	Latest	Latest	Latest
Special setup considerations?	No	No	No	No	No
Limitations?	Yes	Yes	No	Yes	Yes

**Note:** The term “latest” is defined by the browser vendors. Check with your browser vendor to determine the latest version available.

SEE ALSO:

[Prepare for Google Chrome's Changes in SameSite Cookie Behavior That Can Break Salesforce Integrations](#)

## Supported Browsers for Salesforce Classic


Salesforce Classic supports Microsoft® Internet Explorer® 11 and Apple® Safari® version 12.x on macOS. The most recent stable versions of Microsoft Edge, Mozilla® Firefox®, and Google Chrome™ are also supported.

**Where:** Salesforce Classic is available in all editions.

**Note:** Using Salesforce Classic in a mobile browser isn't supported. Instead, we recommend using the Salesforce app when you're working on a mobile device. To see the mobile browsers that are supported for Salesforce, check out [Requirements for the Salesforce App](#).

	Microsoft Internet Explorer	Microsoft Edge	Google Chrome	Mozilla Firefox	Apple Safari
Salesforce Classic	IE 11	Latest	Latest	Latest	Latest
Salesforce Console	IE 11	Latest	Latest	Latest	No
Special setup considerations?	Yes	No	No	Yes	No

	Microsoft Internet Explorer	Microsoft Edge	Google Chrome	Mozilla Firefox	Apple Safari
Limitations?	Yes	Yes	No	No	Yes

 **Note:** The term “latest” is defined by the browser vendors. Check with your browser vendor to determine the latest version available.

SEE ALSO:

[Prepare for Google Chrome’s Changes in SameSite Cookie Behavior That Can Break Salesforce Integrations](#)

## Supported Browsers for Einstein Analytics

The supported browsers for Einstein Analytics are Microsoft® Edge, Microsoft Internet Explorer® 11, and the most recent stable versions of Mozilla® Firefox® and Google Chrome™. Analytics isn’t supported on Apple® Safari®.

## Salesforce Overall: Tools to Help You Transition to Lightning Experience, Guide Your Users, and Boost Productivity

Get ready for Lightning Experience with an enhanced Lightning Experience Configuration Converter, and guide your users with customizable in-app prompts. Empty your Recycle Bin in Lightning Experience with a single click and manage your deleted reports and dashboards. Work faster with App Launcher enhancements, use the latest Lightning Experience features with the Lightning Extension, and literally say “Hello!” to Einstein with Einstein Voice Assistant.

IN THIS SECTION:

[Lightning Experience Transition: Critical Update, Configuration Converter, Readiness Check](#)

Prepare your org and your users with tools that automate and speed up the transition process.

[Lightning Experience Engagement: In-App Guidance Prompts](#)

Motivate users to work in Lightning Experience with tools to drive adoption of key features, announce important updates, and to engage with your users.

[Prepare for Google Chrome’s Changes in SameSite Cookie Behavior That Can Break Salesforce Integrations](#)

The Google Chrome 80 release changes the default cross-domain (`SameSite`) behavior of cookies. This change enhances security and privacy, but requires customers and partners to test custom Salesforce integrations that rely on cookies. We support the ongoing effort to improve privacy and security across the web. We updated the `SameSite` attribute on cookies set by Salesforce. The fixes are in Spring '20 and they apply to Chrome 78 and later.

[Empty the Recycle Bin in One Step](#)

Empty your Salesforce org’s Recycle Bin in Lightning Experience with a single click. Previously, you either selected individual items to delete, or had to switch to Salesforce Classic to permanently delete all items at once.

[Access Reports and Dashboards in the Recycle Bin](#)

Manage your deleted reports and dashboards in the Recycle Bin for Lightning Experience. Now you can view, restore, and permanently delete your reports and dashboards without switching to Salesforce Classic.



### [Get a Boost with App Launcher Enhancements](#)

Find and open apps and items quicker with enhancements to the Lightning Experience App Launcher. Search for apps and items and have your top apps right at your fingertips.

### [Try New Lightning Experience Features with the Lightning Extension for Chrome \(Generally Available\)](#)

Are you an early adopter of the latest and greatest technology, or do you want to become one? With the Lightning Extension, now generally available, you can gain access to the latest Lightning Experience features and try them before everyone else.

### [Einstein Voice Assistant: Get More Done on the Run \(Beta\)](#)

Let users make updates to Salesforce—like logging events, creating contacts, and updating opportunities—all by voice. Einstein Voice Skills lets you build custom skills tailored to your users' most common tasks, generating more high-quality Salesforce data to inform decision making.

### [Simplify Logins and Profiles on Salesforce-Related Sites with Trailblazer.me](#)

With Trailblazer.me, you access multiple Salesforce-related sites with one login, and manage your profile and settings in one place.

### [Search: Step Up Productivity with Einstein Search \(Beta\) and Get More from the Search You Already Know](#)

Get a big boost in brain power with Einstein Search. Now you can find and do things faster with search results that are more actionable and tailored to how you work in Salesforce. Einstein Search is available in English only. Not to be outdone, the search that you know and love now lets you see related accounts in instant results for contacts and opportunities. You can also customize profile-specific search layouts. And you get search results for more objects.

### [Salesforce Surveys: Customizable Participant Journey](#)

Personalize survey questions for your participants. Your participants can now view pages and questions based on their previous responses. You can add images to your survey pages. And you can dynamically customize your questions by inserting responses from previous questions.

### [Lightning Scheduler: Guest User Scheduling, Chronos for Lightning Scheduler, and Simplified Setup](#)

Extend appointment scheduling to guest users, and install an Einstein Bot to use Lightning Scheduler with Chat or SMS.

### [Navigate to a Record's Create Page with Default Field Values](#)

Create custom buttons and links that pass default field values to a new record.

### [Power Up Your Related Lists with Enhanced Related Lists \(Generally Available\)](#)

Take your related lists to the next level. With Enhanced Related Lists, now generally available, you can show up to 10 columns, resize and sort your columns, perform mass actions, and wrap text.

### [Require Secure HTTPS Connections \(Critical Update\)](#)

As part of updates related to Google Chrome's SameSite cookie changes, HTTPS connections are required to access Salesforce. HTTP connections are no longer permitted. This update enables the Require secure connections (HTTPS) setting on the Session Settings Setup page and prevents it from being disabled. The Require secure connections (HTTPS) for all third-party domains setting isn't affected by this update.

### [Open Hyperlinks in Formula Fields Correctly \(Previously Released Critical Update\)](#)

If you have formula fields that contain a `HYPERLINK` function, Lightning Experience ignores the target value when attempting to open the link. This critical update ensures that the target value for hyperlinks is honored, whether it's explicitly configured or set by default. This critical update was first made available in Winter '19.

### [Keep Working with Tab-Focused Dialogs \(Previously Released Critical Update\)](#)

In Lightning console apps, dialogs no longer stop you from interacting with the rest of the UI. This critical update limits the focus of dialogs triggered by a workspace tab or subtab to only the tab that triggered it. This critical update was first made available in Winter '20.

# Lightning Experience Transition: Critical Update, Configuration Converter, Readiness Check

Prepare your org and your users with tools that automate and speed up the transition process.

## IN THIS SECTION:

### [Turn On Lightning Experience Critical Update Activates Starting January 7, 2020](#)

Salesforce is turning on Lightning Experience for all orgs that don't already have it enabled. The Turn on Lightning Experience Critical Update begins activating on January 7, 2020. Orgs will be activated on a rolling basis, with all orgs expected to be activated by January 31, 2020. After we turn on Lightning Experience, users still have access to Salesforce Classic. But Lightning Experience is where everyone should be for driving business growth and improving productivity. To get ready, verify your org's existing features and customizations in the new interface, and prepare your users with change management best practices.

### [Lightning Experience Configuration Converter: New Home Tab, Convert JavaScript Alerts](#)

The Lightning Experience Configuration Converter helps you automate or speed up many common transition tasks. The work gets even easier with the new Home tab, where you can centrally track the status for all of the features and customizations evaluated by the tool. And the JavaScript Buttons tab does more heavy lifting now, with support for more objects and converting JavaScript alerts to Lightning-friendly alternatives.

### [Use the Readiness Check to Guide Your Lightning Experience Transition](#)

Run the Lightning Experience Readiness Check to get the latest Lightning Experience news on features that we evaluate. Get started by visiting the Readiness Check's new home page, now available outside the Transition Assistant. The Readiness Check is updated for Spring '20 to keep in tune with feature changes and better address your feedback. The finished report is stored in your Salesforce files instead of being attached to an email.

## Turn On Lightning Experience Critical Update Activates Starting January 7, 2020

Salesforce is turning on Lightning Experience for all orgs that don't already have it enabled. The Turn on Lightning Experience Critical Update begins activating on January 7, 2020. Orgs will be activated on a rolling basis, with all orgs expected to be activated by January 31, 2020. After we turn on Lightning Experience, users still have access to Salesforce Classic. But Lightning Experience is where everyone should be for driving business growth and improving productivity. To get ready, verify your org's existing features and customizations in the new interface, and prepare your users with change management best practices.

**Where:** This critical update applies to Group, Developer, Professional, Enterprise, Performance, and Unlimited editions for all orgs that don't yet have Lightning Experience turned on.



**Note:** Rather watch a video that has the 411 on this critical update? Here you go: [Understand How the Lightning Experience Critical Update Affects My Users](#).

**When:** This update has been available since Spring '19. The update auto-activates on a rolling basis starting on January 7, 2020 and finishes for all orgs by January 31, 2020.

**Who:** Admins with the Modify All Data and Customize Application permissions see the critical update in Setup.

This update applies to users who have the Lightning Experience User permission, including all users with standard profiles and users with custom profiles or permission sets that have the Lightning Experience User permission enabled. Custom profiles created before Winter '16 don't include the Lightning Experience User permission by default. Starting with Winter '16, custom profiles that were cloned from a standard profile include the user permission, but admins can edit the profile to disable it.

After Lightning Experience is turned on, users who have the Lightning Experience User permission see the **Switch to Lightning Experience** link in the Salesforce Classic header. Once a week, Lightning Experience-enabled users who are working in Salesforce Classic are automatically logged in to Lightning Experience. These users can switch back to Salesforce Classic as needed.

**Why:** Lightning Experience is the future of Salesforce. It's where all new Salesforce innovation happens, with reimagined classic functionality and "only in Lightning Experience" features. Moving to Lightning Experience benefits everyone, from business leaders and users to admins and IT teams. The new user interface improves user efficiency and productivity. And you get the power of the Lightning Platform, making it easy and flexible to align the UI with your processes, keep up with changes in your business, and improve your company's bottom line.

**How:** You can self-enable Lightning Experience before January, and we encourage you to do so to take advantage of everything the new interface has to offer. We provide several tools that automate and speed up the transition process, including the [Lightning Experience Transition Assistant](#).

We recommend that you test this critical update in a sandbox or Developer Edition org before activating it in production. To activate the update, go to Critical Updates in Setup, and select **Activate** next to Turn on Lightning Experience.

For more help with the Turn on Lightning Experience Critical Update, get [answers to frequently asked questions](#) or visit the [Lightning Now Trailblazer Community](#).

SEE ALSO:

[Lightning Experience is Permanent After It's Enabled](#)

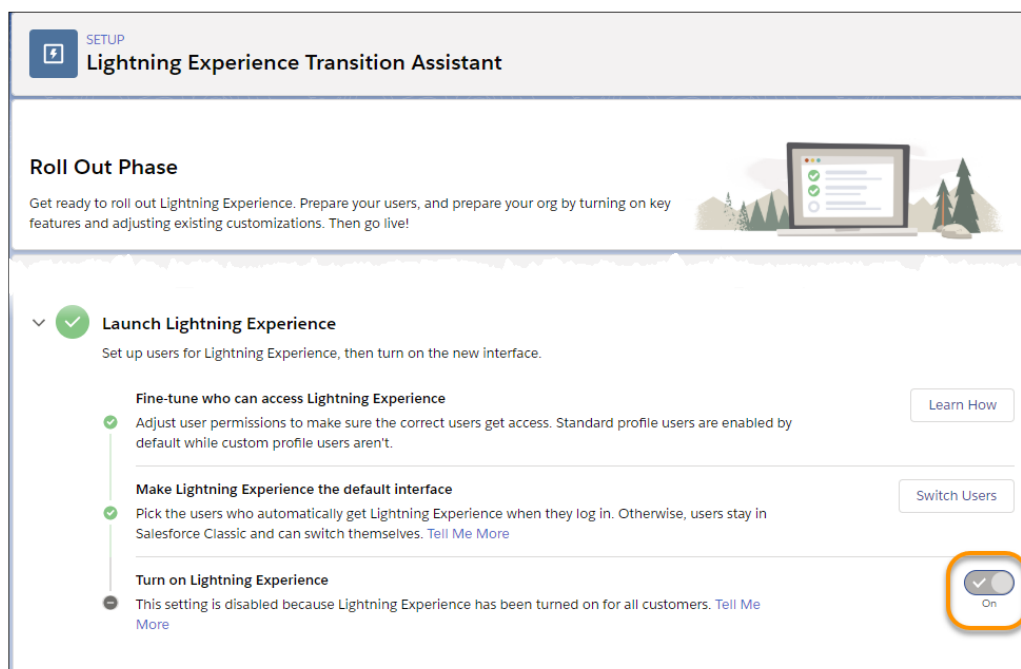
[Default User Experience After Lightning Experience Is Turned On](#)

## Lightning Experience is Permanent After It's Enabled

As of Winter '20, Lightning Experience is permanently enabled when it's turned on, either by an admin at your company or via the Turn on Lightning Experience Critical Update. After Lightning Experience is turned on, you can't disable it. All users still have access to Salesforce Classic and can switch between the two interfaces as needed.

**Where:** This change applies to Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** After Lightning Experience is enabled in your org, the **Turn on Lightning Experience** toggle in the Lightning Experience Transition Assistant is grayed out.



And the option to turn off Lightning Experience using the `S1DesktopEnabled` org preference setting with any version of Metadata API is also disabled.

## Default User Experience After Lightning Experience Is Turned On

After Lightning Experience is turned on, a user's default interface is determined by when they were added to your org. Regardless of the default interface, Lightning Experience-enabled users can use the Switcher to move themselves between Lightning Experience and Salesforce Classic.

**Where:** This change applies to Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

### How:

- **Users who exist when Lightning Experience is turned on**

When Lightning Experience is turned on for your org, all existing users keep Salesforce Classic as their default interface. This is true whether an existing user already has the Lightning Experience User permission at the time Lightning Experience is enabled or they're assigned the user permission later on. It doesn't matter if the user permission comes from a standard profile, a custom profile that has the permission enabled, or a permission set.

- **Users added after Lightning Experience is turned on**

Things change for users who are added to your org after Lightning Experience is enabled. These users get Lightning Experience as their default interface whenever they're assigned the Lightning Experience User permission—whether at the time they're first added or at a later date. Again, it doesn't matter if the user permission comes from a standard profile, a custom profile that has the permission enabled, or a permission set.

All Lightning Experience-enabled users automatically get the Switcher, which allows them to switch between Lightning Experience and Salesforce Classic, as needed.

## Lightning Experience Configuration Converter: New Home Tab, Convert JavaScript Alerts

The Lightning Experience Configuration Converter helps you automate or speed up many common transition tasks. The work gets even easier with the new Home tab, where you can centrally track the status for all of the features and customizations evaluated by the tool. And the JavaScript Buttons tab does more heavy lifting now, with support for more objects and converting JavaScript alerts to Lightning-friendly alternatives.

### IN THIS SECTION:

- [Manage All Lightning Experience Configuration Converter Tabs from One Place \(Beta\)](#)

The new Home tab is your home base for the transition tool. Tiles summarize the status of each tab in the Lightning Experience Configuration Converter. Kick off scans of individual tabs, and find out what's left to do.

- [Convert JavaScript Alerts to Lightning Components](#)

Now you can convert your simple JavaScript alerts to Lightning Components using the Lightning Experience Configuration Converter. For complex alerts that the tool can't convert, such as alerts with multiple operations, the Configuration Converter recommends actions that you can take to manually convert them.

- [Convert JavaScript Buttons on Contract and Task Objects](#)

The JavaScript Buttons tab on the Lightning Experience Configuration Converter now includes support for Contract and Task objects. Convert JavaScript buttons on those objects when you transition from Salesforce Classic to Lightning Experience.

## Manage All Lightning Experience Configuration Converter Tabs from One Place (Beta)

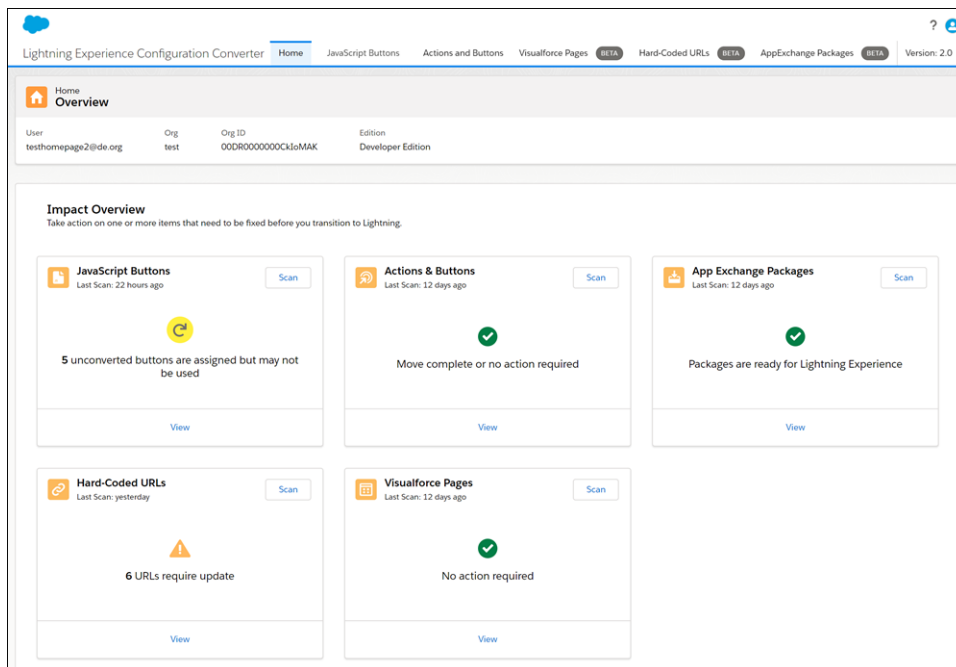
The new Home tab is your home base for the transition tool. Tiles summarize the status of each tab in the Lightning Experience Configuration Converter. Kick off scans of individual tabs, and find out what's left to do.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Professional, Performance, Unlimited, and Developer editions.

**Note:** As a beta feature, the Home tab in the Lightning Experience Configuration Converter is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Home tab in the [Lightning Exp Configuration Converter Trailblazer Community](#).

**Who:** The Lightning Experience Configuration Converter feature requires the Customize Application and Modify All Data permissions.

**Why:** Easily track your progress as you reduce the number of necessary fixes and change each tab's status icon to green.



### How:

The Lightning Experience Configuration Converter is a standalone tool that lives outside of Salesforce. We recommend that you run it in a sandbox or Developer Edition org first, and then migrate your changes to your production org. To get started, visit <https://lightning-configuration.salesforce.com/> and log in with your org credentials.

## Convert JavaScript Alerts to Lightning Components

Now you can convert your simple JavaScript alerts to Lightning Components using the Lightning Experience Configuration Converter. For complex alerts that the tool can't convert, such as alerts with multiple operations, the Configuration Converter recommends actions that you can take to manually convert them.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Professional, Performance, Unlimited, and Developer editions.

**Who:** The JavaScript Buttons tab requires the Customize Application and Modify All Data permissions.

The Configuration Converter is a standalone tool that lives outside of Salesforce. We recommend that you run it in a sandbox or Developer Edition org first, and then migrate your changes to your production org. To get started, visit <https://lightning-configuration.salesforce.com/> and log in with your org credentials.

## Convert JavaScript Buttons on Contract and Task Objects

The JavaScript Buttons tab on the Lightning Experience Configuration Converter now includes support for Contract and Task objects. Convert JavaScript buttons on those objects when you transition from Salesforce Classic to Lightning Experience.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Professional, Performance, Unlimited, and Developer editions.

**When:** This change was introduced in a Salesforce Winter '20 patch release.

**Who:** The JavaScript Buttons tab requires the Customize Application and Modify All Data permissions.

The Configuration Converter is a standalone tool that lives outside of Salesforce. We recommend that you run it in a sandbox or Developer Edition org first, and then migrate your changes to your production org. To get started, visit <https://lightning-configuration.salesforce.com/> and log in with your org credentials.

## Use the Readiness Check to Guide Your Lightning Experience Transition

Run the Lightning Experience Readiness Check to get the latest Lightning Experience news on features that we evaluate. Get started by visiting the Readiness Check's new home page, now available outside the Transition Assistant. The Readiness Check is updated for Spring '20 to keep in tune with feature changes and better address your feedback. The finished report is stored in your Salesforce files instead of being attached to an email.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Your customized Readiness Report helps you evaluate which profiles and features are most ready for Lightning Experience, and prioritize your work as you transition your org.

**How:** The Readiness Check is available to admins in sandbox and production environments. To run the Readiness Check in your sandbox environment, visit <https://sb-lightning-readiness-check.salesforce.com/home>. To run it in your production environment, go to <https://lightning-readiness-check.salesforce.com/home>. You can also still run the Readiness Check from the Lightning Experience Transition Assistant.

To view the Readiness Check report, click the link in the email you receive when the check is completed. Or, log in to Salesforce and check your Salesforce files.

## Lightning Experience Engagement: In-App Guidance Prompts

Motivate users to work in Lightning Experience with tools to drive adoption of key features, announce important updates, and to engage with your users.

### IN THIS SECTION:

[In-App Guidance: Profile Filtering, Videos, and Translation Support](#)

Deliver more engaging prompts to your targeted user group.

### [Delayed Availability: Give Feedback to Salesforce](#)

As your org upgrades to the Spring '20 release, the Give Feedback to Salesforce link in the Help Menu and the Salesforce Product Feedback Form are temporarily unavailable for approximately 48 hours following the release.

## In-App Guidance: Profile Filtering, Videos, and Translation Support

Deliver more engaging prompts to your targeted user group.

### IN THIS SECTION:

#### [Specify Profiles When Creating Prompts](#)

Fine-tune your prompt's message for a specific audience, what objects and data they have access to, or what they can do. Previously, you could only use permissions to display prompts to specific users. Starting in Spring '20, use standard and custom profiles too.

#### [Add Videos to Docked Prompts](#)

If you have a short video that illustrates a complex process or drives your message home, now you can easily add it to your prompts. The video previews inside the docked prompt.

#### [Use Translation Workbench to Maintain Prompt Labels](#)

Track all your translated labels in one place, and easily package translation labels for others.

#### [Customize When Prompts Appear to Users](#)

Quickly change the amount of time to delay prompts. Decrease the global delay time to accelerate onboarding prompts or increase the delay to spread out announcements and updates. Ignore the global delay time to show a prompt when a page first loads or to show multiple prompts a day without changing the global delay time for all prompts.

#### [Other User Interface Changes: Prompts](#)

In addition to feature enhancements, Salesforce made some smaller design changes to the In-App Guidance Setup page and floating prompt.

### SEE ALSO:

[Salesforce Help: In-App Guidance in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

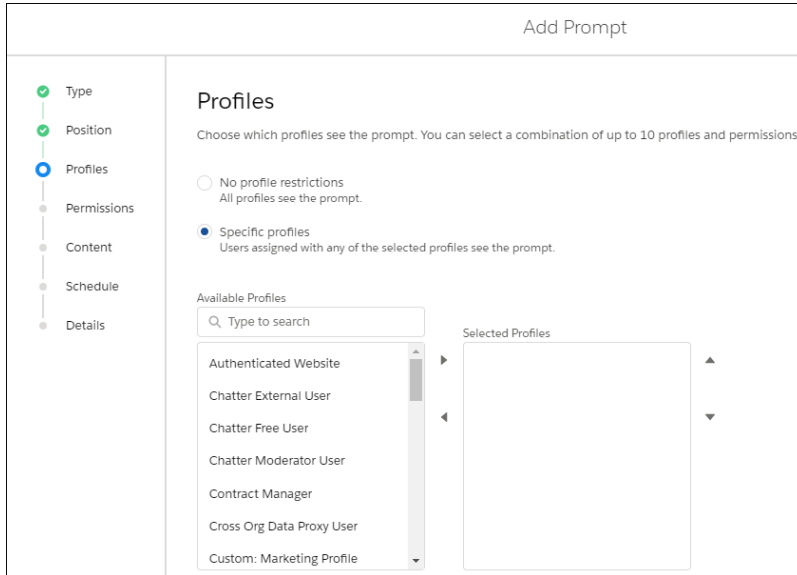
## Specify Profiles When Creating Prompts

Fine-tune your prompt's message for a specific audience, what objects and data they have access to, or what they can do. Previously, you could only use permissions to display prompts to specific users. Starting in Spring '20, use standard and custom profiles too.

**Where:** This change applies to Lightning Experience in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** From Setup in Lightning Experience, enter *In-App Guidance* in the Quick Find box, and then select **In-App Guidance**.

If you select multiple profiles, the prompt appears to any of the profiles specified. You can select a combination of up to 10 profiles and permissions for each prompt. If you select multiple items, the prompt appears to users who have all the permissions specified and any of the profiles specified.



In addition, users no longer need the View Set up and Configuration permission to see prompts that are only visible with specific permissions.

#### SEE ALSO:

[Salesforce Help: In-App Guidance in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

[In-App Guidance: Profile Filtering, Videos, and Translation Support](#)

## Add Videos to Docked Prompts

If you have a short video that illustrates a complex process or drives your message home, now you can easily add it to your prompts. The video previews inside the docked prompt.

**Where:** This change applies to Lightning Experience in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** From Setup in Lightning Experience, enter *In-App Guidance* in the Quick Find box, and then select **In-App Guidance**.

When adding a video to a docked prompt, enter the URL specified in the src attribute listed in the embed code from the video host.

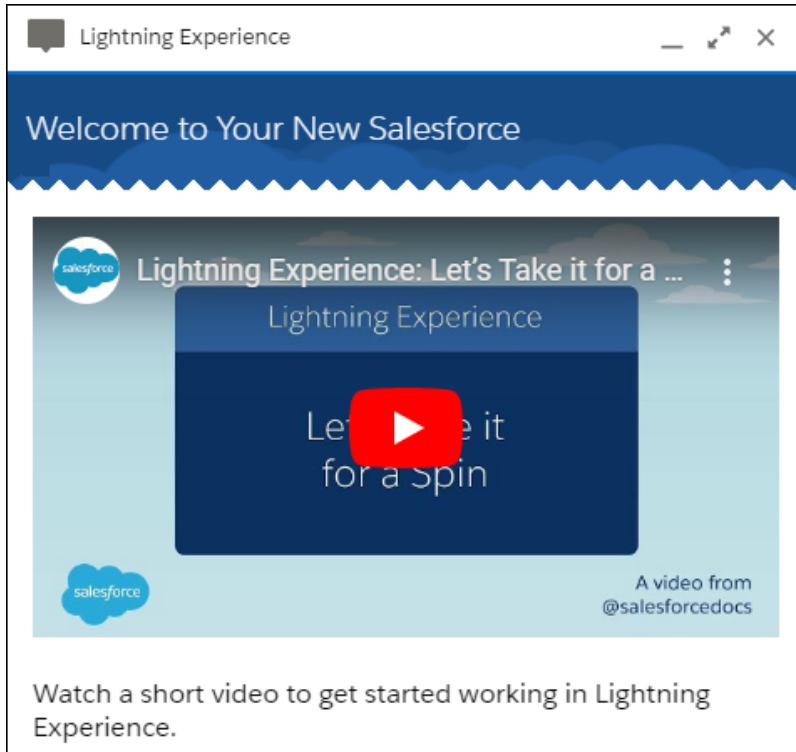
Add the URL specified in the src attribute listed in the embed code from YouTube, Vimeo, Vidyard, or other video host. The URL must be from a CSP trusted site. A preview of the video appears in the docked prompt. [Tell Me More](#)

Video Embed URL

41 / 1000

Users watch the video within the docked prompt, in the expanded docked prompt, or full screen.





SEE ALSO:

[Salesforce Help: In-App Guidance in Lightning Experience \(can be outdated or unavailable during release preview\)](#)  
[In-App Guidance: Profile Filtering, Videos, and Translation Support](#)

## Use Translation Workbench to Maintain Prompt Labels

Track all your translated labels in one place, and easily package translation labels for others.

**Where:** This change applies to Lightning Experience in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** From Setup in Lightning Experience, enter *Translation* in the Quick Find box, and then select **Translation Workbench**. Start by selecting the **Prompt** and **PromptVersion** setup component.

SEE ALSO:

[Salesforce Help: In-App Guidance in Lightning Experience \(can be outdated or unavailable during release preview\)](#)  
[In-App Guidance: Profile Filtering, Videos, and Translation Support](#)

## Customize When Prompts Appear to Users

Quickly change the amount of time to delay prompts. Decrease the global delay time to accelerate onboarding prompts or increase the delay to spread out announcements and updates. Ignore the global delay time to show a prompt when a page first loads or to show multiple prompts a day without changing the global delay time for all prompts.

**Where:** This change applies to Lightning Experience in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** From Setup in Lightning Experience, enter *In-App Guidance* in the Quick Find box, and then select **In-App Guidance**.

Click **Prompt Settings** and change the hours and minutes under **Delay Between Prompts**. Specify up to 99 hours and up to 59 minutes. By default, a prompt appears to a user no more than once every 24 hours, per app.

To ignore the global delay time, check **Show prompt when the page loads** on the Schedule page when creating a prompt.

SEE ALSO:

[Salesforce Help: In-App Guidance in Lightning Experience \(can be outdated or unavailable during release preview\)](#)  
[In-App Guidance: Profile Filtering, Videos, and Translation Support](#)

## Other User Interface Changes: Prompts

In addition to feature enhancements, Salesforce made some smaller design changes to the In-App Guidance Setup page and floating prompt.

**Where:** This change applies to Lightning Experience in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

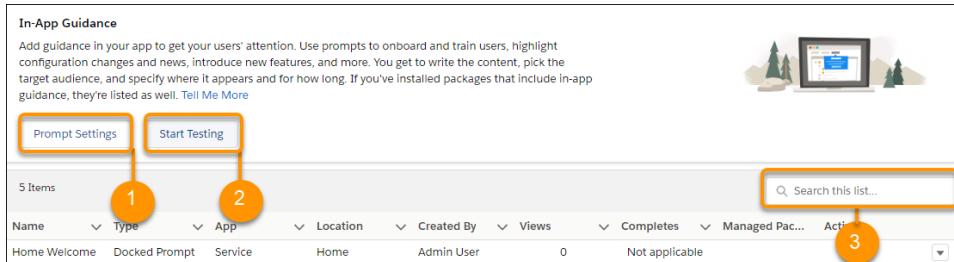
**Why:** The In-App Guidance Setup page has a **Prompt Settings** button (1) that opens a modal to:

- Turn off or turn on all prompts created or installed in your Salesforce org.

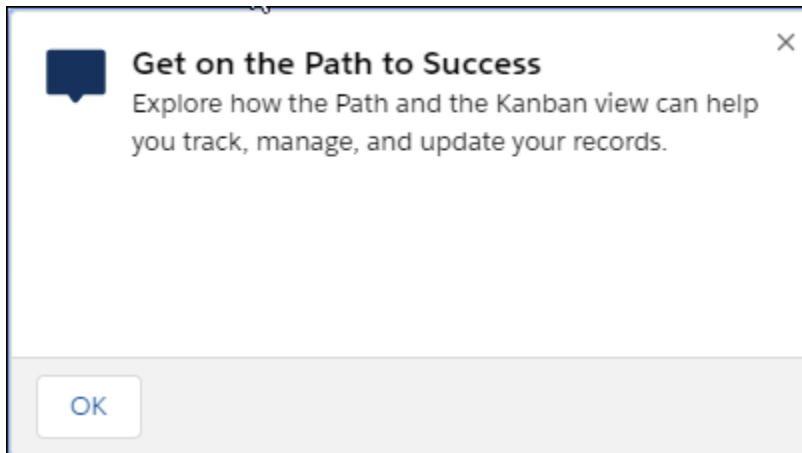
- Turn off or turn on all prompts, welcome mats, and other in-app guidance created by Salesforce.
- Change the amount of time for the delay between all prompts.

The Start Testing button (2) remains the setup page.

If you've created or installed many prompts, use the list view search (3) to quickly locate the one you want.



Floating prompts were redesigned to make way for an increased body text limit of 240 characters.



A radio button label found in the Permission settings modal changed from **Everyone** to **No permission restrictions**.

**How:** From Setup in Lightning Experience, enter *In-App Guidance* in the Quick Find box, and then select **In-App Guidance**.

SEE ALSO:

[Salesforce Help: In-App Guidance in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

[In-App Guidance: Profile Filtering, Videos, and Translation Support](#)

## Delayed Availability: Give Feedback to Salesforce

As your org upgrades to the Spring '20 release, the Give Feedback to Salesforce link in the Help Menu and the Salesforce Product Feedback Form are temporarily unavailable for approximately 48 hours following the release.

**Where:** This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

# Prepare for Google Chrome's Changes in SameSite Cookie Behavior That Can Break Salesforce Integrations

The Google Chrome 80 release changes the default cross-domain (`SameSite`) behavior of cookies. This change enhances security and privacy, but requires customers and partners to test custom Salesforce integrations that rely on cookies. We support the ongoing effort to improve privacy and security across the web. We updated the `SameSite` attribute on cookies set by Salesforce. The fixes are in Spring '20 and they apply to Chrome 78 and later.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions.

**When:** The Chrome 80 release [started in February 2020](#), but Google has temporarily rolled back the SameSite changes until the summer of 2020 because of the extraordinary global circumstances due to COVID-19. For more information, see [this Chromium blog post](#).

Salesforce is ready for the SameSite changes whenever Google rolls them out. If you made changes and tested in your org to prepare for Google's initial SameSite rollout in February 2020, you're ready too and there's nothing more for you to do.

**Who:** This change applies to Salesforce users of Google Chrome 80 release or later.

**Why:** Note these important changes for Chrome.

- Cookies don't work for non-secure (HTTP) browser access, including any community, portal, site, or Outlook or Gmail integration in your org. Use HTTPS instead.
- Some custom integrations that rely on cookies no longer work in Google Chrome. This change particularly affects but is not limited to cross-domain communication, and integrations using iframes.

The `SameSite` attribute on a cookie controls its cross-domain behavior. This [Chrome Platform Status](#) explains the intent of the `SameSite` attribute.

*"SameSite is a reasonably robust defense against some classes of cross-site request forgery (CSRF) attacks, but developers currently need to opt in to its protections by specifying a `SameSite` attribute. In other words, developers are vulnerable to CSRF attacks by default. This change would allow developers to be protected by default, while allowing sites that require state in cross-site requests to opt in to the status quo's less-secure model."*

If no `SameSite` attribute is specified, the Chrome 80 release sets cookies as `SameSite=Lax` by default. Up until the Chrome 80 release, the default is `SameSite=None`. After the Chrome 80 release, developers can still opt in to the status quo of unrestricted use by explicitly setting `SameSite=None; Secure`.

For more information, see this [Chromium blog post](#).

**How:**

## 1. Use HTTPS instead of HTTP

To require HTTPS access in your org, ensure that the following **Session Settings** in Setup are enabled. These settings are enabled by default but you should verify that HTTPS is required in your org.

### Require secure connections (HTTPS)

Determines whether HTTPS is required to log in to or access Salesforce.

In Spring '20, we added a critical update that requires HTTPS connections to access Salesforce.

### Require secure connections (HTTPS) for all third-party domains

Determines whether HTTPS is required for connecting to third-party domains.

If either of these settings is disabled, Salesforce may not be fully functional for Chrome users after the Chrome 80 release.

### To require HTTPS access in communities, portals, or sites:

- a. From Setup, enter `Sites` in the Quick Find box, then select **Sites**.
- b. Click the site you want to edit, and ensure that the **Require Secure Connections (HTTPS)** checkbox is selected.

**To check whether your Salesforce Classic Canvas connected app works with HTTPS:**

- a. In Salesforce Classic, from Setup, enter *Canvas App Previewer* in the Quick Find box, then select **Canvas App Previewer**.
- b. Click the app that you want to check. If the app loads, it means that the URLs are already set to use HTTPS. If the app doesn't load in the previewer, update the Canvas App URL and Callback URL to use HTTPS.

**To update your Canvas connected app to HTTPS:**

- a. In Salesforce Classic, from Setup, enter *Create*, and then click **Apps**.
- b. Select the Canvas connected app that you want to update.
- c. In the *Canvas App URL* field, update the URL to use HTTPS.
- d. In the *Callback URL* field, update the URL to use HTTPS.
- e. Click **Save**.
- f. Go back to the Canvas App Previewer and check that the app opens as expected.



**Note:** The first time that you navigate to the HTTPS URL, close and reopen tabs and clear your browser history.

**2. Test custom Salesforce integrations that rely on cookies owned and set by your integration**

Before the Chrome 80 release, test any custom Salesforce integrations that rely on cookies owned and set by your integration. If you find any regressions, update the `SameSite` attribute on cookies used for cross-domain communication to explicitly set `SameSite=None; Secure`. If you set a cookie in Apex, use the new `SameSite` attribute of the `Cookie()` constructor method.

This [Chromium blog post](#) explains how to test the effect of the new Chrome behavior on your site or cookies before Chrome rolls out the `SameSite` changes. Navigate to `chrome://flags` and enable the “`SameSite by default cookies`” and “`Cookies without SameSite must be secure`” experiments. We recommend that you use the latest version of Chrome to test in a sandbox. The fixes in Spring '20 apply to Chrome 78 and later.



**Note:** While you test your cookies, consider what's the most secure `SameSite` value that works for each cookie. If a cookie is intended to be accessed only in a first-party context, you can apply `SameSite=Lax` or `SameSite=Strict` to prevent external access. Explicitly setting `SameSite=Lax` means that you're not relying on default browser behavior.

**SEE ALSO:**

[Chromium Blog: Developers: Get Ready for New SameSite=None; Secure Cookie Settings](#)

[Chrome Platform Status: Cookies default to SameSite=Lax](#)

[Chrome Platform Status: Reject insecure SameSite=None cookies](#)

[web.dev: SameSite cookies explained](#)

[textslashplain.com: Same-Site Cookies By Default](#)

[ietf.org: Incrementally Better Cookies](#)

[Require Secure HTTPS Connections \(Critical Update\)](#)

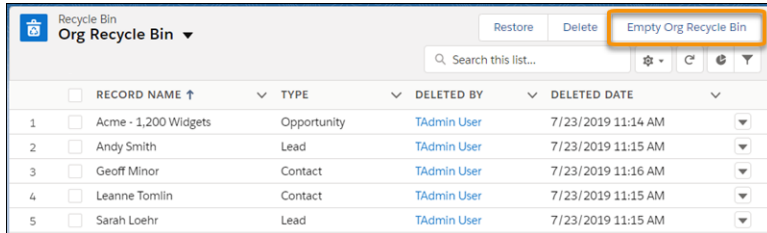
## Empty the Recycle Bin in One Step

Empty your Salesforce org's Recycle Bin in Lightning Experience with a single click. Previously, you either selected individual items to delete, or had to switch to Salesforce Classic to permanently delete all items at once.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To empty the org Recycle Bin, you need the Modify All Data permission.

**How:** Open the org Recycle Bin and click **Empty Org Recycle Bin**.



SEE ALSO:

[Salesforce Help: Manage the Recycle Bin in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

## Access Reports and Dashboards in the Recycle Bin

Manage your deleted reports and dashboards in the Recycle Bin for Lightning Experience. Now you can view, restore, and permanently delete your reports and dashboards without switching to Salesforce Classic.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.


SEE ALSO:

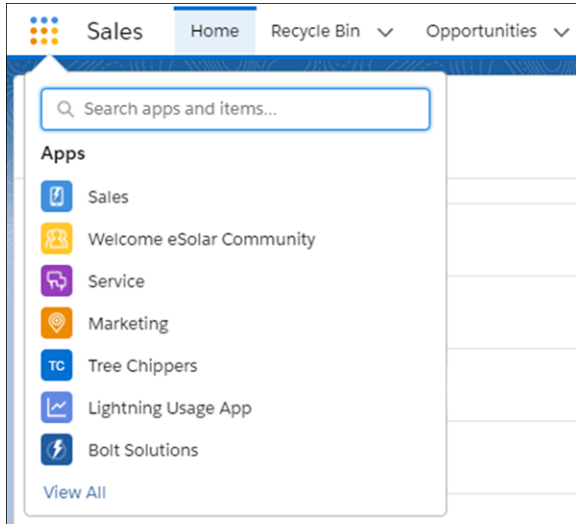
[Salesforce Help: Recycle Bin \(can be outdated or unavailable during release preview\)](#)

## Get a Boost with App Launcher Enhancements

Find and open apps and items quicker with enhancements to the Lightning Experience App Launcher. Search for apps and items and have your top apps right at your fingertips.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

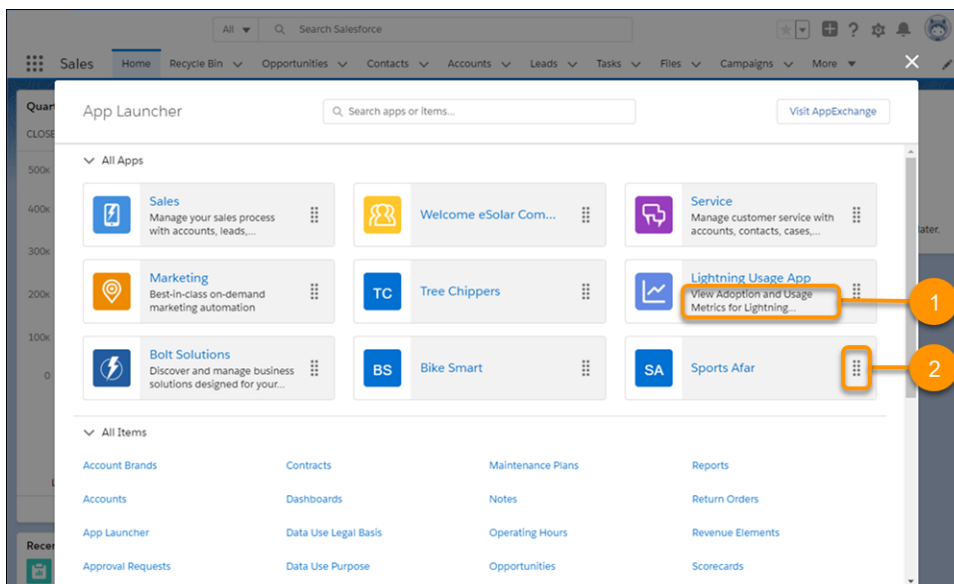
**How:** To open the App Launcher, click  and then select an app or search for apps and items.



Select **View All** to access all apps, items (now sorted alphabetically by column), and the AppExchange.

Other enhancements include:

- Truncated descriptions don't break mid word. Hover over a truncated description to see the full description (1).
- Improved and consistent visual representation of the drag capability (2).



SEE ALSO:

[Salesforce Help: Open Another App in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Reorder App Launcher Apps in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

## Try New Lightning Experience Features with the Lightning Extension for Chrome (Generally Available)

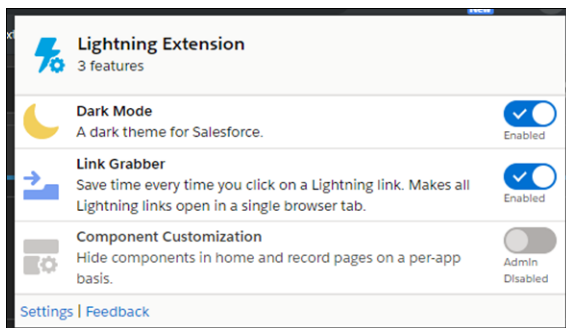
Are you an early adopter of the latest and greatest technology, or do you want to become one? With the Lightning Extension, now generally available, you can gain access to the latest Lightning Experience features and try them before everyone else.

**Where:** This change applies to Lightning Experience in all editions.

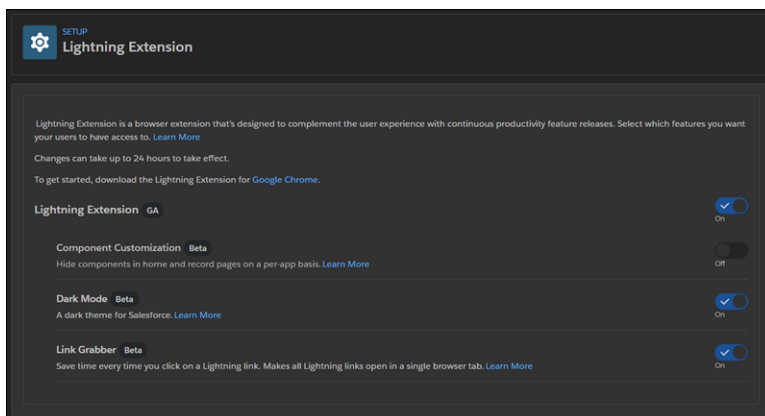
**Why:** The Lightning Extension lets us roll out new features continuously. Admins can control which features are available to their users.

**How:** Download the Lightning Extension for your browser. From the Lightning Extension features panel, choose which features to turn on.

 **Note:** Dark mode is temporarily disabled. We're working to make it available again.



To control which features are available to your users, from Setup, in the Quick Find box, enter Lightning Extension, and then select Lightning Extension. From there, you can activate individual features or disable the extension as a whole. Changes can take up to 24 hours to take effect.



SEE ALSO:

[External Link:](#) Download the Lightning Extension from the Chrome Web Store (can be outdated or unavailable during release preview)

[Salesforce Help:](#) Try New Features with the Lightning Extension for Chrome (can be outdated or unavailable during release preview)

## Einstein Voice Assistant: Get More Done on the Run (Beta)

Let users make updates to Salesforce—like logging events, creating contacts, and updating opportunities—all by voice. Einstein Voice Skills lets you build custom skills tailored to your users' most common tasks, generating more high-quality Salesforce data to inform decision making.



**Where:** This feature is available in the new Salesforce mobile app for iOS and Android in Professional, Enterprise, Unlimited, and Developer editions. Setup for this feature is available in Lightning Experience.



**Note:** As a beta feature, Einstein Voice Assistant is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. For information on enabling this feature in your org, contact your Account Executive. To provide feedback on Einstein Voice Assistant, contact Salesforce Customer Support.

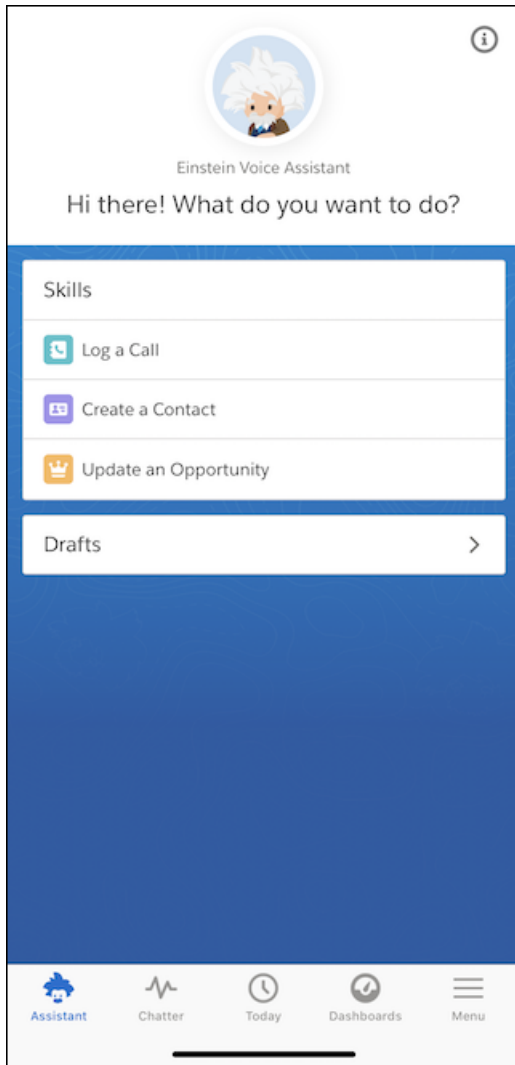
**When:** You can use Einstein Voice Skills to create voice skill sets right away. Your changes become visible to mobile users the week of February 17, 2020.

**Who:** Einstein Voice Assistant will initially be available to most orgs already using an Einstein product. Within eligible orgs, users with a Salesforce license can use Einstein Voice Assistant.

**Why:** With Einstein Voice Assistant, Salesforce users can talk to their Salesforce org, driving productivity and adoption of Salesforce from anywhere. For example, sales reps can make on-the-go updates and create contacts and leads. Field agents can log service notes and follow-up tasks. And Salesforce admins and developers can build these custom voice experiences with clicks not code.

**How:** To get started, find Einstein Voice Skills in Setup. Then create a voice skill set with skills tailored to a user profile's most common tasks.

After you create a skill set, your users will see the available skills when they open Einstein Voice Assistant in the Salesforce app. To use a skill, the user can tap it. While using a skill, the user can speak or type their responses.



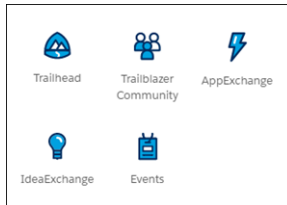
## Simplify Logins and Profiles on Salesforce-Related Sites with Trailblazer.me

With Trailblazer.me, you access multiple Salesforce-related sites with one login, and manage your profile and settings in one place.

**Where:** Trailblazer.me is available to AppExchange, Events, IdeaExchange, Trailblazer Community, and Trailhead users. Partner Community doesn't use Trailblazer.me features, but Trailblazer.me shares some profile data with the Partner Community profile.

**When:** Trailblazer.me is generally available in January 2020.

**Why:** You have a lot of usernames and passwords to remember. You have different profiles on Salesforce-related sites like Trailhead and Trailblazer Community. With Trailblazer.me, we combined all those accounts so you access any of the sites with one login. Switch between the sites using the Application Launcher.



And you manage your profile on all of them at once. Your Trailblazer.me profile shows aggregated data across all the sites and all your users—if you have more than one. To see or edit your Trailblazer.me profile, click your profile pic and select **Profile**. If your profile is set to public, you can use it like a digital resume. Show it off so coworkers and future employers can see your Trailhead skills, your winning ideas, and your helpful community posts.

**How:** The first time you log in to a Salesforce-related site after Trailblazer.me is generally available, you see a prompt to enter or update some profile information. If Trailblazer.me recognizes any additional accounts of yours, they're merged. You can manually merge accounts on the Settings page.


SEE ALSO:

[Salesforce Help: Get Started with Trailblazer.me](#) (can be outdated or unavailable during release preview)

[Manage AppExchange Installs and Settings with Ease Using Trailblazer.me](#)

## Search: Step Up Productivity with Einstein Search (Beta) and Get More from the Search You Already Know

Get a big boost in brain power with Einstein Search. Now you can find and do things faster with search results that are more actionable and tailored to how you work in Salesforce. Einstein Search is available in English only. Not to be outdone, the search that you know and love now lets you see related accounts in instant results for contacts and opportunities. You can also customize profile-specific search layouts. And you get search results for more objects.

 **Note:** As a beta feature, Einstein Search is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Einstein Search in the [Trailblazer Community](#).

Einstein Search features are labeled Beta. Features not labeled Beta are generally available.

### IN THIS SECTION:

#### [Enable Einstein Search Personalization for an Org of Any Size and Try It in a Sandbox Org \(Beta\)](#)

Personalized search results are available for an organization of any size. All the users in your org can take advantage of this Einstein Search feature. You can also take personalization for a test drive because now it's available in sandbox orgs.

#### [Get Personalized Search Results for Cases and Leads \(Beta\)](#)

You can now see search results for your cases and leads as well as accounts, contacts, and opportunities.

#### [Gain Insight on Einstein Search by Viewing Search Result Filters \(Beta\)](#)

You can now see how Einstein Search interprets your conversational searches. The filters applied to your search are displayed in the search results.

#### [Get Search Suggestions Tailored to Your Work to Find Records Faster \(Beta\)](#)

Einstein Search helps you work smarter with personalized search suggestions based on your recent activity. When you click in the Search box, your instant results also include alternate searches related to items you interact with most.

#### [Create a Filtered List of Records Using New Time-Related Conditions \(Beta\)](#)

You now have more ways to filter a list of records using time-related conditions in a conversational search. To get the most relevant search results, enter a conversational search using the words modified, created, viewed, or closed followed by a relative time period. For example, enter "cases closed this year," to see a list of cases from the current year with closed status.

#### [See a Preview of Related List Records \(Beta\)](#)

Get a sneak peek at related records before you jump from the instant results to the related object. Now when you hover over any quick link in a related list, you see a preview of available records.

#### [Show What Matters Most with Profile-Specific Search Results Layouts](#)

Let users in your Salesforce org see search results that are most relevant to the role they have at their job. For each unique profile in your org, you can create profile-specific layouts to fine-tune search results layouts for individual objects. Only objects with customizable layouts support profile-specific layouts. Users who don't have a profile-specific layout assigned to them see the default search results layout.

#### [See the Related Account When You Search for Contacts or Opportunities](#)

Looking for a contact or opportunity but not sure which account it belongs to? Now when your sales team searches, they see the related account in instant results and recent items. And best of all, the related account is searchable, so it's easier to find the right record fast.

[Get Search Results for More Objects](#)

More objects in Financial Services Cloud, Sales Cloud, Service Cloud, Commerce Cloud, and Consumer Goods Cloud are now searchable.

## SEE ALSO:

[Salesforce Help: Personalize Your Search Results \(Beta\) \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Find the Right Record Faster with Recommended Result \(Beta\)\(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Instantly Access Previews, Actions, Links, and Suggested Searches with Enhanced Instant Results \(Beta\) \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Create Filtered Reports with Conversational Search \(Beta\) \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Set Up and Manage Einstein Search Features \(Beta\)\(can be outdated or unavailable during release preview\)](#)

## Enable Einstein Search Personalization for an Org of Any Size and Try It in a Sandbox Org (Beta)

Personalized search results are available for an organization of any size. All the users in your org can take advantage of this Einstein Search feature. You can also take personalization for a test drive because now it's available in sandbox orgs.

**Where:** This change applies to Lightning Experience and all version of the Salesforce mobile app in Enterprise, Performance, and Unlimited editions.

**Who:** To turn on search personalization, your org must meet these requirements:

- Unlimited, Enterprise, or Performance Edition
- User permission needed: Customize Application
- Lightning Experience enabled
- Salesforce Shield Platform Encryption not enabled

 **Note:** Instant results are personalized based on activity only.

**How:** To enable personalization:

1. From Setup, enter *Search Settings* in the Quick Find box then select **Search Settings**.
2. Select **All users get personalized search results. (Beta)**.

## SEE ALSO:

[Salesforce Help: Personalize Your Search Results \(Beta\) \(can be outdated or unavailable during release preview\)](#)

## Get Personalized Search Results for Cases and Leads (Beta)

You can now see search results for your cases and leads as well as accounts, contacts, and opportunities.

**Where:** This change applies to Lightning Experience and all version of the Salesforce mobile app in Enterprise, Performance, and Unlimited editions.

**Who:** To turn on search personalization, your Salesforce org must meet these requirements:

- Unlimited, Enterprise, or Performance Edition
- User permission needed: Customize Application
- Lightning Experience enabled
- Salesforce Shield Platform Encryption not enabled

 **Note:** Instant results are personalized based on activity only.

**How:** To enable personalization:

1. From Setup, enter *Search Settings* in the Quick Find box then select **Search Settings**.
2. Select **All users get personalized search results. (Beta)**.

SEE ALSO:

[Salesforce Help: Personalize Your Search Results \(Beta\)](#)(can be outdated or unavailable during release preview)

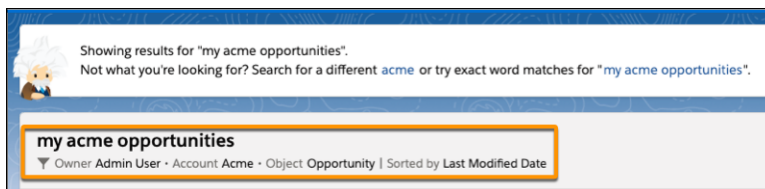
## Gain Insight on Einstein Search by Viewing Search Result Filters (Beta)

You can now see how Einstein Search interprets your conversational searches. The filters applied to your search are displayed in the search results.

**Where:** This change applies in Lightning Experience in Enterprise, Performance, and Unlimited editions.

**Who:** Conversational search requires the Einstein Search and Einstein Search Results Based on Conversational Search permission set licenses.

**Why:** The filters that determine your conversational search results are in the header of the dialog so you can understand why Einstein Search came up with those results.



SEE ALSO:

[Create Filtered Reports with Conversational Search \(Beta\)](#)

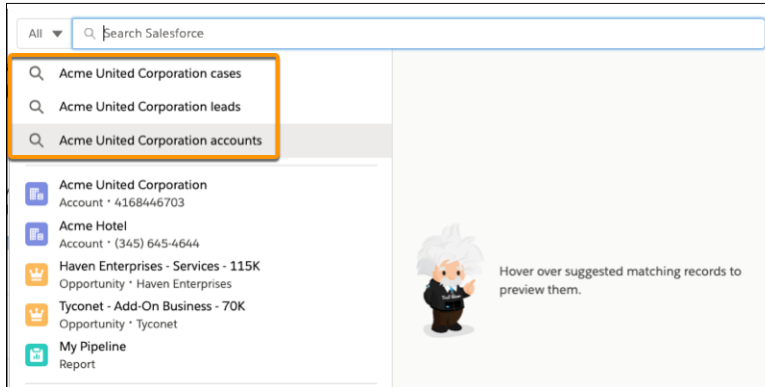
## Get Search Suggestions Tailored to Your Work to Find Records Faster (Beta)

Einstein Search helps you work smarter with personalized search suggestions based on your recent activity. When you click in the Search box, your instant results also include alternate searches related to items you interact with most.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions.

**Who:** Personalized search suggestions require the Einstein Search and Einstein Search Results Based on Conversational Search permission set licenses.

**Why:** You work with a specific record. The next time you log in and click in the global search box, you see personalized searches based on the record you most recently used. For example, you recently modified the account Acme United Corporation. The next time you go back and click in the global search box, you'll see search suggestions for Acme United Corporation cases, leads, and accounts.




SEE ALSO:

[Salesforce Help: Configure Search Results in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

## Create a Filtered List of Records Using New Time-Related Conditions (Beta)

You now have more ways to filter a list of records using time-related conditions in a conversational search. To get the most relevant search results, enter a conversational search using the words *modified*, *created*, *viewed*, or *closed* followed by a relative time period. For example, enter “cases closed this year,” to see a list of cases from the current year with closed status.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions.

 **Note:** As a beta feature, Einstein Search is a preview and isn't part of the “Services” under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Einstein Search in the [Trailblazer Community](#).

**Who:** Conversational search results require the Einstein Search permission set license.

The screenshot shows the search results for the query “cases closed this year”. The results are displayed in a table with the following columns: Case Number, Priority, Subject, Status, and Reminder Date. The search results are sorted by Last Modified Date. The table contains 10 rows of data, each representing a closed case.

Case Number	Priority	Subject	Status	Reminder Date
00001320	Medium	<a href="#">Old Case Ting</a>	Closed	6/27/2019
00001307	Low	<a href="#">Needs more provisioning</a>	Closed	6/27/2019
00001306	Medium	<a href="#">Broken chair</a>	Closed	6/27/2019
00001305	High	<a href="#">Enable BR</a>	Closed	6/27/2019
00001228	High		Closed	4/16/2019
00001298	Medium		Closed	4/16/2019
00001294	High		Closed	4/16/2019
00001290	Low		Closed	4/16/2019
00001288	High		Closed	4/16/2019

SEE ALSO:

[Salesforce Help: Create Filtered Reports with Conversational Search \(Beta\) \(can be outdated or unavailable during release preview\)](#)

## See a Preview of Related List Records (Beta)

Get a sneak peek at related records before you jump from the instant results to the related object. Now when you hover over any quick link in a related list, you see a preview of available records.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions.

**Who:** Einstein Search Related list previews require the Einstein Search permission set license.

**Why:** Prevent unnecessary clicks by previewing items in a related list before you leave the preview window.

The screenshot shows a Salesforce Lightning Experience interface. At the top, there's a search bar with 'acm' entered. Below it, search results for 'Acme Technologies' are displayed, including 'Acme Technologies contacts' and 'Acme Technologies accounts'. A card for 'Acme Technologies' is highlighted, showing account details like phone number, billing city, and industry. To the right, a 'Related List Quick Links' section shows links for 'Contacts (4)', 'Opportunities (10+)', and 'Cases (1)'. Below this, a table titled 'Opportunities' is shown, listing 10+ items sorted by Opportunity Name. The table has columns for Opportunity Name, Stage, Amount, and Close Date.

	Opportunity Name ↑	Stage	Amount	Close Date
1	<a href="#">Acme</a>	Needs Analysis	\$450,000.00	4/18/2017
2	<a href="#">Acme - 1,200 Widgets</a>	Value Proposition	\$140,000.00	11/25/2017
3	<a href="#">Acme - 200 Widgets</a>	Prospecting	\$20,000.00	3/12/2017
4	<a href="#">Acme - 610 Widgets</a>	Needs Analysis	\$70,000.00	1/7/2017
5	<a href="#">Acme Widgets 100</a>	Prospecting	\$100,000.00	5/2/2019
6	<a href="#">Acme Widgets 200</a>	Qualification	\$125,000.00	5/22/2019
7	<a href="#">Acme Widgets 300</a>	Needs Analysis	\$50,000.00	6/12/2019

SEE ALSO:

[Salesforce Help: Instantly Access Previews, Actions, Links, and Suggested Searches with Enhanced Instant Results \(Beta\) \(can be outdated or unavailable during release preview\)](#)

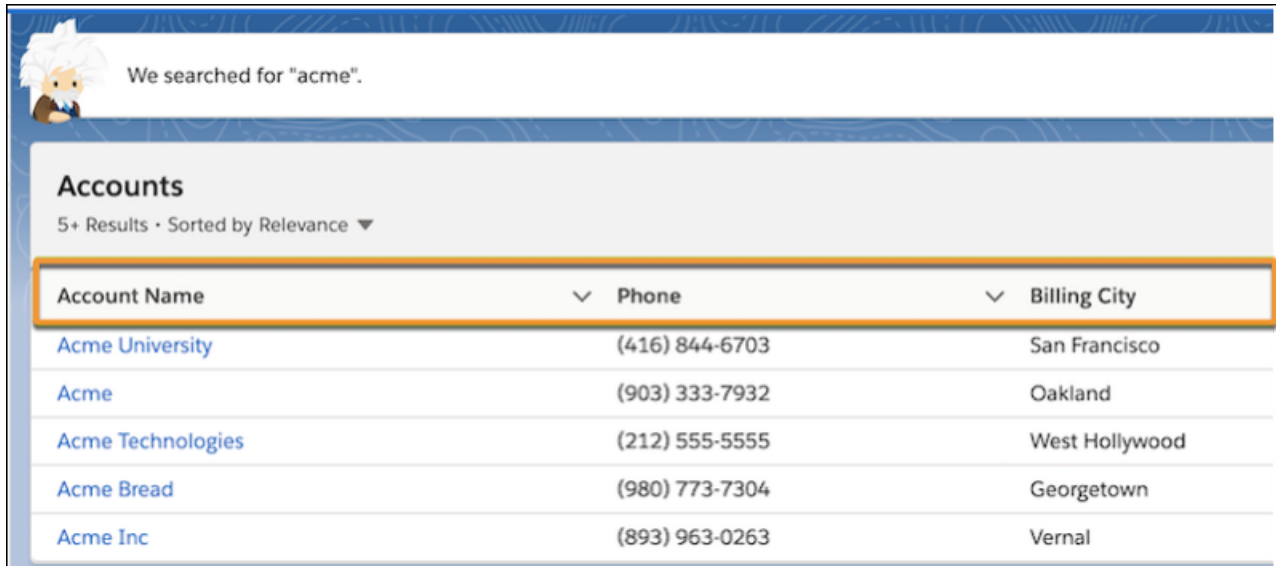
## Show What Matters Most with Profile-Specific Search Results Layouts

Let users in your Salesforce org see search results that are most relevant to the role they have at their job. For each unique profile in your org, you can create profile-specific layouts to fine-tune search results layouts for individual objects. Only objects with customizable layouts support profile-specific layouts. Users who don't have a profile-specific layout assigned to them see the default search results layout.

**Where:** This change applies to Lightning Experience in all editions except Database.com.



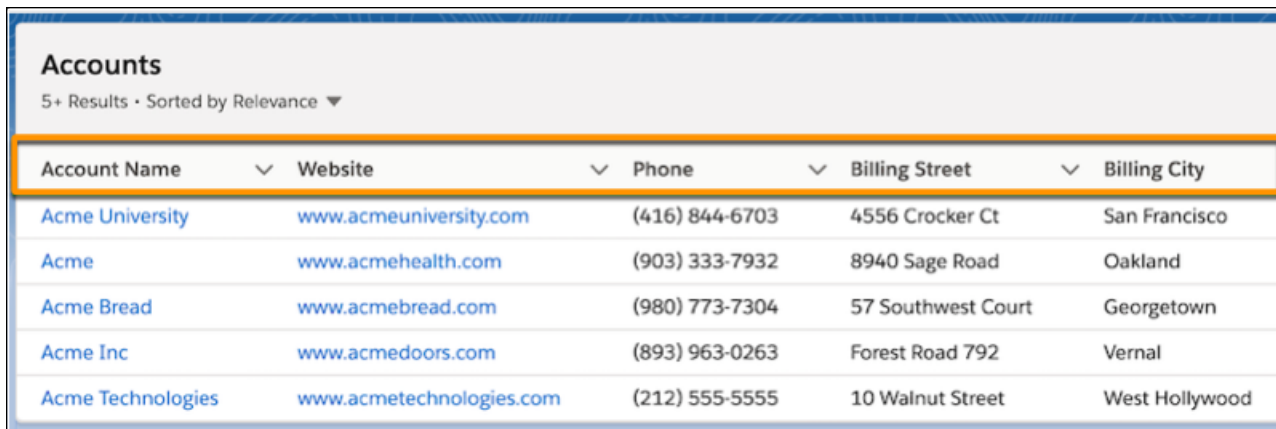
**Why:** Different users in the same org can see different layouts for the same search. For example, for the same org, the admin user and standard user see different views:



We searched for "acme".

**Accounts**  
5+ Results • Sorted by Relevance ▼

Account Name	Phone	Billing City
<a href="#">Acme University</a>	(416) 844-6703	San Francisco
<a href="#">Acme</a>	(903) 333-7932	Oakland
<a href="#">Acme Technologies</a>	(212) 555-5555	West Hollywood
<a href="#">Acme Bread</a>	(980) 773-7304	Georgetown
<a href="#">Acme Inc</a>	(893) 963-0263	Vernal



**Accounts**  
5+ Results • Sorted by Relevance ▼

Account Name	Website	Phone	Billing Street	Billing City
<a href="#">Acme University</a>	<a href="#">www.acmeuniversity.com</a>	(416) 844-6703	4556 Crocker Ct	San Francisco
<a href="#">Acme</a>	<a href="#">www.acmehealth.com</a>	(903) 333-7932	8940 Sage Road	Oakland
<a href="#">Acme Bread</a>	<a href="#">www.acmebread.com</a>	(980) 773-7304	57 Southwest Court	Georgetown
<a href="#">Acme Inc</a>	<a href="#">www.acmedoors.com</a>	(893) 963-0263	Forest Road 792	Vernal
<a href="#">Acme Technologies</a>	<a href="#">www.acmetechnologies.com</a>	(212) 555-5555	10 Walnut Street	West Hollywood

**How:** To apply search results layouts for an object based on a user profile:

1. Begin at Setup and go to Object Manager.
2. Select an object, then select **Search Layouts**.
3. For the profile you want to customize, select Edit from the pull-down next to the profile.
4. Choose which fields appear in search results for global search and lookup search, and which fields can be filtered, if available. Customizations to the Lookup Dialogs, Lookup Phone Dialogs, and Search Filter Fields layouts aren't supported in Lightning Experience.

SEE ALSO:

[Salesforce Help: Configure Search Results in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

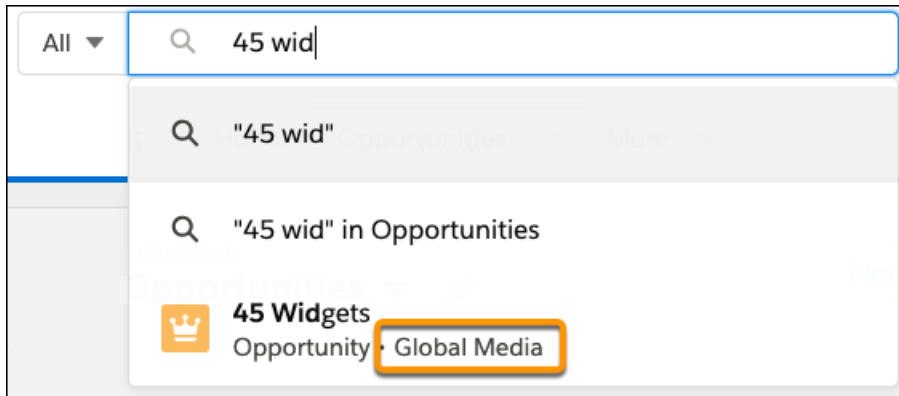
## See the Related Account When You Search for Contacts or Opportunities

Looking for a contact or opportunity but not sure which account it belongs to? Now when your sales team searches, they see the related account in instant results and recent items. And best of all, the related account is searchable, so it's easier to find the right record fast.

**Where:** This change applies to Lightning Experience, and all editions except Database.com.

**Why:** Typically, an object's search results layout determines which fields appear as the secondary field. For contacts and opportunities, the related account is always the secondary field because it's a key piece of information.

When you start typing, any matching results show the related account.



SEE ALSO:

[Salesforce Help: Configure Search Results in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Configure Lookup Search Results in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

## Get Search Results for More Objects

More objects in Financial Services Cloud, Sales Cloud, Service Cloud, Commerce Cloud, and Consumer Goods Cloud are now searchable.

**Where:** These changes apply to Lightning Experience and Salesforce Classic.

Object	Where
Authorized Insurance Line	Financial Services Cloud, Enterprise, Professional, and Unlimited editions in Lightning Experience
Comm Subscription	All editions in Lightning Experience and Salesforce Classic
Comm Subscription Channel Type	All editions in Lightning Experience and Salesforce Classic
Comm Subscription Consent	All editions in Lightning Experience and Salesforce Classic
Comm Subscription Timing	All editions in Lightning Experience and Salesforce Classic
Credit Memo Inv Application	All editions in Lightning Experience and Salesforce Classic
Distributor Authorization	Financial Services Cloud in Enterprise, Professional, Unlimited editions in Lightning Experience

Object	Where
Engagement Channel Type	All editions in Lightning Experience and Salesforce Classic
Feed Comment	Contact Manager, Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions in Lightning Experience and Salesforce Classic
Feed Post	Contact Manager, Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions in Lightning Experience and Salesforce Classic
Invoice	Commerce Cloud, Enterprise edition in Lightning Experience
Legal Entity	Enterprise, Professional, Unlimited editions in Lightning Experience
List View	Group, Professional, Enterprise, Performance, Unlimited, and Developer editions in Lightning Experience
Marketing Link	All Pardot editions in Lightning Experience
Party Consent	All editions in Lightning Experience and Salesforce Classic
Payment Gateway Provider	Commerce Cloud, Enterprise edition in Lightning Experience
Retail Store KPI	Consumer Goods Cloud, Enterprise, Professional, and Unlimited editions in Lightning Experience
Visit	Enterprise, Professional, and Unlimited editions in Lightning Experience

## SEE ALSO:

[Salesforce Help: Searchable Fields by Object in Lightning Experience](#)(can be outdated or unavailable during release preview)

[Salesforce Help: Searchable Fields by Object in Salesforce Classic](#)(can be outdated or unavailable during release preview)

## Salesforce Surveys: Customizable Participant Journey

Personalize survey questions for your participants. Your participants can now view pages and questions based on their previous responses. You can add images to your survey pages. And you can dynamically customize your questions by inserting responses from previous questions.

## IN THIS SECTION:

### [Insert Responses from a Previous Question](#)

Provide better context to your participants. Personalize survey questions by inserting participants' responses from previous pages.

### [Jazz Up Your Surveys with Images](#)

Appeal to the visual thinkers by inserting images in questions, and on the Welcome and Thank You pages.

### [Improve Your Net Promoter Score® with a Color-Coded Scale](#)

The scale of the Net Promoter Score® (NPS®) question type is now color-coded. Participants can use the colors as a reference to understand the NPS scale.

### Display Questions Based on Participant Responses

Choose which questions your participants view on a page. Based on how participants respond to the previous questions on a page, decide which questions they view next.

### Let Participant Responses Determine Their Path

Create a journey with multiple paths and show survey participants the most appropriate path based on their responses to questions on the previous pages. Use page branching logic to determine which page a participant views next, based on responses on the previous pages.

### Move to the Next Page with One Less Click

Turn on Auto-Progress to save your survey participants a click. After responding to the last question on a page, participants move directly to the next page.

### Enjoy an Enhanced User Experience

With more options and fewer clicks, we improved the survey experience for you and your participants.

### Question Type Names Changed

We renamed *Radio* questions to *Single Selection* and *Multi Choice* to *Multiple Selection*.

### Turn Customer Survey Data into Actionable Intelligence with Customer Lifecycle Analytics

The Customer Lifecycle Analytics app lets you surface survey response metrics anywhere in Salesforce. Get immediate insight into your customer right from where you work. Embed the app's dashboards in Salesforce pages to build feedback loops across customer touchpoints, gather contextual feedback, and learn how customer processes are working.

### Permission Change for Survey Email Branding

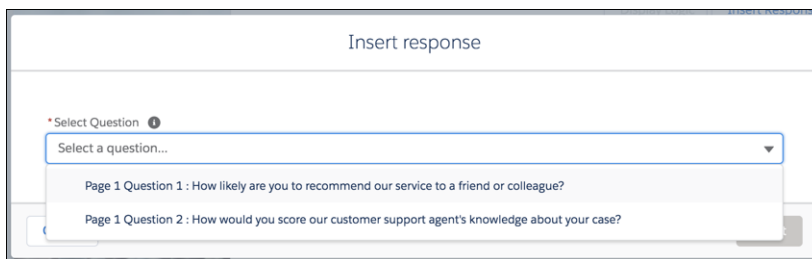
Access to configuration settings for invitation emails sent to survey participants is available for users with the View Setup and Configuration permission.

## Insert Responses from a Previous Question

Provide better context to your participants. Personalize survey questions by inserting participants' responses from previous pages.

**Where:** This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

**How:** Click **Insert Response** on the question where you want to insert a response. In the Insert response modal, select the question whose response you want to add.



SEE ALSO:

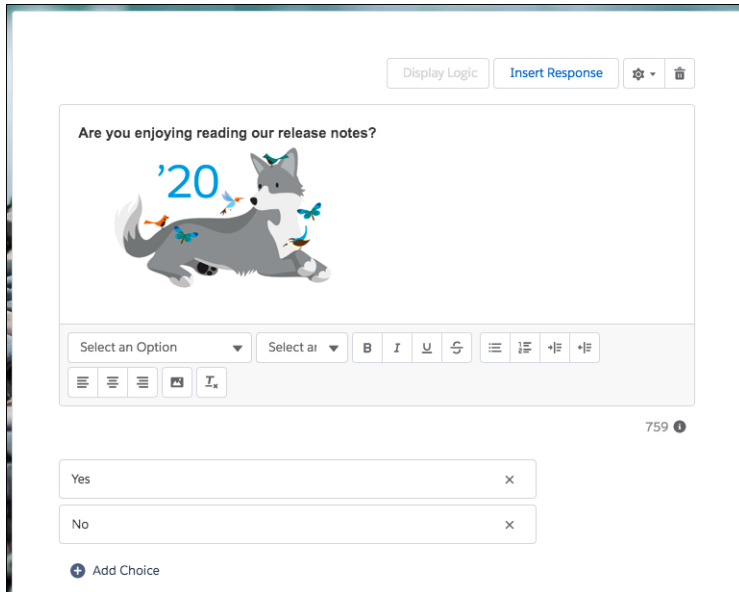
[Salesforce Help: Insert Responses from Questions on Previous Pages \(can be outdated or unavailable during release preview\)](#)

## Jazz Up Your Surveys with Images

Appeal to the visual thinkers by inserting images in questions, and on the Welcome and Thank You pages.

**Where:** This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

**How:** Click  on the rich text editor of a question, of the Welcome page, or the Thank you page.



SEE ALSO:

[Salesforce Help: Insert Images in Survey Pages \(can be outdated or unavailable during release preview\)](#)

## Improve Your Net Promoter Score® with a Color-Coded Scale

The scale of the Net Promoter Score® (NPS®) question type is now color-coded. Participants can use the colors as a reference to understand the NPS scale.

**Where:** This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.



## Display Questions Based on Participant Responses

Choose which questions your participants view on a page. Based on how participants respond to the previous questions on a page, decide which questions they view next.

**Where:** This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

**How:** On the question that you want to display based on the response to a previous question, click **Display Logic**. In the Question display logic modal, define the conditions based on which the question is displayed.


SEE ALSO:

[Salesforce Help: Display Questions Based on Responses to Questions on the Same Page](#) (can be outdated or unavailable during release preview)

## Let Participant Responses Determine Their Path

Create a journey with multiple paths and show survey participants the most appropriate path based on their responses to questions on the previous pages. Use page branching logic to determine which page a participant views next, based on responses on the previous pages.

**Where:** This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

**How:** Click  on the page you want to create branching logic for. In the Page branching logic modal, either set conditions or let participants unconditionally move to a specific page. Using page branching logic, you can let participants submit the survey and move directly to the Thank You page.

SEE ALSO:

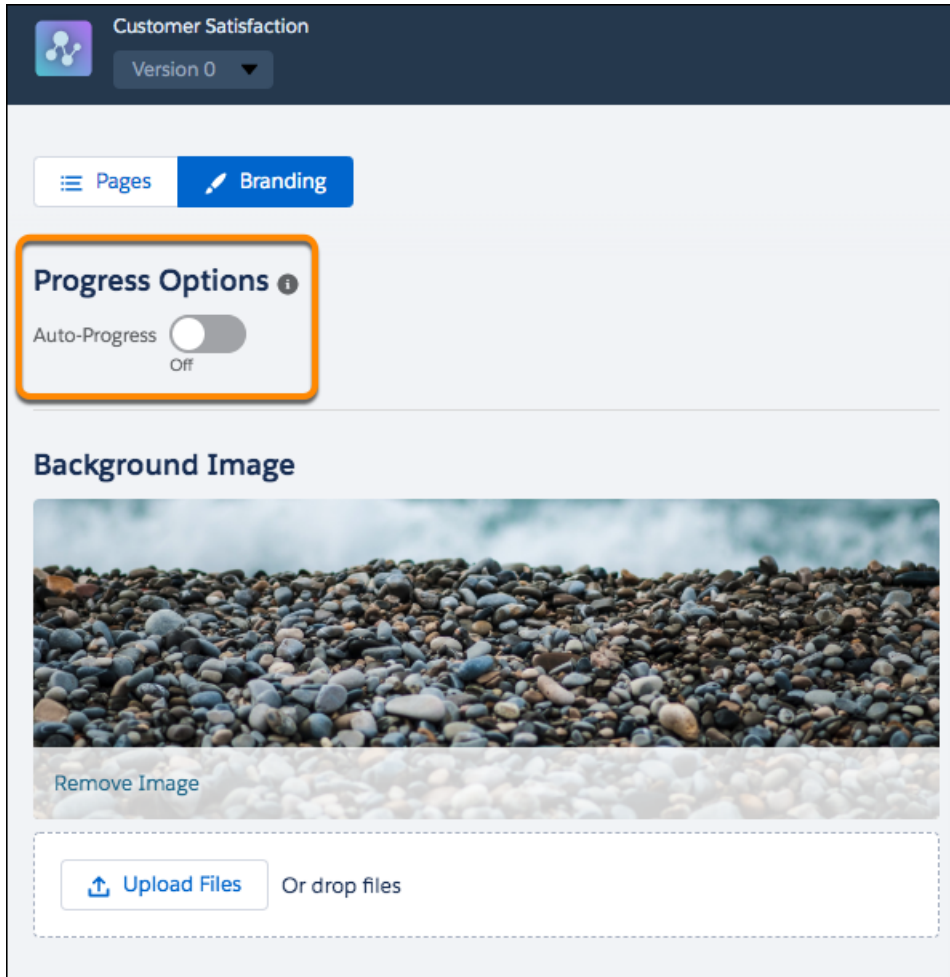
[Salesforce Help: Decide Which Page Participants View Next](#) (can be outdated or unavailable during release preview)

## Move to the Next Page with One Less Click

Turn on Auto-Progress to save your survey participants a click. After responding to the last question on a page, participants move directly to the next page.

**Where:** This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

**How:** On the Branding tab, turn on Auto-Progress.



SEE ALSO:

[Salesforce Help: Enable Auto-Progress to the Next Survey Page \(can be outdated or unavailable during release preview\)](#)

## Enjoy an Enhanced User Experience

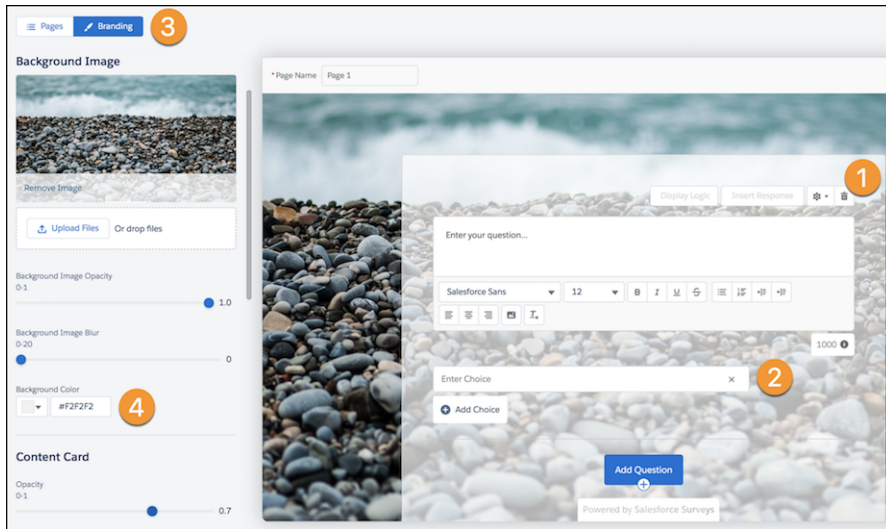
With more options and fewer clicks, we improved the survey experience for you and your participants.

**Where:** This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

**How:** New features include:

- You can now change the opacity of the content card (1).

- The width of the answer choice buttons for multiple selection, single selection, and picklist question types decreased on desktop. Also, you can now change the opacity of your answer choice buttons (2).
- The visibility of the Pages and Branding tabs improved (3).
- The default background color for surveys changed to white (4).
- The color of the ranking item buttons changes according to the color of the answer choice buttons.



SEE ALSO:

[Salesforce Help: Customize Your Survey's Look and Feel](#) (can be outdated or unavailable during release preview)

## Question Type Names Changed

We renamed *Radio* questions to *Single Selection* and *Multi Choice* to *Multiple Selection*.

**Where:** This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

## Turn Customer Survey Data into Actionable Intelligence with Customer Lifecycle Analytics

The Customer Lifecycle Analytics app lets you surface survey response metrics anywhere in Salesforce. Get immediate insight into your customer right from where you work. Embed the app's dashboards in Salesforce pages to build feedback loops across customer touchpoints, gather contextual feedback, and learn how customer processes are working.

**Where:** This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

**When:** This feature is available by late February 2020.

**Who:** To create an app from the Customer Lifecycle Analytics template, you must have the Customer Lifecycle Analytics Plus add-on license.

**How:** Go to Analytics Studio, click **Create**, choose **App**, and click **Start from Template**. Select **Customer Lifecycle Analytics**, and follow the instructions in the wizard to create your app.



## Permission Change for Survey Email Branding

Access to configuration settings for invitation emails sent to survey participants is available for users with the View Setup and Configuration permission.

**Where:** This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

## Lightning Scheduler: Guest User Scheduling, Chronos for Lightning Scheduler, and Simplified Setup

Extend appointment scheduling to guest users, and install an Einstein Bot to use Lightning Scheduler with Chat or SMS.

### IN THIS SECTION:

#### [Let Guest Users Schedule Inbound Appointments](#)

Unauthenticated guest users can use Lightning Scheduler's self-service interface to schedule appointments. Lightning Scheduler now includes guest user security enhancements to Lightning Scheduler objects and the Inbound New Guest Appointment standard flow template. The enhancements for guest users also include a new `Enable Guest User` attribute on the Review Service Appointment flow screen component.

#### [Simplify Setup with Lightning Scheduler Setup Assistant](#)

Lightning Scheduler Setup Assistant provides a one-stop interface with built-in examples for admins to configure Lightning Scheduler. This feature steps admins new to Lightning Scheduler through setup and includes a progress indicator.

#### [Pair Lightning Scheduler with Einstein Bots](#)

Chronos, the new Einstein Bot for Lightning Scheduler, allows customers to schedule, view, reschedule, and cancel their Lightning Scheduler appointments using Chat or SMS. Chronos is an unmanaged package available on AppExchange that's configurable to fit any business process and includes pre-trained natural language for scheduling intents.

#### [Enforce Skill Matching](#)

Lightning Scheduler now enforces skill and skill-level matching for service resource appointments.

#### [Access a Service Appointment from an Assigned Resource](#)

Now your users can traverse between a service appointment and a Salesforce event. This change reduces the number of clicks necessary to view or delete a service appointment related to an event on the Salesforce calendar.

#### [Streamline Your Flows with the Review Inbound or Outbound Service Appointment Component](#)

Users can now review inbound or outbound service appointments with a new flow screen component. If an "Access to entity 'Lead' denied" error appears when scheduling an appointment, you can replace the old Review Service Appointment component with the new component.

#### [Do More with Lightning Scheduler API Calls](#)

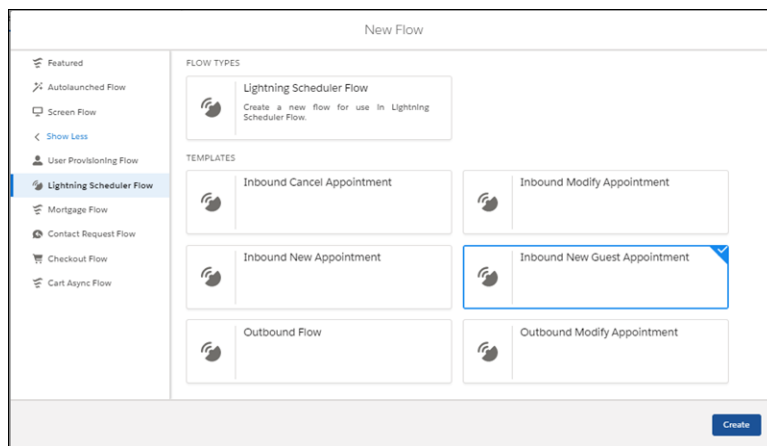
Lightning Scheduler has two new APIs and both a new field and added functionality for the get appointment slots API. Create service appointments or get service territories with Lightning Scheduler's new API calls. Use the new `primaryResourceId` field to specify a primary resource when getting appointment slots for multi-resource scheduling.

## Let Guest Users Schedule Inbound Appointments

Unauthenticated guest users can use Lightning Scheduler's self-service interface to schedule appointments. Lightning Scheduler now includes guest user security enhancements to Lightning Scheduler objects and the Inbound New Guest Appointment standard flow template. The enhancements for guest users also include a new `Enable Guest User` attribute on the Review Service Appointment flow screen component.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions with Lightning Scheduler enabled.

**How:** To get started, you can clone and modify the new Inbound New Guest Appointment standard flow template, or create your own flows in Flow Builder.



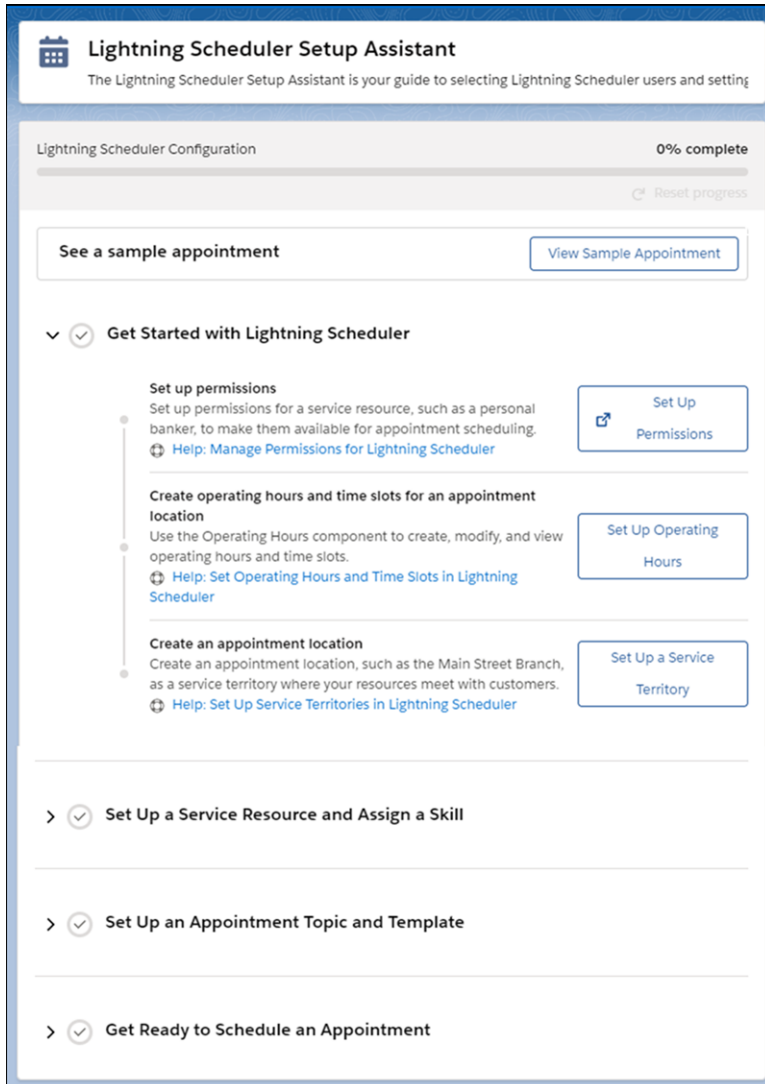
## Simplify Setup with Lightning Scheduler Setup Assistant

Lightning Scheduler Setup Assistant provides a one-stop interface with built-in examples for admins to configure Lightning Scheduler. This feature steps admins new to Lightning Scheduler through setup and includes a progress indicator.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions with Lightning Scheduler enabled.

**How:** For new organizations with Lightning Scheduler: from the App Launcher, find and open the **Lightning Scheduler Setup** app.

For existing organizations with Lightning Scheduler: In App Manager, edit the Lightning Scheduler Setup app. In Navigation Items, move Lightning Scheduler Setup Assistant into Selected Items. Next, from the App Launcher, find and open the **Lightning Scheduler Setup** app, and then click the **Lightning Scheduler Setup Assistant** tab.



SEE ALSO:

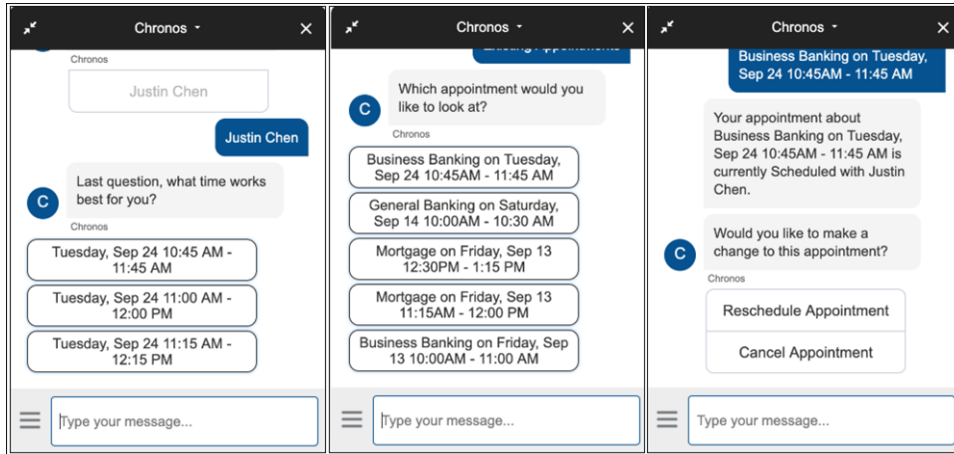
[Salesforce Help: Use Lightning Scheduler Setup Assistant Guidance \(Optional\)](#) (can be outdated or unavailable during release preview)

## Pair Lightning Scheduler with Einstein Bots

Chronos, the new Einstein Bot for Lightning Scheduler, allows customers to schedule, view, reschedule, and cancel their Lightning Scheduler appointments using Chat or SMS. Chronos is an unmanaged package available on AppExchange that's configurable to fit any business process and includes pre-trained natural language for scheduling intents.

**Where:** This change applies to Lightning Experience in Enterprise and Unlimited editions with Einstein Bots and Lightning Scheduler enabled.

**How:** To get started, embed Chronos on your website or mobile app with Salesforce Embedded Service for Chat or enable an SMS number.



SEE ALSO:

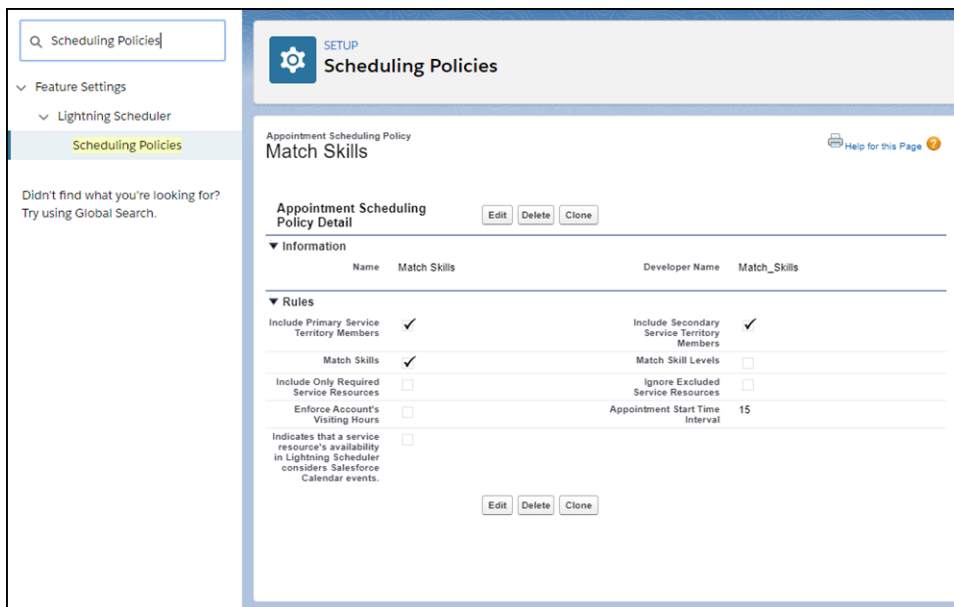
[AppExchange: Chronos Bot: Lightning Scheduler Appointment Management](#)

## Enforce Skill Matching

Lightning Scheduler now enforces skill and skill-level matching for service resource appointments.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions with Lightning Scheduler enabled.

**How:** To get started, edit Match Skills in Lightning Scheduler Scheduling Policies, and select the rules you want to enforce.



SEE ALSO:

[Salesforce Help: Enforce Skill Matching in Lightning Scheduler \(can be outdated or unavailable during release preview\)](#)

## Access a Service Appointment from an Assigned Resource

Now your users can traverse between a service appointment and a Salesforce event. This change reduces the number of clicks necessary to view or delete a service appointment related to an event on the Salesforce calendar.

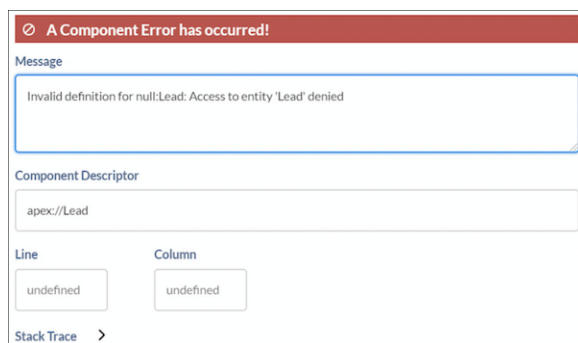
**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions with Lightning Scheduler enabled.

## Streamline Your Flows with the Review Inbound or Outbound Service Appointment Component

Users can now review inbound or outbound service appointments with a new flow screen component. If an "Access to entity 'Lead' denied" error appears when scheduling an appointment, you can replace the old Review Service Appointment component with the new component.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions with Lightning Scheduler enabled.

**Why:** The Review Service Appointment flow screen component causes an error when authenticated community users try to schedule an appointment. Most commonly, users with the Customer Community Plus license get this error.



**How:** Edit your Lightning Scheduler flow that experiences this problem, and replace the Review Service Appointment component with the Review Inbound or Outbound Service Appointment component.

## Do More with Lightning Scheduler API Calls

Lightning Scheduler has two new APIs and both a new field and added functionality for the get appointment slots API. Create service appointments or get service territories with Lightning Scheduler's new API calls. Use the new `primaryResourceId` field to specify a primary resource when getting appointment slots for multi-resource scheduling.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions with Lightning Scheduler enabled.

SEE ALSO:

[REST API](#)

## Navigate to a Record's Create Page with Default Field Values

Create custom buttons and links that pass default field values to a new record.

**Where:** This change applies to Lightning Experience in all editions. This change doesn't apply to Lightning Out, Lightning communities, or the Salesforce mobile app.

**How:** To construct a custom button or link that launches a new record with prepopulated field values, use this sample formula:

```
/lightning/o/Account/new?defaultFieldValues=
  Name={!URLENCODE(Account.Name)},
  OwnerId={!Account.OwnerId},
  AccountNumber={!Account.AccountNumber},
  NumberOfEmployees=35000,
  CustomCheckbox__c={!IF(Account.SomeCheckbox__c, true, false)}
```



**Important:** The URLENCODE function works only when creating custom buttons and links. You can't use it for custom fields.

SEE ALSO:

[Salesforce Help: Launching Record Create Page with Default Field Values \(can be outdated or unavailable during release preview\)](#)

[Navigate Users to a Record's Create Page with Default Field Values](#)

## Power Up Your Related Lists with Enhanced Related Lists (Generally Available)

Take your related lists to the next level. With Enhanced Related Lists, now generally available, you can show up to 10 columns, resize and sort your columns, perform mass actions, and wrap text.

**Where:** This change applies to Lightning Experience in Essential, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** From the related lists component in the Lightning App Builder, select **Enhanced List** from the Related List Type dropdown (1). You can customize how many records to display at once, and choose whether to show the list view action bar.

Choosing Enhanced List affects all related lists in the component (2). To customize which columns appear in a particular related list, edit the related list in the page layout editor and add more fields.

The screenshot displays the Salesforce Lightning Experience interface for a contact record. The contact is Edna Frank, with email ednafrank@genepoint.com and phone (650) 867-3450. Below the contact information, there are three related lists: Contacts (1 item), Opportunities (3 items), and Cases (2 items). The Opportunities list is expanded, showing three items: GenePoint Standby Generator (Closed Won, \$85,000.00, 4/11/2016), GenePoint Lab Generators (In Decision Makers, \$60,000.00, 4/11/2016), and GenePoint SLA (Closed Won, \$30,000.00, 4/11/2016). The Cases list shows two items: Generator asse... (Low priority, 5/1/2018 7:44... 3/14/2017 11:..., Closed) and Maintenance g... (Low priority, 5/1/2018 7:44...). A callout box on the right side of the screen shows the 'Related List Type' dropdown menu, which is set to 'Enhanced List'. The callout box also includes a 'Number of Records to Display' field set to 10, a 'Show list view action bar' checkbox, and a 'See How It Works' button.

SEE ALSO:

[Salesforce Help: Customize Related Lists \(can be outdated or unavailable during release preview\)](#)

[IdeaExchange: More Than 4 Fields on Related List in Lightning Experience](#)

## Require Secure HTTPS Connections (Critical Update)

As part of updates related to Google Chrome's SameSite cookie changes, HTTPS connections are required to access Salesforce. HTTP connections are no longer permitted. This update enables the Require secure connections (HTTPS) setting on the Session Settings Setup page and prevents it from being disabled. The Require secure connections (HTTPS) for all third-party domains setting isn't affected by this update.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

**When:** This critical update is activated automatically on January 30, 2020 in sandboxes and May 1, 2020 in production orgs.

**How:** We recommend that you test this update in a sandbox or Developer Edition org before enabling it in your Salesforce production org. Ensure that your environment is setup to support HTTPS connections and update all bookmarks and links with the HTTP prefix before the auto-activation date.

To activate this critical update before the auto-activation date, from Setup, in the Quick Find box, enter *Critical Updates*, then select **Critical Updates**. For Require Secure HTTPS Connections, click **Activate**.

 **Note:** If you don't see this critical update, the Require secure connections (HTTPS) setting is already enabled in your org and no action is required.

SEE ALSO:

[Prepare for Google Chrome's Changes in SameSite Cookie Behavior That Can Break Salesforce Integrations](#)

[Critical Updates and Security Alerts](#)

## Open Hyperlinks in Formula Fields Correctly (Previously Released Critical Update)

If you have formula fields that contain a `HYPERLINK` function, Lightning Experience ignores the target value when attempting to open the link. This critical update ensures that the target value for hyperlinks is honored, whether it's explicitly configured or set by default. This critical update was first made available in Winter '19.

**Where:** This change applies to Lightning Experience and the Salesforce app in all editions.

**When:** This update is enforced when a sandbox or production org is upgraded to Summer '20. Enforcement starts on June 15, 2020 and takes effect when your instance is upgraded to Summer '20. To find the exact activation date for your instance, refer to <https://status.salesforce.com>.

**How:** From Setup, enter *Critical Updates* in the Quick Find box. Then select **Critical Updates**. For Lightning Experience Honors Target Values for Hyperlinks in Formula Fields, click **Acknowledge**.

SEE ALSO:

[Salesforce Help: Formula Operators and Functions A-H](#)(can be outdated or unavailable during release preview)

## Keep Working with Tab-Focused Dialogs (Previously Released Critical Update)

In Lightning console apps, dialogs no longer stop you from interacting with the rest of the UI. This critical update limits the focus of dialogs triggered by a workspace tab or subtab to only the tab that triggered it. This critical update was first made available in Winter '20.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions. Lightning console apps are available for an extra cost to users with Salesforce Platform user licenses for certain products. Some restrictions apply. For pricing details, contact your Salesforce account executive.

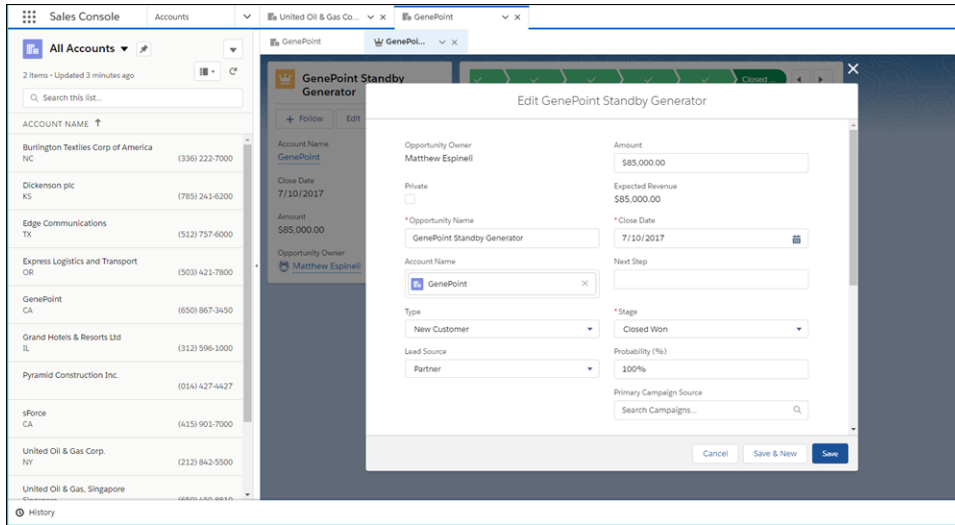
**When:** You can activate this update now. Otherwise, we auto-activate it on October 19, 2020.

**Why:** Before the Winter '20 release, all dialogs triggered by a workspace tab or subtab in a Lightning console app took the focus of the entire app. This update makes dialogs require the focus of only the tab that triggered them, allowing users to interact with the rest of the app.

**How:** To activate this critical update before October 19, 2020, from Setup, enter *Critical Updates* in the Quick Find box, then select **Critical Updates**. For Keep Working with Tab-Focused Dialogs, click **Activate**.

After the update, when you trigger a dialog, it's limited to the tab that created it.





SEE ALSO:

[Critical Updates and Security Alerts](#)

## Salesforce CMS: B2C Commerce Page Designer Integration, Multiple Varied Channels, CMS Home, and Flexible Layouts

Reuse your Salesforce CMS content across varied channels, both inside and outside Salesforce, including B2C Commerce Page Designer, Marketing Cloud, and Heroku. CMS Home makes it easy to jump into CMS Workspaces and Experience Builder from the Salesforce CMS app. And with flexible layouts, you can achieve the optimal layout for your custom content pages.

IN THIS SECTION:

[Use Your Salesforce CMS Content with B2C Commerce Page Designer](#)

Develop rich, content-driven shopping experiences for your customers using your Salesforce CMS content and B2C Commerce Page Designer. Add a B2C Commerce channel to your CMS Workspace to access your content. Then create a cohesive experience for your customers across clouds.

[Deliver Engaging Content Across Multiple Channels and Sites](#)

Salesforce CMS is now a hybrid CMS, which means you can create content in a central repository and share it to any endpoint, including experiences and sites powered by systems other than Salesforce. Save time by creating content once in Salesforce CMS and reusing it across different channels, such as Commerce Cloud, Marketing Cloud, Heroku, Lightning apps, and [Experience Builder](#) sites.

[Access All Things CMS from CMS Home](#)

The CMS Home welcome mat greets you at the door with helpful pointers and links to help topics to make your stay more comfortable. A navigation tab and a new entry into CMS Workspaces and Experience Builder help you get where you want to go.

[Channel Content to Other Internal and External Endpoints](#)

Enhance your customer experience using the same Salesforce CMS content across all the places your customers consume it. Create a Marketing Cloud, Heroku, Lightning app, or any third-party system channel to use your Salesforce CMS content in those endpoints using Delivery APIs.

### [Manage CMS Workspaces and Channels](#)

We updated the user permission so you can control who manages Salesforce CMS Workspaces and CMS Channels. The Create CMS Workspace user permission is now called Manage CMS Workspaces and Channels. When enabled, the Manage CMS Workspaces and Channels permission lets the user create and edit CMS Workspaces and add CMS Channels.

### [Enhance CMS Content with Flexible Layouts](#)

Create CMS Content Pages with the freedom of a flexible layout to build highly customized pages in Experience Builder. Get fancy with adjustable columns and easy-to-add sections. Bring it all to life using background images and color.

### [Delete Content from Your Salesforce CMS Workspaces](#)

Keep your CMS workspaces tidy by removing the content you no longer need, and stay under the maximum limit for content.

### [Enhance Your Custom Content Types with Date, Datetime, and URL Nodes](#)

When you create custom content types for Salesforce CMS, you can include important date, time, and time zone details and add links to other resources.

### [Help Your Users Find the CMS Content They Need](#)

Configure search within a community channel or channels from Commerce Cloud, Marketing Cloud, Heroku, Lightning apps, and other site experiences. Let users easily find the Salesforce CMS content they want and keep them engaged with your business.

### [Add More Videos to Your Salesforce CMS Workspace](#)

We've increased video support for the Salesforce CMS rich text editor to include four new providers. In addition to the existing video providers, you can now enhance your content with videos from Wistia, Brightcove, Cloudinary, and Amplience.

## Use Your Salesforce CMS Content with B2C Commerce Page Designer

Develop rich, content-driven shopping experiences for your customers using your Salesforce CMS content and B2C Commerce Page Designer. Add a B2C Commerce channel to your CMS Workspace to access your content. Then create a cohesive experience for your customers across clouds.

**Where:** This change applies to Lightning Experience in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To access Salesforce CMS and create content, you must be a Salesforce admin or Content admin in that CMS workspace. To create CMS channels and workspaces, enable the Manage CMS Workspaces and Channels user permission.

**How:** Contact Salesforce support or your success manager to establish a trust relationship between Salesforce CMS and your B2C Commerce instance.

Once the relationship is established, from the Salesforce App Launcher, find and open the **Salesforce CMS** app. In CMS Channels, select Create Channel. Name your channel, then select **Commerce Cloud > Create**. Then add the B2C Commerce channel to your CMS Workspace.

To use your CMS content in the B2C Commerce Page Designer, your Business Manager Admin must configure the connected Commerce Cloud instance in the Business Manager.

### Create Channel

**\* Name**

**Connection Type**

**Commerce Cloud**

Use your Salesforce CMS content with Salesforce B2C Commerce Page Designer.

**Other Channel: Marketing Cloud, Heroku, and More**

Use your Salesforce CMS content with other endpoints, including LEX apps, Marketing Cloud, Heroku, and more.

SEE ALSO:

[Add a Channel to a CMS Workspace](#)

[Deliver Engaging Content Across Multiple Channels and Sites](#)

## Deliver Engaging Content Across Multiple Channels and Sites

Salesforce CMS is now a hybrid CMS, which means you can create content in a central repository and share it to any endpoint, including experiences and sites powered by systems other than Salesforce. Save time by creating content once in Salesforce CMS and reusing it across different channels, such as Commerce Cloud, Marketing Cloud, Heroku, Lightning apps, and [Experience Builder](#) sites.

**Where:** This change applies to Lightning Experience in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To access Salesforce CMS and create content, you must be a Salesforce admin or have a contributor role in that CMS workspace. To create CMS channels and workspaces, enable the Manage CMS Workspaces and Channels user permission.

**Why:** Salesforce CMS breaks the tight link between content and presentation often seen in a traditional CMS. Previously, you could use Salesforce CMS content only in communities, but with the new hybrid approach, you can use Salesforce CMS to serve more endpoints, inside or outside Salesforce. By separating content from presentation, you can add content once in Salesforce CMS and then decide which channels to share it with. After that, you add the content to the various websites, portals, or mobile apps where you want the content to appear.

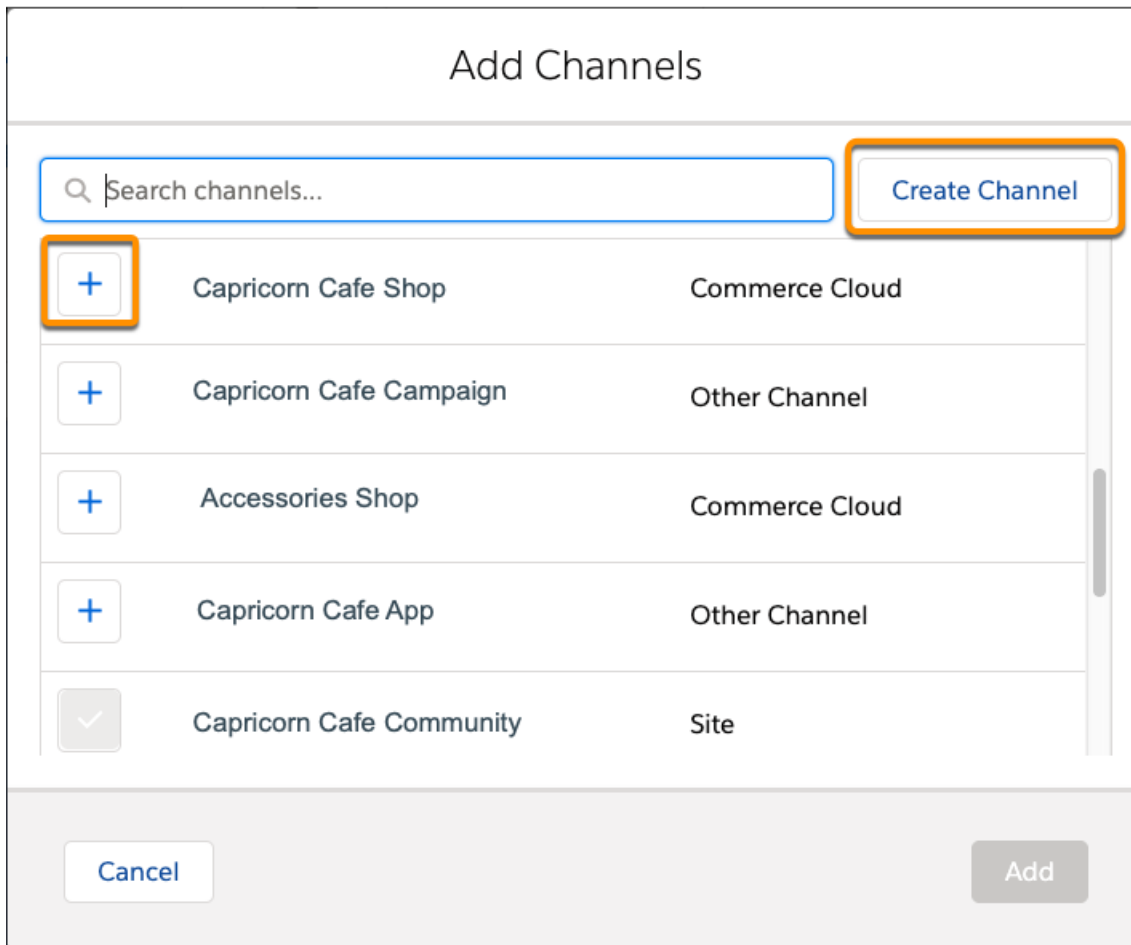
To support the new hybrid approach for Salesforce CMS, we added:

- [CMS Home](#), which provides a streamlined entry into CMS Workspaces and Experience Builder
- [Connection options for B2C Commerce channels](#)

- [Connection options for other internal and external endpoints](#)

**How:** To access the Salesforce CMS Home and the CMS Channels tabs in Salesforce CMS, open the relevant user profile in Setup. In the Tab Settings section, set CMS Channels, CMS Experiences, CMS Home, and CMS Workspaces to **Default On**.

From the Salesforce App Launcher, find and open the **Salesforce CMS** app. Select **CMS Channels**. Select **Add Channel** to add an existing channel, or select **Create Channel** to create one.



SEE ALSO:

[Salesforce Help: Salesforce Content Management System \(CMS\)](#)

## Access All Things CMS from CMS Home

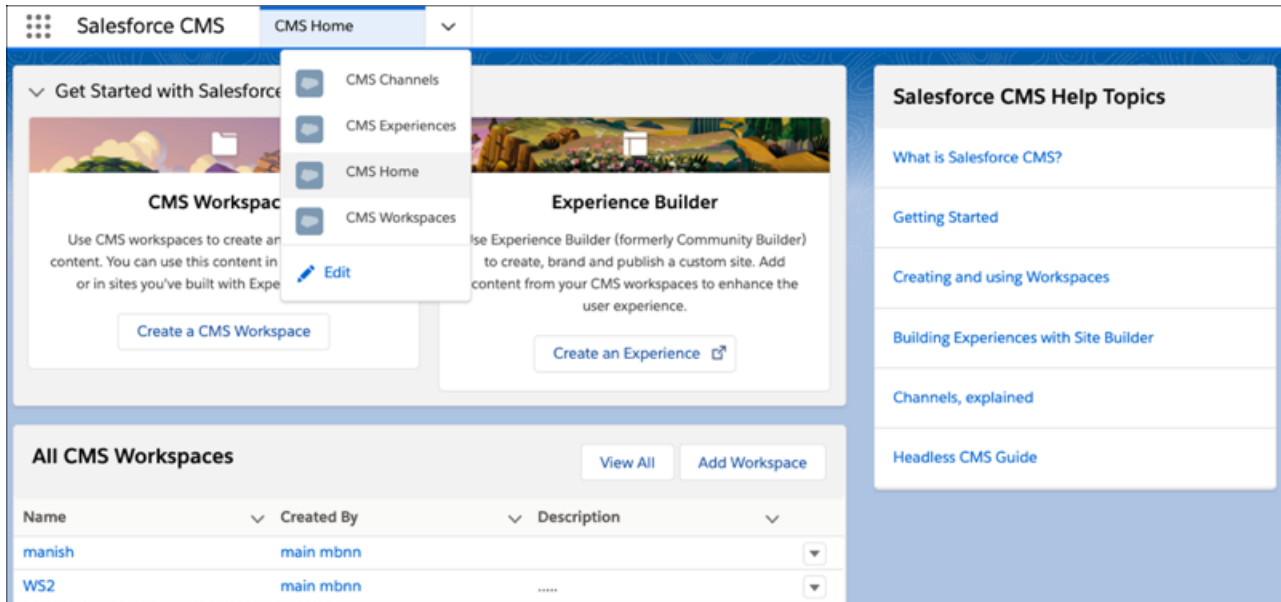
The CMS Home welcome mat greets you at the door with helpful pointers and links to help topics to make your stay more comfortable. A navigation tab and a new entry into CMS Workspaces and Experience Builder help you get where you want to go.

**Where:** This change applies to Lightning Experience in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To access Salesforce CMS and create content, you must be a Salesforce admin or have a contributor role in that CMS workspace.

**How:** To enable access to the Salesforce CMS Home, open the relevant user profile in Setup. In the Tab Settings section, set CMS Experiences, CMS Home, and CMS Workspaces to **Default On**.

From the Salesforce App Launcher, find and open the **Salesforce CMS** app. Use the CMS Home tab to access CMS Channels, Experiences, and Workspaces. Create CMS Workspaces and CMS Experiences from the tiles on the CMS Home page.



SEE ALSO:

[Start Using Salesforce CMS](#)

[Add Your Salesforce CMS Content to Your Community](#)

## Channel Content to Other Internal and External Endpoints

Enhance your customer experience using the same Salesforce CMS content across all the places your customers consume it. Create a Marketing Cloud, Heroku, Lightning app, or any third-party system channel to use your Salesforce CMS content in those endpoints using Delivery APIs.

**Where:** This change applies to Lightning Experience in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To access Salesforce CMS and create content, you must be a Salesforce admin or Content admin in that CMS workspace. To create CMS channels and workspaces, enable the Manage CMS Workspaces and Channels user permission.

**How:** To enable access to the Salesforce CMS Home, open the relevant user profile in Setup. In the Tab Settings section, set CMS Experiences, CMS Home, and CMS Workspaces to **Default On**.

From the Salesforce App Launcher, find and open the **Salesforce CMS** app. Select **CMS Channels > Create Channel**. Name your channel, then select **Other Channel: Marketing Cloud, Heroku, and More**. Choose a **Permission Set**, then **Create**. From your CMS Workspace, select **Add Channel**. Then add the channel you created.

### Create Channel

**\* Name**

**Connection Type**

**Commerce Cloud**

Use your Salesforce CMS content with Salesforce B2C Commerce Page Designer.

**Other Channel: Marketing Cloud, Heroku, and More**

Use your Salesforce CMS content with other endpoints, including LEX apps, Marketing Cloud, Heroku, and more.

**Permission Set** ⓘ

[Chatter REST API](#) and [Chatter in Apex](#) support getting channels (beta) and getting managed content for a channel (beta).

## Manage CMS Workspaces and Channels

We updated the user permission so you can control who manages Salesforce CMS Workspaces and CMS Channels. The Create CMS Workspace user permission is now called Manage CMS Workspaces and Channels. When enabled, the Manage CMS Workspaces and Channels permission lets the user create and edit CMS Workspaces and add CMS Channels.

**Where:** This change applies to Lightning Experience in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To access Salesforce CMS and create content, you must be a Salesforce admin or have a contributor role in that CMS workspace. To create CMS channels and workspaces, enable the Manage CMS Workspaces and Channels user permission.

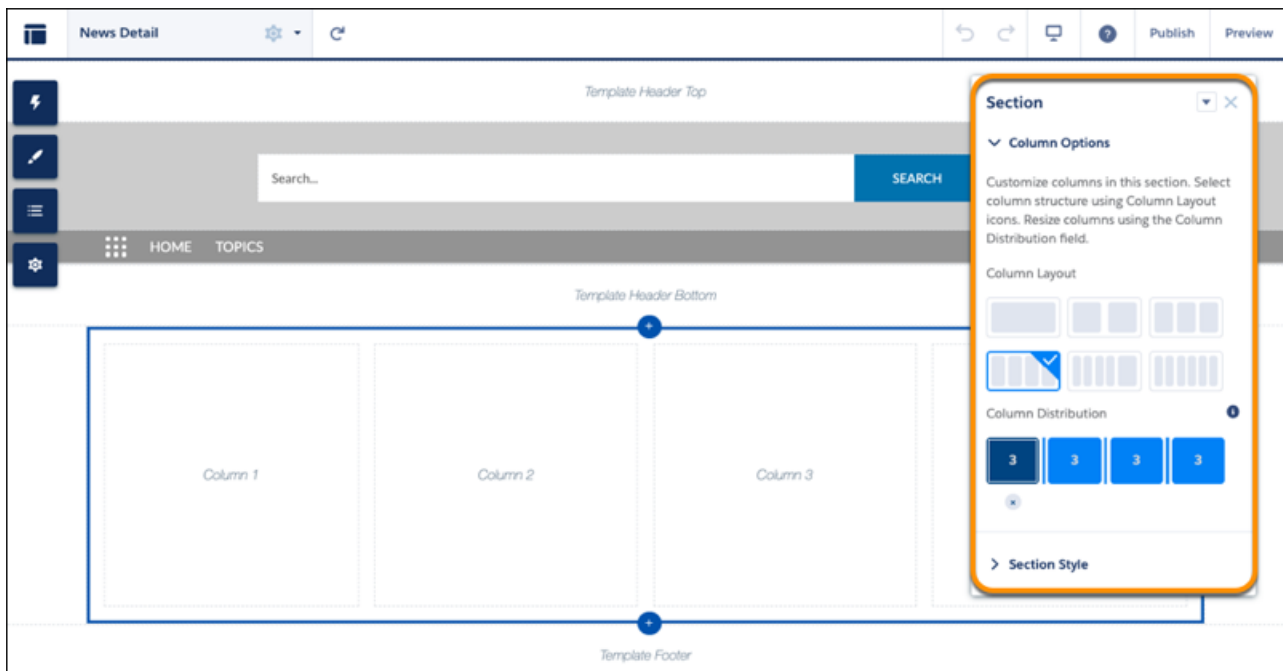
**How:** The Manage CMS Workspaces and Channels permission is enabled by default for Salesforce admins.

## Enhance CMS Content with Flexible Layouts

Create CMS Content Pages with the freedom of a flexible layout to build highly customized pages in Experience Builder. Get fancy with adjustable columns and easy-to-add sections. Bring it all to life using background images and color.

**Where:** This change applies to Salesforce CMS and Lightning communities accessed through Lightning Experience in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**How:** From the Salesforce App Launcher, find and open the **Salesforce CMS** app. Open your **CMS Experience > Builder**. Create a **New Page > CMS Content Page**. Select a content type, and then build your page.



**Note:**

- CMS Content Pages created before Winter '20 aren't affected and maintain the static layout that you used to create them. To convert an existing page to a flexible layout, delete the page and recreate it.
- New default News Detail pages also use flexible layouts.

SEE ALSO:

[Create a Flexible Layout](#)

[Custom Content Types](#)

[Enhance Your Custom Content Types with Date, Datetime, and URL Nodes](#)

[Stretch Your Flexible Layouts Further](#)

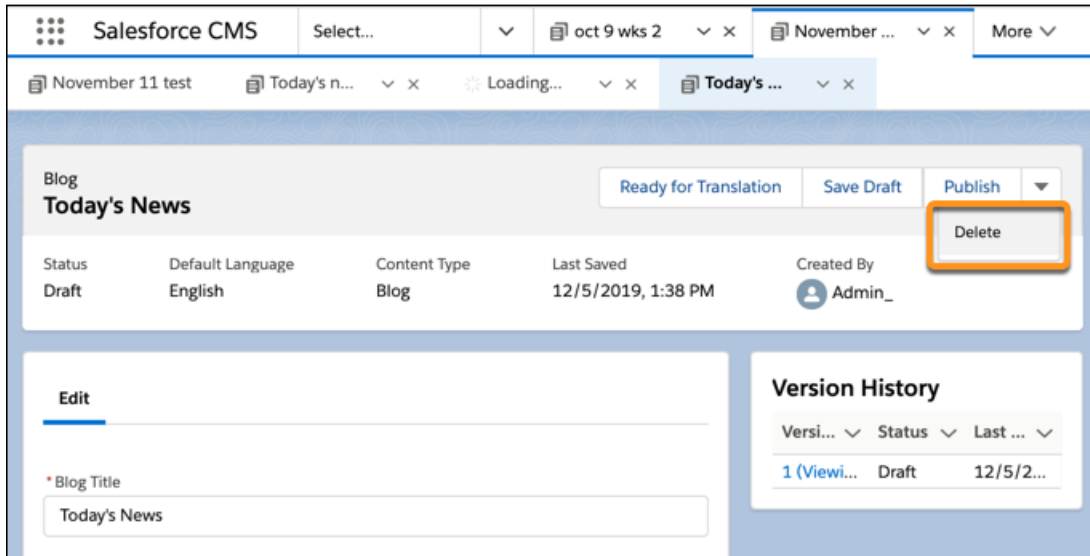
## Delete Content from Your Salesforce CMS Workspaces

Keep your CMS workspaces tidy by removing the content you no longer need, and stay under the maximum limit for content.

**Where:** This change applies to Lightning Experience in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To access Salesforce CMS and delete content, you must have a contributor role in that CMS workspace.

**How:** In Salesforce CMS, open a CMS workspace and select the content item to delete. On the content details page, from the action list in the page header, click **Delete**.



 **Note:** You can delete only unpublished content. To delete published content, remember to unpublish it first.

Content items can have multiple versions; when you delete one version of a specific item, all versions are also deleted. You can restore deleted content from the Recycle Bin, which is available from the App Launcher.

## Enhance Your Custom Content Types with Date, Datetime, and URL Nodes

When you create custom content types for Salesforce CMS, you can include important date, time, and time zone details and add links to other resources.

**Where:** This change applies to Lightning Experience in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To access Salesforce CMS and create content, you must be a Salesforce admin or have a contributor role in that CMS workspace.

**How:** Use the `ManagedContentType` in Metadata API to set up custom content types that include `date`, `datetime`, and `url` nodes. After you create a custom content type in your org, it appears as a form for adding content in the Salesforce CMS app.

In your CMS workspace, you can add date, time, and time zone details to your custom content. Then, choose how you want to display this information to users by customizing the date formats in Experience Builder.



Event				
<b>Hike Undiscovered Patagonia</b>				
Status	Created By	Last Modified By	Content Type	Default Language
Create Draft	Me	Me	Blog	English: EN_US
* Title				
Hike Undiscovered Patagonia				
Event Date	Time	Time Zone		
<input type="text"/>	<input type="text"/>	(GMT-10:00) Pacific Standard Time (America/Los Angeles)		

**Note:** Data nodes only allow you to display content in a date format. You can't filter or sort content by date or time.

Similarly, you can use the URL nodes in Salesforce CMS to include links to products, articles, blog posts, and other media types in your content. In Experience Builder, you can further customize URL displays to control how your users see and interact with these links.

The screenshot shows a Salesforce CMS editor interface. On the left, a preview of a content item titled "Gearing Up for the Himalayas" is displayed. The preview includes a header image of a hiker in a mountain landscape, a subheading, and a "Read More" link. On the right, a sidebar contains various customization options for the content item, including "Featured Media", "Flag", "Headline", "Subheading", "Eyebrow and Metadata", "Button Styles", "Links", and "Alignment". The "Links" section is expanded, showing a "Featured Image" field and a "Select an option" dropdown menu. Below the sidebar, there are labels for "Content" and "Content Factor".

SEE ALSO:


[Lightning Communities Developer Guide: Create Custom Content Types for Salesforce CMS](#)

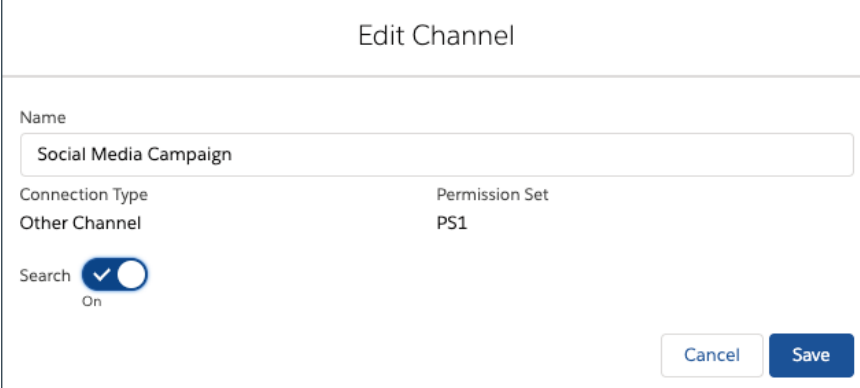
## Help Your Users Find the CMS Content They Need

Configure search within a community channel or channels from Commerce Cloud, Marketing Cloud, Heroku, Lightning apps, and other site experiences. Let users easily find the Salesforce CMS content they want and keep them engaged with your business.

**Where:** This change applies to Salesforce CMS and Lightning communities accessed through Lightning Experience in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**How:** To access the CMS Channels tab where you enable search, open the relevant user profile in Setup. In the Tab Settings section, set CMS Channels to **Default On**.

Then, to enable search for your community channels or other custom channels in your org, open the CMS Channels tab in Salesforce CMS. Enable search by selecting  > **Edit** beside a channel and clicking the Search toggle.



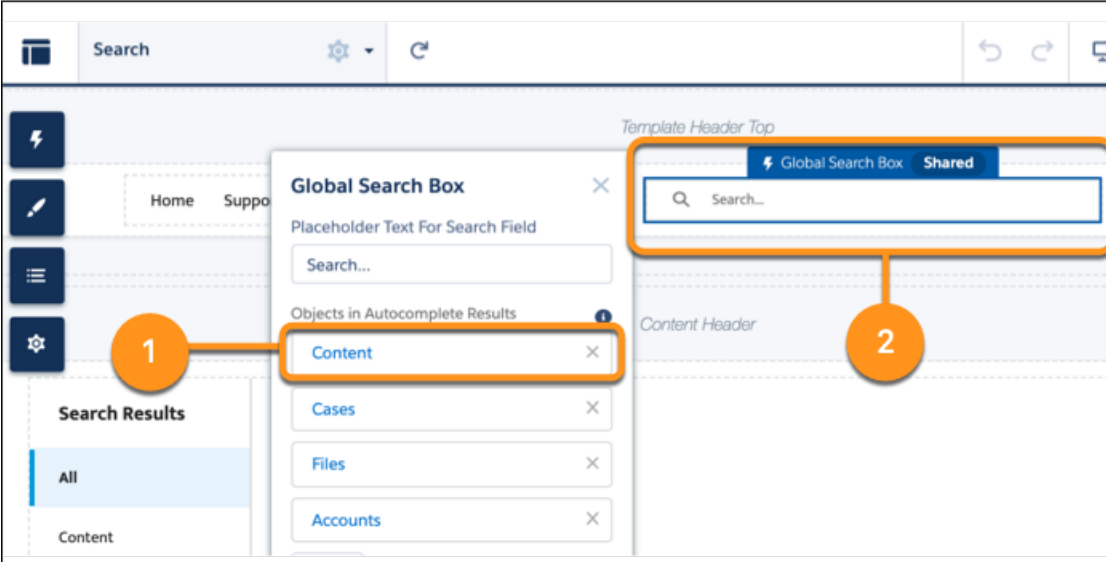
Edit Channel

Name  
Social Media Campaign

Connection Type: Other Channel      Permission Set: PS1

Search  On

If you're using Experience Builder to create the community or site where your content appears, after you enable search for a channel, you must then configure the Global Search Box component. Open Builder and add the Content object (1) to the Global Search Box component (2).



Search

Template Header Top

Global Search Box Shared

Placeholder Text For Search Field  
Search...

Objects in Autocomplete Results

Content

Cases

Files

Accounts

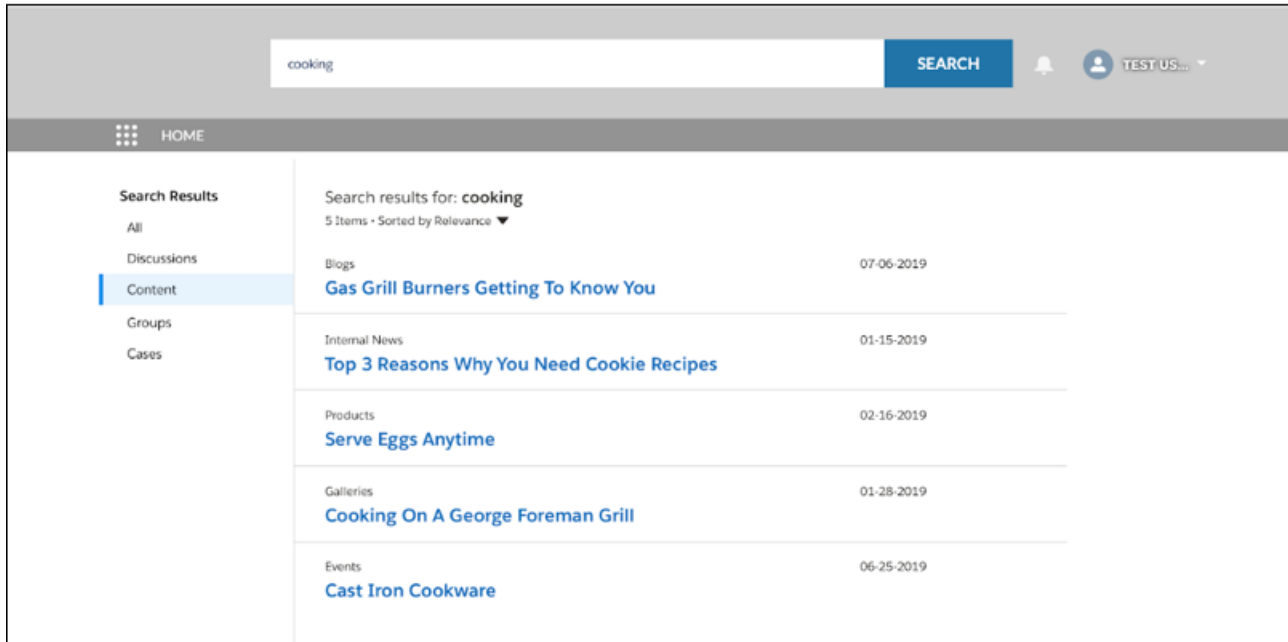
Content Header

Search Results

All

Content

After search is enabled for a channel, users can search for all published CMS content types within that specific channel.



 **Note:** Set up a content detail page for your custom content type so users can search for it in the community.

Chatter REST API supports searching managed content.

SEE ALSO:

[Salesforce Help: Create a Detail Page \(can be outdated or unavailable during release preview\)](#)

## Add More Videos to Your Salesforce CMS Workspace

We've increased video support for the Salesforce CMS rich text editor to include four new providers. In addition to the existing video providers, you can now enhance your content with videos from Wistia, Brightcove, Cloudinary, and Ampliance.

**Where:** This change applies to Lightning Experience in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To access Salesforce CMS and create content, you must have a contributor role in that CMS workspace.

**How:** From the Salesforce App Launcher, find and open **Salesforce CMS**. Select a CMS Workspace, then **Create Content**. In the rich text editor, select the  icon. You can add URL links to videos from any of the following providers:

- YouTube
- Vimeo
- Vidyard
- Wistia
- Brightcove
- Cloudinary
- Ampliance

**Tip:** If your video isn't displaying in the editor, add the URL link to the Cross-Origin Resource Sharing (CORS) whitelist so Salesforce can access the link and display the video.

SEE ALSO:

[Salesforce Help: Use CORS to Access Salesforce Resources from Web Browsers](#)

## Salesforce Essentials: Email-to-Case Enhancements, New Service Features, Improved Mobile App and In-App Subscription Management

Get your support emails into Salesforce faster by directly connecting your Google account to Email-to-Case. Tidy your case list with Case Merge. If you use Chat & Messaging, offer customers a menu of ways to contact you with a channel menu in your embedded chat window. The Salesforce mobile app reflects your personalized navigation in Essentials and prioritizes the information you use the most.

IN THIS SECTION:

[Get Connected Faster with Enhancements to Email-to-Case](#)

Turning your support emails into cases is easier than ever. Skip the manual Gmail setup by logging into your Google account to Salesforce and selecting the email address you want to use. When you email your customers from Salesforce, they see your company's support email address in the From field.

### [Merge Duplicate Cases to Clear Up Your Support To-Dos \(Generally Available\)](#)

Get through the clutter and focus on what's important for your small business: your customers. Merge your duplicate cases like you merge your duplicate accounts and contacts. You can consolidate up to three duplicate cases.

### [Run Your Small Business from Anywhere with the New Salesforce Mobile App](#)

Increase your productivity on-the-go with an improved experience. The mobile app reflects your personalized navigation in Essentials and prioritizes the information you use the most.

### [Give Customers a Menu of Conversation Channels \(Generally Available\)](#)

Let your customers contact you through channels like chat, Facebook Messenger, phone, or a custom link using a channel menu in your website or help center. You can create a channel menu if you've purchased the Chat & Messaging add-on.

## Get Connected Faster with Enhancements to Email-to-Case

Turning your support emails into cases is easier than ever. Skip the manual Gmail setup by logging into your Google account to Salesforce and selecting the email address you want to use. When you email your customers from Salesforce, they see your company's support email address in the From field.

**Where:** This change applies to Lightning Experience in the Essentials edition.

**How:** In one easy setup flow, you can swiftly connect your Gmail inbox that receives customer support emails directly to Essentials. From Service Setup, click **Connect Your Support Email**.

When you select Gmail for your email provider, you can log into your Google account using the popup window. Then, select your support email address. You can manage your connected Google account from the **Google Email-to-Case** page in Setup.

## Merge Duplicate Cases to Clear Up Your Support To-Dos (Generally Available)

Get through the clutter and focus on what's important for your small business: your customers. Merge your duplicate cases like you merge your duplicate accounts and contacts. You can consolidate up to three duplicate cases.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the mobile app in Essentials, Professional, Performance, Unlimited, Enterprise, and Developer editions.

SEE ALSO:

[Combine Duplicate Cases with Case Merge \(Generally Available\)](#)

## Run Your Small Business from Anywhere with the New Salesforce Mobile App

Increase your productivity on-the-go with an improved experience. The mobile app reflects your personalized navigation in Essentials and prioritizes the information you use the most.

**Where:** This change applies to the Salesforce Mobile App for iOS and Android in the Essentials edition.

SEE ALSO:

[Welcome to the New Salesforce Mobile App](#)

## Give Customers a Menu of Conversation Channels (Generally Available)

Let your customers contact you through channels like chat, Facebook Messenger, phone, or a custom link using a channel menu in your website or help center. You can create a channel menu if you've purchased the Chat & Messaging add-on.

**Where:** This change applies to Salesforce Classic and Lightning Experience in Essentials, Professional, Performance, and Unlimited editions.

SEE ALSO:

[Hello! Meet the Channel Menu \(Generally Available\)](#)

## Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant (Beta), Resolve Cases Faster with Article Recommendations, and Predict the Future Using Filters

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Einstein Voice Assistant lets your users add and update Salesforce data conversationally, using their voice. Your agents can resolve cases faster using Einstein's knowledge article recommendations. Build custom predictions based on filter logic without needing to create fields to predict.

Here are even more ways that Salesforce Einstein helps you work smarter.

### Salesforce Overall

#### [Einstein Voice Assistant: Get More Done on the Run \(Beta\)](#)

Let users make updates to Salesforce—like logging events, creating contacts, and updating opportunities—all by voice. Einstein Voice Skills lets you build custom skills tailored to your users' most common tasks, generating more high-quality Salesforce data to inform decision making.

### Sales

#### [Sales Cloud Einstein: Enjoy Simplified Data Requirements](#)

The data requirements for several Sales Cloud Einstein features are now simpler, making it easier to get meaningful sales intelligence within Salesforce.

### Sales

#### [Explore Factors That Determine Behavior Scoring](#)

Ever wonder how we build your Einstein Behavior Scoring model? Now you can find out. A new dashboard in B2B Marketing Analytics shows how your custom model weights each engagement activity and which assets relate most strongly to future conversion.

### Service

#### [Help Your Agents Resolve Cases Faster with Einstein Article Recommendations \(Generally Available\)](#)

Einstein Article Recommendations uses data from past cases to identify Knowledge articles that are most likely to help your agents address customer inquiries. Einstein Article Recommendations is generally available this release.

### **Help Your Chat Agents Respond Faster with Einstein Reply Recommendations (Pilot)**

Einstein Reply Recommendations analyzes data from chat transcripts to create chat replies that address your customers' inquiries. Agents select the most relevant chat reply from a list in the Lightning Service Console as they communicate with customers.

### **Create Tailored Chatbot Experiences with Conditional Messaging**

Let bots deliver personalized experiences to your customers with built-in logic to send customized messages based on conversation context: either through a pre-chat form, data inside the CRM, or earlier replies to the bot. With Conditional Messaging, bots provide more intelligent responses and can handle nuanced discussion — turning good conversations into great conversations.

### **Handle Errors Gracefully Using Conversation Repair**

Bots are better helpers when they have accurate information, and with Conversation Repair, bots are able to capture formatted text in a kind and graceful manner. Now, bots can suggest to the customer when an email or phone number is formatted incorrectly, and if the customer needs further assistance, the bot can route the customer to an agent.

### **Train Your Bot Faster with the Upgraded Model Management Dashboard**

Get your bot in shape with an improved dashboard that provides actionable recommendations to improve model quality. Recommendations such as identifying well-performing intents provide suggestions to improve your intent training. Better intents mean better bot performance with your customers.

### **Improve Your Bot with Granular Conversation Logs**

We're making the conversation logs more granular to give admins a deeper understanding of exactly where the bot needs improvement. This addition, which shows customer inputs and bot actions categorized by dialog, shows admins every move the bot makes.

### **Create Smart Transfers over SMS with Agent Availability**

Now bots can gracefully check whether agents are available for transfer and notify the customer over SMS and Chat. The Agent Availability Check that launched in the Winter '20 release is expanding to SMS to provide a multi-channel experience between bots and agents.

### **Increase Customer Engagement with the Chatbot Typing Indicator**

Keep customers engaged while the bot delivers the next message by using the chatbot typing indicator. These three dots mimic messaging apps that signify when a person is typing, which shows the customer that the bot is still actively processing their request.

### **WhatsApp: Now Available for Einstein Bots**

Pack your bot's bags, because Einstein Bots is now available in 180 countries on the world's largest messaging app, WhatsApp. Bots can interface with WhatsApp to deliver messages to your customers, just like they do with SMS. Bots can also use automation to bring complex cases directly to agents, all on WhatsApp.

### **Einstein Bots: Other Bot Updates**

Learn about other changes to Einstein Bots.

### **Improve Einstein Field Value Predictions with Segments and Example Data**

Set up and build predictive models for various business segments, such as building and consulting services or enterprise and consumer divisions. You can also narrow the scope of a single model if you want to predict field values for only a subset of your business. Previously, Case Classification considered all your data. Within each segment, specify the closed cases that best reflect the completed fields and field values you'd like to use for case classification. This example data trains each model with data that represents best practices for your cases.

### **Manage Multiple Models with a New Setup Page Experience**

You can now create models that align with the way you organize your business or focus on a particular segment of your business. The Case Classification setup page redesign has a new section for multiple models.

### **Try Einstein Case Classification At No Additional Cost**

Heard about Einstein Case Classification but aren't sure it will work for your data? Enterprise, Performance, and Unlimited Edition customers can get to know it by creating a case classification model!

## Analytics

### **Amplify Live Prediction Scoring with External Data**

You can now include external data to better predict outcomes. Some predictive models require information that is not found in Salesforce, such as explanatory variables stored in outside data sources, or computed fields. Let's say you're building an opportunity time-to-close predictive model. You want to use counts of opportunity team members and qualified tasks associated with that opportunity record. Creating these aggregations using Einstein Analytics data prep is simple. Quickly build the predictive model as an Einstein Discovery story. When scoring individual records back in Salesforce, tell the predictive model how many tasks or team members are connected to the opportunity. Instead of writing code or modifying the data model, simply build a dataset that refreshes on a frequent basis where this aggregation is performed. Make sure to map the predictive model fields that are not natively found in Salesforce back to the dataset.

### **Simulate Future Outcomes with What Could Happen Insights**

Get live prediction scores interactively, including top factors and actionable insights. You can now use What Could Happen insights to perform "What If" simulations on a row of data. What Could Happen insights replace the previous Predictions & Improvements insights with a streamlined, interactive interface.

### **Keep Track of Story Changes**

Now you can revisit and work with previous story versions at any time. Each time a user creates a story with updated settings, Einstein saves a snapshot of the previous version under the same name. You can open and work with previous versions of a story.

### **Get the Best Predictions of Three Different Models (Pilot)**

Einstein Discovery now adds a third modeling approach known as *XGBoost*, which implements gradient boosting learning algorithms. Previously, Einstein Discovery relied on two types of models to predict outcomes: regression and GBM models. Now when you create a story, Einstein Discovery generates predictions using all three types of models. Einstein then shows the results of the one model that performed best. You get the best of all approaches.

### **Smart Feature Selection for Logistic Models**

When you create a story with a binary outcome, Einstein Discovery now generates it faster by automatically selecting just the features and variables required to build the model. The story creation process is streamlined and quicker.

### **Identify Key Drivers Before Creating a Story**

Before you create a story for the first time, you can now quickly decide ahead of time which fields to include. With manual story setup, Einstein now shows you correlations between dataset columns and the outcome variable. Previously, correlations were visible only after initial story creation.

### **Crunch More Data with Einstein Discovery (Pilot)**

With increased Einstein Discovery limits, you can now create stories from Einstein Analytics datasets containing up to 100 million rows of data. Previously, the maximum was 20 million rows.

### **Deploy Models Without Salesforce Objects**

In certain cases, model deployment no longer requires selecting a Salesforce object. This exception applies only if you intend to use the model just for programmatic predictions via the Einstein Prediction Service, or for dataset scoring via the prediction component in Einstein Analytics dataflows. In all other cases, selecting a Salesforce object during deployment is required.

### **Quickly Drill Down Into Insights**

For insights associated with text fields, you can easily drill down into the underlying details by clicking the Explore button. Einstein displays a Lens view so that you can interactively explore the data for this insight.

### **Retiring Einstein Discovery Classic**



We retire Einstein Discovery Classic in Spring '20. Einstein Discovery Classic will be replaced with the new experience for all orgs starting in Spring '20.

## Mobile

### **Boost Productivity for Your Mobile Users with Einstein Voice Assistant (Beta)**

With Einstein Voice Assistant, your users can get more done while they're on the go by speaking in to their mobile phone. From the new Salesforce mobile app, they can ask Einstein to make changes to Salesforce, like logging events, creating contacts, and updating opportunities.

## Industries

### **Fine-Tune Your Pipeline with Einstein Referral Scoring (Generally Available)**

Now it's easier for your managers to evaluate referrals. Einstein Referral Scoring helps you build a prediction that scores referrals in Salesforce org. Your users can view referral scores on the Einstein Top Referrals component.

### **Store Your Einstein Object Detection Data Locally**

For Salesforce orgs in the European Union (EU), Einstein Object Detection data is now stored locally.

### **Control Access to Einstein Object Detection**

You can now choose which users in your Salesforce org can access Einstein Object Detection.

### **Disable Einstein Object Detection Models**

You can disable object detection models that you are in the process of building. You can also disable underperforming models and models that aren't used. You can always enable a model later.

## Customization

### **Predict the Future Using Filters in Einstein Prediction Builder**

When you build a prediction, you no longer need a field that answers your prediction question. As long as the records on the object that you base your prediction on have the data, you can use filters instead.

### **Show Top Predictors on Records with Einstein Prediction Builder**

Now you and your users can gain insights on which predictors are most influential at the record level, not just for the entire model. You can show top predictors on records to see which field values have the biggest impact on a specific record's score.

### **Try Einstein Prediction Builder At No Additional Cost**

Turn on Einstein Prediction Builder without spending a dime to see how your business can benefit from custom predictions. Decide later whether to upgrade.

### **Make Informed Predictions with Trusted AI Help in Einstein Prediction Builder**

Learn as you build with the Trusted AI sidebar help. Trusted AI helps you identify and mitigate potential bias in your data, making your predictions less error prone.

### **Analyze Next Best Action Usage with Recommendation Strategy Metrics**

Now you can track the aggregate usage of Next Best Action in a Salesforce org. Analyze metrics at the strategy and the recommendation level. Compare the relative performance of two strategies. For a given calendar month, see the total number of recommendations an org's strategies served. Find out how many served recommendations agents accepted and rejected.

### **Create Recommendations from the Records of Any Salesforce Object**

Declaratively create recommendations from the records of any Salesforce object, either standard or custom. Serve recommendations from accounts, contacts, opportunities, and products. Load and filter the records of any Salesforce object, and convert them into recommendations at the end of the strategy. Previously, when you created recommendations declaratively, you were limited to using only Recommendation objects. You could programmatically convert the records of other objects into recommendations, but you used Apex code with the `Generate` element.

### Launch Flows When Recommendations are Rejected

Now you can launch a flow when a user rejects a recommendation, which gives you more flexibility. For example, a flow can run an automated process, write to another system, or create a reminder email when a recommendation is rejected. Previously, Next Best Action launched a flow only when a user accepted a recommendation.

### Encrypt Recommendation Description Information

To address HIPAA requirements, Next Best Action has made it possible to encrypt recommendation description information using Shield Platform Encryption.

## Security, Privacy, and Identity

### Encrypt the Next Best Action Recommendation Description Field

To address HIPAA requirements, Next Best Action has made it possible to encrypt recommendation description information using Shield Platform Encryption. When you use probabilistic encryption, you can't use encrypted fields like Recommendation Description when you specify conditions to load recommendations. When you use deterministic encryption, you can use encrypted fields in load conditions only with the equals or not equals operator.

## Development

### Einstein Vision: More Detailed Error Messages

Calls to the Einstein Object Detection training APIs now return more descriptive error messages.

### Einstein Language: New Model Metrics

Calls to the Einstein Language APIs that return model metrics information now contain the `macroF1` field, the `precision` array, and the `recall` array.

### Run Einstein Predictions in a Sandbox Org

Build and run predictions in a sandbox org to experiment with different settings.

## Sales: High Velocity Sales Email Branching and Email Scheduling, Task-Queue Assignment, and Revenue Recognition Reports for Salesforce Billing

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High Velocity Sales managers can branch sales cadences based on email engagement, and sales reps can schedule when emails are sent. Let reps share their workload by assigning tasks to queues. Use Salesforce Billing Revenue Recognition API to report on revenue recognition at any stage of the sales and finance process. Einstein Opportunity Scoring is available without a Sales Cloud Einstein license. Collaborative Forecasts now supports inline editing in the opportunity list. Sales reps can specify email arrival times to increase the chances of an email being read. And Pardot adds new analytics tools, including a dashboard for Einstein Behavior Scoring and an Account-Based Marketing analytics app template.

## IN THIS SECTION:

[High Velocity Sales: Sales Cadence Email Branching, Email Scheduling, and Enhanced Reporting](#)

Sales managers can branch sales cadences based on email engagement. Sales reps can schedule email send dates and times. Managers and reps can see more details in High Velocity Sales reports and dashboards.

[Sales Cloud Einstein: Enjoy Simplified Data Requirements](#)

The data requirements for several Sales Cloud Einstein features are now simpler, making it easier to get meaningful sales intelligence within Salesforce.

[Core Sales Features: Einstein Opportunity Scoring for Everyone, Easier Forecast Editing, and More Territory Forecast Types](#)

Einstein Opportunity Scoring is available to all eligible Sales Cloud users. Forecast users get inline editing for the opportunity list. Salesforce now supports six more territory forecast types. Use Process Builder, Flow Builder, and workflow rules to automate key processes for opportunity contact roles. Map LinkedIn consent and hidden fields to custom lead fields in Salesforce. And improve your customers' shopping experience by creating a path on the Fulfillment Order object.

[Productivity Features: Send Later, List Email Drafts, Email Threading, and Task Queues](#)

Your sales reps are on their way to increased productivity with several new features. They can now schedule an email to arrive at the perfect day and time. And list emails are easier to write now that reps can save a draft and come back to their work. With email threading, reps can see an entire conversation in one place, without getting lost in the replies and side conversations. And your reps can efficiently share work items by assigning tasks to a queue.

[Gmail™ Integration: Improved Transparency to Respect Email Privacy Settings, Logged Event Classification, and Template Updates](#)

We added information about customers' email privacy settings directly in the integration so that reps know how to best communicate with customers. When logging events to Salesforce, reps can now identify the event type. And we updated the template flow, making it easier to create templates and add them to emails.

[Integration with Microsoft®: Email Privacy Notifications, Lightning Sync Setup Changes, and Salesforce for Outlook Announcements](#)

We added information about customers' email privacy settings directly in the integration so that reps know how to best communicate with customers. Lightning Sync has some setup changes that can affect you, depending on your version of Microsoft Exchange. Salesforce for Outlook has announced its December 2020 retirement. And for Salesforce for Outlook customers who are affected by the Microsoft® Internet Explorer® 11 retirement for Lightning Experience, we provide steps for restoring access.

[Salesforce CPQ and Billing: Ordering Usage Products with Evergreen Subscriptions, Smarter Configuration Rules, and Flexible Revenue Schedule Creation](#)

Order usage products related to evergreen subscriptions. Access more fields in the configurator. Edit quote line consumption schedules directly in the quote line editor. Use triggers, process builders, and API to create revenue schedules anytime on any Salesforce object. And prevent users from creating backdated amendments.

[Pardot: Einstein and Account-Based Marketing Analytics, Business Snippets, and More Goodies](#)

Spring '20 brings you an exciting batch of analytics tools including an Einstein Behavior Scoring dashboard and an Account-Based Marketing analytics app template. Plus, check out new uses for Snippets, two Engagement History dashboards, a handful of related lists, and updates to our B2B Marketing Analytics datasets and dashboards.

[Other Changes in the Sales Cloud](#)

Data.com Prospector and Data.com Clean have been retired.

[Data.com: Prospector and Clean Have Been Retired](#)

Data.com Prospector and Data.com Clean licenses can no longer be renewed. These products are scheduled for retirement on July 31, 2020. Existing contracts will be honored.

## High Velocity Sales: Sales Cadence Email Branching, Email Scheduling, and Enhanced Reporting

Sales managers can branch sales cadences based on email engagement. Sales reps can schedule email send dates and times. Managers and reps can see more details in High Velocity Sales reports and dashboards.

High Velocity Sales and its features are available for an extra cost. For pricing details, contact your Salesforce account executive. Lightning Dialer is also available for an extra cost as an add-on license.

### IN THIS SECTION:

#### [Sales Cadences: Branch on Email Engagement and Send Emails Automatically](#)

Sales managers can do a lot more with the Sales Cadence Builder. Branch sales cadences based on prospects' engagement with emails, send template-based emails automatically, preview linked sales cadences, and more.

#### [Schedule and Manage Scheduled Emails in High Velocity Sales](#)

Sales reps can tailor email arrival times to increase the likelihood that recipients read them. For example, a rep knows that their contact always reads her email when she comes back from lunch. So, by scheduling the email to arrive at 1:00 pm, it's likely that the contact will read it then. The new Scheduled Emails component lets reps update content of a scheduled email, and change its scheduled date and time.

#### [High Velocity Sales Reporting: Lead Performance Dashboard and Operational Report Improvements](#)

Sales managers can view detailed lead outreach and conversion statistics. And they can build custom reports with lead, contact, person account, and sales cadence data. They can also access more information with included reports.

#### [Give Reps the Weekend off from Sales Cadences](#)

Sales managers can let their teams enjoy the weekend. When you turn on the Skip Weekends setting, sales cadences assign tasks to reps on weekdays only. Calls, emails, and custom steps skip Saturdays and Sundays to be assigned the following Monday.

#### [Use the API to Inspect Sales Cadences](#)

View information related to sales cadences with the API. Developers can now access six new standard objects related to sales cadences: ActionCadence, ActionCadenceRule, ActionCadenceRuleCondition, ActionCadenceStep, ActionCadenceStepTracker, and ActionCadenceTracker.

#### [See More Details in the Work Queue](#)

Sales reps can see when actions in the Work Queue are overdue. Plus, we moved filters and the refresh button to improve usability.

#### [Enable Inbox Features for High Velocity Sales in a New Location](#)

Salesforce Inbox now has a centralized location for enablement in the Inbox Setup Assistant page in Setup. Previously, there were multiple places to enable Inbox, depending on whether you had a High Velocity Sales, Sales Cloud Einstein, or Inbox license.

#### [Sales Users Can Filter Sales Cadence Steps in the Activity Timeline](#)

Sales managers can filter for completed sales cadence tasks to track their sales reps' progress.

#### [Keep Sales Cadences Moving Without a Built-In Calling Solution](#)

Sales reps without Lightning Dialer or a third-party calling solution can now advance sales cadences with ease. If you don't have a built-in calling solution, when reps click a call action, we open the Log a Call panel automatically. After the call is logged, the sales cadence advances.

## Sales Cadences: Branch on Email Engagement and Send Emails Automatically

Sales managers can do a lot more with the Sales Cadence Builder. Branch sales cadences based on prospects' engagement with emails, send template-based emails automatically, preview linked sales cadences, and more.

## IN THIS SECTION:

[Customize Outreach Based on Email Engagement](#)

Sales managers can create sales cadences that lead reps through different outreach steps depending on whether a prospect engages with an email. New listener branch steps wait for prospect engagement with an email, and advance to the next appropriate step based on that engagement. For example, sales reps can follow one path if a prospect clicks a link in an email and another path if a prospect doesn't.

[Send Emails Automatically from Sales Cadences](#)

Save sales reps time with automated template-based emails. Sales managers can now add email steps that send automatically when the step comes due.

[Preview Linked Sales Cadences](#)

Sales managers can view the details and sales steps of their linked sales cadences without leaving the Sales Cadence Builder.

[View Call Result Groupings When Building Sales Cadences](#)

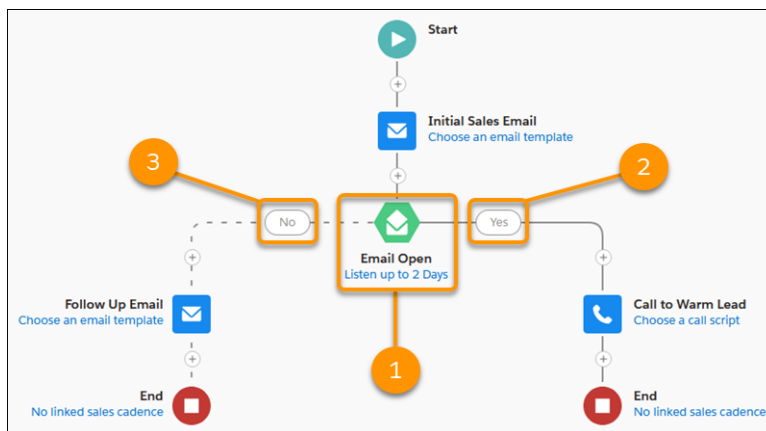
The Sales Cadence Builder now shows call result values to sales managers for related call result groupings. The groupings are used for sales cadence branching and reporting, so it's useful to see the related values.

## Customize Outreach Based on Email Engagement

Sales managers can create sales cadences that lead reps through different outreach steps depending on whether a prospect engages with an email. New listener branch steps wait for prospect engagement with an email, and advance to the next appropriate step based on that engagement. For example, sales reps can follow one path if a prospect clicks a link in an email and another path if a prospect doesn't.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Why:** Listener branch steps let sales managers choose whether to listen for an email open or a link click, and how long to wait for a prospect to engage (1). Then they can choose what outreach reps should perform when a prospect engages (2) or doesn't (3).

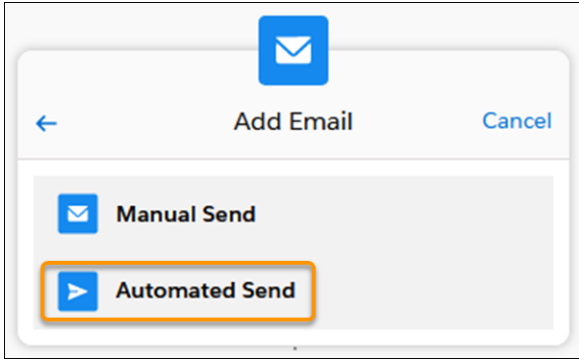


## Send Emails Automatically from Sales Cadences

Save sales reps time with automated template-based emails. Sales managers can now add email steps that send automatically when the step comes due.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**How:** In the Sales Cadence Builder, add an email step, and choose to send the email automatically using a template.

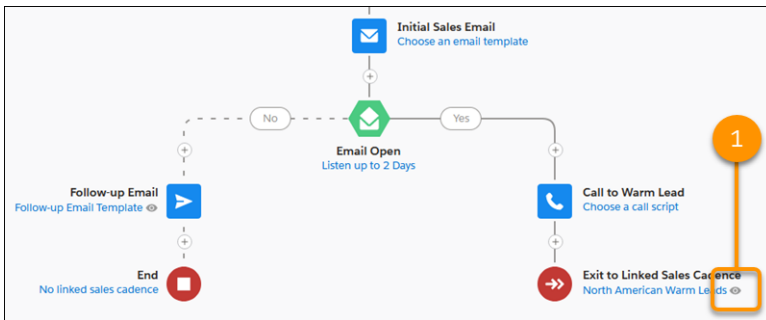


### Preview Linked Sales Cadences

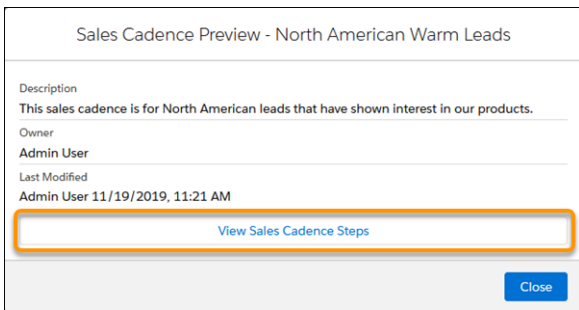
Sales managers can view the details and sales steps of their linked sales cadences without leaving the Sales Cadence Builder.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

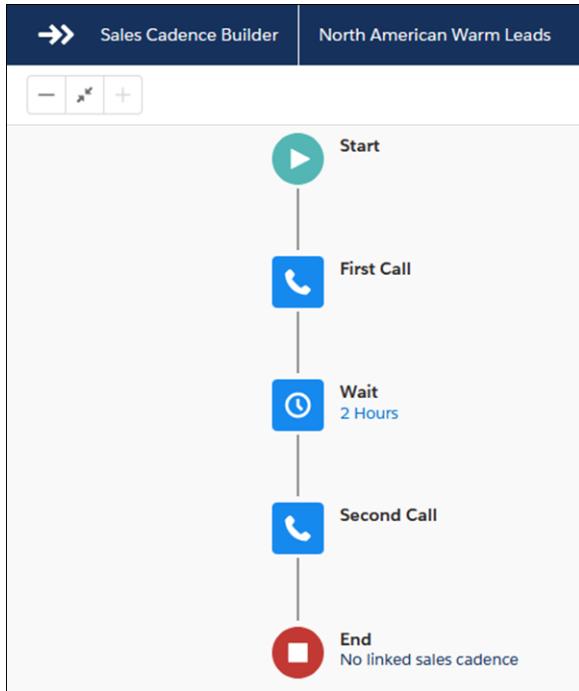
**How:** In the Sales Cadence Builder, click the eye icon (1) next to a linked end step.



The sales cadence details appear. To see the sales steps, click **View Sales Cadence Steps**.



The linked sales cadence steps appear in the Sales Cadence Builder.

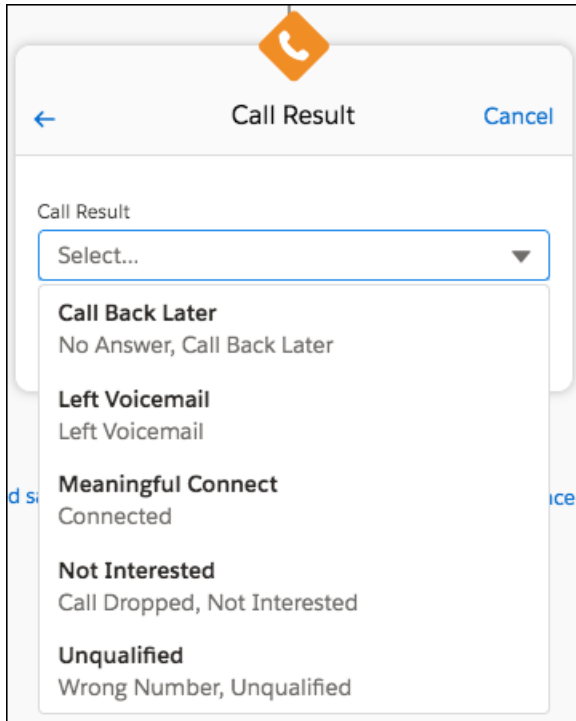


## View Call Result Groupings When Building Sales Cadences

The Sales Cadence Builder now shows call result values to sales managers for related call result groupings. The groupings are used for sales cadence branching and reporting, so it's useful to see the related values.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Why:** When a call ends, sales reps select a value that describes how the call went. Managers can now see these values in the Sales Cadence Builder, providing them with more information when creating sales cadences.



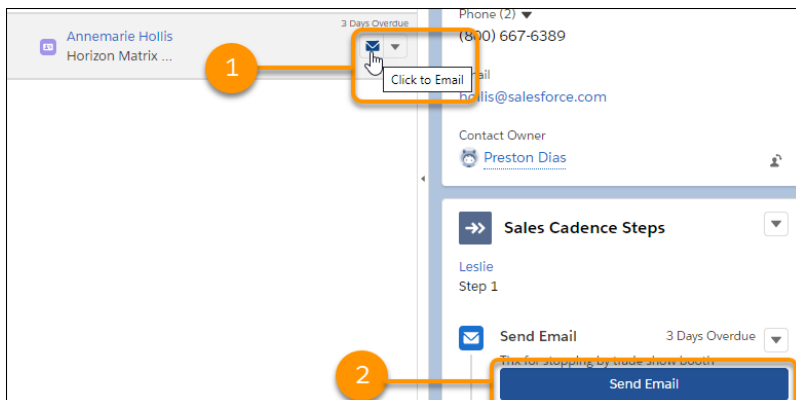
## Schedule and Manage Scheduled Emails in High Velocity Sales

Sales reps can tailor email arrival times to increase the likelihood that recipients read them. For example, a rep knows that their contact always reads her email when she comes back from lunch. So, by scheduling the email to arrive at 1:00 pm, it's likely that the contact will read it then. The new Scheduled Emails component lets reps update content of a scheduled email, and change its scheduled date and time.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

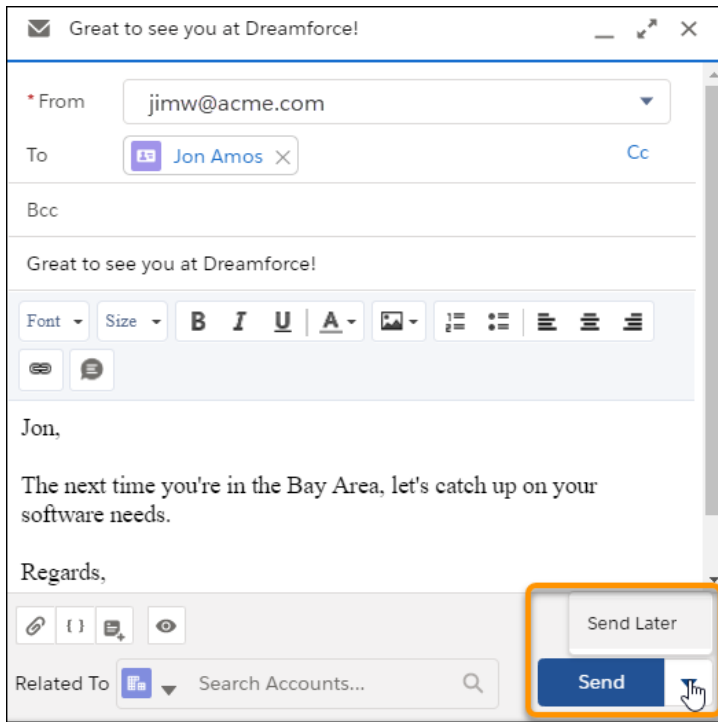
**Who:** Users with the Use Inbox user permission, available with the High Velocity Sales or Inbox license.

**How:** To schedule an email, sales reps open the cadence step card and either click the **envelope** (1) or **Send Email** (2).

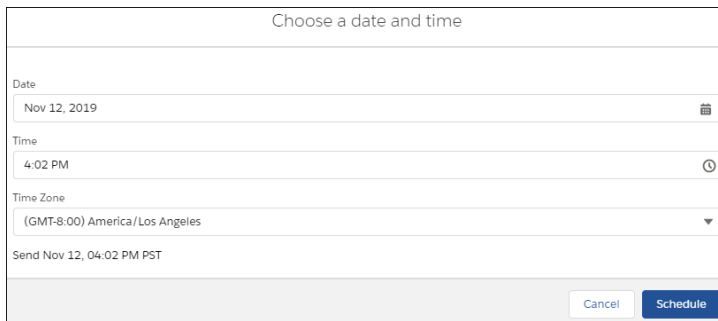




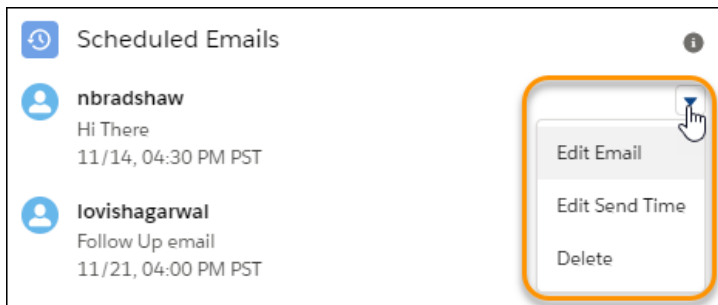
Reps then select **Send Later** in the email composer.



The rep then selects the date and time and clicks **Schedule**.



To let your reps manage scheduled emails, use **Edit Page** to add the Send Email Later - Pending List component to any object's home page, including the Salesforce homepage.



Using that component, reps can reschedule, edit, or delete an already-scheduled email.

#### SEE ALSO:

[IdeaExchange: Log an email set for Send Later in SalesforceIQ Inbox](#)

[Schedule and Manage Scheduled Emails in Lightning Experience](#)

[Salesforce Help: Set Up Scheduled Email Management \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Things to Know About Scheduled Email \(can be outdated or unavailable during release preview\)](#)

## High Velocity Sales Reporting: Lead Performance Dashboard and Operational Report Improvements

Sales managers can view detailed lead outreach and conversion statistics. And they can build custom reports with lead, contact, person account, and sales cadence data. They can also access more information with included reports.

#### IN THIS SECTION:

[See How Fast Your Team Is Working Their Leads \(Beta\)](#)

In Winter '20, we introduced the High Velocity Sales Engagement Performance and Sales Cadence Performance dashboards. In Spring '20, the Lead Performance dashboard shows your sales managers how well their team is converting leads. They can see how fast sales reps reach out to new leads, the number of leads in each stage of your sales funnel, the average number of days to convert, and other measures of effectiveness. With this data, sales managers can see which reps need more coaching and which sales cadences need tuning. These dashboards no longer require the View All Data permission.


[See More Information in Sales Cadence Reports](#)

We enhanced reports to let sales managers see details about prospect outreach timing and prospects' progress through each sales cadence.

### See How Fast Your Team Is Working Their Leads (Beta)

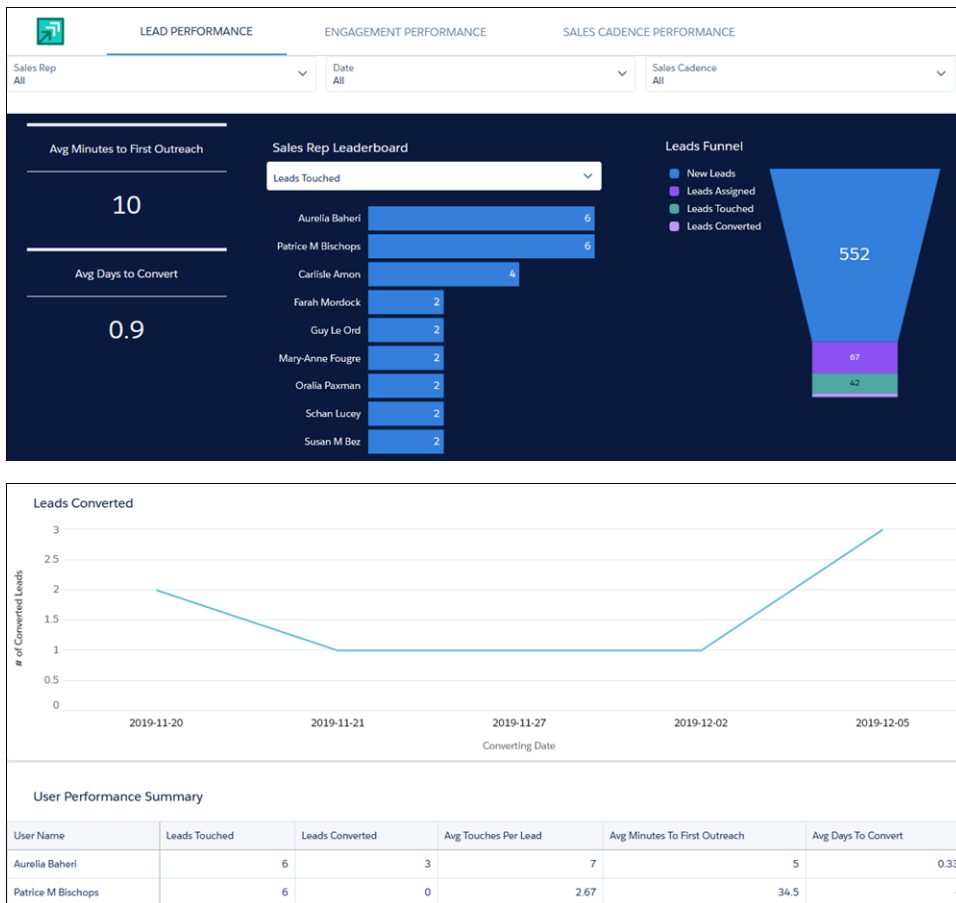
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**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

 **Note:** As a beta feature, High Velocity Sales Performance Dashboards is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature.

**Who:** To view High Velocity Sales performance dashboards, you need the High Velocity Sales User or High Velocity Sales Cadence Creator permission.

**Why:** This dashboard, included with the Einstein Analytics High Velocity Sales Performance app, shows managers how many leads have been touched, the time to first touch, the number of touches per lead, and the number of conversions. Sales managers can filter lead statistics by sales rep, sales cadence, and date range.



**How:** To view these Einstein Analytics dashboards, choose High Velocity Sales Performance from the Navigation menu in the High Velocity Sales app.

### See More Information in Sales Cadence Reports

We enhanced reports to let sales managers see details about prospect outreach timing and prospects' progress through each sales cadence.

**Where:** These changes apply to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Why:** Enhancements to High Velocity Sales reporting give managers deeper understanding of their sales team's effectiveness.

- The First Email Date and First Call Date fields show managers when each prospect received their first outreach.
- The Current Sales Cadence Step field shows managers which step each prospect is on in their assigned sales cadence.

**How:** Add the First Email Date and First Call Date fields to custom report types, list views, and page layouts for leads, contacts, and person accounts. Add the Current Sales Cadence Step field to custom report types for leads, contacts, and person accounts.

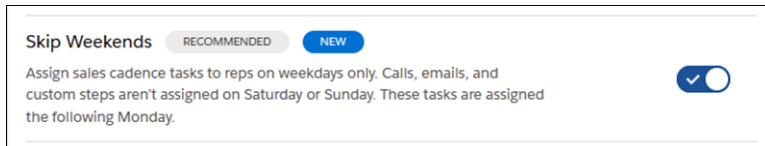
## Give Reps the Weekend off from Sales Cadences

Sales managers can let their teams enjoy the weekend. When you turn on the Skip Weekends setting, sales cadences assign tasks to reps on weekdays only. Calls, emails, and custom steps skip Saturdays and Sundays to be assigned the following Monday.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Why:** Prevent sales reps from worrying about sales tasks piling up or becoming overdue during weekends. Tasks appear in the Work Queue on Monday in the rep's time zone.

**How:** In High Velocity Sales Setup, turn on Skip Weekends.



## Use the API to Inspect Sales Cadences

View information related to sales cadences with the API. Developers can now access six new standard objects related to sales cadences: ActionCadence, ActionCadenceRule, ActionCadenceRuleCondition, ActionCadenceStep, ActionCadenceStepTracker, and ActionCadenceTracker.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

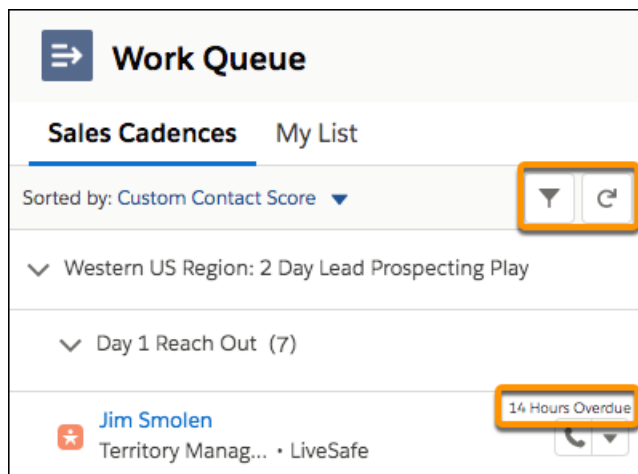
**Why:** These six new objects are available through the SOAP API. For more information, see [New and Changed Objects](#).

## See More Details in the Work Queue

Sales reps can see when actions in the Work Queue are overdue. Plus, we moved filters and the refresh button to improve usability.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Why:** The filter and refresh buttons are available below the Work Queue tabs. And overdue tasks show how long they are overdue.



## Enable Inbox Features for High Velocity Sales in a New Location

Salesforce Inbox now has a centralized location for enablement in the Inbox Setup Assistant page in Setup. Previously, there were multiple places to enable Inbox, depending on whether you had a High Velocity Sales, Sales Cloud Einstein, or Inbox license.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on for Enterprise, Performance, and Unlimited editions.

SEE ALSO:

[Enable Salesforce Inbox Features in New Location](#)

## Sales Users Can Filter Sales Cadence Steps in the Activity Timeline

Sales managers can filter for completed sales cadence tasks to track their sales reps' progress.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Why:** Click the filter icon in the activity timeline. Choose **Completed sales cadence tasks** to highlight progress on these tasks.

DATE RANGE

Within 2 months       Last 30 days  
 Next 7 days       Last 6 months  
 Last 7 days       All time

ACTIVITIES TO SHOW

All activities       My activities

ACTIVITY TYPE

All types       List email  
 Email       Logged calls  
 Events       Tasks  
 Completed sales cadence tasks

Restore Defaults      Apply & Save      Apply

## Keep Sales Cadences Moving Without a Built-In Calling Solution

Sales reps without Lightning Dialer or a third-party calling solution can now advance sales cadences with ease. If you don't have a built-in calling solution, when reps click a call action, we open the Log a Call panel automatically. After the call is logged, the sales cadence advances.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

## Sales Cloud Einstein: Enjoy Simplified Data Requirements

The data requirements for several Sales Cloud Einstein features are now simpler, making it easier to get meaningful sales intelligence within Salesforce.

**Where:** This change applies to Sales Cloud Einstein in Lightning Experience and Salesforce Classic. Sales Cloud Einstein is available for an extra cost in Enterprise, Performance, and Unlimited editions.

**Why:** The features with updated data requirements are Einstein Forecasting, Opportunity Insights, Opportunity Scoring, and Automated Contacts. For example, Einstein Opportunity Scoring used to require your company to have at least 1,000 closed opportunities in the last 2 years. Now, you only need 400 closed opportunities during that period, half of which are closed won.

**How:** These changes are automatic. To see which Sales Cloud Einstein features your company is ready for, run the Sales Cloud Einstein Readiness Assessor.

#### SEE ALSO:

[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\), Resolve Cases Faster with Article Recommendations, and Predict the Future Using Filters](#)

[Salesforce Help: Data Requirements for Sales Cloud Einstein \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Run the Sales Cloud Einstein Readiness Assessor \(can be outdated or unavailable during release preview\)](#)

## Core Sales Features: Einstein Opportunity Scoring for Everyone, Easier Forecast Editing, and More Territory Forecast Types

Einstein Opportunity Scoring is available to all eligible Sales Cloud users. Forecast users get inline editing for the opportunity list. Salesforce now supports six more territory forecast types. Use Process Builder, Flow Builder, and workflow rules to automate key processes for opportunity contact roles. Map LinkedIn consent and hidden fields to custom lead fields in Salesforce. And improve your customers' shopping experience by creating a path on the Fulfillment Order object.

#### IN THIS SECTION:

[Opportunities: Einstein Opportunity Scoring for Everyone and Product Search Filters](#)

Einstein Opportunity Scoring is available to all eligible Sales Cloud users, and new filters on opportunity products speed up the process of creating opportunities.

[Collaborative Forecasts: Inline Editing and New Territory Forecast Types](#)

Forecast users get inline editing for the opportunity list. And Salesforce now supports six more territory forecast types.

[Enterprise Territory Management: More Options for Reports and Forecasts](#)

Show territory information on Account reports. And choose from six more territory forecast types.

[Contacts: Enhancements to Opportunity Contact Roles and List Email Contacts](#)

Use Process Builder, Flow Builder, and workflow rules to automate key processes for opportunity contact roles. Search by account fields for contacts to add to list emails.

[Leads: Capture More Lead Data from LinkedIn Lead Gen Forms](#)

Give your sales reps access to more data about leads generated from LinkedIn. You can now map the LinkedIn Profile URL field, consent fields, and hidden fields to custom lead fields in Salesforce, giving sales reps access to important data. For example, add data from LinkedIn consent fields to track leads' preferences about communication and privacy.

[Price Book Entries: Get More from Price Book Entries Related Lists in Lightning Experience](#)

We added View to the quick actions on Price Book Entries related lists. Now it's easy for sales reps to see price book entry details without switching to Salesforce Classic.

[Path: Streamline Order Fulfillment](#)

Improve your customers' shopping experience by creating a path on the Fulfillment Order object. An order fulfillment path gives call center agents visibility into order status, and warehouse workers can easily update item status.

### Other Changes in Core Sales Features

To renew a subscription or a campaign, sales reps can now clone an opportunity or a campaign together with its related records. Customize related lists for account and opportunity teams to help reps collaborate more effectively. The Enterprise Territory Management critical update is now enforced. Customizable Forecasting and the original territory management feature are scheduled for retirement. And permissions for Collaborative Forecasts, fiscal year settings, and the original territory management feature have changed.

## Opportunities: Einstein Opportunity Scoring for Everyone and Product Search Filters

Einstein Opportunity Scoring is available to all eligible Sales Cloud users, and new filters on opportunity products speed up the process of creating opportunities.

### IN THIS SECTION:

#### [Focus on the Right Deals with Opportunity Scores](#)

AI is part of the Sales Cloud experience at no extra cost, which means all eligible Sales Cloud users have access to Einstein Opportunity Scoring. Scores help sales reps and managers prioritize opportunities and flag at-risk opportunities so they can close more deals.

#### [Use Filters to Narrow Opportunity Product Searches in Lightning Experience](#)

Sales reps can now use filters to home in on the exact products they want to add to opportunities in Lightning Experience. No more scrolling through a long list of products to add line items to an opportunity.

### Focus on the Right Deals with Opportunity Scores

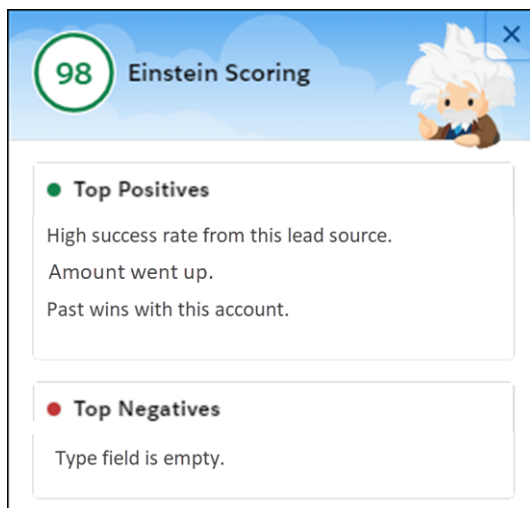
AI is part of the Sales Cloud experience at no extra cost, which means all eligible Sales Cloud users have access to Einstein Opportunity Scoring. Scores help sales reps and managers prioritize opportunities and flag at-risk opportunities so they can close more deals.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, and Unlimited editions.

**When:** This functionality is available later in the Spring '20 release.

**Who:** If your org is eligible, all users with a Salesforce user license can see opportunity scores. However, you can manage user access through the Sales Cloud Einstein For Everyone permission set.

**Why:** Artificial intelligence is a must-have for sales teams competing in today's marketplace. Einstein Opportunity Scoring gives each opportunity a score, from 1 to 99, which is available on opportunity records, list views, the forecasts page, and reports.



**How:** Follow the in-app prompt to get started with Einstein. Or, from the Assisted Setup page in Lightning Experience Setup, click **Turn It On**. We take care of the rest by creating a scoring model, adding the score field to page layouts, and assigning the permission set to users.

SEE ALSO:

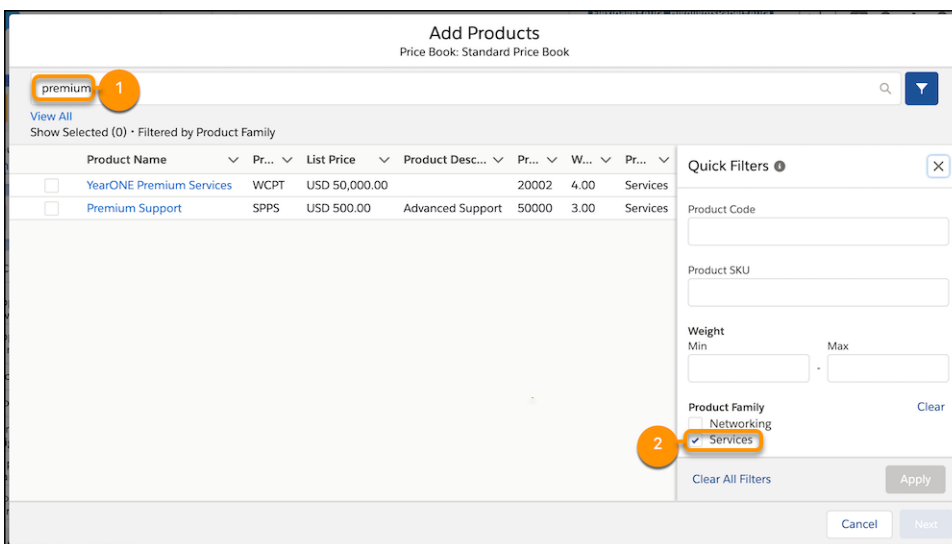
[Implementation Guide: Einstein Opportunity Scoring for Everyone \(can be outdated or unavailable during release preview\)](#)

## Use Filters to Narrow Opportunity Product Searches in Lightning Experience

Sales reps can now use filters to home in on the exact products they want to add to opportunities in Lightning Experience. No more scrolling through a long list of products to add line items to an opportunity.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** If your product catalog lists many items, your reps can now filter searches by product fields to narrow their search results. For example, on this opportunity, the results of a search for "premium" (1) are filtered to show results in only one product family (2).



 **Note:** The Quick Filter shows only Product object fields that are included in the price book entry search layout.

SEE ALSO:

[IdeaExchange: Product Filter in Lightning Experience - When Adding to Opportunity or Quote \(partially delivered\)](#)

[Salesforce Help: Add Products to Opportunities \(can be outdated or unavailable during release preview\)](#)

## Collaborative Forecasts: Inline Editing and New Territory Forecast Types

Forecast users get inline editing for the opportunity list. And Salesforce now supports six more territory forecast types.



## IN THIS SECTION:

[Update Multiple Deals from the Forecasts Page in Lightning Experience](#)

Forecast users now have another option for updating opportunities without leaving the forecasts page. With inline editing, users can edit multiple opportunities at the same time.

[Get More Options for Territory Forecasts](#)


We added support for territory quantity forecasts and for territory forecasts by schedule date. These changes mean that if your company forecasts by these methods, you can now use Collaborative Forecasts to reflect your business model. And with these forecast types come other features that aren't in Salesforce Classic, such as inline editing, quick actions, and wrapped text in the opportunity list.

## Update Multiple Deals from the Forecasts Page in Lightning Experience

Forecast users now have another option for updating opportunities without leaving the forecasts page. With inline editing, users can edit multiple opportunities at the same time.

**Where:** This change applies to Lightning Experience in Professional, Performance, and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

**Why:** The pencil icon makes it easy to update deals from the opportunity list.

Joseph Rogerson • Total: 3 Months • Open Pipeline • \$452,500.00				
Opportunity Name	Account Name	Amount	Close Date	
1 600 Phones	Mortenson's	\$60,500.00	10/15/2019	
2 500 Laptops	Mortenson's	\$125,000.00	12/10/2019	
3 500 Desktops	Mortenson's	\$267,000.00	11/14/2019	

## SEE ALSO:

[IdeaExchange: Inline Edit of Opportunities from the Forecast Tab](#)

## Get More Options for Territory Forecasts

We added support for territory quantity forecasts and for territory forecasts by schedule date. These changes mean that if your company forecasts by these methods, you can now use Collaborative Forecasts to reflect your business model. And with these forecast types come other features that aren't in Salesforce Classic, such as inline editing, quick actions, and wrapped text in the opportunity list.

**Where:** This change applies to Lightning Experience in Performance and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

**How:** Add one or more territory forecast types on the Forecasts Settings page in Setup.

### Select a Forecast Type

Select a forecast type to enable for users. Your Salesforce configurations determine which forecast types are available. No two configurations can have the same forecast type and measurement.

Forecast Type Opportunities by Territory ▼

Select **Opportunities by Territory** or **Product Families by Territory** as the forecast type. Then select a measurement type and a date type.

These new territory-based types are available.

- Opportunity Quantity by Territory
- Opportunity Quantity by Territory and Schedule Date

- Opportunity Revenue by Territory and Schedule Date
- Product Family Quantity by Territory
- Product Family Quantity by Territory and Schedule Date
- Product Family Revenue by Territory and Schedule Date

**SEE ALSO:**

[Salesforce Help: Forecast Types in Collaborative Forecasts \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Territory Forecasts \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Enable and Set Up Territory Forecasts \(can be outdated or unavailable during release preview\)](#)

## Enterprise Territory Management: More Options for Reports and Forecasts

Show territory information on Account reports. And choose from six more territory forecast types.

**IN THIS SECTION:**

### [Enhance Your Account Reports with Territory Details](#)

Now your sales team can include information about their active territory model on five standard Account reports. For example, they can create a list of contacts with their associated accounts and the active territories assigned to them. Relating information about accounts and territories can help teams plan sales activities.

### [Get More Territory Forecast Types](#)

We added support for territory quantity forecasts and for territory forecasts by schedule date. These changes mean that if your company forecasts by these methods, you can now use Collaborative Forecasts to reflect your business model.

**SEE ALSO:**

[Enable Manual Account Sharing in Enterprise Territory Management \(Critical Update, Enforced\)](#)

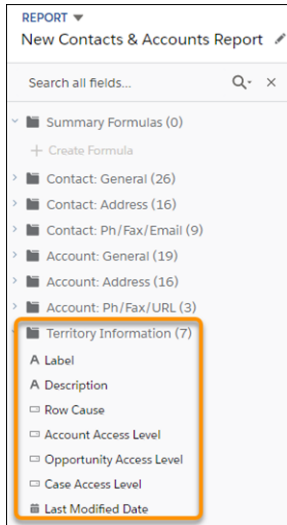
## Enhance Your Account Reports with Territory Details

Now your sales team can include information about their active territory model on five standard Account reports. For example, they can create a list of contacts with their associated accounts and the active territories assigned to them. Relating information about accounts and territories can help teams plan sales activities.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Performance and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

**How:** Add territory fields when you create or edit these standard reports.

- Account History
- Accounts
- Accounts with Assets
- Accounts with Contact Roles
- Accounts with Partners
- Contacts & Accounts



In the report builder and report output:

- Label is the territory name.
- Description is the territory description.

 **Note:**

- If you migrated from the original territory management feature, re-create your Account reports using Enterprise Territory Management. Territory fields added to Account reports in the original feature don't appear on reports for Enterprise Territory Management.
- If you assigned accounts to territories in the original feature, Account reports for Enterprise Territory Management include rows for those records, but without other information. Filter reports to exclude rows where the Label cell is empty and the Row Cause cell is defined.

## Get More Territory Forecast Types

We added support for territory quantity forecasts and for territory forecasts by schedule date. These changes mean that if your company forecasts by these methods, you can now use Collaborative Forecasts to reflect your business model.

**Where:** This change applies to Lightning Experience in Performance and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

SEE ALSO:

[Get More Options for Territory Forecasts](#)

## Contacts: Enhancements to Opportunity Contact Roles and List Email Contacts

Use Process Builder, Flow Builder, and workflow rules to automate key processes for opportunity contact roles. Search by account fields for contacts to add to list emails.

## IN THIS SECTION:

[Automate Processes for Opportunity Contact Roles](#)

Gain efficiencies and improve revenue attribution by using Process Builder, Flow Builder, and workflow rules to automate key processes for opportunity contact roles. For example, you can create a process that adds a required opportunity contact role to every new opportunity. You can also send notifications to opportunity owners when opportunity contact roles are created or updated.

[Use Account Criteria to Search Contacts for List Emails in Lightning Experience](#)

When adding contacts to list emails, sales reps can now search based on account fields. These added search options make it easier and faster to find the right people to email. This feature was previously available only in Salesforce Classic.

## Automate Processes for Opportunity Contact Roles

Gain efficiencies and improve revenue attribution by using Process Builder, Flow Builder, and workflow rules to automate key processes for opportunity contact roles. For example, you can create a process that adds a required opportunity contact role to every new opportunity. You can also send notifications to opportunity owners when opportunity contact roles are created or updated.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all Salesforce editions with the Sales or Service Cloud.

## SEE ALSO:

[Automate Opportunity Contact Role Creation and Updates with Lightning Flow](#)

[Salesforce Help: Set Up and Customize Opportunity Contact Roles](#)

[IdeaExchange: Process Builder - Allow Action to create Opportunity Contact Role record](#)

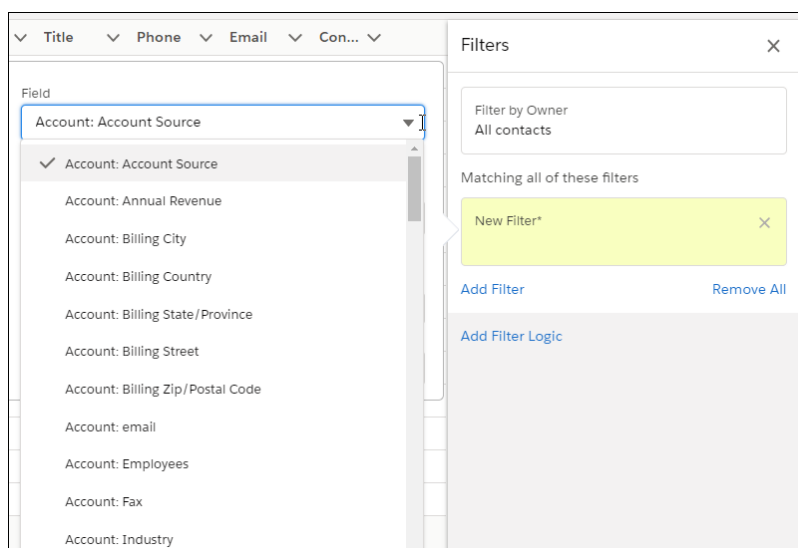
[IdeaExchange: Make Opportunity Contact Role a First Class Object](#)

## Use Account Criteria to Search Contacts for List Emails in Lightning Experience

When adding contacts to list emails, sales reps can now search based on account fields. These added search options make it easier and faster to find the right people to email. This feature was previously available only in Salesforce Classic.

**Where:** This change applies to Lightning Experience in all editions.

**How:** In the Contacts list view, create or edit a filter. Reps now see all the account fields that they have access to.



## SEE ALSO:

[Quickly Identify Contacts for List Emails with Account Criteria in Lightning Experience](#)

[Salesforce Help: Create or Clone a List View in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Send List Email in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

## Leads: Capture More Lead Data from LinkedIn Lead Gen Forms



Give your sales reps access to more data about leads generated from LinkedIn. You can now map the LinkedIn Profile URL field, consent fields, and hidden fields to custom lead fields in Salesforce, giving sales reps access to important data. For example, add data from LinkedIn consent fields to track leads' preferences about communication and privacy.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** In LinkedIn Lead Gen Setup, map the LinkedIn Profile URL, hidden, and consent fields to Salesforce lead fields.

▼ Map LinkedIn Consent Fields to Custom Fields



Each LinkedIn form can include up to five optional consent fields. Use consent fields to ask leads for permission to use their data in specific ways. To store consent field names and values in Salesforce, map the consent fields to custom lead fields. [Tell Me More](#)

 LINKEDIN CONSENT FIELDS	 LEAD FIELDS
Consent 1	<p><b>Content</b></p> <input type="text" value="Search fields..."/> <p><b>Accepted</b></p> <input type="text" value="Search fields..."/>
Consent 2	<p><b>Content</b></p> <input type="text" value="Search fields..."/> <p><b>Accepted</b></p> <input type="text" value="Search fields..."/>

To capture campaign-specific data for each lead, use LinkedIn hidden fields.

▼ Map LinkedIn Hidden Fields to Custom Fields

Each LinkedIn form can include up to 20 hidden fields. Use these fields to track campaign-specific information from each lead. To store the hidden field names and values in Salesforce, map the hidden fields to custom lead fields. [Tell Me More](#)

 LINKEDIN HIDDEN FIELDS	 LEAD FIELDS
Hidden Field 1	<p><b>Name</b></p> <input type="text" value="Search fields..."/> <p><b>Value</b></p> <input type="text" value="Search fields..."/>
Hidden Field 2	<p><b>Name</b></p> <input type="text" value="Search fields..."/> <p><b>Value</b></p> <input type="text" value="Search fields..."/>

Capture the lead's LinkedIn profile address with the LinkedIn Profile URL field.

## Price Book Entries: Get More from Price Book Entries Related Lists in Lightning Experience

We added View to the quick actions on Price Book Entries related lists. Now it's easy for sales reps to see price book entry details without switching to Salesforce Classic.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Users click **View** to access the Price Book Entry record home.

PRODUCT N...	PRODUCT CODE	LIST PRICE	ACTIVE
<a href="#">AC alternator</a>	AC430Q	USD 150.00	<input checked="" type="checkbox"/>
<a href="#">Air Filter</a>	P-A6512	USD 85.00	<input checked="" type="checkbox"/>
<a href="#">Battery Cables</a>	CAB4591	USD 70.00	<input checked="" type="checkbox"/>
<a href="#">Block Heater</a>	H-7774	USD 250.00	<input checked="" type="checkbox"/>
<a href="#">Diesel Engine</a>	DEX290	USD 590.00	<input checked="" type="checkbox"/>
<a href="#">Electric Fuel ...</a>	EL-35333	USD 350.00	<input checked="" type="checkbox"/>

## Path: Streamline Order Fulfillment

Improve your customers' shopping experience by creating a path on the Fulfillment Order object. An order fulfillment path gives call center agents visibility into order status, and warehouse workers can easily update item status.

**Where:** This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** The Fulfillment Order object is available to customers with a Salesforce Order Management license.

SEE ALSO:

[Automate Fulfillment and Payment Capture with Flows](#)

## Other Changes in Core Sales Features

To renew a subscription or a campaign, sales reps can now clone an opportunity or a campaign together with its related records. Customize related lists for account and opportunity teams to help reps collaborate more effectively. The Enterprise Territory Management critical update is now enforced. Customizable Forecasting and the original territory management feature are scheduled for retirement. And permissions for Collaborative Forecasts, fiscal year settings, and the original territory management feature have changed.

IN THIS SECTION:

[Clone Opportunities or Campaigns Along with Their Related Records](#)

The Clone with Related action makes it simple to create recurring opportunities and campaigns. Your account reps no longer have to find and add related items one by one when they re-create those records.

[Account and Opportunity Team Related List Customization Is Supported](#)

Help reps collaborate more effectively by customizing account and opportunity team related lists. Previously, customizations weren't displayed to end users.

[Enable Manual Account Sharing in Enterprise Territory Management \(Critical Update, Enforced\)](#)

Enable Manual Account Sharing in Enterprise Territory Management was a critical update in Spring '19 and is enforced in Spring '20. This critical update changes the `TerritoryManual` reason code in `AccountShare` records to `Territory2AssociationManual` and is required to let users share accounts manually with territory groups.

[Customizable Forecasting Is Being Retired](#)

Customizable Forecasting is scheduled for retirement as of Summer '20. After the feature is retired, users can't access the Customizable Forecasting feature and its underlying data. We encourage you to migrate to Collaborative Forecasts.

[Original Territory Management Is Being Retired](#)

The original territory management feature is scheduled for retirement as of Summer '21. After the feature is retired, users can't access the original territory management feature and its underlying data. We encourage you to migrate to Enterprise Territory Management.

[Permission Changes for Collaborative Forecasts and Fiscal Year Settings](#)

Access to forecasting objects and types in the Salesforce API is available for standard users with the View All Forecasts or Allow Forecasting permission or delegated forecast manager status. Also, access to API objects related to fiscal year settings is available for standard and partner users.

[Permission Changes to Original Territory Management](#)

Access to territories is available for standard and partner users. Also, access to users assigned to territories and account assignment rules is available for users with the View Setup and Configuration permission. To edit any of these objects, users must have the Manage Territories permission.

[Enforce Sharing Controlled by Parent for Google Docs Related to Salesforce Records \(Critical Update\)](#)

This update enables admins to set sharing permissions to "Controlled by Parent" for Google Docs. Only users with access to a record can see any Google documents related to the record.

## Clone Opportunities or Campaigns Along with Their Related Records

The Clone with Related action makes it simple to create recurring opportunities and campaigns. Your account reps no longer have to find and add related items one by one when they re-create those records.

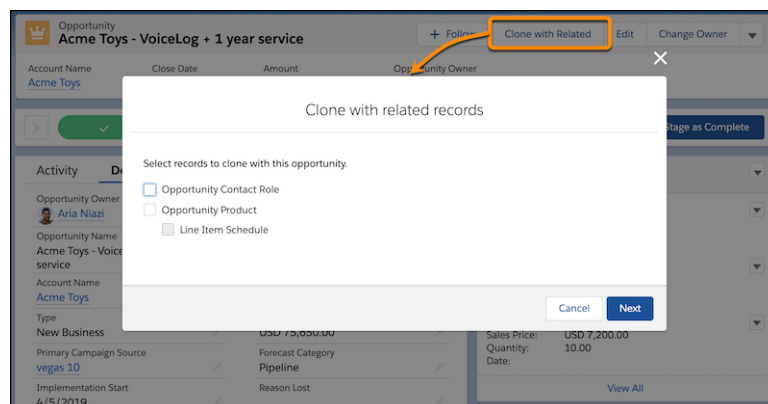
**Where:** This change applies to Lightning Experience in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To use the Clone with Related action, users must have Create permission on opportunities or campaigns and Read access to the record they want to clone.

**Why:** Sales reps and marketers can easily include related records when they clone opportunities or campaigns.

### Opportunities

A rep can renew a subscription by cloning contact roles, products, or product (line item) schedules along with an opportunity.



### Campaigns

When you use the Clone with Related action on a campaign, we duplicate your campaign record along with all its member statuses.

**How:** In the Object Manager, find the Opportunity or Campaign object and select **Page Layout**. Add the Clone with Related action to the layout, and save. In the dialog, the order of the options can't be changed.

SEE ALSO:

[Salesforce Help: Things to Know About Cloning Opportunities \(can be outdated or unavailable during release preview\)](#)

[IdeaExchange: Opportunity Cloning Should Clone the Contact Roles Too](#)


[IdeaExchange: Lightning - Include Clone with Products Action on Opportunities](#)

[IdeaExchange: Cloning a Campaign Should Clone Campaign Member Status Options in Lightning](#)

## Account and Opportunity Team Related List Customization Is Supported

Help reps collaborate more effectively by customizing account and opportunity team related lists. Previously, customizations weren't displayed to end users.

**Where:** This change applies to Lightning Experience and the new Salesforce mobile app in Enterprise, Performance, Unlimited, and Developer editions.

**How:** Enable account or opportunity teams by selecting the option to add the related list to the page layout. Then, in the Object Manager, find Account or Opportunity. In the page layout editor, find the Account Team or Opportunity Team related list. To customize the layout, select  and change the fields, sorting, and buttons as desired.

SEE ALSO:

[IdeaExchange: Configure Opportunity Team Related List in Lightning Experience](#)

[Salesforce Help: Customize Related Lists \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Enable Account Teams \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Enable Team Selling \(can be outdated or unavailable during release preview\)](#)

## Enable Manual Account Sharing in Enterprise Territory Management (Critical Update, Enforced)

Enable Manual Account Sharing in Enterprise Territory Management was a critical update in Spring '19 and is enforced in Spring '20. This critical update changes the `TerritoryManual` reason code in `AccountShare` records to `Territory2AssociationManual` and is required to let users share accounts manually with territory groups.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Performance and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

**When:** This critical update is enforced in the Spring '20 release.

**How:** If you have Apex code or integrations that work directly with the `AccountShare` object, make sure that you update all instances of the `TerritoryManual` reason code to `Territory2AssociationManual`.

SEE ALSO:

[Critical Updates and Security Alerts](#)

## Customizable Forecasting Is Being Retired

Customizable Forecasting is scheduled for retirement as of Summer '20. After the feature is retired, users can't access the Customizable Forecasting feature and its underlying data. We encourage you to migrate to Collaborative Forecasts.

**Where:** This change applies to Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.



**How:** Review our documentation and follow the instructions for setting up Collaborative Forecasts. If you use the original territory management feature, we also encourage you to migrate to Enterprise Territory Management.

SEE ALSO:

[Knowledge article: Customizable Forecasting Will Be Retired in the Summer '20 Release](#)  
[Original Territory Management Is Being Retired](#)

## Original Territory Management Is Being Retired

The original territory management feature is scheduled for retirement as of Summer '21. After the feature is retired, users can't access the original territory management feature and its underlying data. We encourage you to migrate to Enterprise Territory Management.

**Where:** This change applies to Salesforce Classic in Performance and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

**How:** Review our documentation and follow the instructions for setting up Enterprise Territory Management. If you use Customizable Forecasting, we also encourage you to migrate to Collaborative Forecasts. We also strongly recommend that you keep a comprehensive backup of your territory data while you're still using the original territory management feature.

SEE ALSO:

[Knowledge article: The Original Territory Management Module Will Be Retired in the Summer '21 Release](#)  
[Customizable Forecasting Is Being Retired](#)

## Permission Changes for Collaborative Forecasts and Fiscal Year Settings


Access to forecasting objects and types in the Salesforce API is available for standard users with the View All Forecasts or Allow Forecasting permission or delegated forecast manager status. Also, access to API objects related to fiscal year settings is available for standard and partner users.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Performance, and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

## Permission Changes to Original Territory Management

Access to territories is available for standard and partner users. Also, access to users assigned to territories and account assignment rules is available for users with the View Setup and Configuration permission. To edit any of these objects, users must have the Manage Territories permission.

**Where:** This change applies to Salesforce Classic in Performance and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

 **Note:** The original territory management feature is scheduled for retirement as of Summer '21. After the feature is retired, users can't access the original territory management feature and its underlying data. We encourage you to migrate to Enterprise Territory Management.

SEE ALSO:

[Knowledge article: The Original Territory Management Module Will Be Retired in the Summer '21 Release](#)

## Enforce Sharing Controlled by Parent for Google Docs Related to Salesforce Records (Critical Update)

This update enables admins to set sharing permissions to “Controlled by Parent” for Google Docs. Only users with access to a record can see any Google documents related to the record.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the mobile app in all editions.

**When:** This update has been available since Spring '20. The update auto-activates on a rolling basis starting on May 29, 2020 and finishes for all orgs by July 18, 2020.

**Who:** This change applies to all orgs.

**Why:** Currently, users without access to records can view Google documents related to the record. When this update is enabled, only users with access to a record can view the Google document. This change is considered a security enhancement as it prevents users without access to a parent record from viewing.

**How:** The security of your organization will be improved because only users with access to parent records can access related Google documents.

## Productivity Features: Send Later, List Email Drafts, Email Threading, and Task Queues

Your sales reps are on their way to increased productivity with several new features. They can now schedule an email to arrive at the perfect day and time. And list emails are easier to write now that reps can save a draft and come back to their work. With email threading, reps can see an entire conversation in one place, without getting lost in the replies and side conversations. And your reps can efficiently share work items by assigning tasks to a queue.

### IN THIS SECTION:

#### [Email Experience: Scheduled Emails, List Email Drafts, and Enhanced Email Relays](#)

Sales reps can schedule emails to be sent up to six weeks later, timing an email to when the recipient is most likely to open it. Using list emails is easier too, because reps can save a draft of the email and perfect it before it's sent. And we enhanced email relay set up with two new Setup pages.

#### [Email Templates: Well-Formed Templates and Home Page Enhancements](#)

It's easier to create a template without errors, with more specific error message about problems in an email template. Also, reps can manage their email templates using row-level actions on the email templates home page.

#### [Activities: Assign Tasks to a Queue to Share Work Efficiently](#)

Let sales reps share their workload by setting up queues for tasks. Reps can assign tasks to their shared queues, and then individuals can take ownership of those tasks from the queue's list view.

#### [Einstein Activity Capture: Easier Navigation and Manual Connection for Microsoft Exchange](#)

We simplified setup navigation for Einstein Activity Capture and Inbox users. Plus, if your Exchange Web Service (EWS) isn't exposed externally, you can manually set a connection between Microsoft Exchange and Salesforce.

#### [Salesforce Inbox Mobile: Smarter Selling from Your Inbox](#)

Salesforce Inbox integrates your email and calendar with Salesforce, so sales reps can manage their work sales more efficiently. Inbox increases reps' productivity on every email message, whether they're on the go or at their desk.

#### [Legacy Inbox: Supplemental Contact Information Scheduled for Retirement](#)

The Supplemental Contact Information, including the ability to view information from third-party resources on summary and detailed contact pages, is no longer available as of January 31, 2020.

[Notes: Permission Requirements for Viewing Notes Have Changed](#)

We enhanced notes security with stronger user permissions. To view notes on a related child record, reps need permission to the parent record. Previously, reps could access notes on all records, except accounts, without permission to the parent record.

[Calendar: Event Details on Hover and Object Calendars Available in the API](#)

Sales reps can see event details without clicking to open the preview card. Developers can use the CalendarView object in the API to create and distribute object calendars.

[Lightning News: Get News from More Countries](#)

As part of our ongoing efforts to bring more English-language news sources into Salesforce, you can now access English-language articles from more countries: Brazil, France, Germany, India, Japan, and the Netherlands. And, if you use Einstein Account Insights, news-related insights include these added news sources.

## Email Experience: Scheduled Emails, List Email Drafts, and Enhanced Email Relays

Sales reps can schedule emails to be sent up to six weeks later, timing an email to when the recipient is most likely to open it. Using list emails is easier too, because reps can save a draft of the email and perfect it before it's sent. And we enhanced email relay set up with two new Setup pages.

### IN THIS SECTION:

[Schedule and Manage Scheduled Emails in Lightning Experience](#)

Sales reps can specify email arrival times to increase the chances of an email being read. They can schedule an email to arrive at the start of a contact's work day, for example. The new Scheduled Emails component lets reps update content of a scheduled email, and change its scheduled date and time.

[Use Drafts to Perfect Your List Emails](#)

Sales reps can take their time when creating list emails. Reps can now save their work as a draft and return to it later.

[Quickly Identify Contacts for List Emails with Account Criteria in Lightning Experience](#)

Your sales reps can identify the right people to email by using a search criteria based on account fields. With more fields in a filter, reps can narrow down their contact list more precisely. This feature was previously available only in Salesforce Classic.

[Enable Compliance BCC Emails in Professional Edition](#)

The Compliance BCC Emails feature automatically sends a hidden copy of each outbound email message to an email address you specify. In Spring '20, this feature is available in Professional Edition in addition to Enterprise, Performance, Unlimited, and Developer editions.

[Set Up Enhanced Email Relays](#)

The new Email Relays page lets you configure multiple email relays and filters for recipient and sender domains for email sent through Salesforce. You can also set up authentication between the Salesforce mail servers and the configured relay host through the new Email Domain Filters Setup page. To enable these new options, we removed the Email Relay Activation page in Setup, moved all the email relay settings to a new Setup page, and added the Email Domain Filters pages.

[Prepare for the Updated Email Bounce Warning](#)

When an email bounces, users get a visual heads-up. The email bounce warning has an updated look and new functionality. Sales reps can hover over the warning icon to see the message. To remove the warning message, update the email address.

[Get Ready for Email Address Internationalization in Summer '20](#)

Starting in Summer '20, Salesforce will support Email Address Internationalization (EAI) through UTF-8 encoding so that you can use non-Latin-based language characters in email addresses. We're prepping all standard email fields for the switch and sharing steps that you can take so that your custom email fields are ready. You don't have to use international email addresses after the switch, but if you do, preparing your Salesforce org ensures a smooth transition.

### [Track Changes to Send Email Access Level](#)

Monitor changes to your access to send email in Salesforce without contacting Customer Support. We added the Access level field on the Deliverability Setup page to the Setup Audit Trail.

### [Email Certificate Authority List Was Standardized](#)

To help ensure the dependable and secure email delivery that you expect, we updated the Salesforce Certificate Authority (CA) list for emails sent through Salesforce. The email CA list now includes the current Salesforce outbound messaging SSL CA list entries.

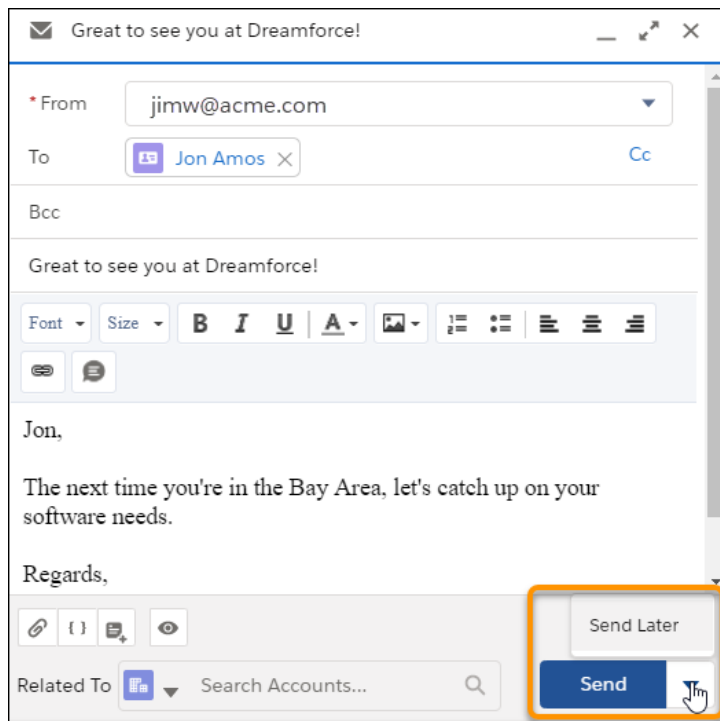
## Schedule and Manage Scheduled Emails in Lightning Experience

Sales reps can specify email arrival times to increase the chances of an email being read. They can schedule an email to arrive at the start of a contact's work day, for example. The new Scheduled Emails component lets reps update content of a scheduled email, and change its scheduled date and time.

**Where:** This change applies to orgs with Salesforce Inbox and Enhanced Email enabled in Lightning Experience in Enterprise, Performance, and Unlimited editions.

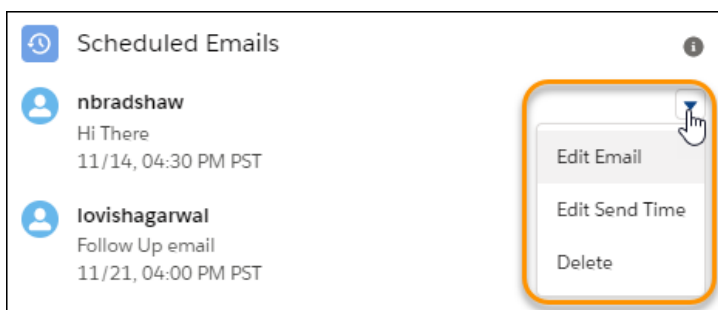
**Who:** Users with the Use Inbox user permission, available with a High Velocity Sales, Sales Cloud Einstein, or Inbox license.

**How:** To schedule an email, sales reps select **Send Later** in the email composer.



The rep then selects the date and time and clicks **Schedule**.

To let your reps manage scheduled emails, use **Edit Page** to add the Send Email Later - Pending List component to any object's home page, including the Salesforce homepage.



Using that component, reps can reschedule, edit, or delete an already-scheduled email.

#### SEE ALSO:

[IdeaExchange: Log an email set for Send Later in SalesforceIQ Inbox](#)

[Schedule and Manage Scheduled Emails in High Velocity Sales](#)

[Salesforce Help: Set Up Scheduled Email Management \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Use Enhanced Email for More Email Functionality \(can be outdated or unavailable during release preview\)](#)

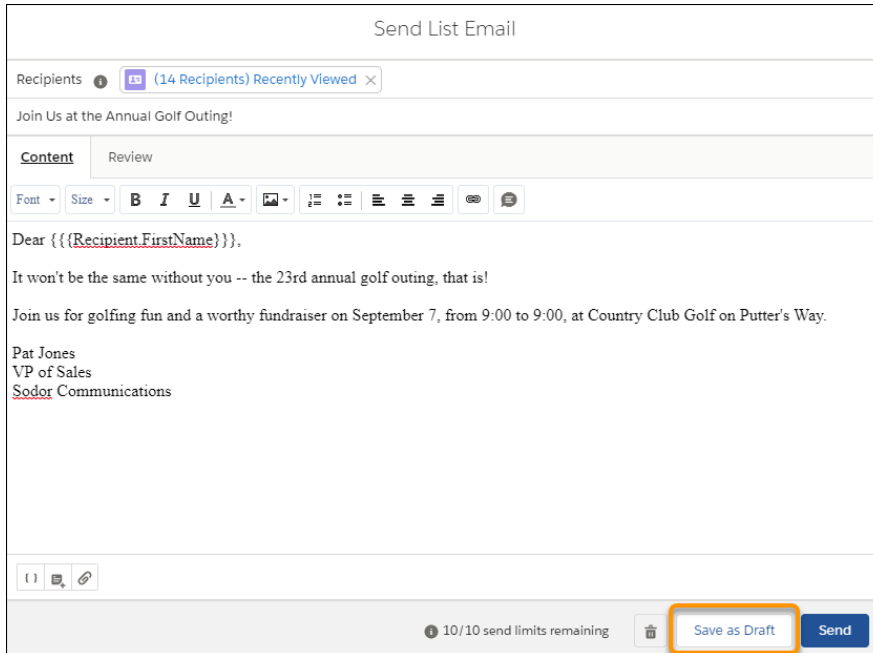
[Salesforce Help: Use the Salesforce Merge Language in Lightning Email Templates \(can be outdated or unavailable during release preview\)](#)

## Use Drafts to Perfect Your List Emails

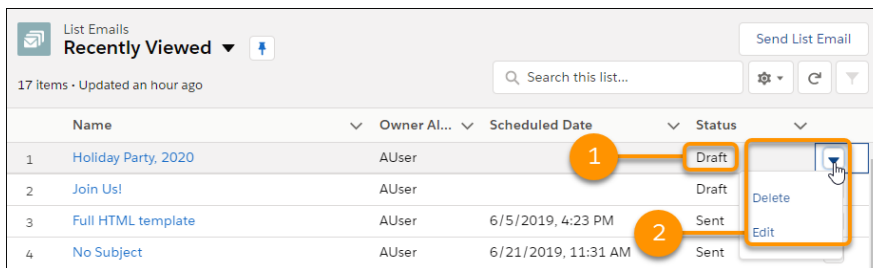
Sales reps can take their time when creating list emails. Reps can now save their work as a draft and return to it later.

**Where:** This change applies to Lightning Experience in the Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** From a contact or lead home page, click **Send List Email** and start writing the content. To save your changes, click **Save as Draft**.



To resume editing the list email, go to the List Email home page.



Find your draft list email (1) and continue editing (2). When you're done editing, save the draft again or send the list email.

SEE ALSO:

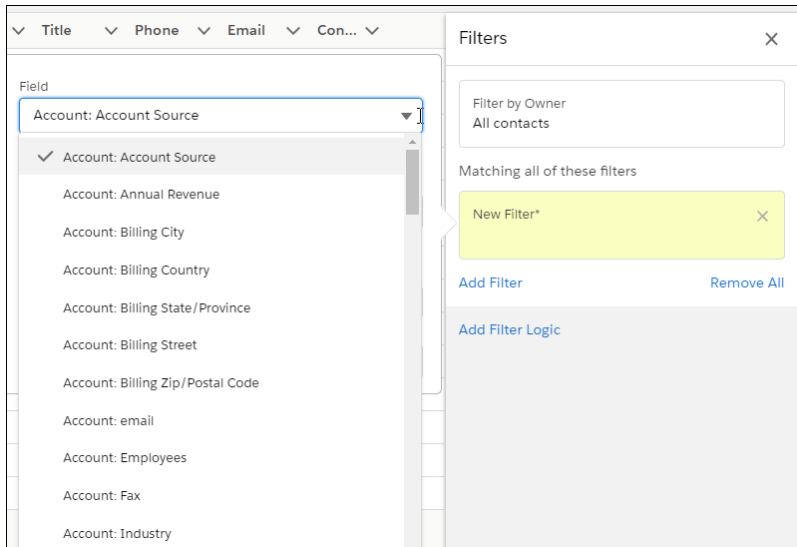
[Salesforce Help: Send List Email in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

## Quickly Identify Contacts for List Emails with Account Criteria in Lightning Experience

Your sales reps can identify the right people to email by using a search criteria based on account fields. With more fields in a filter, reps can narrow down their contact list more precisely. This feature was previously available only in Salesforce Classic.

**Where:** This change applies to Lightning Experience in all editions.

**How:** In the Contacts list view, create or edit a filter. Reps now see all the account fields that they have access to.



From the filtered list, select one or more contacts and click **Send List Email**.

#### SEE ALSO:

[Use Account Criteria to Search Contacts for List Emails in Lightning Experience](#)

[Salesforce Help: Create or Clone a List View in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Send List Email in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

## Enable Compliance BCC Emails in Professional Edition

The Compliance BCC Emails feature automatically sends a hidden copy of each outbound email message to an email address you specify. In Spring '20, this feature is available in Professional Edition in addition to Enterprise, Performance, Unlimited, and Developer editions.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional Edition.

#### SEE ALSO:

[Salesforce Help: Enable Compliance BCC Emails \(can be outdated or unavailable during release preview\)](#)

## Set Up Enhanced Email Relays

The new Email Relays page lets you configure multiple email relays and filters for recipient and sender domains for email sent through Salesforce. You can also set up authentication between the Salesforce mail servers and the configured relay host through the new Email Domain Filters Setup page. To enable these new options, we removed the Email Relay Activation page in Setup, moved all the email relay settings to a new Setup page, and added the Email Domain Filters pages.


**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

 **Note:** Experiencing deja vu? We announced this change in Spring '19. In Spring '20, we activate it for all customers.

**Who:** These Setup changes are visible only to customers who didn't manually activate the enhanced email relay pages before Spring '20.

**When:** The Email Relay Activation page is visible for several days after the release as Salesforce migrates your org to the enhanced email relay Setup pages. During this window, relay modification is disabled to preserve data integrity. If you can't wait to update your relay settings, you can manually enable the new Email Relays and Email Domain Filter Setup pages.

**How:** To manually enable the enhanced pages, from Setup, enter *Email Relay Activation* in the Quick Find Box, and select **Email Relay Activation**. Select **Enable Enhanced Email Relay**.

 **Note:** If you don't find **Email Relay Activation** in Setup, we migrated your org to the new Email Relays and Email Domain Filter Setup pages.

SEE ALSO:

[Salesforce Help: Set Up Email Relay \(can be outdated or unavailable during release preview\)](#)

[Knowledge Article: Set Up an Email Domain Filter \(can be outdated or unavailable during release preview\)](#)

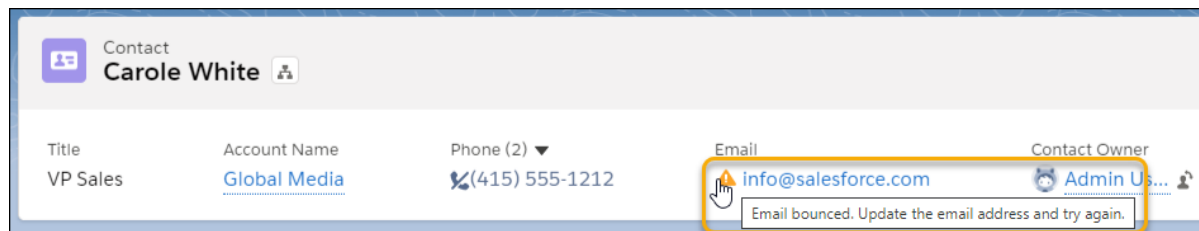
## Prepare for the Updated Email Bounce Warning

When an email bounces, users get a visual heads-up. The email bounce warning has an updated look and new functionality. Sales reps can hover over the warning icon to see the message. To remove the warning message, update the email address.

**Where:** This change applies to Lightning Experience in the Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** If the user has update rights to the record, they can click **Edit** to update the contact's email address. Updating the email address removes the bounce warning.

**Why:** On the contact, lead or person account record, a bounce warning appears next to the email address in the highlights panel.



Reps can also see the bounce warning in the activity timeline.

SEE ALSO:


[Salesforce Help: Enable Email Bounce Handling \(can be outdated or unavailable during release preview\)](#)

## Get Ready for Email Address Internationalization in Summer '20

Starting in Summer '20, Salesforce will support Email Address Internationalization (EAI) through UTF-8 encoding so that you can use non-Latin-based language characters in email addresses. We're prepping all standard email fields for the switch and sharing steps that you can take so that your custom email fields are ready. You don't have to use international email addresses after the switch, but if you do, preparing your Salesforce org ensures a smooth transition.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.



 **Note:** EAI support isn't generally available unless, or until, Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

**How:** If you want to use internationalized emails, there are four parts to preparing for Email Address Internationalization (EAI) support.

- Ensure that UTF-8 support exists throughout the email's path.
- Update your integrations to support Unicode characters.
- Adopt the latest Apex and API version.
- Ensure that all fields storing email addresses use the email data type.

For details, see the knowledge article, [Prepare for Salesforce Email Address Internationalization \(EAI\) support](#).

## Track Changes to Send Email Access Level

Monitor changes to your access to send email in Salesforce without contacting Customer Support. We added the Access level field on the Deliverability Setup page to the Setup Audit Trail.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Contact Manager, Essentials, Group, Professional, Enterprise, Performance, Unlimited, Developer, and Database.com editions.

SEE ALSO:

[Monitor More Changes in the Setup Audit Trail](#)

*IdeaExchange:* [Email Deliverability Changes Not Tracked in Audit Log](#)

## Email Certificate Authority List Was Standardized

To help ensure the dependable and secure email delivery that you expect, we updated the Salesforce Certificate Authority (CA) list for emails sent through Salesforce. The email CA list now includes the current Salesforce outbound messaging SSL CA list entries.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions.

SEE ALSO:

*Salesforce SOAP API Developer Guide:* [Understanding Outbound Messaging](#)

*Knowledge Article:* [Know more about all the SSL certificates that are supported by Salesforce](#)

*Salesforce.com:* [Outbound Messaging SSL CA List](#)

## Email Templates: Well-Formed Templates and Home Page Enhancements

It's easier to create a template without errors, with more specific error message about problems in an email template. Also, reps can manage their email templates using row-level actions on the email templates home page.

IN THIS SECTION:

[Validate Salesforce Merge Field Syntax When Saving Email Templates](#)

Using Salesforce Merge Language merge fields in Lightning and Classic email templates is now less error-prone. Template creators can see and fix merge field syntax mistakes when they save an email template. Error messages indicate the problem field.

[Manage Email Templates from the Template Home Page](#)

Reps can manage their email templates using row-level actions on the email templates home page.

### [Update Visualforce Email Templates for Guest Users](#)

Protect access to your company's data when you send Visualforce Classic email templates to guest users. Review and update these templates so that they can still be used.

## Validate Salesforce Merge Field Syntax When Saving Email Templates

Using Salesforce Merge Language merge fields in Lightning and Classic email templates is now less error-prone. Template creators can see and fix merge field syntax mistakes when they save an email template. Error messages indicate the problem field.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** When creating or editing an email template, you can introduce a typo into an email template's merge field.

When a sales rep uses an email template that has an error in a Salesforce Merge Language merge field, the merge field is omitted. When a merge field has a syntax error, such as missing a closing curly brace, the email is sent with unpredictable content. For example, the content that follows the incorrectly formatted merge field can be omitted from the email.

Now when you save an email template that uses Salesforce Merge Language merge fields, the merge field syntax is validated.

 **Note:** This change applies to Classic and Lightning email templates using the Salesforce Merge Language merge fields. Lightning email templates using the Handlebars Merge Language aren't affected.

SEE ALSO:


[Salesforce Help: Use the Salesforce Merge Language in Lightning Email Templates \(can be outdated or unavailable during release preview\)](#)

## Manage Email Templates from the Template Home Page

Reps can manage their email templates using row-level actions on the email templates home page.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Row-level actions let users manage items while viewing them in a list.

Email Template Name	Description	Folder	Last Modified By	Last Modified Date	
Letterhead Links Template		Public Email Templates	Admin User	11/13/2019, 05:06 PM	
Product test template		Public Email Templates	Admin User	11/13/2019, 05:06 PM	Edit
Follow-up Email		Public Email Templates	Admin User	11/13/2019, 05:06 PM	Clone
EAP Template		Public Email Templates	Admin User	11/13/2019, 05:06 PM	Delete

The choices depend on the user's editing rights to the email template.

The choices are also reflected in the buttons available when viewing the email template.



## Update Visualforce Email Templates for Guest Users

Protect access to your company's data when you send Visualforce Classic email templates to guest users. Review and update these templates so that they can still be used.

**Where:** This change applies to Salesforce orgs with active public communities, sites, and portals in Enterprise, Performance, Unlimited, and Developer editions.

**When:** This security policy released in Summer '20 and is immediately enforced.

**Who:** This change applies to Visualforce email templates that target guest users in communities.

**How:** Add the `renderUsingSystemContextWithoutSharing="True"` attribute to every Visualforce email template.

**Important:** Assess the impact of the guest security policy and, if necessary, update Visualforce email templates sent to guest users.

SEE ALSO:

[Ensure Guest User Access to Emails Created with Visualforce Email Templates](#)

[Salesforce Help: Create Visualforce Email Templates in Salesforce Classic](#)

## Activities: Assign Tasks to a Queue to Share Work Efficiently

Let sales reps share their workload by setting up queues for tasks. Reps can assign tasks to their shared queues, and then individuals can take ownership of those tasks from the queue's list view.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** When reps assign tasks to a queue, those tasks are available to members of the queue, which means everyone can pitch in to help. No more relying on one sales rep to do it all. Now others on the team can lend a hand without waiting for work to be delegated or reassigned.

**How:** In Setup, enter `QUEUES` in the Quick Find box and then select **Queues**. From the Queues setup page, select **New**. Then, create a queue and assign Task as the supported object.

The screenshot shows the 'Queues' setup page in Salesforce. The page title is 'Edit Queue Leads to Call'. Below the title, there are 'Save' and 'Cancel' buttons. The main section is 'Queue Name and Email Address', which includes a 'Label' field with 'Leads to Call', a 'Queue Name' field with 'Leads\_to\_Call', and a 'Queue Email' field. There is also a 'Send Email to Members' checkbox. Below this is the 'Supported Objects' section, which has a heading 'Select the objects you want to assign to this queue. Individual records for those objects can then be owned by this queue.' It features two columns: 'Available Objects' and 'Selected Objects'. The 'Available Objects' list includes: Authorization Form, Authorization Form Consent, Authorization Form Data Use, Business License, Case, Communication Subscription, Communication Subscription Channel Type, Contact Point Type Consent, Contact Request, Data Use Legal Basis, Data Use Purpose, Engagement Channel Type, Image, and Lead. The 'Selected Objects' list contains 'Task'. There are 'Add' and 'Remove' buttons between the columns. At the bottom, there is a 'Queue Members' section with instructions on how to add members and a search bar for users.

SEE ALSO:

[IdeaExchange: Allow Task\(s\) to be assigned to a Queue](#)

[Salesforce Help: Considerations for Using Tasks \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Set Up Queues \(can be outdated or unavailable during release preview\)](#)

[New and Changed Objects](#)

## Einstein Activity Capture: Easier Navigation and Manual Connection for Microsoft Exchange

We simplified setup navigation for Einstein Activity Capture and Inbox users. Plus, if your Exchange Web Service (EWS) isn't exposed externally, you can manually set a connection between Microsoft Exchange and Salesforce.

IN THIS SECTION:

[See the Whole Conversation with Email Threading](#)

Sales reps rely on the activity timeline to see relevant emails. Now Einstein Activity Capture users see related emails in the activity timeline grouped in a single thread. By seeing emails together as a conversation, reps can easily review the whole discussion.

[Find Einstein Activity Capture User Settings in New Location](#)

Einstein Activity Capture users now connect accounts from the Connected Accounts page in their personal settings. And they set their sharing settings from the Sharing Settings page. Previously, the account connections and sharing settings were on the Settings page.

[Connect Salesforce to Your Microsoft Exchange Endpoint](#)

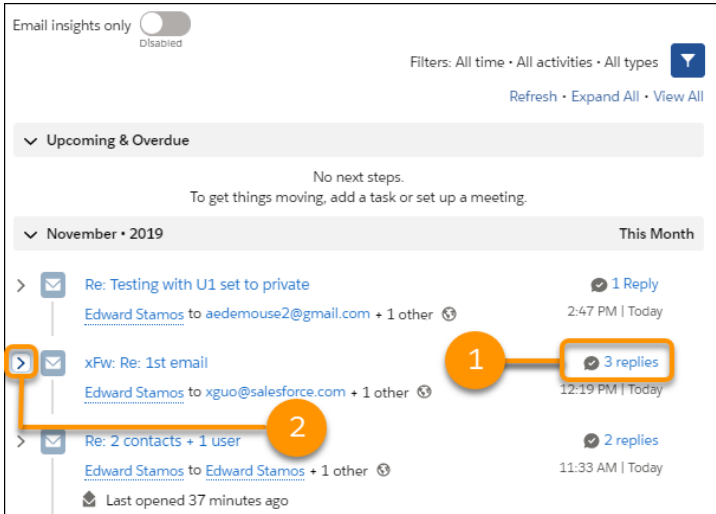
When setting up Einstein Activity Capture for syncing, now you can manually set your Microsoft Exchange endpoint. This enhancement is especially helpful if you turned off the autodiscovery setting in Microsoft Exchange.

## See the Whole Conversation with Email Threading

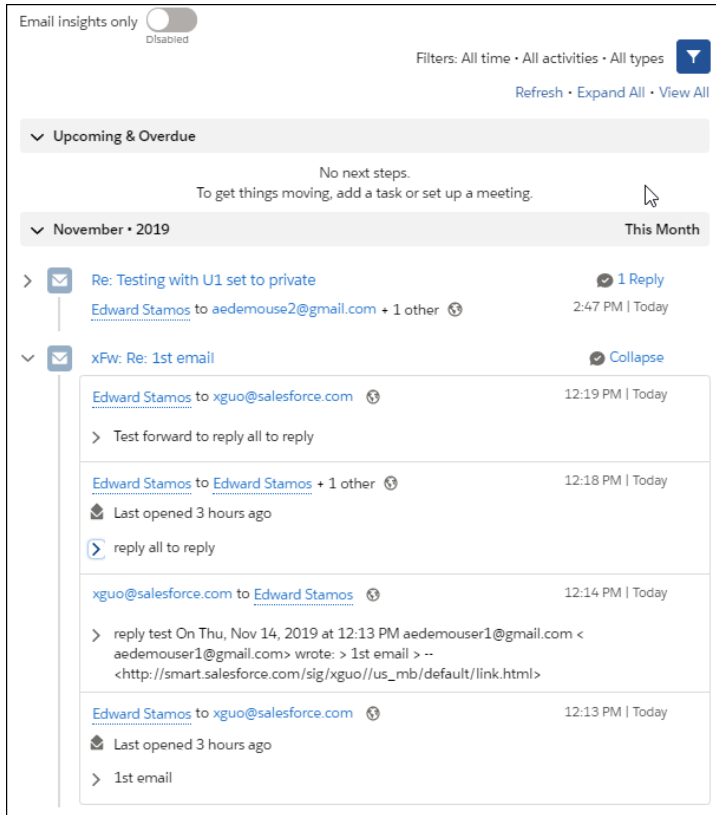
Sales reps rely on the activity timeline to see relevant emails. Now Einstein Activity Capture users see related emails in the activity timeline grouped in a single thread. By seeing emails together as a conversation, reps can easily review the whole discussion.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.


**Why:** A rep can see emails in context with email threading.



The activity timeline shows how many replies (1) are in the email thread: 1, 2, or 3+. Click the chevron (2) to open the thread and see all the emails.



With the thread opened, reps can see and expand the individual emails, showing engagement info and any email insights.

 **Note:** When using Reply, Reply All, or Forward in a threaded email, scheduling emails isn't available.

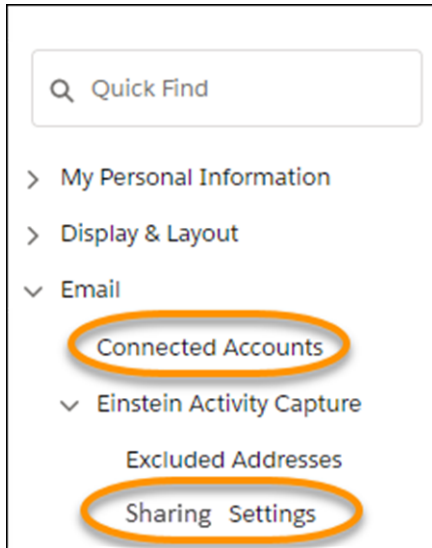
**How:** All emails sent after the Spring '20 release is activated are threaded. Previous emails for existing users aren't threaded. When a new Einstein Activity Capture user is enabled in a Spring '20 or later release, their existing emails are crawled and are threaded.

## Find Einstein Activity Capture User Settings in New Location

Einstein Activity Capture users now connect accounts from the Connected Accounts page in their personal settings. And they set their sharing settings from the Sharing Settings page. Previously, the account connections and sharing settings were on the Settings page.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

**Why:** Connecting accounts applies to Einstein Activity Capture and Salesforce Inbox, two features that can be used together. These navigation changes simplify the setup experience for users who have both.



SEE ALSO:

[Salesforce Help: Connect Your Email and Calendar to Salesforce with Einstein Activity Capture \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Control How Activities Added by Einstein Activity Capture Are Shared \(can be outdated or unavailable during release preview\)](#)

## Connect Salesforce to Your Microsoft Exchange Endpoint

When setting up Einstein Activity Capture for syncing, now you can manually set your Microsoft Exchange endpoint. This enhancement is especially helpful if you turned off the autodiscovery setting in Microsoft Exchange.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

**Why:** If your Exchange Web Service (EWS) isn't exposed externally, Einstein Activity Capture can't find your Microsoft Exchange account. When you manually connect your Microsoft Exchange endpoint to Einstein Activity Capture, your Microsoft Exchange users can use Einstein Activity Capture to sync contacts and events.

**How:** From the Microsoft Exchange Connections page in Setup, click **New**.

SEE ALSO:

[Salesforce Help: Set Up Einstein Activity Capture \(can be outdated or unavailable during release preview\)](#)

## Salesforce Inbox Mobile: Smarter Selling from Your Inbox

Salesforce Inbox integrates your email and calendar with Salesforce, so sales reps can manage their work sales more efficiently. Inbox increases reps' productivity on every email message, whether they're on the go or at their desk.

Learn about the latest features and enhancements to Inbox mobile in Salesforce Help.

- [Inbox Mobile for iOS](#)
- [Inbox Mobile for Android](#)

To learn about the latest features and enhancements in Inbox desktop, see the Outlook Integration, Gmail Integration, and Email Experience sections of the Salesforce release notes.

SEE ALSO:

[Outlook® Integration: Transparency to Respect Email Privacy Settings, Event Logging Improvements, and Template Updates](#)

[Gmail™ Integration: Improved Transparency to Respect Email Privacy Settings, Logged Event Classification, and Template Updates](#)

[Email Experience: Scheduled Emails, List Email Drafts, and Enhanced Email Relays](#)

## Legacy Inbox: Supplemental Contact Information Scheduled for Retirement

The Supplemental Contact Information, including the ability to view information from third-party resources on summary and detailed contact pages, is no longer available as of January 31, 2020.

**Where:** This change applies to the Legacy Inbox application available for an extra cost in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions. Inbox is available at no cost in Essentials edition.

SEE ALSO:

[Knowledge Article: Retirement of the Contact Enrichment feature in 'Legacy Inbox' Desktop and 'Inbox Mobile' application](#)

## Notes: Permission Requirements for Viewing Notes Have Changed

We enhanced notes security with stronger user permissions. To view notes on a related child record, reps need permission to the parent record. Previously, reps could access notes on all records, except accounts, without permission to the parent record.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## Calendar: Event Details on Hover and Object Calendars Available in the API

Sales reps can see event details without clicking to open the preview card. Developers can use the CalendarView object in the API to create and distribute object calendars.

IN THIS SECTION:

[View Event Details Faster Than Ever](#)

Sales reps can view event details quickly by hovering over an event on their calendars. From the event details, they can edit or delete the event. Previously, it took reps more time to view and update events, and to see the preview card.

[Create Object Calendars from the API](#)

Developers can view, create, and distribute object calendars represented by the standard object CalendarView. Previously, object calendars could only be created from the user interface.

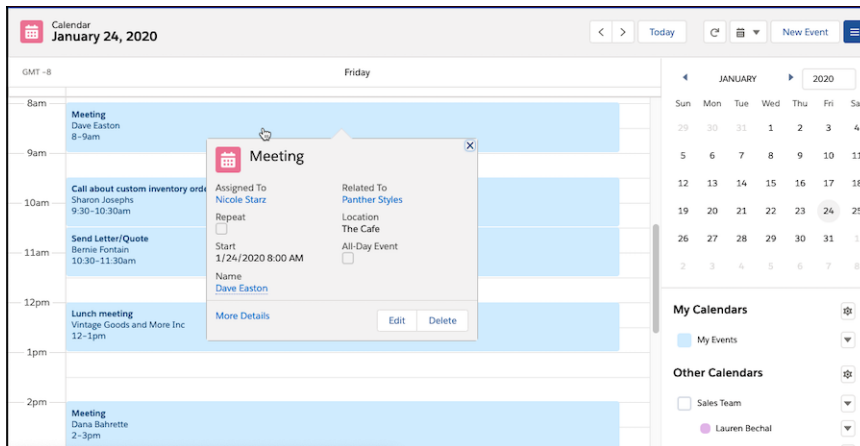
### View Event Details Faster Than Ever

Sales reps can view event details quickly by hovering over an event on their calendars. From the event details, they can edit or delete the event. Previously, it took reps more time to view and update events, and to see the preview card.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.



**Why:** When you hover over an event, the event preview displays, revealing the details you need to plan your day.



**How:** To update the fields your reps see in the event detail preview, customize your compact layout for events.

SEE ALSO:

[Salesforce Help: Create Compact Layouts \(can be outdated or unavailable during release preview\)](#)

## Create Object Calendars from the API

Developers can view, create, and distribute object calendars represented by the standard object `CalendarView`. Previously, object calendars could only be created from the user interface.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Object Reference for Salesforce and Lightning Platform: CalendarView \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Create an Object Calendar in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

[New and Changed Objects](#)

## Lightning News: Get News from More Countries

As part of our ongoing efforts to bring more English-language news sources into Salesforce, you can now access English-language articles from more countries: Brazil, France, Germany, India, Japan, and the Netherlands. And, if you use Einstein Account Insights, news-related insights include these added news sources.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Essentials, Group, Professional, Enterprise, Performance, and Unlimited editions.

SEE ALSO:

[Salesforce Help: News \(can be outdated or unavailable during release preview\)](#)

## Gmail™ Integration: Improved Transparency to Respect Email Privacy Settings, Logged Event Classification, and Template Updates

We added information about customers' email privacy settings directly in the integration so that reps know how to best communicate with customers. When logging events to Salesforce, reps can now identify the event type. And we updated the template flow, making it easier to create templates and add them to emails.

### IN THIS SECTION:

#### [Know Which Recipients Have Email Restrictions in the Gmail Integration](#)

When sending emails from Gmail and using the Gmail integration, sales reps can now see customers' email privacy settings in the integration. Previously, reps referred to the contact or lead record in Salesforce to see the email privacy settings.

#### [Classify the Events Logged to Salesforce from the Gmail Integration](#)

Identifying the types of communications reps have with customers and prospects improves your business reporting and processes. Sales reps can now select an event type, such as a call or meeting, when logging an event to Salesforce from the Gmail integration.

#### [Work More Efficiently with Email Templates in the Gmail Integration](#)

It's easier now for your sales reps to create templates, apply existing templates to emails, and populate merge fields with relevant records. And a cleaner layout supports productivity and message standardization.

#### [Schedule High Velocity Sales Emails to Send Later](#)

Sending emails at just the right time is a large part of closing deals. Sales reps working from the High Velocity Sales Work Queue in the Gmail integration can schedule all emails, cadence or otherwise, to send later.

#### [Enable Inbox Features for the Gmail Integration in New Location](#)

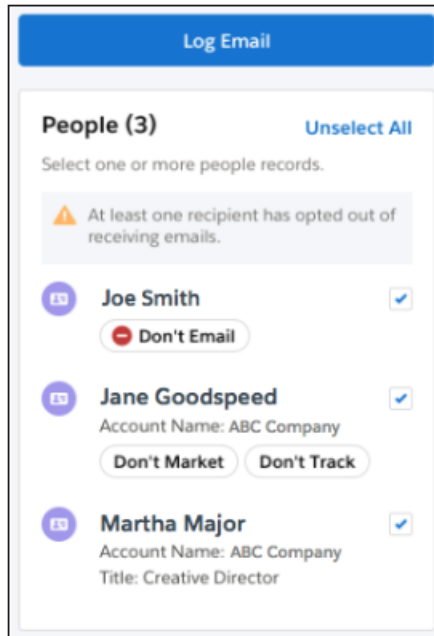
Salesforce Inbox now has a centralized location for enablement in the Inbox Setup Assistance page in Setup. Previously, there were multiple places to enable Inbox, depending on whether you had a High Velocity Sales, Sales Cloud Einstein, or Inbox license.

## Know Which Recipients Have Email Restrictions in the Gmail Integration

When sending emails from Gmail and using the Gmail integration, sales reps can now see customers' email privacy settings in the integration. Previously, reps referred to the contact or lead record in Salesforce to see the email privacy settings.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Trust is important, and honoring your customers' email preferences is part of that trust. Email privacy preferences now show with the contact or lead in Gmail.



**How:** A contact or lead's email privacy preferences from Lightning Experience are shown in the integration. There's no additional setup required.

**Important:** The Send Non-Commercial Email permission, which allows Salesforce users to send transactional emails from Lightning Experience, isn't enforced in the Gmail integration. It's the sales reps' responsibility to respect an email recipient's privacy when sending emails from Gmail.

SEE ALSO:

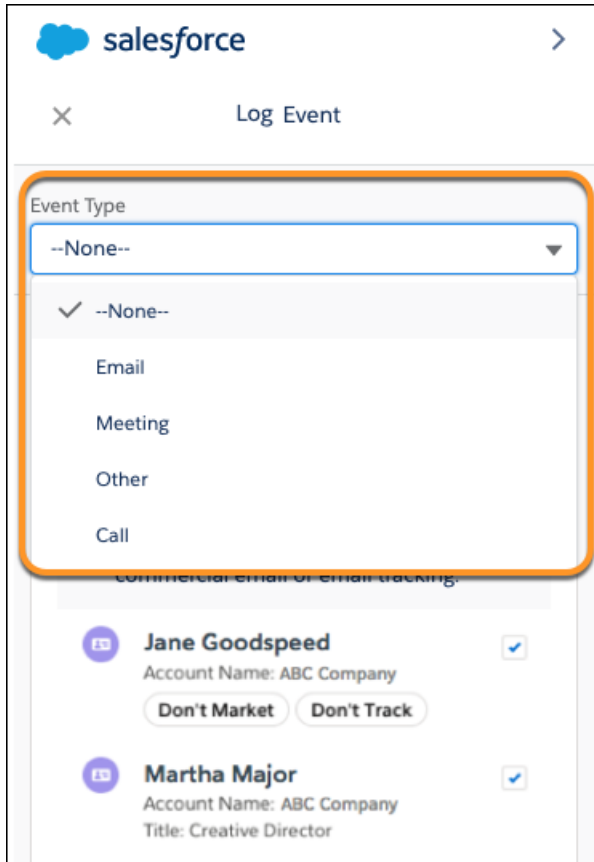
[Salesforce Help: Email Open Tracking and Email Opt Out \(can be outdated or unavailable during release preview\)](#)

## Classify the Events Logged to Salesforce from the Gmail Integration

Identifying the types of communications reps have with customers and prospects improves your business reporting and processes. Sales reps can now select an event type, such as a call or meeting, when logging an event to Salesforce from the Gmail integration.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** In the Object Manager, add the Type field to the Event object, and make it visible to the reps who log events from Gmail. Include the picklist values that fit your business. If you included the Type field on the Event object, no changes are required. Reps can access the Type field when they log events from the integration.



SEE ALSO:

[Salesforce Help: Control User Access to Fields \(can be outdated or unavailable during release preview\)](#)

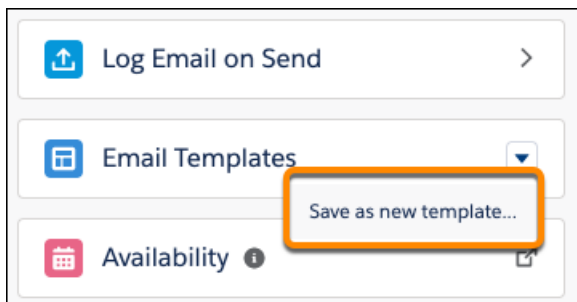
[Salesforce Help: Enable Event Type Selections for Logging Email from Gmail \(can be outdated or unavailable during release preview\)](#)

## Work More Efficiently with Email Templates in the Gmail Integration

It's easier now for your sales reps to create templates, apply existing templates to emails, and populate merge fields with relevant records. And a cleaner layout supports productivity and message standardization.

**Where:** This change applies to Salesforce Inbox on desktop, available for an extra cost in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions, and at no cost in Essentials editions.

**How:** Create email templates from the Gmail integration. Apply new email templates to future emails from either the Gmail integration or Lightning Experience email.



Apply existing templates to emails and filter the list of templates by name, folder, or related Salesforce object such as Accounts or Opportunities.

←
Insert Template (1/2)
↗

Filter the list of templates by the following fields.

Related To

Account
▾

Templates

All Templates

Folder

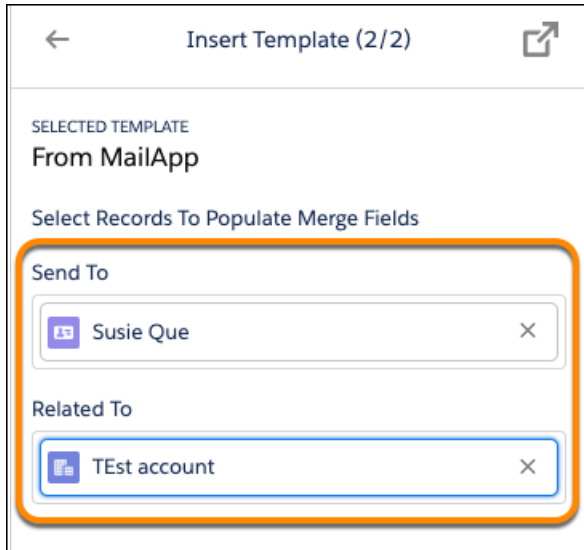
All

Search

Search templates...

Name <span style="float: right;">▾</span>	Folder <span style="float: right;">▾</span>
<a href="#">Recipient name</a>	Private Email Templates
<a href="#">created from MailApp</a>	RAWR TEMPLATES
<a href="#">Test GG</a>	Private Email Templates
<a href="#">From MailApp</a>	Public Email Templates
<a href="#">Test email template relat...</a>	Public Email Templates
<a href="#">test</a>	Private Email Templates
<a href="#">tes</a>	Private Email Templates

Select records to populate merge fields. The Send To and Related To fields populate the corresponding details in the template selected.



SEE ALSO:

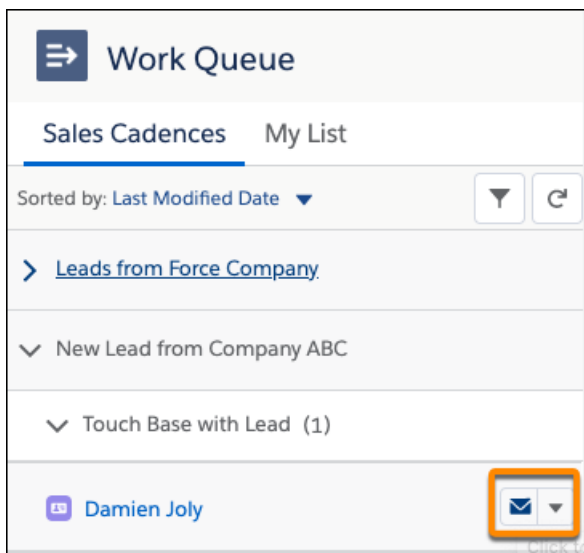
[Salesforce Help: Gain Speed and Consistency with Email Templates \(can be outdated or unavailable during release preview\)](#)

## Schedule High Velocity Sales Emails to Send Later

Sending emails at just the right time is a large part of closing deals. Sales reps working from the High Velocity Sales Work Queue in the Gmail integration can schedule all emails, cadence or otherwise, to send later.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Compose an email from the Work Queue in the Gmail integration. When the email compose window appears, turn on Send Later in the integration, and schedule the email to send.



SEE ALSO:

[Salesforce Help: Considerations for Setting Up High Velocity Sales \(can be outdated or unavailable during release preview\)](#)

## Enable Inbox Features for the Gmail Integration in New Location

Salesforce Inbox now has a centralized location for enablement in the Inbox Setup Assistance page in Setup. Previously, there were multiple places to enable Inbox, depending on whether you had a High Velocity Sales, Sales Cloud Einstein, or Inbox license.

**Where:** This change applies to Salesforce Inbox, available for an extra cost in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions, and at no cost in Essentials editions.

SEE ALSO:

[Enable Salesforce Inbox Features in New Location](#)

## Integration with Microsoft®: Email Privacy Notifications, Lightning Sync Setup Changes, and Salesforce for Outlook Announcements

We added information about customers' email privacy settings directly in the integration so that reps know how to best communicate with customers. Lightning Sync has some setup changes that can affect you, depending on your version of Microsoft Exchange. Salesforce for Outlook has announced its December 2020 retirement. And for Salesforce for Outlook customers who are affected by the Microsoft® Internet Explorer® 11 retirement for Lightning Experience, we provide steps for restoring access.

IN THIS SECTION:

[Outlook® Integration: Transparency to Respect Email Privacy Settings, Event Logging Improvements, and Template Updates](#)

We added information about customers' email privacy settings directly in the integration so that reps know how to best communicate with customers. We added the ability to select the event type you are logging to Salesforce. And we updated the template flow, making it easier to create templates and add them to emails.

[Lightning Sync for Microsoft Exchange: NTLM Authentication Support and Changes for Microsoft Office 365 Customers](#)

Customers on Microsoft® Exchange 2016® or Exchange 2013® servers have the flexibility to choose their preferred Lightning Sync authentication method: NTLM or basic authentication. Plus, Microsoft Office 365® customers can adjust their settings in preparation for the retirement of basic authentication, scheduled for the second half of 2021.

[Salesforce for Outlook: Pending Retirement and Restoring Temporary Access](#)

Salesforce for Outlook is reliant on Microsoft® Internet Explorer® 11, for which Salesforce support is ending extended support in December 2020. Learn about our next-generation Microsoft products and start to plan your move. And for customers already affected by the pending browser support changes, learn how to reconnect until December.

## Outlook® Integration: Transparency to Respect Email Privacy Settings, Event Logging Improvements, and Template Updates

We added information about customers' email privacy settings directly in the integration so that reps know how to best communicate with customers. We added the ability to select the event type you are logging to Salesforce. And we updated the template flow, making it easier to create templates and add them to emails.

IN THIS SECTION:

[Know Which Recipients Have Email Restrictions in the Outlook Integration](#)

When sending emails from Outlook and using the Outlook integration, sales reps can now see customers' email privacy settings in the integration. Previously, reps referred to the contact or lead record in Salesforce to see the email privacy settings.

[Classify the Events Logged to Salesforce from the Outlook Integration](#)

Identifying the types of communications reps have with customers and prospects improves your business reporting and processes. Sales reps can now select an event type, such as a call or meeting, when logging an event to Salesforce from the Outlook integration.

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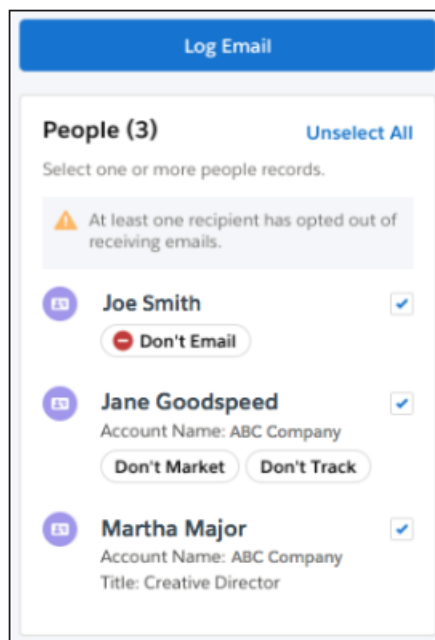
Salesforce Inbox now has a centralized location for enablement. Previously, there were multiple places to enable Inbox, depending on whether you had a High Velocity Sales, Sales Cloud Einstein, or Inbox license.

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When sending emails from Outlook and using the Outlook integration, sales reps can now see customers' email privacy settings in the integration. Previously, reps referred to the contact or lead record in Salesforce to see the email privacy settings.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Trust is important, and honoring your customers' email preferences is part of that trust. Email privacy preferences now show with the contact or lead in Outlook.



**How:** A contact or lead's email privacy preferences from Lightning Experience are shown in the integration. There's no additional setup required.



**Important:** The Send Non-Commercial Email permission, which allows Salesforce users to send transactional emails from Lightning Experience, isn't enforced in the Outlook integration. It's the sales reps' responsibility to respect an email recipient's privacy when sending emails from Outlook.

SEE ALSO:

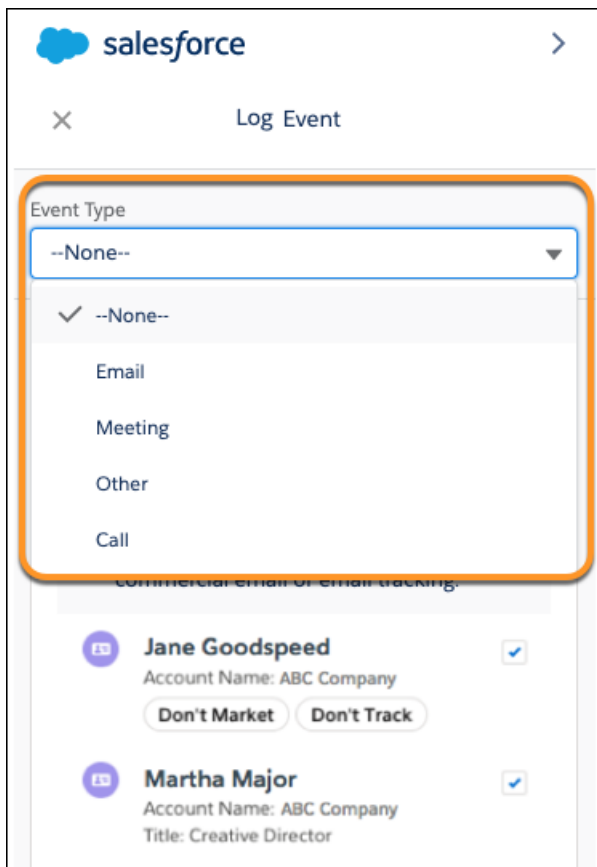
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## Classify the Events Logged to Salesforce from the Outlook Integration

Identifying the types of communications reps have with customers and prospects improves your business reporting and processes. Sales reps can now select an event type, such as a call or meeting, when logging an event to Salesforce from the Outlook integration.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** In the Object Manager, add the Type field to the Event object, and make it visible to the reps who log events from Outlook. Include the picklist values that fit your business. If you included the Type field on the Event object, no changes are required. Reps can access the Type field when they log events from the integration.



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[Salesforce Help: Control User Access to Fields \(can be outdated or unavailable during release preview\)](#)

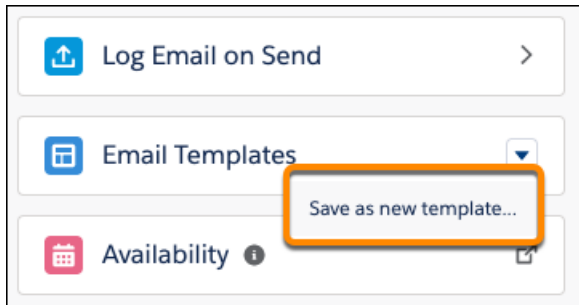
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## Work More Efficiently with Email Templates in the Outlook Integration

It's easier now for your sales reps to create templates, apply existing templates to emails, and populate merge fields with relevant records. And a cleaner layout supports productivity and message standardization.

**Where:** This change applies to Salesforce Inbox on desktop, available for an extra cost in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions, and at no cost in Essentials editions.

**How:** Create email templates from the Outlook integration. Apply new email templates to future emails from either the Outlook integration or Lightning Experience email.



Apply existing templates to emails and filter the list of templates by name, folder, or related Salesforce object such as Accounts or Opportunities.

←
Insert Template (1/2)
↗

Filter the list of templates by the following fields.

Related To

Account
▲▼

Templates

All Templates

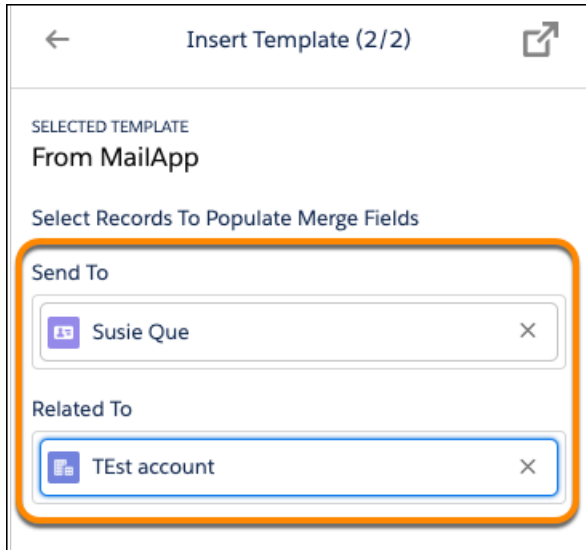
Folder

All

Search

Name	Folder
<a href="#">Recipient name</a>	Private Email Templates
<a href="#">created from MailApp</a>	RAWR TEMPLATES
<a href="#">Test GG</a>	Private Email Templates
<a href="#">From MailApp</a>	Public Email Templates
<a href="#">Test email template relat...</a>	Public Email Templates
<a href="#">test</a>	Private Email Templates
<a href="#">tes</a>	Private Email Templates

Select records to populate merge fields. The Send To and Related To fields populate the corresponding details in the template selected.



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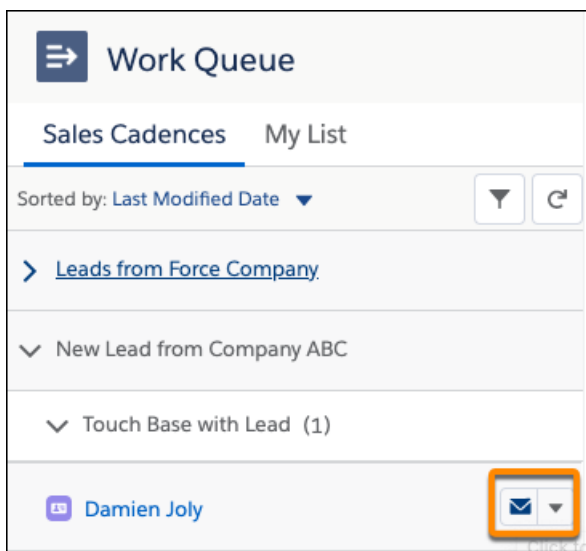
[Salesforce Help: Gain Speed and Consistency with Email Templates \(can be outdated or unavailable during release preview\)](#)

## Schedule High Velocity Sales Emails to Send Later

Sending emails at just the right time is a large part of closing deals. Sales reps working from the High Velocity Sales Work Queue in the Outlook integration can schedule all emails, cadence or otherwise, to send later.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Compose an email from the Work Queue in the Outlook integration. When the email compose window appears, turn on Send Later in the integration, and schedule the email to send.



SEE ALSO:

[Salesforce Help: Considerations for Setting Up High Velocity Sales \(can be outdated or unavailable during release preview\)](#)

## Enable Salesforce Inbox Features in New Location

Salesforce Inbox now has a centralized location for enablement. Previously, there were multiple places to enable Inbox, depending on whether you had a High Velocity Sales, Sales Cloud Einstein, or Inbox license.

**Where:** This change applies to Salesforce Inbox, available for an extra cost in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions, and at no cost in Essentials edition.

**Why:** Various Inbox features are available to High Velocity Sales and Lightning Experience email users and to Outlook and Gmail integration users. We simplified the setup experience.

**How:** If you had Inbox enabled before Spring '20, you're all set. Inbox remains enabled, and users who had permission sets that granted access to Inbox features still have those features.

For Salesforce orgs enabling Inbox features after Spring '20, turn on Inbox and assign permission sets to users who need access. From Salesforce Setup, enter `INBOX` in the Quick Find box and select **Setup Assistant**. Enable the **Make Inbox Available to Users** setting. You can also access this setup page from links on the High Velocity Sales, Outlook integration and Sync, the Gmail integration and Sync page, and the Einstein Activity Capture Settings pages in Salesforce setup.

Once enabled, assign users who need access to Inbox features either the Inbox With Einstein Activity Capture or Inbox Without Einstein Activity Capture permissions. Or, if you're running High Velocity Sales, Inbox features are made available with the High Velocity Sales User permission set.

Users are prompted to connect their Google or Microsoft account from within Salesforce when they send their first email from Lightning Experience or High Velocity Sales. Outlook integration and Gmail integration users connect to Salesforce from their Outlook or Gmail when accessing the integration.

SEE ALSO:

[Salesforce Help: Outlook and Gmail Integration and Salesforce Inbox Features \(can be outdated or unavailable during release preview\)](#)

## Lightning Sync for Microsoft Exchange: NTLM Authentication Support and Changes for Microsoft Office 365 Customers

Customers on Microsoft® Exchange 2016® or Exchange 2013® servers have the flexibility to choose their preferred Lightning Sync authentication method: NTLM or basic authentication. Plus, Microsoft Office 365® customers can adjust their settings in preparation for the retirement of basic authentication, scheduled for the second half of 2021.

IN THIS SECTION:

[Connect Microsoft Exchange with Salesforce Using NTLM Authentication Protocol](#)

Now customers on Microsoft® Exchange 2016® and Exchange 2013® servers have the flexibility to choose their preferred Lightning Sync authentication protocol: Basic Authentication or NTLM. Previously, only basic authentication was available.

[Required Setting Change for Microsoft Office 365 Customers](#)

In the second half of 2021, Microsoft® retires basic authentication for Microsoft Office 365® and Exchange Online. To continue syncing, Office 365 customers who use the service account connection method must move to the OAuth 2.0 connection method. Customers also have the option of switching to Einstein Activity Capture.

## Connect Microsoft Exchange with Salesforce Using NTLM Authentication Protocol

Now customers on Microsoft® Exchange 2016® and Exchange 2013® servers have the flexibility to choose their preferred Lightning Sync authentication protocol: Basic Authentication or NTLM. Previously, only basic authentication was available.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** NTLM authentication protocol is supported only for Lightning Sync customers working from Exchange 2016 or 2013 servers and connecting to Salesforce using a service account.

**How:** Let your IT professional know that NTLM is now supported for certain servers. If your company prefers to connect to Salesforce using NTLM, have your IT professional enable NTLM and disable basic on your Exchange server. That's all you have to do! If both basic and NTLM are enabled, Lightning Sync gives connection preference to basic.

SEE ALSO:

[Salesforce Help: Connect Salesforce and Microsoft® Exchange Using an Exchange Service Account \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Lightning Sync System Requirements \(can be outdated or unavailable during release preview\)](#)

## Required Setting Change for Microsoft Office 365 Customers

In the second half of 2021, Microsoft® retires basic authentication for Microsoft Office 365® and Exchange Online. To continue syncing, Office 365 customers who use the service account connection method must move to the OAuth 2.0 connection method. Customers also have the option of switching to Einstein Activity Capture.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** This retirement affects only Office 365 customers who use a service account to connect to Salesforce. Microsoft hasn't announced retirement for basic authentication for Exchange 2016® or Exchange 2013®. Therefore, customers on those servers can continue using the service account connection method and basic authentication to connect to Salesforce. As of Spring '20, Lightning Sync also supports NTLM authentication for those servers. See [NTLM Authentication Protocol Supported For Microsoft Exchange 2016 and 2013](#).

**Why:** The service account connection method requires basic authentication to maintain your users' connections between Exchange and Salesforce. When the Microsoft retirement takes effect, it interrupts your connection, causing contacts and events to stop syncing. To avoid sync interruption, we recommend that you take action before the basic authentication retirement, which Microsoft has scheduled for the second half of 2021. Work with the Microsoft admin or IT professional at your company to migrate to the OAuth 2.0 connection method. Or, you also have the option of moving to Einstein Activity Capture, which also syncs contacts and events, plus offers more productivity-boosting features. .

**How:** For more details, including steps on how to prepare, see [Lightning Sync Users on Microsoft Office 365: Adjust Your Sync Setup before Basic Authentication Retirement](#).

SEE ALSO:

[External Link: Basic Authentication and Exchange Online – April 2020 Update](#)

[Salesforce Help: OAuth 2.0 Connection for Microsoft Users \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Lightning Sync System Requirements \(can be outdated or unavailable during release preview\)](#)

## Salesforce for Outlook: Pending Retirement and Restoring Temporary Access

Salesforce for Outlook is reliant on Microsoft® Internet Explorer® 11, for which Salesforce support is ending extended support in December 2020. Learn about our next-generation Microsoft products and start to plan your move. And for customers already affected by the pending browser support changes, learn how to reconnect until December.

## IN THIS SECTION:

[Salesforce for Outlook Is Being Retired in December 2020](#)

Salesforce for Outlook will no longer function when extended support for Microsoft® Internet Explorer 11 ends in December 2020. But check out the advancements made in our next-generation products, the Outlook Integration and Einstein Activity Capture, and learn about making the move.

[Restore Access If Service Is Interrupted Before December 2020](#)

Changes for Microsoft® Internet Explorer® 11 support can interrupt service for Salesforce for Outlook users who can't access Salesforce Classic. We provide details on how to see if your users are affected, and how to restore access.

[Find Version-Specific Salesforce for Outlook Release Notes](#)

Wondering about the updates available in each Salesforce for Outlook version? Find those version-specific release notes in the Outlook/Gmail integrations, and Inbox Trailblazer Community.

## Salesforce for Outlook Is Being Retired in December 2020

Salesforce for Outlook will no longer function when extended support for Microsoft® Internet Explorer 11 ends in December 2020. But check out the advancements made in our next-generation products, the Outlook Integration and Einstein Activity Capture, and learn about making the move.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Contact Manager, Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**When:** Salesforce for Outlook is retired in December 2020.

**Why:** Along with the end of extended support for IE11, Salesforce for Outlook will no longer be able to sync contacts, events, or tasks. Likewise, the Salesforce Side Panel won't connect to Salesforce, so sales reps can't work with their Salesforce records from Microsoft Outlook®.

To continue integrating Outlook and Salesforce, we encourage customers to explore our suggested migration options.

**How:** To learn more about the retirement and to compare the latest products, see [Salesforce for Outlook Retirement](#).

And to provide additional help during your transition to the latest products, stay tuned for a migration guide coming available with the Summer '20 release.

## SEE ALSO:

[Salesforce Help: Compare Salesforce for Outlook to the Next-Generation Products](#)

[Knowledge Article: Extended Support for Accessing Lightning Experience Using Microsoft Internet Explorer 11](#)

[Salesforce Help: Outlook and Gmail Integration on Desktop](#)

[Salesforce Help: Einstein Activity Capture](#)

## Restore Access If Service Is Interrupted Before December 2020

Changes for Microsoft® Internet Explorer® 11 support can interrupt service for Salesforce for Outlook users who can't access Salesforce Classic. We provide details on how to see if your users are affected, and how to restore access.

**Where:** This change applies to Lightning Experience in Contact Manager, Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** Salesforce for Outlook users experience a service interruption when they meet either of these scenarios.

- Your Salesforce org or the user doesn't have access to Salesforce Classic.
- Your company has opted not to [extend Microsoft Internet Explorer 11 support until December 31, 2020](#).

**Why:** In 2016, Salesforce stopped supporting Lightning Experience on IE11. Because Salesforce for Outlook relies on IE11 to display Salesforce from Microsoft Outlook®, the IE11 access block also affects Salesforce for Outlook users.

**How:** To restore Salesforce for Outlook access for users, take one of these suggested workarounds until the product is retired in December 2020.

- Opt in to extended support for IE11.
- For customers whose Salesforce subscriptions offer access to Salesforce Classic, admins can also restore Salesforce for Outlook by providing users access to Salesforce Classic.

Or, consider moving to our next-generation products, Outlook Integration and Einstein Activity Capture.

For steps on restoring access and details on our next generation products, see [Salesforce for Outlook No Longer Connects for Some Customers working from Lightning Experience](#).

SEE ALSO:

[Supported Browsers](#)

[Salesforce Help: Outlook and Gmail Integration on Desktop \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Einstein Activity Capture \(can be outdated or unavailable during release preview\)](#)

## Find Version-Specific Salesforce for Outlook Release Notes

Wondering about the updates available in each Salesforce for Outlook version? Find those version-specific release notes in the Outlook/Gmail integrations, and Inbox Trailblazer Community.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Contact Manager, Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Salesforce Trailblazer Community: Salesforce for Outlook Release Notes](#)

## Salesforce CPQ and Billing: Ordering Usage Products with Evergreen Subscriptions, Smarter Configuration Rules, and Flexible Revenue Schedule Creation

Order usage products related to evergreen subscriptions. Access more fields in the configurator. Edit quote line consumption schedules directly in the quote line editor. Use triggers, process builders, and API to create revenue schedules anytime on any Salesforce object. And prevent users from creating backdated amendments.

IN THIS SECTION:

[Salesforce CPQ: Usage-Based Products for Evergreen Subscriptions, Smarter Configuration Rules, and Editing Quote Line Consumption Schedules in the Quote Line Editor](#)

Order usage-based products with evergreen subscriptions. Access more fields in the configurator. Edit quote line consumption schedules in the quote line editor. And prevent users from creating backdated amendments.



### [Salesforce Billing: Flexible Revenue Schedule Creation, Customizable Finance Periods, and Automated Conversion of Negative Invoice Lines](#)

Use triggers, process builders, and API to create revenue schedules anytime on any Salesforce object. Create finance periods for custom date ranges. And convert negative invoice lines to credit notes automatically with REST API.

#### SEE ALSO:

[Knowledge Article: New Objects, Fields, and Permissions for Salesforce CPQ and Billing Spring '20 \(can be outdated or unavailable during release preview\)](#)

## Salesforce CPQ: Usage-Based Products for Evergreen Subscriptions, Smarter Configuration Rules, and Editing Quote Line Consumption Schedules in the Quote Line Editor

Order usage-based products with evergreen subscriptions. Access more fields in the configurator. Edit quote line consumption schedules in the quote line editor. And prevent users from creating backdated amendments.

 **Note:** Salesforce CPQ is offered for an extra cost. For pricing, contact your Salesforce account executive.

#### IN THIS SECTION:

##### [Order Usage-Based Products with Evergreen Subscriptions](#)

Let your sales reps sell usage products without the hassle of managing contract renewals. Salesforce CPQ now lets you order usage-based products associated with evergreen subscriptions.

##### [Do More with Improved Price Rules in the Configurator](#)

Now you have more ways to incorporate your business rules in your product configurations with improved price rules. Price rules can now evaluate conditions against inputs from configuration attributes to trigger actions.

##### [Apply Edit Rules Efficiently in the Configurator](#)

With the click of a button, you can now run all edit product and price rules at the same time. You no longer have to wait while the configurator automatically processes each change individually.

##### [Logic Updated for Percent Values in Price Action Formulas](#)

We changed the way literal values representing percentages are evaluated in the Formula of a price action, when the Target Field is of type percent. Previously, in Summer '19, we updated percent fields referenced in price action formulas. In that update, we changed formulas in the Formula field on price actions to no longer divide referenced field values by 100. In Spring '20, when you use a literal value the behavior is consistent with the way percent fields are evaluated. This update also ensures consistency with the way Salesforce formulas are evaluated in custom field definitions overall.

##### [Expand or Collapse Bundles by Default](#)

Admins can now choose if product bundles in the quote line editor are expanded or collapsed by default, making detailed information easier to read. Previously, product bundles always expanded by default, sometimes taking up valuable screen space. Until now, collapsing bundles could only be done by Salesforce Customer Support. Now, Admins can customize their Salesforce org's view, enhancing the sales rep experience within the quote line editor.

##### [Enable Manual Edits for Quote Line Consumption Rates](#)

Sales reps can now make manual edits to existing quote line consumption rates for usage based products. Previously, changes required a quote calculator plugin. Now, the upper bound, lower bound, and price can all be edited in the quote line editor to more easily customize each deal.

### [Transition from Managed Package Licenses to Permission Set Licenses](#)

A new tool has been added to help you prepare your org for an upcoming package upgrade, in which Salesforce CPQ will transition from Managed Package Licenses to Permission Set Licenses. Your org is only ready for the new package upgrade when your Managed Package License configuration is correct and every CPQ user has an assigned Salesforce CPQ License.

### [Prevent Creation of Backdated Amendments](#)

We added a new restriction that prevents users from creating a new amendment with a start date prior to an existing amendment's start date. Creating backdated amendments this way can cause incorrect quote line totals. Now you can also add a new field to the quote line editor field set to display the earliest valid start date.

### [New Permissions for Previewing Quote Documents](#)

To use the quote's Preview Document button, users now require Create and Edit permissions on the quote document object.

#### SEE ALSO:

[Knowledge Article: New Objects, Fields, and Permissions for Salesforce CPQ and Billing Spring '20 \(can be outdated or unavailable during release preview\)](#)

## Order Usage-Based Products with Evergreen Subscriptions

Let your sales reps sell usage products without the hassle of managing contract renewals. Salesforce CPQ now lets you order usage-based products associated with evergreen subscriptions.

**Where:** This change applies to Salesforce Lightning Experience and Salesforce Classic in Salesforce CPQ.

**Why:** Previously, Salesforce CPQ supported associating usage products with only one-time products or standard subscription products. If a sales rep wanted to quote and sell a usage-based subscription product, they had to renew the parent subscription at the end of every subscription term.

**How:** When a sales rep orders an evergreen subscription product related to a consumption schedule, Salesforce CPQ creates an order product with 12 usage summaries. Each summary is the length of the consumption schedule's billing term. Reps can then create more usage summaries manually for as long as the subscription is active. After reps create usage summaries and order product consumption schedules, Salesforce Billing can invoice them the same way it invoices usage summaries created from standard subscriptions.

Sales reps using price schedule-based usage can also order an evergreen subscription product with a charge type of Usage. In this case, they create the order product's usage summaries manually or through automation.

#### SEE ALSO:

[Salesforce Help: Ordering Consumption Schedules with Evergreen Subscriptions \(can be outdated or unavailable during release preview\)](#)

## Do More with Improved Price Rules in the Configurator

Now you have more ways to incorporate your business rules in your product configurations with improved price rules. Price rules can now evaluate conditions against inputs from configuration attributes to trigger actions.

**Where:** This change applies to Salesforce Classic and Lightning Experience in all Salesforce CPQ editions.

**Why:** Previously, when sales reps changed attributes in the configurator, they had to go to the quote line editor to see the effect on pricing or other field values. Now, they can set field values based on configuration attributes, and changes are reflected directly in the configurator, saving time and effort.

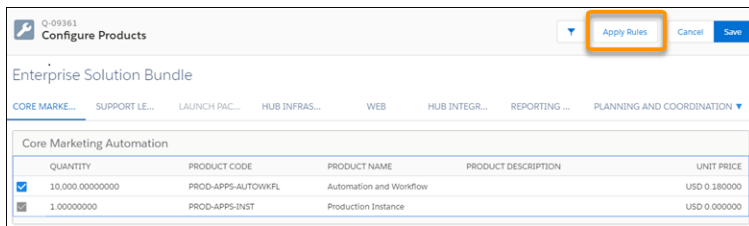
## Apply Edit Rules Efficiently in the Configurator

With the click of a button, you can now run all edit product and price rules at the same time. You no longer have to wait while the configurator automatically processes each change individually.

**Where:** This change applies to Salesforce Classic and Lightning Experience in all Salesforce CPQ editions.

**Why:** In large configurations where you regularly change or validate many price rules, it's time consuming for rules to run individually with each change.

**How:** The **Apply Rules** button is a new custom action in the configurator.



To set up the Apply Rules custom action to replace the automatic processing of edit rules, complete these steps.

- Uncheck **Apply Immediately** on the Configuration Attributes or Product Options that trigger the rules upon edit.
- In case sales reps forget to click Apply Rules, make sure that all Edit rules are evaluated when reps save their changes.
  - Update all Configurator product rules to evaluate on Always instead of Edit.
  - Clone with related all Configurator price rules to evaluate on Save and on Edit.

SEE ALSO:

[Salesforce Help: Custom Actions \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Configurator Evaluation Events \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Product Option Fields \(can be outdated or unavailable during release preview\)](#)

## Logic Updated for Percent Values in Price Action Formulas

We changed the way literal values representing percentages are evaluated in the Formula of a price action, when the Target Field is of type percent. Previously, in Summer '19, we updated percent fields referenced in price action formulas. In that update, we changed formulas in the Formula field on price actions to no longer divide referenced field values by 100. In Spring '20, when you use a literal value the behavior is consistent with the way percent fields are evaluated. This update also ensures consistency with the way Salesforce formulas are evaluated in custom field definitions overall.

**Where:** This change applies to Salesforce Classic and Lightning Experience in all Salesforce CPQ editions.

**How:** To identify if you have price actions to update, create a custom report type on the price action object. Include relevant information such as the Name, Formula, Active, or Created Date fields. Run a report on all your price actions to see where you have used a literal percent value as part of your formula.

To make the updates, go to price rules and select a price rule that contains a price action that specifies a field of type percent as the Target Field (1).

Choose the price action and change any values that represent percentage values to their decimal representation. For example, use 1 to represent 100% and 0.5 for 50%.

Then, create a quote, and add a quote line that meets the price rule's conditions. Verify that the result of the price action formula is accurate.

#### SEE ALSO:

[Salesforce Summer '19 Release Notes: Logic Updated for Percent Fields in Price Action Formulas](#)

[Knowledge Article: Salesforce CPQ Spring '20 Price Action Formula Field Change in Behavior \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Create Price Actions \(can be outdated or unavailable during release preview\)](#)

## Expand or Collapse Bundles by Default

Admins can now choose if product bundles in the quote line editor are expanded or collapsed by default, making detailed information easier to read. Previously, product bundles always expanded by default, sometimes taking up valuable screen space. Until now, collapsing bundles could only be done by Salesforce Customer Support. Now, Admins can customize their Salesforce org's view, enhancing the sales rep experience within the quote line editor.

**Where:** This change applies to Salesforce Classic and Lightning Experience in all Salesforce CPQ editions.

**Why:** Valuable screen space can be saved if the bundles are collapsed.

The screenshot shows the top of the quote line editor with a total of \$2,560.00. Below the header, there is a table with one row representing a bundle. The bundle name 'BundleEdit0' is expanded, indicated by a right-pointing chevron icon in the product name column.

#	PRODUCT CODE	PRODUCT NAME	QUANTITY↑	LIST UNIT PRICE	ADDITIONAL DISC.	NET UNIT PRICE
1	BE0	> BundleEdit0	1.00	\$25.00		\$25.00

Once the bundled is expanded, more space is used.

The screenshot shows the same quote line editor, but the bundle 'BundleEdit0' is now collapsed, indicated by a downward-pointing chevron icon. This reveals several nested bundle items, each with its own product code and name.

#	PRODUCT CODE	PRODUCT NAME	QUANTITY↑	LIST UNIT PRICE	ADDITIONAL DISC.	NET UNIT PRICE
1	BE0	▼ BundleEdit0	1.00	\$25.00		\$25.00
2	NBE0	> NestedBundleEdit0	1.00	\$200.00		\$200.00
5	NBE1	> NestedBundleEdit1	1.00	\$200.00		\$180.00
9	NBE0	> NestedBundleEditFixedPrice0	1.00	\$200.00		\$180.00
12	NBE2	> NestedBundleEditFixedPrice2	1.00	\$200.00		\$200.00
15	NBE4	> NestedBundleEditFixedPrice4	1.00	\$200.00		\$150.00

**How:** In your installed package settings, on the Line Editor tab, check **Enable Expand/Collapse Bundles**. If this setting is unavailable, ensure that you also check **Enable Large Quote Experience**, **Visualize Product Hierarchy**, and **Keep Bundles Together**. After this feature is enabled, you can choose the Default Bundle Setting.

## Enable Manual Edits for Quote Line Consumption Rates

Sales reps can now make manual edits to existing quote line consumption rates for usage based products. Previously, changes required a quote calculator plugin. Now, the upper bound, lower bound, and price can all be edited in the quote line editor to more easily customize each deal.

**Where:** This change applies to Salesforce Classic and Lightning Experience in Salesforce CPQ Plus, Salesforce CPQ & Billing Growth, and Salesforce CPQ & Billing Plus.

**How:** In your installed package settings, on the Pricing and Calculation tab, check **Enable Manual Edits for Usage Pricing**. Also make sure to select **Enable Usage Based Pricing**.

Once enabled, sales reps have an edit icon for upper bound, lower bound, and price. When an edit is made, the field is highlighted and Update and Cancel buttons become available.

Product Code	Product Name	Quantity	List Unit Price	Additional Disc.	Net Unit Price
34144	Pay-As-You Go SMS	1.00000000	USD 0.000000		USD 0.000000

QUOTE LINE CON...	RATING METHOD	PRICING METHOD	LOWER BOUND	UPPER BOUND	PRICE	ORIGINAL PRICE
Pay-As-You Go SMS	Tier	PerUnit	1	250	USD 2.00	USD 1.00
Pay-As-You Go SMS	Tier	PerUnit	250	500	USD 0.95	USD 0.95
Pay-As-You Go SMS	Tier	PerUnit	500	750	USD 0.90	USD 0.90

SEE ALSO:

[Salesforce Help: Enable Manual Edits for Quote Line Consumption Schedules \(can be outdated or unavailable during release preview\)](#)

## Transition from Managed Package Licenses to Permission Set Licenses

A new tool has been added to help you prepare your org for an upcoming package upgrade, in which Salesforce CPQ will transition from Managed Package Licenses to Permission Set Licenses. Your org is only ready for the new package upgrade when your Managed Package License configuration is correct and every CPQ user has an assigned Salesforce CPQ License.

**Where:** This change applies to Salesforce Classic and Lightning Experience in all Salesforce CPQ editions.

**Why:** Use the provided tool to check for upgrade readiness.

The tool provides details on the:

- Number of provisioned Managed Package Licenses
- Number of assigned Managed Package Licenses
- Number of users assigned with Permission Sets
- Number of provisioned Permission Set Licenses
- Number of assigned Permission Set Licenses

If one or more of these conditions are met, a csv file can be downloaded so that you can take action:

- There are users with a Permission Set but no Managed Package License
- There are inactive users with a Permission Set
- There are users who need a Permission Set License

If you make any changes, including assigning licenses, run the tool again to confirm that your org is ready to upgrade.

**How:** The tool is available in the CPQ package configuration under Additional Settings.

The screenshot displays the 'Additional Settings' configuration page in Salesforce CPQ. It is organized into two columns of settings. The left column includes: Triggers Disabled (checkbox), Quantity Scale (input field with value 2), Sort Products In Memory (checkbox), Multiple Bundles View (dropdown menu with 'Wizard' selected), External Configurator URL (input field), Third Party Configurator (checkbox), and Open Search Filter By Default (checkbox). The right column includes: Product Results Group Field Name (dropdown menu with '-- None --' selected), Product Description Field (dropdown menu with 'Product Description' selected), Theme (dropdown menu with '-- None --' selected), Use Global Header Permission (checkbox), Service Region (dropdown menu with 'Default' selected), Enable Product Option Drawer (checkbox), and Enable Large Configurations (checkbox). Below these settings is a 'Post Install Steps' section indicating that migration scripts were completed on 2019-12-11 at 15:17:06, with buttons for 'Execute Scripts' and 'Refresh Status'. A prominent orange-bordered box highlights a 'Check Upgrade Readiness' section, which contains a detailed message about the transition from Managed Package Licenses to Permission Set Licenses and a 'Check Upgrade Readiness' button.

SEE ALSO:

[Knowledge Article: Salesforce CPQ readiness for Permission Set License assignment \(can be outdated or unavailable during release preview\)](#)

[Knowledge Article: Salesforce CPQ readiness for Permission Set License assignment \(can be outdated or unavailable during release preview\)](#)

## Prevent Creation of Backdated Amendments

We added a new restriction that prevents users from creating a new amendment with a start date prior to an existing amendment's start date. Creating backdated amendments this way can cause incorrect quote line totals. Now you can also add a new field to the quote line editor field set to display the earliest valid start date.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all Salesforce CPQ editions.

**When:** This change is scheduled to become available after January 7, 2020.

**Why:** Previously, it was possible to create backdated amendments that caused incorrect quote line totals. Now, the only way to create a backdated amendment is to revert any amendments that take effect after the one you want to create, in reverse chronological order. After those amendments are reverted, or zeroed out, create the new amendment. If necessary, re-create the amendments that were zeroed out.

**How:** To access this feature, make sure you're using the Spring '20 release. To turn off the feature, log a ticket with Salesforce Customer Support.

## New Permissions for Previewing Quote Documents

To use the quote's Preview Document button, users now require Create and Edit permissions on the quote document object.

**Where:** This change applies to Salesforce Lightning Experience and Salesforce Classic in Salesforce CPQ.

## Salesforce Billing: Flexible Revenue Schedule Creation, Customizable Finance Periods, and Automated Conversion of Negative Invoice Lines

Use triggers, process builders, and API to create revenue schedules anytime on any Salesforce object. Create finance periods for custom date ranges. And convert negative invoice lines to credit notes automatically with REST API.

### IN THIS SECTION:

#### [Recognize Revenue Anywhere](#)

Enjoy the freedom of reporting on revenue recognition at any stage of the sales and finance process. Salesforce Billing Revenue Recognition API lets you create revenue schedules and transactions for any Salesforce object in response to triggers and processes.

#### [Create Finance Periods for Custom Date Ranges](#)

Finance periods are no longer limited to calendar months. Billing admins can now create finance periods for custom date ranges, such as 4-4-5 or 5-4-4 week billing periods.

#### [Automate Conversion of Negative Invoice Lines](#)

We made it easier to convert large volumes of negative invoice lines into credit notes. Salesforce Billing now supports batch processes, triggers, and process builders for converting negative invoice lines to credit notes. Previously, sales reps had to manually convert negative invoice lines one invoice at a time through the Convert Negative Lines option in Salesforce Billing UI.

#### [Fixed Bug Preventing Users from Accessing Billing Visualforce Pages](#)

We fixed an issue where an upcoming [Salesforce security fix](#) would prevent Salesforce Billing non-admin users from accessing certain Visualforce pages in Salesforce Billing Spring '20. New users and users upgrading to Salesforce Billing Spring '20 will have access to the fix right away. However, the fix will be backported to previous versions of Salesforce as well, starting January 3, 2020. Users who don't plan on upgrading to Salesforce Billing Spring '20 yet can add the *View all custom settings* permission to the permissions sets of affected users.

### SEE ALSO:

[Knowledge Article: New Objects, Fields, and Permissions for Salesforce CPQ and Billing Spring '20 \(can be outdated or unavailable during release preview\)](#)

## Recognize Revenue Anywhere

Enjoy the freedom of reporting on revenue recognition at any stage of the sales and finance process. Salesforce Billing Revenue Recognition API lets you create revenue schedules and transactions for any Salesforce object in response to triggers and processes.

**Where:** This change applies to Salesforce Lightning Experience and Salesforce Classic in Salesforce Billing.

**Why:** Previously, Salesforce Billing could create revenue schedules only from order products, invoice lines, credit note lines, and debit note lines. The revenue recognition treatment was limited to creating revenue schedules only in response to activating an order, or posting an invoice, credit note, or debit note. Developers can now call the `billing__RecognizeRevenue` Apex class in response



to any process, trigger, or REST API call, and target any financial object for evaluation. For example, you could forecast quote line revenue following quote approval, or forecast contract revenue after the contract is activated.

**How:** The RecognizeRevenue service receives key revenue recognition values, such as the amount to be distributed for revenue recognition, the revenue recognition rule, and the source object associated with the revenue recognition. Salesforce Billing then creates the revenue schedule and transactions. We recommend identifying an amount field on your financial object and passing that to the RecognizeRevenue service as the value used for revenue calculation. For example, you could pass a quote line's List Total field.

SEE ALSO:


[Salesforce Billing Developer Guide: Revenue Recognition Service Developer Guide \(can be outdated or unavailable during release preview\)](#)

## Create Finance Periods for Custom Date Ranges

Finance periods are no longer limited to calendar months. Billing admins can now create finance periods for custom date ranges, such as 4-4-5 or 5-4-4 week billing periods.

**Where:** This change applies to Salesforce Lightning Experience and Salesforce Classic in Salesforce Billing.

**How:** When you create a finance book, set the Finance Period Duration field to Custom, then click **New Finance Period**. When you create finance periods in the finance book, define the start dates and end dates as needed. A finance period's dates can't overlap with other finance periods with the same legal entity and currency in the same finance period.

 **Note:** If you click **Create Finance Periods** instead while finance period duration is Custom, Salesforce Billing opens the Create Finance Periods Visualforce page instead. This page lets you make only monthly finance periods, even if you're working in a custom period finance book.

SEE ALSO:

[Salesforce Help: Create Finance Periods for Custom Date Ranges \(can be outdated or unavailable during release preview\)](#)

## Automate Conversion of Negative Invoice Lines

We made it easier to convert large volumes of negative invoice lines into credit notes. Salesforce Billing now supports batch processes, triggers, and process builders for converting negative invoice lines to credit notes. Previously, sales reps had to manually convert negative invoice lines one invoice at a time through the Convert Negative Lines option in Salesforce Billing UI.

**Where:** This change applies to Salesforce Lightning Experience and Salesforce Classic in Salesforce Billing.

**How:** When the Apex class `blng__NegativeInvoiceToCreditNoteAction` receives a service call containing invoice IDs, it evaluates each invoice to find invoice lines with a negative balance. For each invoice, it creates a credit note containing one credit note line for each negative invoice line. Each credit note line has a balance that's the positive equivalent of the corresponding negative invoice line. The credit note lines are unallocated, so users must manually allocate them as needed.

SEE ALSO:

[Salesforce Billing Developer Guide: REST API for Converting Invoice Lines with Negative Balances \(can be outdated or unavailable during release preview\)](#)

## Fixed Bug Preventing Users from Accessing Billing Visualforce Pages

We fixed an issue where an upcoming [Salesforce security fix](#) would prevent Salesforce Billing non-admin users from accessing certain Visualforce pages in Salesforce Billing Spring '20. New users and users upgrading to Salesforce Billing Spring '20 will have access to the fix right away. However, the fix will be backported to previous versions of Salesforce as well, starting January 3, 2020. Users who don't plan on upgrading to Salesforce Billing Spring '20 yet can add the *View all custom settings* permission to the permissions sets of affected users.

**Where:** This change applies to Salesforce Lightning Experience and Salesforce Classic in all Salesforce Billing editions.

SEE ALSO:

[Knowledge Article: Salesforce Billing Visualforce Security Workaround for Pre-Spring '20 Users \(can be outdated or unavailable during release preview\)](#)

## Pardot: Einstein and Account-Based Marketing Analytics, Business Snippets, and More Goodies

Spring '20 brings you an exciting batch of analytics tools including an Einstein Behavior Scoring dashboard and an Account-Based Marketing analytics app template. Plus, check out new uses for Snippets, two Engagement History dashboards, a handful of related lists, and updates to our B2B Marketing Analytics datasets and dashboards.

IN THIS SECTION:

### [Explore Factors That Determine Behavior Scoring](#)

Ever wonder how we build your Einstein Behavior Scoring model? Now you can find out. A new dashboard in B2B Marketing Analytics shows how your custom model weights each engagement activity and which assets relate most strongly to future conversion.

### [Use Einstein Discovery Predictions to Enhance Account-Based Marketing Strategy \(Pilot\)](#)

Give sales and marketing users the power to analyze ongoing account-based marketing efforts and performance. The new Account-Based Marketing (ABM) app template offers three dashboards, and includes an Einstein Discovery story that identifies easy wins and improvement opportunities. The Account-Based Marketing app template is part of Einstein Analytics for B2B Marketing, a growing collection of tools tailored for the B2B marketer.

### [Explore Engagement History Data on Leads and Contacts](#)

Engagement history data now can follow your reps everywhere they go. Add the Embedded Engagement History Dashboard Lightning component on lead and contact records to see customers' engagement activities. Drill in to specific assets or activities like you do on your other Engagement History dashboards.

### [See Most Engaged Accounts on Campaign Records](#)

The Embedded Engagement History Dashboard on a campaign record now shows how many accounts engage with your marketing assets. We added a Most Engaged Accounts widget to your embedded dashboards. It aggregates the number of activities for leads and contacts linked to an account, so you can see which accounts are worth your focus.

### [See Engagement Activities on List Email Records](#)

Your sales reps don't have time to dig around for the information they need. Now, sales reps can see the Engagement History related list on list email records to learn who is opening and clicking their emails.

### [Reveal Relationships Between Accounts and Campaigns](#)

New related lists are available on campaign and account records, which can help your sales reps make connections between the two. They can quickly navigate between records or act on related records. Add the Accounts related list to campaign records and add the Campaigns related list to account records.

### [Dataset Changes in B2B Marketing Analytics Apps](#)

To make sure that your B2B Marketing Analytics datasets provide the most accurate data to your dashboards, we restructured a few things. Previously, dashboard widgets were limited to consider only one prospect associated with one opportunity. However, relationships are often more complex. We also updated widget formulas, faceting, and date filtering to give you a more powerful dashboard experience.

### [Retiring B2B Marketing Analytics Legacy Apps](#)

As of the Summer '20 release, datasets in legacy B2B Marketing Analytics apps are no longer updated. Legacy apps include any custom apps you made without selecting the B2B Marketing Analytics app template during setup.

### [FullContact Connector Is Scheduled for Retirement on January 31, 2020](#)

FullContact's social profile lookup connector, including the ability to view information obtained via the connector, will no longer be available as of January 31, 2020.

### [Test Configuration Changes with Pardot Sandboxes \(Beta\)](#)

We've added Pardot Sandboxes to help you plan and test configuration changes before implementing them in your Pardot production account. A Pardot Sandbox is a Pardot Business Unit that is provisioned from a Salesforce Full Sandbox.

## Explore Factors That Determine Behavior Scoring

Ever wonder how we build your Einstein Behavior Scoring model? Now you can find out. A new dashboard in B2B Marketing Analytics shows how your custom model weights each engagement activity and which assets relate most strongly to future conversion.

**Where:** This change applies to Lightning Experience in Pardot Advanced with Salesforce Enterprise, Performance, and Unlimited editions.

**Why:** A single behavior score can tell you whether a prospect is likely to become a sales qualified lead (SQL), but it doesn't tell the full story behind the number. At a strategic level, you want to tailor your marketing plans toward the behaviors that generate the best opportunities for your sales team. The Einstein Behavior Scoring dashboard gives you the data you need to start testing and implementing more effective marketing tactics.

**How:** An admin must install and configure B2B Marketing Analytics and Einstein Behavior Scoring. Then, any user can create the out-of-the-box Einstein Behavior Scoring Dashboard.

The dashboard includes two graphs and a prospects table. The Activity graph shows behaviors, such as webinar attendance, video views, or email clicks, that have the strongest impact on the scoring model. Select a behavior to focus the Asset graph on the top performing assets associated with that behavior.

The Connected Prospects table updates to show records of leads and contacts who have done the selected activities.

SEE ALSO:

[Salesforce Help: The Einstein Behavior Scoring Dashboard for B2B Marketing Analytics \(can be outdated or unavailable during release preview\)](#)

## Use Einstein Discovery Predictions to Enhance Account-Based Marketing Strategy (Pilot)

Give sales and marketing users the power to analyze ongoing account-based marketing efforts and performance. The new Account-Based Marketing (ABM) app template offers three dashboards, and includes an Einstein Discovery story that identifies easy wins and improvement opportunities. The Account-Based Marketing app template is part of Einstein Analytics for B2B Marketing, a growing collection of tools tailored for the B2B marketer.

**Where:** This change applies to Lightning Experience and Salesforce Classic. This feature is available in Salesforce Enterprise, Unlimited, Partner Developer, and Developer editions with the Einstein Analytics for B2B Marketing license.

**Note:** We provide Einstein Analytics for B2B Marketing to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Einstein Analytics for B2B Marketing isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features. You can provide feedback and suggestions in the [Einstein Analytics for B2B Marketing group](#) in the Trailblazer Community.

**Why:** The B2B Marketing Analytics app offers a high-level glimpse into your account-based marketing activities. The complete ABM app template gives you more control over what information to display and how. It also offers access to a powerful Einstein Discovery story that helps you target methods to maximize opportunities.

The Einstein Analytics for B2B Marketing license includes four permission set licenses: Einstein Analytics Plus Admin, Einstein Analytics Plus User, Einstein Analytics for B2B Marketing Admin, and Einstein Analytics for B2B Marketing User.

**How:** After you assign access, users can create their own ABM apps. To start, from the App Launcher, find and open **Analytics Studio**, and then create an app. When prompted, choose the Account-Based Marketing app template and answer the questions in the setup wizard.

To use Einstein Discovery with your app, set up predictions separately.



## SEE ALSO:

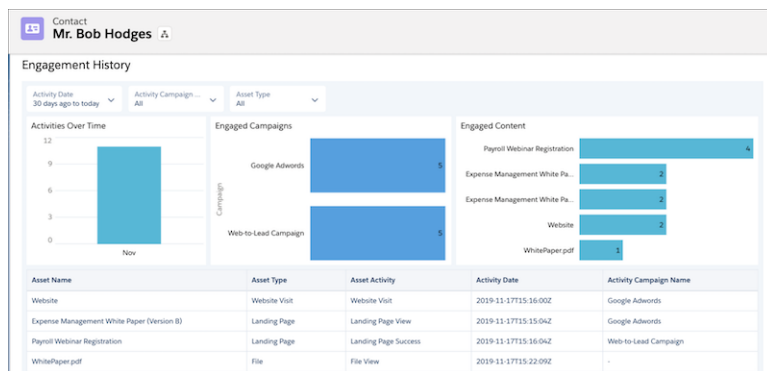
[Salesforce Help: Account-Based Marketing App Dashboard \(can be outdated or unavailable during release preview\)](#)

## Explore Engagement History Data on Leads and Contacts

Engagement history data now can follow your reps everywhere they go. Add the Embedded Engagement History Dashboard Lightning component on lead and contact records to see customers' engagement activities. Drill in to specific assets or activities like you do on your other Engagement History dashboards.

**Where:** This change applies to Lightning Experience in Pardot Growth, Plus, and Advanced editions with Salesforce Professional, Enterprise, and Unlimited editions.

**How:** If you already use Engagement History dashboards, you don't have to do much. Just add the Engagement History Embedded Dashboard component to a tab on your lead and contact records.



To set up Engagement History dashboards for the first time, check out [Salesforce Help](#).

## SEE ALSO:

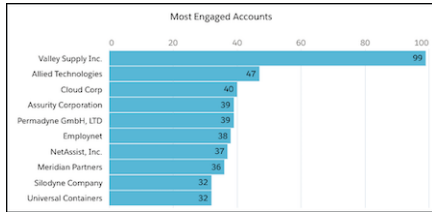
[Salesforce Help: Use Engagement History \(can be outdated or unavailable during release preview\)](#)

## See Most Engaged Accounts on Campaign Records

The Embedded Engagement History Dashboard on a campaign record now shows how many accounts engage with your marketing assets. We added a Most Engaged Accounts widget to your embedded dashboards. It aggregates the number of activities for leads and contacts linked to an account, so you can see which accounts are worth your focus.

**Where:** This change applies to Lightning Experience in Pardot Growth, Plus, and Advanced editions with Salesforce Professional, Enterprise, and Unlimited editions.

**How:** The new widget is added to the dashboard automatically.



SEE ALSO:

[Salesforce Help: Turn On Engagement History Dashboards \(can be outdated or unavailable during release preview\)](#)

## See Engagement Activities on List Email Records

Your sales reps don't have time to dig around for the information they need. Now, sales reps can see the Engagement History related list on list email records to learn who is opening and clicking their emails.

**Where:** This change applies to Lightning Experience in all Pardot editions with Salesforce Professional, Enterprise, and Unlimited editions.

**How:** Edit the page layout for List Emails and include the Engagement History related list on the Related tab.

## Reveal Relationships Between Accounts and Campaigns

New related lists are available on campaign and account records, which can help your sales reps make connections between the two. They can quickly navigate between records or act on related records. Add the Accounts related list to campaign records and add the Campaigns related list to account records.

**Where:** This change applies to all Pardot editions with Salesforce Professional, Enterprise, and Unlimited editions.

**How:** Decide whether reps need one or both related lists, and add the related list to the appropriate page layouts.

## Dataset Changes in B2B Marketing Analytics Apps

To make sure that your B2B Marketing Analytics datasets provide the most accurate data to your dashboards, we restructured a few things. Previously, dashboard widgets were limited to consider only one prospect associated with one opportunity. However, relationships are often more complex. We also updated widget formulas, faceting, and date filtering to give you a more powerful dashboard experience.

**Where:** This change applies to Lightning Experience and Salesforce Classic and is included with Pardot Plus and Advanced. The change also affects Pardot Pro and Ultimate editions with the B2B Marketing Analytics add-on.

**Why:** Some columns have moved and some field names have been changed, which breaks customized lenses or dashboards using these fields. We recommend that you recreate those customizations on lenses and save them outside of the B2B Marketing Analytics app.

We added a date filter on the Prospect dataset, and updated the date filter criteria on the Opportunity dataset. These changes affect the amount of data represented in each dataset.

In a separate filter change, the global data range filter on the Marketing Manager, Pipeline, and Account-Based Marketing dashboards was updated. The new filter can also affect values in each widget. For example, on opportunity-related widgets, the date filter now considers the Created Date of the opportunity instead of when the associated prospect was created. The result is more accurate, but can be different from what you're used to seeing.

**Table 1: Marketing Manager - Marketing Pipeline Health**

Value	Notes
Pipeline Deals	Source change. Uses Salesforce stage instead of stage from Pardot.
# in Pipe	Affected by dataset date filter change
Pipeline	Affected by dataset date filter change
Revenue	Affected by dataset date filter change
Avg Conversion to Close	Formula change. Indicates the average time between creation and close date of the opportunities in the dataset.
Revenue by Campaign	Formula change. Indicates the revenue of campaigns associated with a certain opportunity.

**Table 2: Pipeline - Marketing Lifecycle Funnel**

Value	Notes
Prospects	Now pulls from Prospect dataset
MQLs	Now pulls from Prospect dataset
SQLs	Affected by dataset date filter change
MQL Average	Now pulls from Prospect dataset
SQL Average	Removed
Prospect Average	Now pulls from Prospect dataset

**Table 3: Pipeline - Pipeline Breakdown**

Value	Notes
Total Value	Affected by dataset date filter change
Cost	Affected by dataset date filter change
Conversion Rate	Removed
Visitor Conversion Rate	New value, pulls from Opportunity dataset. Indicates total number of prospects created, divided by number of visitors.
Opportunity Win Rate	New value, pulls from Opportunity dataset. Indicates total number of won opportunities, divided by closed opportunities.
# in Pipeline	Affected by dataset date filter change
Revenue	Affected by dataset date filter change
ROI	Affected by dataset date filter change
Stage Revenue	Source change. Uses Salesforce stage instead of stage from Pardot.

Value	Notes
Campaigns	Formula change. Indicates the revenue of campaigns associated with a certain opportunity.
Lead Sources	Formula change. Indicates number of prospects, grouped by lead source
Marketing Sourced Pipeline	Formula change. Indicates total value of opportunities, grouped by name

**Table 4: Account-Based Marketing - Opportunities**

Value	Notes
Revenue Win Percentage	Source change. Uses Salesforce opportunity instead of opportunity from Pardot.
Stage Value by Account	Source change. Uses Salesforce opportunity instead of opportunity from Pardot.

**How:** Users must upgrade their B2B Marketing Analytics apps to see the changes on dashboards and widgets.

## Retiring B2B Marketing Analytics Legacy Apps

As of the Summer '20 release, datasets in legacy B2B Marketing Analytics apps are no longer updated. Legacy apps include any custom apps you made without selecting the B2B Marketing Analytics app template during setup.

**Where:** This change applies to Pardot Pro and Ultimate editions with the B2B Marketing Analytics add-on.

SEE ALSO:

[Salesforce Help: Create and Upgrade B2B Marketing Analytics Apps \(can be outdated or unavailable during release preview\)](#)

## FullContact Connector Is Scheduled for Retirement on January 31, 2020

FullContact's social profile lookup connector, including the ability to view information obtained via the connector, will no longer be available as of January 31, 2020.

**Where:** This change applies to all Pardot accounts.

SEE ALSO:

[Knowledge Article: FullContact Social Profile Lookup Connector for Pardot Retirement](#)

## Test Configuration Changes with Pardot Sandboxes (Beta)

We've added Pardot Sandboxes to help you plan and test configuration changes before implementing them in your Pardot production account. A Pardot Sandbox is a Pardot Business Unit that is provisioned from a Salesforce Full Sandbox.

**Where:** This change applies to Lightning Experience in accounts that purchased or upgraded to Pardot Advanced Edition on or after February 11, 2019 that are connected to a Salesforce account with Full Sandbox types.



As a beta feature, Pardot Sandboxes is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Pardot Sandboxes in the [IdeaExchange](#).

**How:** To create a Pardot Sandbox, provision a new business unit from Pardot Account Setup within a Salesforce Full sandbox.

SEE ALSO:

[Salesforce Help: Create a Pardot Sandbox \(Beta\)\(can be outdated or unavailable during release preview\)](#)

## Other Changes in the Sales Cloud

Data.com Prospector and Data.com Clean have been retired.

### Data.com: Prospector and Clean Have Been Retired

Data.com Prospector and Data.com Clean licenses can no longer be renewed. These products are scheduled for retirement on July 31, 2020. Existing contracts will be honored.

**Where:** This change applies to Lightning Experience and Salesforce Classic.

**Who:** Data.com Prospector licenses are available in Contact Manager (no Lead object), Group, Professional, Enterprise, Performance, and Unlimited editions. Data.com Clean licenses are available in Professional, Enterprise, Performance, and Unlimited editions.

SEE ALSO:

[Knowledge Article: Data.com Clean and Prospector Retirement](#)

## Service: Channel Menu, Einstein Article Recommendations, Case Merge, WhatsApp Messaging Channels, and Shifts for Field Service

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Connect with customers using the channels they prefer by adding an Embedded Service Channel Menu to your website. Help your agents resolve cases faster with Einstein Article Recommendations. Combine duplicate cases with Case Merge. Message with customers internationally using WhatsApp. Set up shifts for Field Service to schedule work that's outside of the usual schedule, such as holiday hours or occasional overtime (beta).

IN THIS SECTION:

[Einstein for Service: Article Recommendations, Bot Enhancements Galore, Segmented Data for Case Classification](#)

Einstein Article Recommendations is Generally Available. Einstein Bots deliver conditional messaging and conversation repair. Einstein Case Classification offers predictive models for each business segment, and a limited version is now available for free.

[Field Service: Variable Shifts, Consecutive Work, Posts for Generated Work Orders, and Enhancements to the Mobile App](#)

Set up shifts and deliver services when needed, on any day and at any time. Assign appointments back-to-back so there's no interruption. Stay informed when maintenance plans create work orders for your team. And, in the Field Service Mobile app, we added security features and a new offline priming UI to give your users a safer, better experience.

[Channels: Short Codes for Messaging, Embedded Channel Menu, WhatsApp Messaging Channels, and Agent Wait Time Estimate](#)

Send high-volume promotional messages and one-time alerts with short codes. Connect with customers using the channels they prefer by adding an Embedded Service Channel Menu to your website. Message your customers using WhatsApp. Show an estimated wait time to chat with an agent using the Embedded Service SDK for Mobile Apps (beta).

[Knowledge: Comparisons, Conversations, and Resizable Images in Chrome](#)

Let authors see the differences between versions of an article so they can track updates and progress (beta). Share articles with more customers by inserting article links in Chat and Messaging conversations. And, we made it easier to resize images and manage an article's related Files for draft articles.

[Routing: Sticky Filters, Omni-Channel Widget, and Enhanced Security](#)

Improved filtering in Omni-Channel Supervisor saves settings even after agents log out, so they're ready to go when agents log in again. Automatically minimize the Omni-Channel widget when your agents accept work. Omni-Channel objects are now more secure.

[Case Management: Case Merge Generally Available, Bulk Macros in Lightning Experience, and Other Improvements](#)

Let your agents solve cases more efficiently in Lightning Experience. Agents can combine duplicate cases with case merge. Bulk macros now are available in Lightning Experience, so agents can quickly address spikes in cases about the same issue. Macros run faster in the background, so agents can work seamlessly. In the Cases list view, an escalation icon indicates which cases are escalated, so agents can prioritize cases more easily. Agents also can hover over a case in the list view to see and edit case details. Agents can insert code snippets in emails in the case feed, so they can better support your customers.

## Einstein for Service: Article Recommendations, Bot Enhancements Galore, Segmented Data for Case Classification

Einstein Article Recommendations is Generally Available. Einstein Bots deliver conditional messaging and conversation repair. Einstein Case Classification offers predictive models for each business segment, and a limited version is now available for free.

### IN THIS SECTION:

[Help Your Agents Resolve Cases Faster with Einstein Article Recommendations \(Generally Available\)](#)

Einstein Article Recommendations uses data from past cases to identify Knowledge articles that are most likely to help your agents address customer inquiries. Einstein Article Recommendations is generally available this release.

[Help Your Chat Agents Respond Faster with Einstein Reply Recommendations \(Pilot\)](#)

Einstein Reply Recommendations analyzes data from chat transcripts to create chat replies that address your customers' inquiries. Agents select the most relevant chat reply from a list in the Lightning Service Console as they communicate with customers.

[Einstein Bots: Spring Forward with Smart Bot Enhancements](#)

In this release, we want to make sure that your bots are ready to bloom! We added smart features to tailor conversations such as Conditional Messaging and Conversation Repair. Under the hood, we added more granularity in the chatbot metrics and actionable feedback within Model Management. Plus, we expanded channels with Agent Availability for SMS and adding WhatsApp as a brand new bot channel!

[Einstein Case Classification: Segmented Data, Example Data, Multiple Models, and More](#)

Improve the quality of predicted fields for your agents. Refine your data set with predictive models for each business segment. Add example data that trains your models with your best data, and manage up to five models with new setup and model management pages. Take Einstein Case Classification for a spin by creating one predictive model at no cost.

## Help Your Agents Resolve Cases Faster with Einstein Article Recommendations (Generally Available)

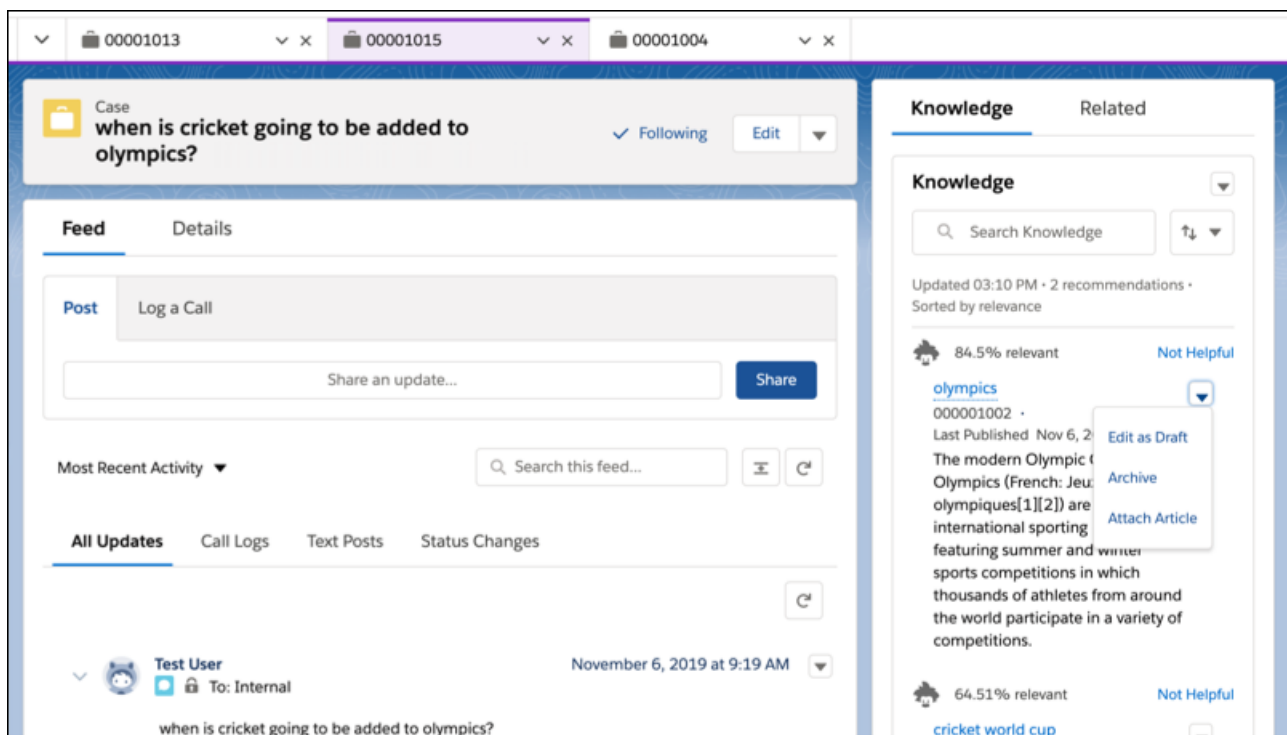
Einstein Article Recommendations uses data from past cases to identify Knowledge articles that are most likely to help your agents address customer inquiries. Einstein Article Recommendations is generally available this release.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions.

**Why:** When you set up Einstein Article Recommendations, you can identify the fields on your Case and Knowledge objects that are most relevant to solving your customers' cases.

When a customer submits a case, Einstein uses that information to:

- Identify the most important information in the case record
- Match that information to the most relevant articles from your knowledge base
- Present those articles to your agents in the Knowledge Lightning component



**How:** On the Einstein Article Recommendations Setup page, enable Einstein Article Recommendations. Select the Case and Knowledge fields for your article recommendation model, then build and activate it.

To give your agents access to Einstein Article recommendations, add the Knowledge component to your Lightning Service Console if it's not there already. Assign your agents to a profile or permission set that gives them permission to use Einstein Article Recommendations.

### Note:

- Einstein Article Recommendations is available for articles written in English only.
- You must have at least 100 English articles in your knowledge base to use Einstein Article Recommendations.

### SEE ALSO:

[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\)](#), [Resolve Cases Faster with Article Recommendations](#), and [Predict the Future Using Filters](#)

## Help Your Chat Agents Respond Faster with Einstein Reply Recommendations (Pilot)

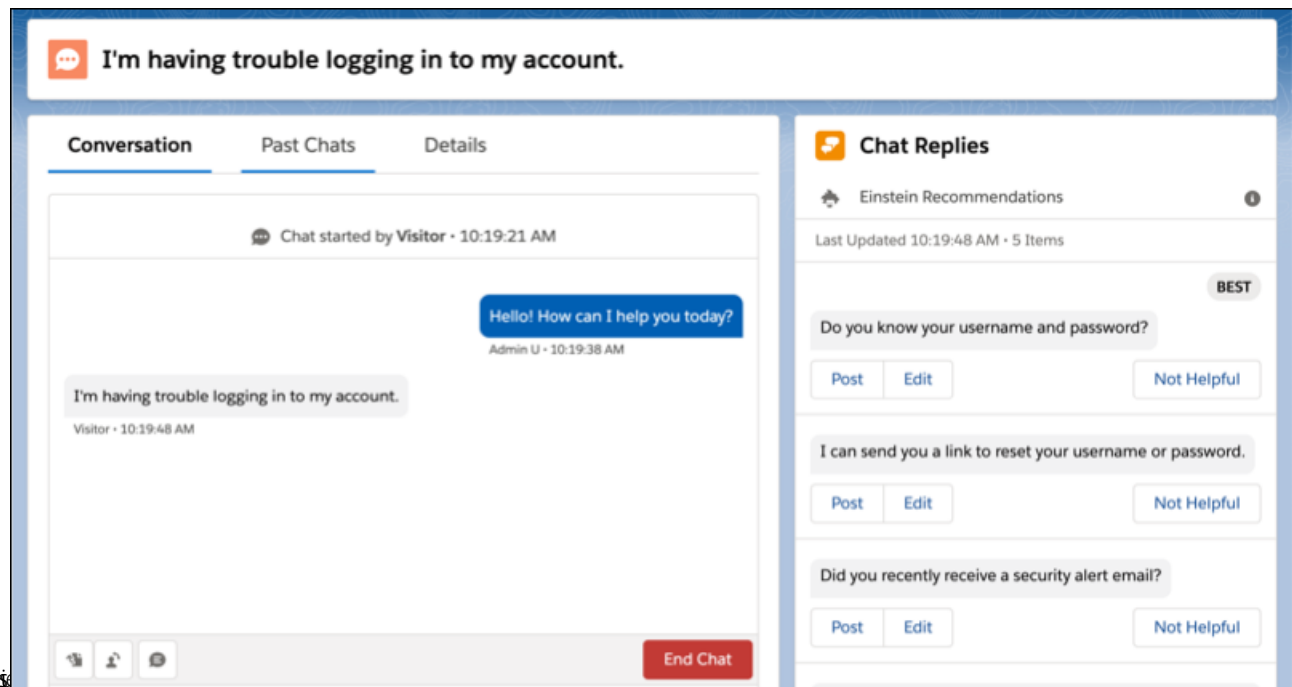
Einstein Reply Recommendations analyzes data from chat transcripts to create chat replies that address your customers' inquiries. Agents select the most relevant chat reply from a list in the Lightning Service Console as they communicate with customers.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

**Note:** We provide Einstein Reply Recommendations to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Einstein Reply Recommendations isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

**Why:** When you set up Einstein Reply Recommendations, Einstein examines closed chat transcripts to produce a list of suggested replies that agents can use while they chat with customers.

After Einstein creates suggested replies, approve or change them to meet your business's needs. After an admin approves the replies, the replies appear in the Einstein Suggestions Card in the Lightning Service Console. As agents chat with customers, Einstein analyzes the chat and dynamically surfaces the most relevant replies. Agents can select and send the suggested replies that best resolve their customers'



Einstein Reply Recommendations might be right for you if your org meets the following requirements.

- You use chat in the Lightning Service Console to support customers.
- You have at least 10,000 closed English chat transcripts.

**Note:** Einstein Reply Recommendations is available in English, with limited support in other languages.

**How:** For information on enabling this feature, contact Salesforce.

SEE ALSO:

[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\), Resolve Cases Faster with Article Recommendations, and Predict the Future Using Filters](#)

## Einstein Bots: Spring Forward with Smart Bot Enhancements

In this release, we want to make sure that your bots are ready to bloom! We added smart features to tailor conversations such as Conditional Messaging and Conversation Repair. Under the hood, we added more granularity in the chatbot metrics and actionable feedback within Model Management. Plus, we expanded channels with Agent Availability for SMS and adding WhatsApp as a brand new bot channel!

IN THIS SECTION:

### [Create Tailored Chatbot Experiences with Conditional Messaging](#)

Let bots deliver personalized experiences to your customers with built-in logic to send customized messages based on conversation context: either through a pre-chat form, data inside the CRM, or earlier replies to the bot. With Conditional Messaging, bots provide more intelligent responses and can handle nuanced discussion — turning good conversations into great conversations.

### [Handle Errors Gracefully Using Conversation Repair](#)

Bots are better helpers when they have accurate information, and with Conversation Repair, bots are able to capture formatted text in a kind and graceful manner. Now, bots can suggest to the customer when an email or phone number is formatted incorrectly, and if the customer needs further assistance, the bot can route the customer to an agent.

### [Train Your Bot Faster with the Upgraded Model Management Dashboard](#)

Get your bot in shape with an improved dashboard that provides actionable recommendations to improve model quality. Recommendations such as identifying well-performing intents provide suggestions to improve your intent training. Better intents mean better bot performance with your customers.

### [Improve Your Bot with Granular Conversation Logs](#)

We're making the conversation logs more granular to give admins a deeper understanding of exactly where the bot needs improvement. This addition, which shows customer inputs and bot actions categorized by dialog, shows admins every move the bot makes.

### [Create Smart Transfers over SMS with Agent Availability](#)

Now bots can gracefully check whether agents are available for transfer and notify the customer over SMS and Chat. The Agent Availability Check that launched in the Winter '20 release is expanding to SMS to provide a multi-channel experience between bots and agents.

### [Increase Customer Engagement with the Chatbot Typing Indicator](#)

Keep customers engaged while the bot delivers the next message by using the chatbot typing indicator. These three dots mimic messaging apps that signify when a person is typing, which shows the customer that the bot is still actively processing their request.

### [WhatsApp: Now Available for Einstein Bots](#)

Pack your bot's bags, because Einstein Bots is now available in 180 countries on the world's largest messaging app, WhatsApp. Bots can interface with WhatsApp to deliver messages to your customers, just like they do with SMS. Bots can also use automation to bring complex cases directly to agents, all on WhatsApp.

### [Einstein Bots: Other Bot Updates](#)

Learn about other changes to Einstein Bots.

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Let bots deliver personalized experiences to your customers with built-in logic to send customized messages based on conversation context: either through a pre-chat form, data inside the CRM, or earlier replies to the bot. With Conditional Messaging, bots provide more intelligent responses and can handle nuanced discussion — turning good conversations into great conversations.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Setup for Einstein Bots is available only in Lightning Experience.

**Who:** Einstein Bots is available to orgs with both Service Cloud and Chat user licenses, or to orgs with Digital Engagement user licenses. Each org is provided with 25 Einstein Bots conversations per month for each Chat or Digital Engagement user with an active subscription.

**How:** Add conditional messages by adding a Rule Dialog Element to your Dialog. In Rule Action, select **Send a Message**.

The image displays two screenshots of the Einstein Bot configuration interface, specifically the 'Rules' section. Each screenshot shows a 'CONDITIONS' section and a 'RULE ACTIONS' section.

**Top Screenshot:**

- CONDITIONS:** Variable Name: CSAT (Number), Operator: Equals, Value: 10.
- RULE ACTIONS:** Rule Action: Send a Message, Message: Thanks! We're glad you had a great experience.

**Bottom Screenshot:**

- CONDITIONS:** Variable Name: CSAT (Number), Operator: Is Less, Value: 5.
- RULE ACTIONS:** Rule Action: Send a Message, Message: How can we make your experience better next time?

### SEE ALSO:

[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\), Resolve Cases Faster with Article Recommendations, and Predict the Future Using Filters](#)

## Handle Errors Gracefully Using Conversation Repair

Bots are better helpers when they have accurate information, and with Conversation Repair, bots are able to capture formatted text in a kind and graceful manner. Now, bots can suggest to the customer when an email or phone number is formatted incorrectly, and if the customer needs further assistance, the bot can route the customer to an agent.

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**How:** Conversation Repair can be added to any Dialog Question Element. Two repair attempts are allowed per Question.

The screenshot displays the configuration for a bot question. At the top, it shows the question text: "What is your email address?". Below this, there are two input fields for "Entity Name" and "Save Answer to Variable", both set to "Email (Text)". A checkbox for "Recognize and save the answer from customer input" is unchecked. The "Conversation Repair" section includes two repair attempts: "Repair Attempt 1" with the message "Hmm, I don't understand your email address. Would you please try again?" and "Repair Attempt 2" with the message "Emails need to have an @ symbol and a .com, .org, or .net at the end. Please try again.". Underneath, there are two radio button options for "What should the bot do next?": "Repeat the repair attempts until variable is filled (Default)" (selected) and "Move on to next dialog step (Variable may not be filled)". At the bottom, there is a "Choice Type - Static" dropdown menu.

**SEE ALSO:**

[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\)](#), [Resolve Cases Faster with Article Recommendations](#), and [Predict the Future Using Filters](#)

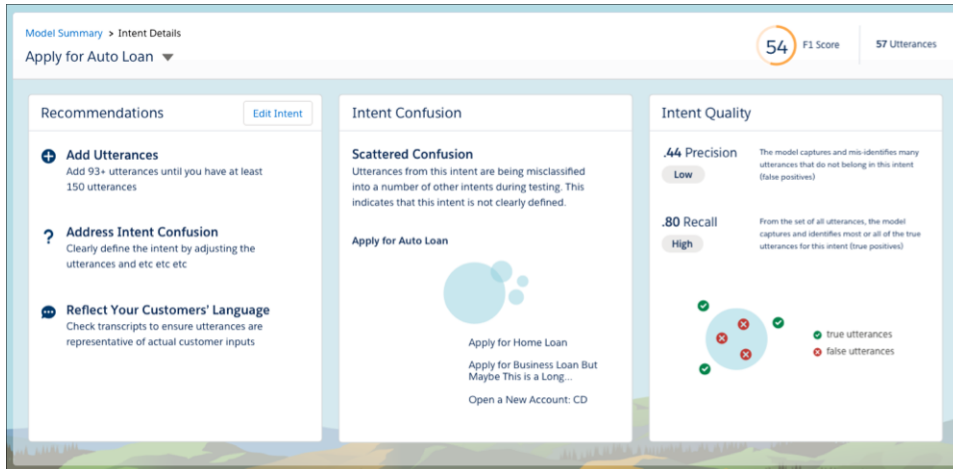
**Train Your Bot Faster with the Upgraded Model Management Dashboard**

Get your bot in shape with an improved dashboard that provides actionable recommendations to improve model quality. Recommendations such as identifying well-performing intents provide suggestions to improve your intent training. Better intents mean better bot performance with your customers.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Setup for Einstein Bots is available only in Lightning Experience.

**Who:** Einstein Bots is available to orgs with both Service Cloud and Chat user licenses, or to orgs with Digital Engagement user licenses. Each org is provided with 25 Einstein Bots conversations per month for each Chat or Digital Engagement user with an active subscription.

**How:** In the Bot Builder, navigate to the Model Management menu. The first visit to this page requires a rebuild of the model to integrate the new changes to your model: click Build Model to begin the rebuild.



SEE ALSO:

[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\), Resolve Cases Faster with Article Recommendations, and Predict the Future Using Filters](#)

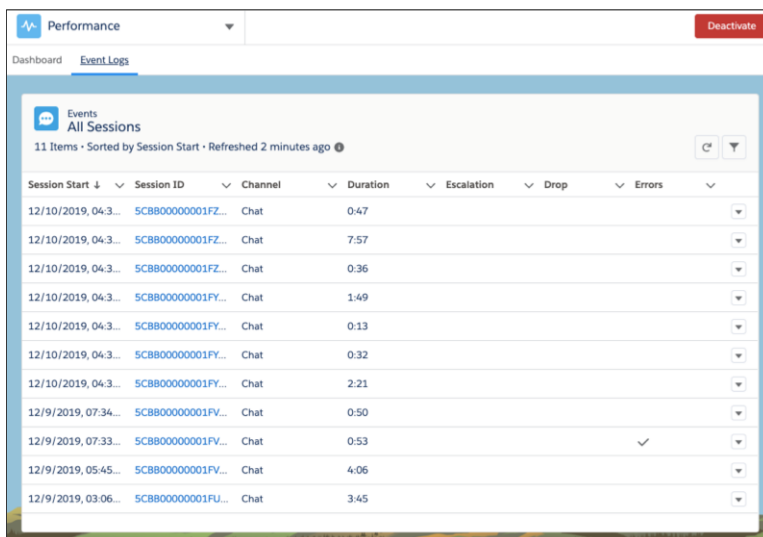
## Improve Your Bot with Granular Conversation Logs

We're making the conversation logs more granular to give admins a deeper understanding of exactly where the bot needs improvement. This addition, which shows customer inputs and bot actions categorized by dialog, shows admins every move the bot makes.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Setup for Einstein Bots is available only in Lightning Experience.

**Who:** Einstein Bots is available to orgs with both Service Cloud and Chat user licenses, or to orgs with Digital Engagement user licenses. Each org is provided with 25 Einstein Bots conversations per month for each Chat or Digital Engagement user with an active subscription.

**How:** These logs are available to all bots in the Bot Builder by visiting the Event Logs in the Performance menu.





Performance Deactivate

Dashboard Event Logs

All Sessions  
Session: SCBB0000001FVnOAM  
61 Items · Sorted by Event Date · Refreshed a few seconds ago

Event Date ↑	Dialog Name	Event	Duration	Error
12/9/2019, 07:34:33 PM	Create Account	Variable Operation		
12/9/2019, 07:34:33 PM	Create Account	Variable Operation		
12/9/2019, 07:34:33 PM	Create Account	Variable Operation		
12/9/2019, 07:34:33 PM	Create Account	Group		
12/9/2019, 07:34:33 PM	Create Account	Group		
12/9/2019, 07:34:33 PM	Create Account	Variable Operation		
12/9/2019, 07:34:33 PM	Create Account	Message		
12/9/2019, 07:34:34 PM	Create Account	Error		▲
12/9/2019, 07:34:34 PM	Create Account	End Session		
12/9/2019, 07:34:34 PM	Create Account	Error		▲
12/9/2019, 07:34:34 PM	Create Account	Error		▲

## SEE ALSO:

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## Create Smart Transfers over SMS with Agent Availability

Now bots can gracefully check whether agents are available for transfer and notify the customer over SMS and Chat. The Agent Availability Check that launched in the Winter '20 release is expanding to SMS to provide a multi-channel experience between bots and agents.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Setup for Einstein Bots is available only in Lightning Experience.

**Who:** Einstein Bots is available to orgs with both Service Cloud and Chat user licenses, or to orgs with Digital Engagement user licenses. Using SMS requires a Digital Engagement license. Each org is provided with 25 Einstein Bots conversations per month for each Chat or Digital Engagement user with an active subscription.

 **Note:**

- Einstein Bots don't support skills-based routing.
- If a transfer occurs and no agents are available, the bot routes to a system "no agent available" dialog.

## SEE ALSO:

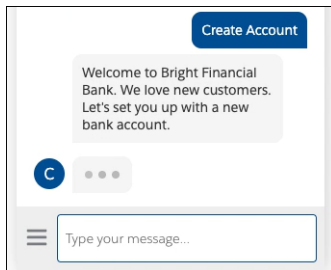
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## Increase Customer Engagement with the Chatbot Typing Indicator

Keep customers engaged while the bot delivers the next message by using the chatbot typing indicator. These three dots mimic messaging apps that signify when a person is typing, which shows the customer that the bot is still actively processing their request.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Setup for Einstein Bots is available only in Lightning Experience. This feature is available for bots using Chat.

**Who:** Einstein Bots is available to orgs with both Service Cloud and Chat user licenses, or to orgs with Digital Engagement user licenses. Each org is provided with 25 Einstein Bots conversations per month for each Chat or Digital Engagement user with an active subscription.



SEE ALSO:

[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\)](#), [Resolve Cases Faster with Article Recommendations](#), and [Predict the Future Using Filters](#)

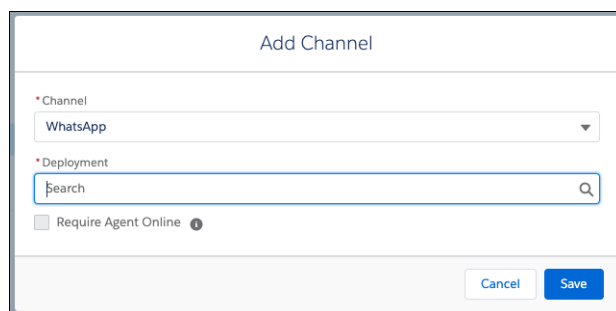
## WhatsApp: Now Available for Einstein Bots

Pack your bot's bags, because Einstein Bots is now available in 180 countries on the world's largest messaging app, WhatsApp. Bots can interface with WhatsApp to deliver messages to your customers, just like they do with SMS. Bots can also use automation to bring complex cases directly to agents, all on WhatsApp.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Setup for Einstein Bots is available only in Lightning Experience. This feature is available for bots using Chat and Omni-Channel.

**Who:** Einstein Bots is available to orgs with both Service Cloud and Chat user licenses, or to orgs with Digital Engagement user licenses. Using WhatsApp requires a Digital Engagement license. Each org is provided with 25 Einstein Bots conversations per month for each Chat or Digital Engagement user with an active subscription.

**How:** WhatsApp numbers must be set up in Messaging before they can be added to any bot. Once the number is added, navigate to the Overview Page in the Bot Builder. After clicking **Add** in the Channel menu, select WhatsApp as the Channel and the Channel Name into the Deployment field.



SEE ALSO:

[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\)](#), [Resolve Cases Faster with Article Recommendations](#), and [Predict the Future Using Filters](#)

## Einstein Bots: Other Bot Updates

Learn about other changes to Einstein Bots.

- Previously, if a session did not have any activity for 24 hours, the session would close. We changed the idle timeout for Chat and Messaging sessions from 24 hours to 2 hours.
- We changed the behavior of the following dropdown fields from displaying all by default to type ahead on the Bot Overview page:
  - The **Custom Chatbot User** field in the Bot User section
  - The **Deployment** field on the Add Channels screen

## Einstein Case Classification: Segmented Data, Example Data, Multiple Models, and More

Improve the quality of predicted fields for your agents. Refine your data set with predictive models for each business segment. Add example data that trains your models with your best data, and manage up to five models with new setup and model management pages. Take Einstein Case Classification for a spin by creating one predictive model at no cost.

### IN THIS SECTION:

#### [Improve Einstein Field Value Predictions with Segments and Example Data](#)

Set up and build predictive models for various business segments, such as building and consulting services or enterprise and consumer divisions. You can also narrow the scope of a single model if you want to predict field values for only a subset of your business. Previously, Case Classification considered all your data. Within each segment, specify the closed cases that best reflect the completed fields and field values you'd like to use for case classification. This example data trains each model with data that represents best practices for your cases.

#### [Manage Multiple Models with a New Setup Page Experience](#)

You can now create models that align with the way you organize your business or focus on a particular segment of your business. The Case Classification setup page redesign has a new section for multiple models.

#### [Improve Predictions with More Data](#)

A nifty data-checking tool alerts you to low and insufficient data counts.

#### [Try Einstein Case Classification At No Additional Cost](#)

Heard about Einstein Case Classification but aren't sure it will work for your data? Enterprise, Performance, and Unlimited Edition customers can get to know it by creating a case classification model!

## Improve Einstein Field Value Predictions with Segments and Example Data

Set up and build predictive models for various business segments, such as building and consulting services or enterprise and consumer divisions. You can also narrow the scope of a single model if you want to predict field values for only a subset of your business. Previously, Case Classification considered all your data. Within each segment, specify the closed cases that best reflect the completed fields and field values you'd like to use for case classification. This example data trains each model with data that represents best practices for your cases.

**Where:** This change applies to Lightning Experience and Salesforce Classic. Einstein Case Classification is available for an extra fee in Lightning Experience in Enterprise, Performance, and Unlimited editions. Setup for Einstein Case Classification is available only in Lightning Experience. Einstein Case Classification is not available in the Salesforce Government Cloud.

**How:** In the new model flow, click **Yes: focus on a segment**. Then use filters to define the segment.

The screenshot shows the 'Einstein Case Classification' setup page. The main heading is 'Want to focus on a particular segment in your case dataset?'. There are two radio buttons: 'No segment: use all my org's case data' (unselected) and 'Yes: focus on a segment' (selected). Below this is the 'Define Your Segment' section, which is highlighted with an orange box. It contains a table with columns: Case Field, Operator, Type, and Value. The table has one row: Case Record Type, Equals, Reference, and Consumer. There is an '+ Add Condition' button below the table. On the right side, there is a sidebar with the heading 'Einstein is here to help' and three sections: 'Choose when to apply the rules', 'Choose what fields to filter by', and 'Why use example data?'. At the bottom, there are 'Back' and 'Next' buttons.

Next, tell Einstein which records in your segment, or in your whole dataset, if you're not focusing on a segment, to use as examples for building a predictive model. This is your example set. Einstein identifies patterns in data from these records to create predictions for other records.

Within the segment, use filters to define your example data.

The screenshot shows the 'Einstein Case Classification' setup page. The main heading is 'Want Einstein to use specific records as examples for your predictive model?'. There are two radio buttons: 'No: use all my org's case data' (unselected) and 'Yes: use example case data' (selected). Below this is the 'Define Your Example Set' section, which is highlighted with an orange box. It contains a table with columns: Case Field, Operator, Type, and Value. The table has one row: Case Reason, Equals, Picklist, and New problem. There is an '+ Add Condition' button below the table. On the right side, there is a sidebar with the heading 'Einstein is here to help' and two sections: 'Why use example data?' and 'Why use example data?'. At the bottom, there are 'Back' and 'Next' buttons.

#### SEE ALSO:

[Manage Multiple Models with a New Setup Page Experience](#)

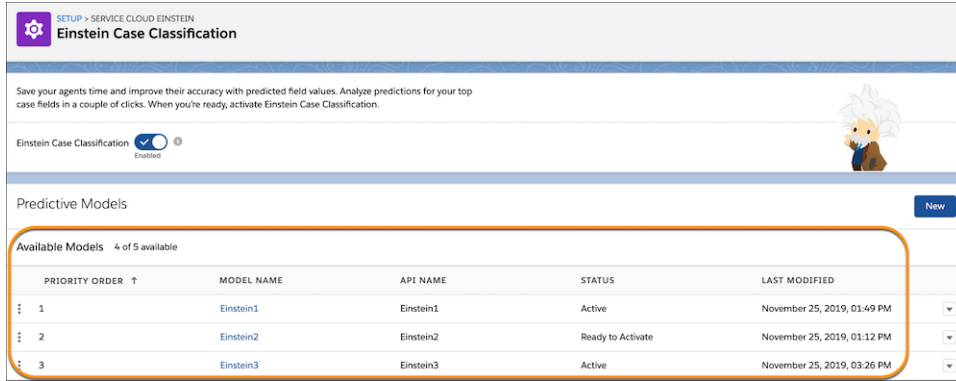
[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\), Resolve Cases Faster with Article Recommendations, and Predict the Future Using Filters](#)

## Manage Multiple Models with a New Setup Page Experience

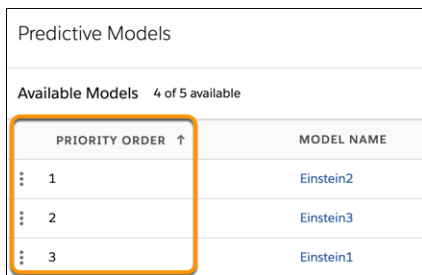
You can now create models that align with the way you organize your business or focus on a particular segment of your business. The Case Classification setup page redesign has a new section for multiple models.

**Where:** This change applies to Lightning Experience and Salesforce Classic. Einstein Case Classification is available for an extra fee in Lightning Experience and Salesforce Classic in Enterprise, Performance, and Unlimited editions. Setup for Einstein Case Classification is available only in Lightning Experience. Einstein Case Classification is not available in the Salesforce Government Cloud.

**How:** Your models are listed in the Predictive Models section. The Status column indicates the state of each model: Ready to Build, Building, Ready to Activate, and finally Active and serving recommendations to your agents.



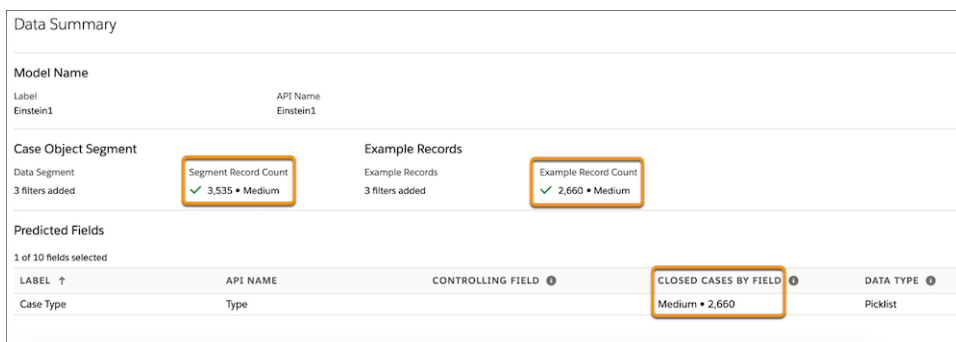
When you define your segments, rules that are not mutually exclusive can create overlapping segments. An incoming case may fit into more than one. It's best to create fully distinct segments. However, if a case falls into more than one, you can tell Einstein which model to use. Drag models to adjust priority order.



When you click a model name, you see information about the model and two tabs, Overview and Setup.



The Overview tab contains the Performance dashboard and a new Data Summary section that provides more detail about the segment and example records. The number of records in the segment and example data are shown. Close case count by field is also shown.



The Setup tab lets you manage the model. You can deactivate a model, edit the segment filters, the example data, and the fields, and then rebuild and activate the updated model.

**Einstein2**  
Model Status: Ready to Activate  
Last Modified: November 25, 2019, 01:12 PM

Overview **Setup**

Predictive Model

CONFIGURE DATA BUILD MODEL REVIEW CONFIDENCE ACTIVATE MODEL

Fields to Predict

Label	Select Value	Confidence Level	Accuracy: Correct - Incorrect	Automate Value	Confidence Level	Accuracy: Correct - Incorrect	Actions
Case Type	Select Best	50	90% - 10%	On	51	90% - 10%	Review
Priority	Select Best	50	100% - 0%	On	51	100% - 0%	Review

#### SEE ALSO:

[Improve Predictions with More Data](#)

[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\), Resolve Cases Faster with Article Recommendations, and Predict the Future Using Filters](#)

## Improve Predictions with More Data

A nifty data-checking tool alerts you to low and insufficient data counts.

**Where:** This change applies to Lightning Experience and Salesforce Classic. Einstein Case Classification is available for an extra fee in Lightning Experience and Salesforce Classic in Enterprise, Performance, and Unlimited editions. Setup for Einstein Case Classification is available only in Lightning Experience. Einstein Case Classification is not available in the Salesforce Government Cloud.

**Why:** Successful case classification relies on sufficient closed-case volume. We let you know if you have enough case data, example data, and field value data. A summary page indicates how much case data you have for the segment, the example data, and each field.

If you have low closed-case data (400–1,000 closed cases), you can save your settings and build the model, but your predictions might be affected. If you have insufficient closed-case data (fewer than 400 closed cases), you can't save your settings until you gather more data. Similarly, we recommend a minimum of 100 closed cases that used each field and value that you want to predict for your agents.

**How:** At the end of the new model flow, examine any warning and error messages and make sure that you have enough data. After your model is configured, review data counts on the model's Overview tab. If you don't have enough cases overall or for any field, remove some segment or example data filters.

## SEE ALSO:

[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\), Resolve Cases Faster with Article Recommendations, and Predict the Future Using Filters](#)

## Try Einstein Case Classification At No Additional Cost

Heard about Einstein Case Classification but aren't sure it will work for your data? Enterprise, Performance, and Unlimited Edition customers can get to know it by creating a case classification model!

**Where:** This change applies to Lightning Experience and Salesforce Classic. Einstein Case Classification is available for an extra fee in Enterprise, Performance, and Unlimited editions. Setup for Einstein Case Classification is available only in Lightning Experience. Einstein Case Classification is not available in the Salesforce Government Cloud.

**How:** To get started, enable Einstein Case Classification in Setup. Then try building a model to recommend a few fields to your agents. Prediction scoring is performed every hour, not on demand, and you can't automate values.



**Note:** The paid version of Einstein Case Classification is available with the Service Cloud Einstein license. This license lets you build five prediction models and includes on-demand scoring and automatic case routing.

## SEE ALSO:

[Salesforce Help: Set Up Einstein Case Classification \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Upgrade to the Paid Version of Einstein Case Classification \(can be outdated or unavailable during release preview\)](#)

## Field Service: Variable Shifts, Consecutive Work, Posts for Generated Work Orders, and Enhancements to the Mobile App

Set up shifts and deliver services when needed, on any day and at any time. Assign appointments back-to-back so there's no interruption. Stay informed when maintenance plans create work orders for your team. And, in the Field Service Mobile app, we added security features and a new offline priming UI to give your users a safer, better experience.

## IN THIS SECTION:

[Flex Your Field Service Scheduling with Ad Hoc Shifts \(Beta\)](#)

With shifts, you can break out of rigid work hours. Define shifts that vary from the usual schedule, such as holiday hours or occasional overtime. Or, to schedule contractors who don't have consistent work hours, you can create shifts for the dates and times when they're available.

[Schedule an Appointment That Immediately Follows Another \(Beta\)](#)

When you want service appointments to occur back-to-back, create an `Immediately Follow` dependency between them.

[Build Smart Schedules with Enhanced Optimization \(Generally Available\)](#)

Construct field service schedules that align with key performance goals. Enhanced Optimization supplies tools that can help your team to minimize travel, improve response times, and adjust to last-minute changes.

[Assign Work to the Minimally Qualified or Most Skilled Resource](#)

With Enhanced Optimization, you can schedule service resources based on their expertise. Send workers with minimum required skill levels and conserve your top-notch talent. Or, assign the most qualified candidates to key appointments. Previously, Enhanced Optimization used the Match Skills work rule but didn't consider the Skill Level service objective.

[Improve Field Service Wellness with Health Check \(Generally Available\)](#)

We enhanced Health Check so that it can better diagnose your field service configuration. With a single click, you can pinpoint more issues, such as misaligned shift hours and invalid dependencies. New tests help to detect problems that can limit resource availability and your optimization results.

[Get the Lowdown on Work Orders Generated from Maintenance Plans](#)

Users can discover and act on errors encountered when work orders are generated from maintenance plans. Receive a Chatter post detailing the outcome of manual and automatic work order generation.

[Work Capacity Data Model No Longer Available](#)

You can no longer define the amount of time that teams should spend on different types of work and set scheduling capacity limits by work type in Field Service.

[Field Service Mobile App: New Offline Priming UI, Security Improvements, Access to Global Actions, Service Report Flows](#)

The FSL mobile app provides a more powerful offline priming interface, improves security features, and adds access to global actions and service report flows.

## Flex Your Field Service Scheduling with Ad Hoc Shifts (Beta)

With shifts, you can break out of rigid work hours. Define shifts that vary from the usual schedule, such as holiday hours or occasional overtime. Or, to schedule contractors who don't have consistent work hours, you can create shifts for the dates and times when they're available.

**Where:** This feature applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions. For scheduling and Enhanced Optimization to use shift availability, the managed package is required. Log a request with Salesforce Support to enable shift management.

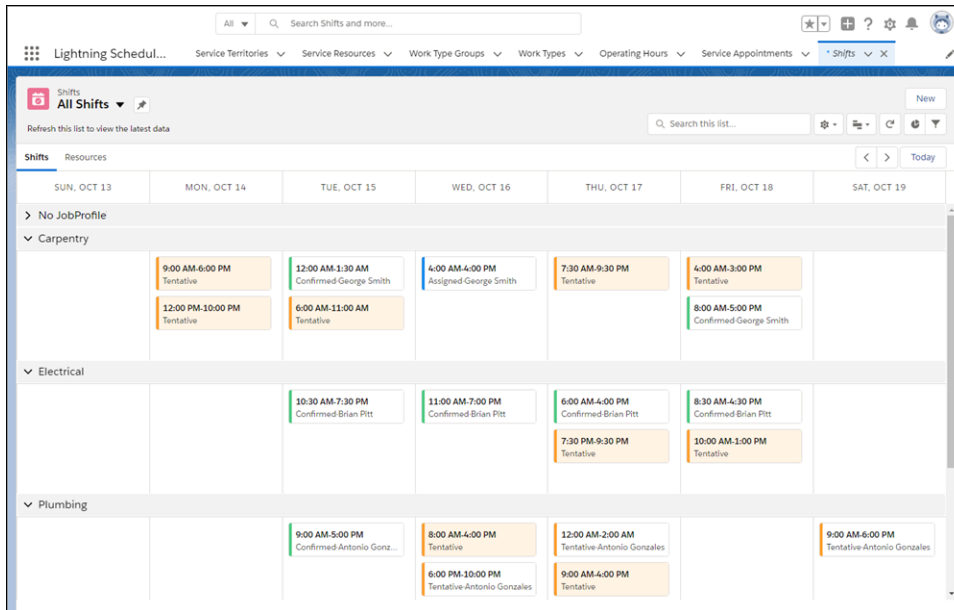


**Note:** As a beta feature, Shift Management is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Shift Management in the [Field Service Lightning group in the Trailblazer Community](#).



**Why:** Use shifts, work hours, or both to schedule work when you need it. You can categorize shifts with job profiles so that you can match resources with the right skills to your shifts.

**How:** From the App Manager, select Shifts and create a shift with a time frame, an optional service territory, and an optional job profile. When you verify a worker's availability, set the shift status to Confirmed. If the managed package is installed, availability for confirmed shifts appears on the Gantt and is used in scheduling and Enhanced Optimization.



SEE ALSO:

[Salesforce Help: Manage Shifts for Field Service \(can be outdated or unavailable during release preview\)](#)

## Schedule an Appointment That Immediately Follows Another (Beta)

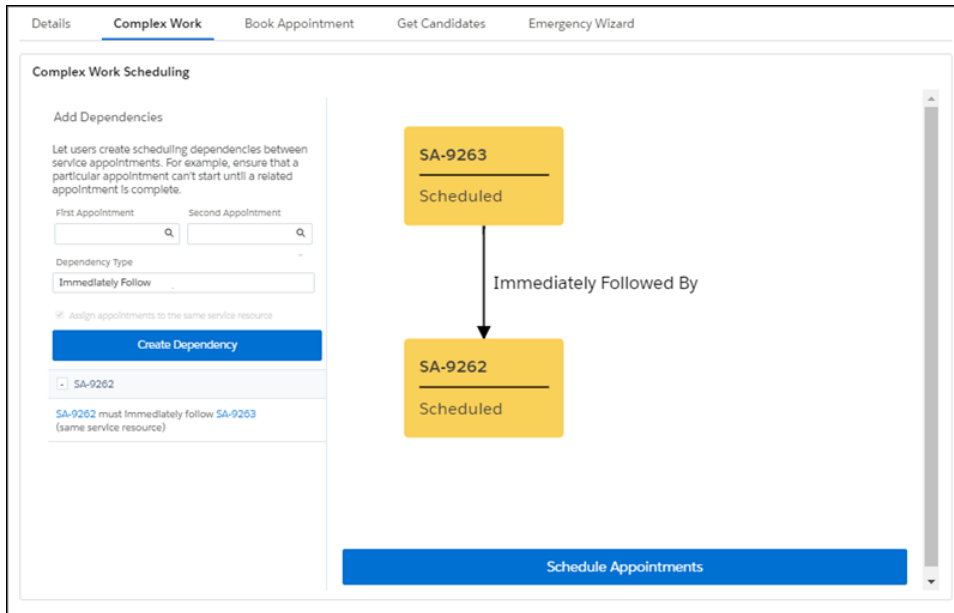
When you want service appointments to occur back-to-back, create an `Immediately Follow` dependency between them.

**Where:** This feature applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions with the Field Service Lightning managed package installed.

**Note:** As a beta feature, the `Immediately Follow` dependency is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only from generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for this dependency type in the [IdeaExchange](#) and through the [Trailblazer Community](#).

**Why:** This type of dependency prevents a resource from being scheduled between two appointments. For example, when an auto repair shop schedules a tow truck resource, the first appointment is the pick-up of a broken-down car. The next appointment must be the drop-off at the garage.

**How:** Enable the complex work setting, and customize the service appointment page layout to show scheduling dependencies. Then, on an appointment page, specify related appointments and select the dependency type. For `Immediately Follow` dependencies, scheduling assigns the appointments back-to-back on the same day and to the same resource. Enhanced Optimization respects `Immediately Follow` dependencies.



#### SEE ALSO:

[Salesforce Help: Create Scheduling Dependencies Between Service Appointments \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Considerations for Scheduling Dependencies \(can be outdated or unavailable during release preview\)](#)

## Build Smart Schedules with Enhanced Optimization (Generally Available)

Construct field service schedules that align with key performance goals. Enhanced Optimization supplies tools that can help your team to minimize travel, improve response times, and adjust to last-minute changes.

**Where:** This feature applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions with the Field Service Lightning managed package installed.

**Why:** Enhanced Optimization includes these features.

- **Fast in-day optimization (generally available):** Last-minute upsets are no cause for alarm. To account for unforeseen absences and cancellations, in-day optimization can revise schedules quickly on the day of service.
- **Optimization recipes for common scheduling challenges (generally available):** Tackle scenarios that often result in rescheduling, such as cancellations, overlaps, and early completions. Create optimization “recipes” with guidelines that can refine and rebuild your schedules. To help you get started, we provide four samples.
- **Smarter travel time estimates (beta):** Predictive travel builds on Field Service Lightning’s street-level routing service by incorporating time-of-day route data into travel time estimates.
- **Shift availability (beta):** Enhanced Optimization considers availability for confirmed shifts.

- **Consecutive work (beta):** When you specify an `Immediately Follow` dependency between two service appointments, Enhanced Optimization tries to schedule them back-to-back on the same day and to the same resource.
- **Extended match work rule:** Enhanced Optimization respects work rules of this type.

If Spring '20 is the first release in which you installed the managed package, when you activate optimization, we give you access to Enhanced Optimization automatically. If you installed the managed package previously, you can activate Enhanced Optimization and take advantage of these features.

**How:** From the App Launcher, find and open the **Field Service Admin** app, and then click the **Field Service Settings** tab. Select **Optimization > Activation**. Create the optimization profile and user, and turn on optimization.

SEE ALSO:

[Salesforce Help: Activate Enhanced Optimization \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Optimize Your Field Service Schedule \(can be outdated or unavailable during release preview\)](#)

## Assign Work to the Minimally Qualified or Most Skilled Resource

With Enhanced Optimization, you can schedule service resources based on their expertise. Send workers with minimum required skill levels and conserve your top-notch talent. Or, assign the most qualified candidates to key appointments. Previously, Enhanced Optimization used the Match Skills work rule but didn't consider the Skill Level service objective.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions with the Field Service Lightning managed package installed.

**How:** To optimize valuable service resources, create a scheduling policy that includes the Match Skills work rule and the Skill Level service objective. In the Skill Level service objective, set the resource priority so that optimization selects the most qualified or least qualified resource. When you use Enhanced Optimization, scheduling considers skill levels of your workers and this setting.

SEE ALSO:

[Salesforce Help: Activate Enhanced Optimization \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Create and Manage Service Objectives \(can be outdated or unavailable during release preview\)](#)

## Improve Field Service Wellness with Health Check (Generally Available)

We enhanced Health Check so that it can better diagnose your field service configuration. With a single click, you can pinpoint more issues, such as misaligned shift hours and invalid dependencies. New tests help to detect problems that can limit resource availability and your optimization results.

**Where:** This feature applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions with the Field Service Lightning managed package installed.

SEE ALSO:

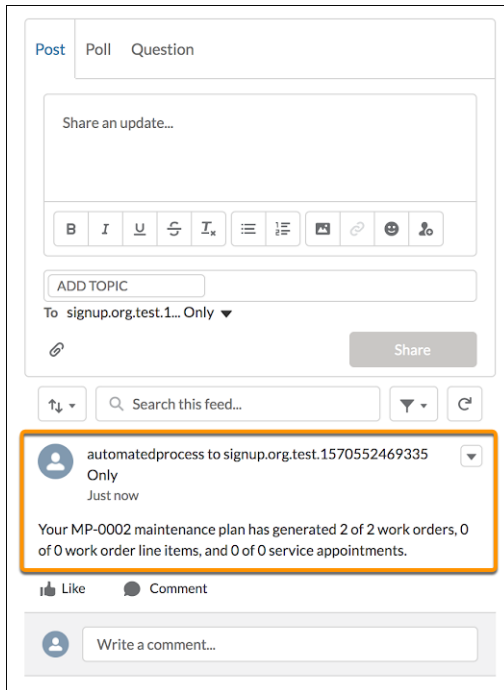
[Salesforce Help: Test Your Field Service Configuration with Health Check \(Beta\) \(can be outdated or unavailable during release preview\)](#)

## Get the Lowdown on Work Orders Generated from Maintenance Plans

Users can discover and act on errors encountered when work orders are generated from maintenance plans. Receive a Chatter post detailing the outcome of manual and automatic work order generation.

**Where:** This feature applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

**How:** Enable Chatter and Feed-tracking options.



SEE ALSO:

[Salesforce Help: Guidelines for Generating Work Orders from a Maintenance Plan \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Customize Chatter Feed Tracking \(can be outdated or unavailable during release preview\)](#)

## Work Capacity Data Model No Longer Available

You can no longer define the amount of time that teams should spend on different types of work and set scheduling capacity limits by work type in Field Service.

**Where:** This feature applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

**Why:** The Work Capacity data model wasn't consumed by the optimization engine. Data stored in Work Capacity Limit data model was informative only. To increase performance, this data model will be refactored for consumption by the optimization engine and therefore won't be used in its original configuration.

## Field Service Mobile App: New Offline Priming UI, Security Improvements, Access to Global Actions, Service Report Flows

The FSL mobile app provides a more powerful offline priming interface, improves security features, and adds access to global actions and service report flows.

IN THIS SECTION:

[Stay Informed with an Improved Offline Priming UI](#)

Your field workers can be more confident that their information is accessible with our new UI for offline priming. This UI shows the priming progress and lets you explicitly start a full sync.

### [Protect Sensitive Data with Security Attributes](#)

You can prevent sensitive data from getting pasted outside the app and files from being opened outside the app with two new security attributes.

### [Do More in the Mobile App with Global Actions](#)

Global actions allow you to create records that don't have a direct relationship to records that are in use. This feature gives your workers more powerful functionality directly from the app. These actions are available from top-level screens, meaning screens that don't show an individual record.

### [Run Service Report Flows in Android](#)

Android users can now get the service report preview, capture customer signatures, and launch the generation of the service report. These flows launch the Service Report experience automatically on flow completion. Previously, this feature was available only for iOS.

## Stay Informed with an Improved Offline Priming UI

Your field workers can be more confident that their information is accessible with our new UI for offline priming. This UI shows the priming progress and lets you explicitly start a full sync.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

## Protect Sensitive Data with Security Attributes

You can prevent sensitive data from getting pasted outside the app and files from being opened outside the app with two new security attributes.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**How:** The Field Service Mobile app security attributes are non-restrictive by default. To change an attribute from the default value, go to Setup. Enter *Connected Apps* in the Quick Find box, select **Manage Connected Apps**, then click the name of the Field Service connected app. Update the attribute value from the Custom Attributes section on the connected app page. Use `DISABLE_EXTERNAL_PASTE` to protect clipboard data. Use `SHOW_OPEN_IN` to protect files from being opened outside the app.

SEE ALSO:

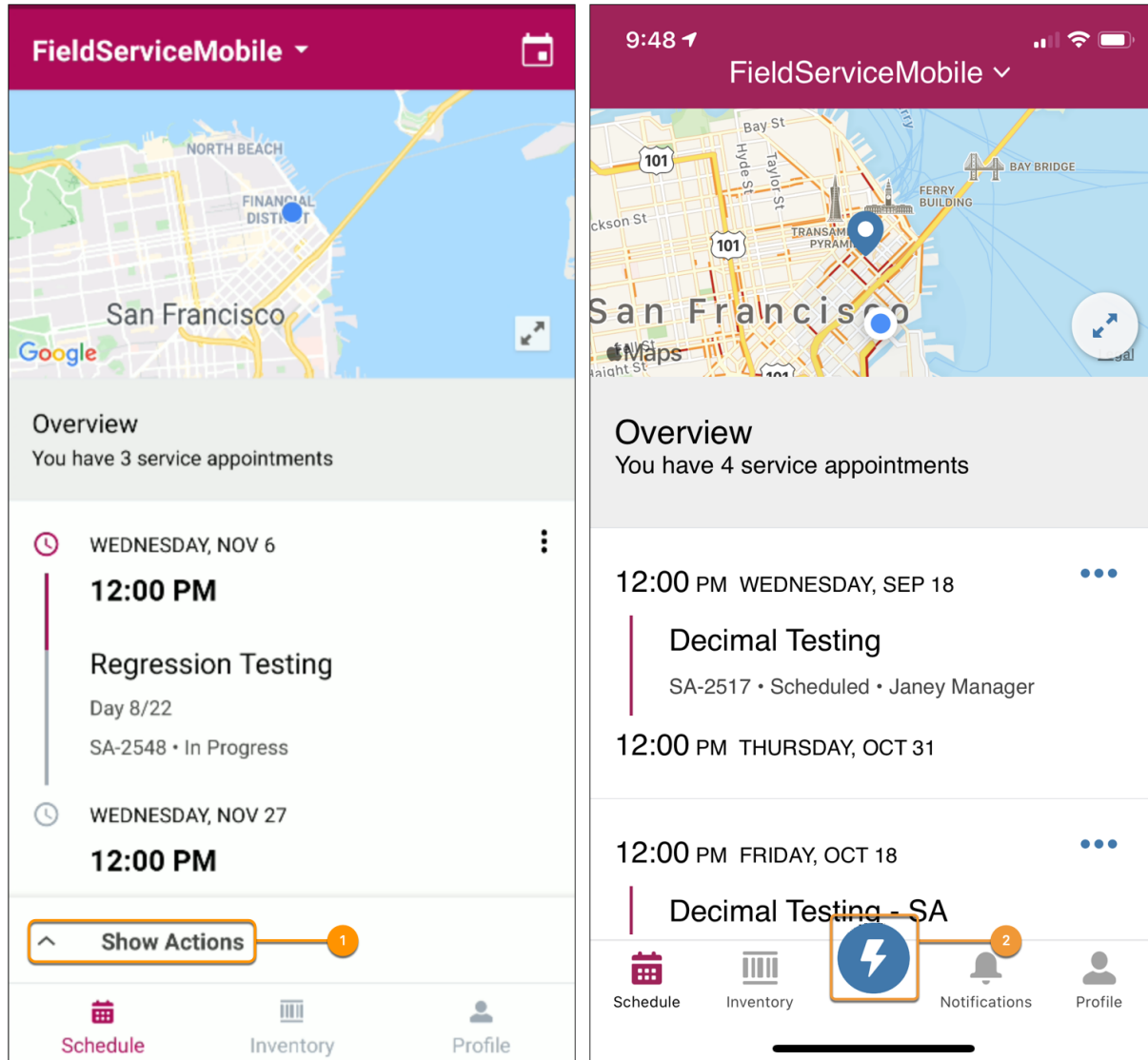
[Salesforce Help: Field Service Lightning Mobile Security \(can be outdated or unavailable during release preview\)](#)

## Do More in the Mobile App with Global Actions

Global actions allow you to create records that don't have a direct relationship to records that are in use. This feature gives your workers more powerful functionality directly from the app. These actions are available from top-level screens, meaning screens that don't show an individual record.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**How:** After you add a global action to the Quick Actions in the Salesforce Classic Publisher section of the global publisher layout, you can access these actions from the bottom navigation bar on Android (1) and on iOS (2).



## Run Service Report Flows in Android

Android users can now get the service report preview, capture customer signatures, and launch the generation of the service report. These flows launch the Service Report experience automatically on flow completion. Previously, this feature was available only for iOS.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**How:** After you build a flow, create an app extension with the following settings. These settings don't change the rest of your flow, but when the app detects the `Service_Report_Flow` name, it launches the Service Report preview interface when your flow completes.

- Label—Enter the text that you want to appear in the Actions tab. For example, My Service Report Flow.
- Type—Select **Flow**.
- Name—Enter `Service_Report_Flow`.
- Scoped to Object Types—Enter `ServiceAppointment`.
- Launch Value—Enter the API name of the flow that you want to conclude with signature capture.

Because the API name of the service report flow is unique, you can have only one `Service_Report_Flow` at a time.

# Channels: Short Codes for Messaging, Embedded Channel Menu, WhatsApp Messaging Channels, and Agent Wait Time Estimate

Send high-volume promotional messages and one-time alerts with short codes. Connect with customers using the channels they prefer by adding an Embedded Service Channel Menu to your website. Message your customers using WhatsApp. Show an estimated wait time to chat with an agent using the Embedded Service SDK for Mobile Apps (beta).

## IN THIS SECTION:

### [Messaging: Short Codes, Consent Management, and WhatsApp Messaging Channels](#)

Expand your reach with short codes. Give your customers new ways to opt into messages. Message with customers internationally using WhatsApp.

### [Embedded Service for Mobile Apps: Estimated Wait Time \(Beta\), Dark Mode for iOS, and Bug Fixes](#)

When a customer is waiting for an agent, you can show the estimated wait time instead of the queue position. This option is useful when the queue position doesn't effectively represent the wait time for a customer. We made improvements to better support Android 10 and iOS 13. We also support Dark Mode for iOS 13 and zapped a few bugs.

### [Embedded Service for Web: Channel Menu, Language Settings for Labels, Chat Load Time, Mobile Web Accessibility, and Lightning Web Components](#)

Engage with customers using a customized Channel Menu. Control language settings for all labels in the code snippet. Enhance load time for Embedded Chat. Improve screen-reader access in web Chat for mobile. Deploy Lightning web components for a better Chat experience.

## Messaging: Short Codes, Consent Management, and WhatsApp Messaging Channels

Expand your reach with short codes. Give your customers new ways to opt into messages. Message with customers internationally using WhatsApp.

## IN THIS SECTION:

### [Reach More Customers More Quickly with Short Codes in the US](#)

Use short code phone numbers to send recurring messages and one-time alerts to your US customers. When customers respond, they can have two-way conversations with support agents, just like they do with your other channels. Short codes have high throughput, which allows you to send one-to-many messages and high volumes of one-to-one messages.

### [Support Your Customers with WhatsApp \(Generally Available\)](#)

Whether at home or abroad, customers can contact your support center on the world's largest messaging app. Agents can have conversations with customers over WhatsApp, just like they do with incoming SMS text messages or Facebook Messages. Your business can also send templated notifications to customers, such as appointment updates or shipment notifications.

### [Stay in the Clear with Consent Management](#)

Decide how your customers opt into receiving messages from your business. We expanded our consent options to include implicit opt-in, explicit opt-in, and double opt-in. Plus, you can create automated responses for your channel's keywords.

### [Strike Up Conversations from More Record Types](#)

Proactively update customers on the status of their cases by sending agent-initiated outbound messages. The Start Conversation button is now available on the Person Account, Case, Lead, and Opportunity record detail pages.

### [Create Unique Sensitive Data Rules for Messaging](#)

Protect your customers' personal information—such as credit card or Social Security numbers—when they message with your business. Previously, Chat and Messaging shared sensitive data rules.

### [Say Arrivederci to Messaging Support for SMS in Italy](#)

Because of changes in regulations and government availability of Italian long code numbers, we're no longer able to support business-oriented, conversational SMS in Italy over long codes. Consider using other channels, like Facebook and WhatsApp, to connect with customers in Italy.

## Reach More Customers More Quickly with Short Codes in the US

Use short code phone numbers to send recurring messages and one-time alerts to your US customers. When customers respond, they can have two-way conversations with support agents, just like they do with your other channels. Short codes have high throughput, which allows you to send one-to-many messages and high volumes of one-to-one messages.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions. This feature is available in Salesforce orgs with access to Messaging through a Digital Engagement add-on and the Short Codes add-on SKU.

**Why:** Short codes are typically used for transactional messages or promotional content. Get the benefits of short codes while delivering the instant, personalized support your customers know and love.

**How:** To request the Short Codes add-on SKU, contact your Salesforce Account Executive or Sales Representative.

SEE ALSO:

[Salesforce Help: Set Up Short Code Channels in Messaging \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Considerations for Short Codes \(can be outdated or unavailable during release preview\)](#)

## Support Your Customers with WhatsApp (Generally Available)

Whether at home or abroad, customers can contact your support center on the world's largest messaging app. Agents can have conversations with customers over WhatsApp, just like they do with incoming SMS text messages or Facebook Messages. Your business can also send templated notifications to customers, such as appointment updates or shipment notifications.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions. This feature is available in orgs with access to Messaging through a Digital Engagement add-on.

**How:** Make sure that you have a Facebook Business Manager account. Then enter *Messaging* in the Quick Find box, and select **Messaging Settings**. Click **New Channel** to open the guided setup flow and set up your WhatsApp channel.

SEE ALSO:

[Salesforce Help: Set Up WhatsApp in Messaging \(can be outdated or unavailable during release preview\)](#)

## Stay in the Clear with Consent Management

Decide how your customers opt into receiving messages from your business. We expanded our consent options to include implicit opt-in, explicit opt-in, and double opt-in. Plus, you can create automated responses for your channel's keywords.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions. This feature is available in Salesforce orgs with access to Messaging through a Digital Engagement add-on.

**Why:** If you use short codes, you're required to follow carrier-compliance requirements, industry standards, and applicable laws. Consent management allows you to stay compliant and send short code messages without breaking any rules.

**How:** When you create or edit a Messaging channel, enter keywords that your channel automatically responds to. Then write customized responses for those keywords.



Opt-Out Keywords  
Stop, Stopall, Cancel, End, Quit, Unsubscribe

\* Opt-Out Confirmation

You have successfully been unsubscribed. You will not receive any more messages from this number. Reply START to resubscribe.

Opt-In Prompt

To subscribe to Salesforce Product Alerts, reply YES. Reply HELP for help. Reply STOP to cancel at any time. Msg&data rates may apply.

Require Double Opt-In ?

Double Opt-In Keywords

DoubleOptInKeywords

Double Opt-In Prompt

To confirm your subscription to Salesforce Product Alerts, reply START. Reply HELP for help. Reply STOP to cancel at any time. Msg&data rates may apply.

SEE ALSO:

[Salesforce Help: Considerations for Short Codes \(can be outdated or unavailable during release preview\)](#)

## Strike Up Conversations from More Record Types

Proactively update customers on the status of their cases by sending agent-initiated outbound messages. The Start Conversation button is now available on the Person Account, Case, Lead, and Opportunity record detail pages.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions. This feature is available in Salesforce orgs with access to Messaging through a Digital Engagement add-on.

SEE ALSO:

[Salesforce Help: Send Agent-Initiated Outbound Messages \(can be outdated or unavailable during release preview\)](#)

## Create Unique Sensitive Data Rules for Messaging

Protect your customers' personal information—such as credit card or Social Security numbers—when they message with your business. Previously, Chat and Messaging shared sensitive data rules.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions. This feature is available in Salesforce orgs with access to Messaging through a Digital Engagement add-on.

**Why:** If your business uses both Chat and Messaging, your current sensitive data rules apply only to Chat starting in Spring '20.

**How:** From Setup in Lightning Experience, select **Sensitive Data Rules** under Messaging. Click **New** and enter the details for your rule.

SEE ALSO:

[Salesforce Help: Block Sensitive Data in Messages \(can be outdated or unavailable during release preview\)](#)

## Say Arrivederci to Messaging Support for SMS in Italy

Because of changes in regulations and government availability of Italian long code numbers, we're no longer able to support business-oriented, conversational SMS in Italy over long codes. Consider using other channels, like Facebook and WhatsApp, to connect with customers in Italy.


**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions. This feature is available in Salesforce orgs with access to Messaging through a Digital Engagement add-on.

## Embedded Service for Mobile Apps: Estimated Wait Time (Beta), Dark Mode for iOS, and Bug Fixes

When a customer is waiting for an agent, you can show the estimated wait time instead of the queue position. This option is useful when the queue position doesn't effectively represent the wait time for a customer. We made improvements to better support Android 10 and iOS 13. We also support Dark Mode for iOS 13 and zapped a few bugs.

**Where:** This change applies to the Service SDK for Mobile Apps for iOS (version 222.0.3) and Android (version 222.1.0).

**How:** For details about new features, see the release notes for [iOS](#) and [Android](#). Visit the [Embedded Service SDK Developer Center](#) for other resources.

 **Note:** As a beta feature, Estimated Wait Time is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature.

## Embedded Service for Web: Channel Menu, Language Settings for Labels, Chat Load Time, Mobile Web Accessibility, and Lightning Web Components

Engage with customers using a customized Channel Menu. Control language settings for all labels in the code snippet. Enhance load time for Embedded Chat. Improve screen-reader access in web Chat for mobile. Deploy Lightning web components for a better Chat experience.

IN THIS SECTION:

[Hello! Meet the Channel Menu \(Generally Available\)](#)

Start conversations with your customers using the channels they prefer. Customize their engagement choices in an Embedded Channel Menu on your website or in a Salesforce Community. Agents respond directly from their Service Console, where all the benefits of Service Cloud are at their fingertips.

### [Set Language for Labels in the Code Snippet](#)

Language settings for labels must now be set only in your Embedded Service code snippet. If you relied on the default browser setting for languages, change the snippet for all of your existing and new language labels. You're ready to go if you previously used the code snippet to add a language.

### [Load Embedded Chat Quicker](#)

We changed how the Embedded Chat configuration is loaded to improve performance. If you decide to change an existing Chat setup, the new results can take up to 10 minutes to appear for the first time on your website due to caching.

### [Improve Mobile Accessibility for Web Chat](#)

Remove the clutter for web Chat mobile customers using screen readers. This feature hides the underlying page when an Embedded Chat window opens, allowing for a smoother customer experience. Once the Chat window is closed, the full web page content returns.

### [Customize Chat with Lightning Web Components](#)

Create your own pre-chat and minimized states using Lightning web components. These components are feature rich and use newer versions of ECMAScript compared to Aura components. You deploy them in the same way as Aura and both types can work side by side on your website.

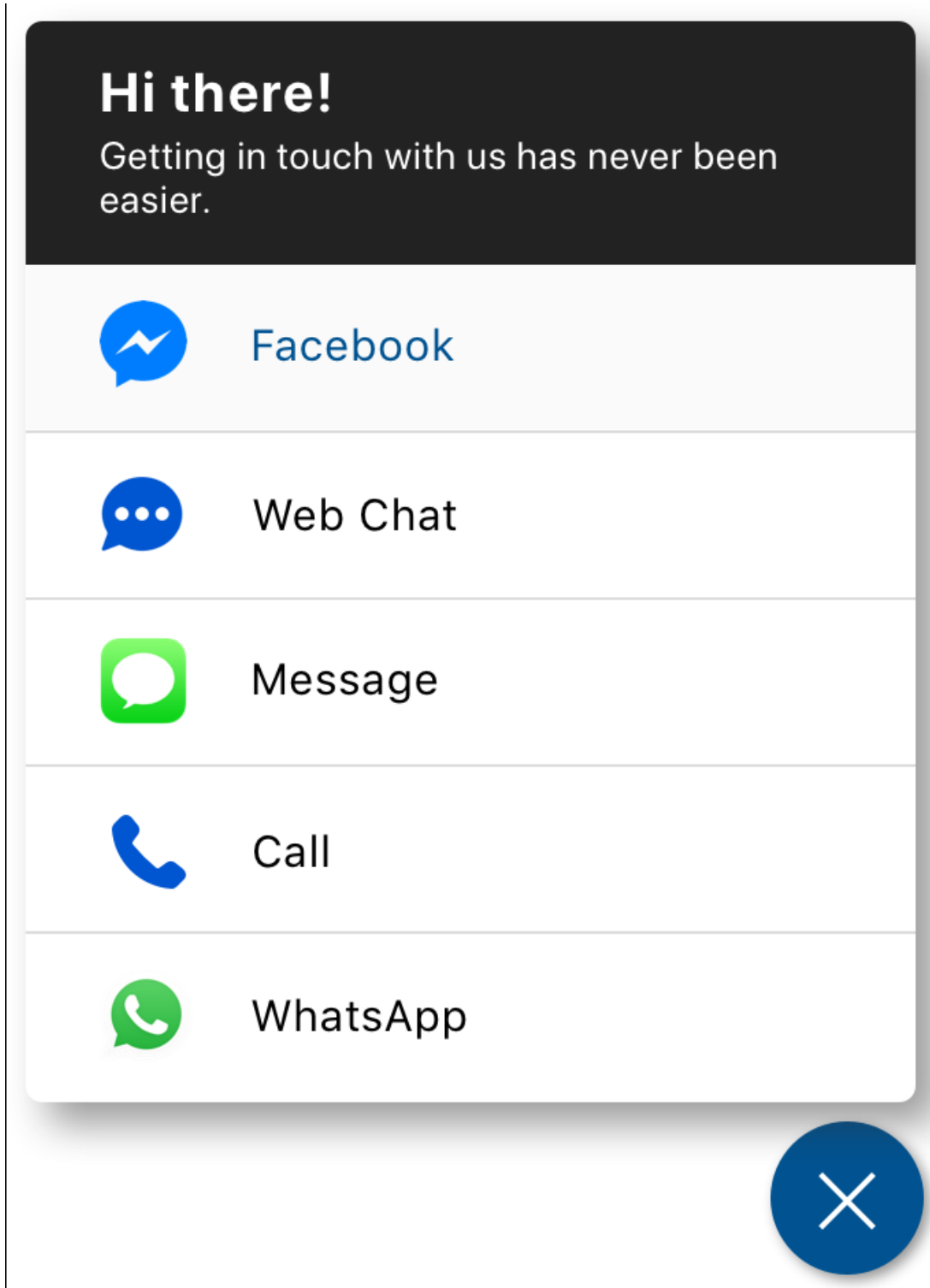
## Hello! Meet the Channel Menu (Generally Available)

Start conversations with your customers using the channels they prefer. Customize their engagement choices in an Embedded Channel Menu on your website or in a Salesforce Community. Agents respond directly from their Service Console, where all the benefits of Service Cloud are at their fingertips.

**Where:** This change applies to Salesforce Classic and Lightning Experience in Essentials, Professional, Performance, and Unlimited editions.

**Why:** Select up to six channels. Brand the button, header, fonts, and icons. Match your website tone with custom labels and set translations. Add or remove channels without making any code changes. Supported channels in Classic and Lightning: Chat, phone, and custom URL. Lightning only channels: text message, Facebook Messenger, and WhatsApp.

**How:** Build your Channel Menu and create deployments in Service Setup.



SEE ALSO:

[Salesforce Help: Set Up the Channel Menu \(can be outdated or unavailable during release preview\)](#)

## Set Language for Labels in the Code Snippet

Language settings for labels must now be set only in your Embedded Service code snippet. If you relied on the default browser setting for languages, change the snippet for all of your existing and new language labels. You're ready to go if you previously used the code snippet to add a language.

**Where:** This change applies to Lightning Experience in Professional, Performance, and Unlimited editions that use the embedded code snippet.

**Why:** This change provides a streamlined approach to setting your user languages for labels and ensures a unified experience with browser settings across your website.

**How:** The language parameter is included in your generated code snippet and set to English for versions 2.0 and up. To customize the language for a deployment, set the parameter to the two-letter value of the supported language.

```
embedded_svc.settings.language = ".."
```

SEE ALSO:

[Salesforce Help: Set the Language \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Localization and Translation for Embedded Chat \(can be outdated or unavailable during release preview\)](#)

## Load Embedded Chat Quicker

We changed how the Embedded Chat configuration is loaded to improve performance. If you decide to change an existing Chat setup, the new results can take up to 10 minutes to appear for the first time on your website due to caching.

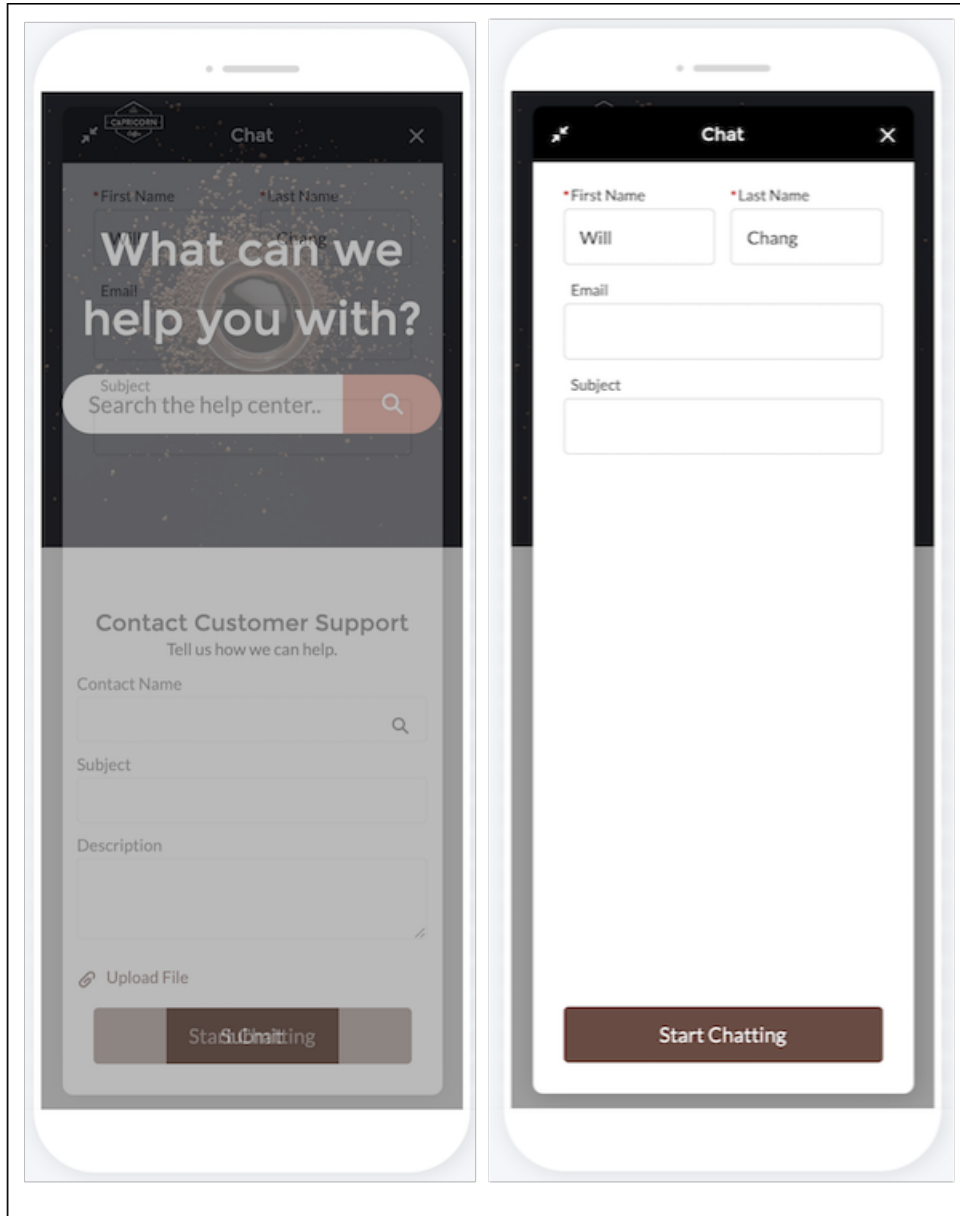
**Where:** This change applies to Salesforce Classic and Lightning Experience in Professional, Performance, and Unlimited editions.

## Improve Mobile Accessibility for Web Chat

Remove the clutter for web Chat mobile customers using screen readers. This feature hides the underlying page when an Embedded Chat window opens, allowing for a smoother customer experience. Once the Chat window is closed, the full web page content returns.

**Where:** This change applies to Lightning Experience in Professional, Performance, and Unlimited editions that use the embedded code snippet 5.0 or later.

**Why:** Sight-impaired customers with screen readers hear all text when the Chat window opens. This feature isolates the Chat text for a focused interaction.



**How:** Write a JavaScript handler for your web page hosting the code snippet when the body has loaded. In the handler function for mobile devices, you add listeners for the chat event states `afterMaximize`, `afterMinimize`, and `afterDestroy` to show/hide your page content.

SEE ALSO:

[Add Mobile Accessibility for Chat](#)

[Get Chat Event Notifications](#)

## Customize Chat with Lightning Web Components

Create your own pre-chat and minimized states using Lightning web components. These components are feature rich and use newer versions of ECMAScript compared to Aura components. You deploy them in the same way as Aura and both types can work side by side on your website.

**Where:** This change applies to Lightning Experience in Professional, Performance, and Unlimited editions that use the embedded code snippet 5.0 or later.

**How:** Create your component and deploy to your org. In Embedded Service Setup, choose your deployment, edit Chat Settings, and use the Customize with Lightning Components table to choose your pre-chat or minimized state component.

### SEE ALSO:

[Embedded Service for Web Developer Guide](#)

[Lightning Web Components for Embedded Service](#)

## Knowledge: Comparisons, Conversations, and Resizable Images in Chrome

Let authors see the differences between versions of an article so they can track updates and progress (beta). Share articles with more customers by inserting article links in Chat and Messaging conversations. And, we made it easier to resize images and manage an article's related Files for draft articles.

### IN THIS SECTION:

[Compare Versions of an Article to See What Changed \(Beta\)](#)

Knowledge users can compare two versions of an article to review changes. The Article Version Comparison app component lets authors choose a version to see the differences.

[Spread Knowledge by Linking to Articles in Chat and Messaging](#)

Let your agents provide quick answers to common problems in Chat and Messaging conversations. If your Salesforce org uses these channels, your team can point customers to the right articles by sharing the links from your sites and communities in the conversation feed.

[Show or Hide Field Labels and Skip Related Files from Inserted Articles](#)

Tailor your customer conversations so they feel just right. Choose whether field labels are shown along with the article's content when agents use the Insert Article into Conversation, Insert Article into Social Post, and Insert Article into Email actions. You can also set a default for whether an article's related files are attached to emails.

[Resize Images in Rich Text Fields in Google Chrome](#)

Grab the edges of an image to resize it when you edit rich text. In the source code, the style property is added with height and width set in pixels. Image resizing is supported in the Chrome browser.

[Control File Attachments for Drafts and Draft Translations](#)

Authors and translation partners can add and remove files from drafts more easily. Users who already can edit drafts can use the Remove from Record action to get rid of old Files attachments and keep each version up-to-date.

[Set the Default Access for Files Attached to Articles](#)

Make your attachments visible to everyone who can see the article when you use Set by Record as the default user access for related files. Previously, the default access was Owner, which limited who could see uploaded content to the user who uploaded it.

[Find and Organize Articles with More Data Categories](#)

We increased the maximum number of data categories that can be linked to an article from 25 to 50 so that you can catalog articles more accurately. You can request an increase from the default limit of eight data categories.

## Compare Versions of an Article to See What Changed (Beta)

Knowledge users can compare two versions of an article to review changes. The Article Version Comparison app component lets authors choose a version to see the differences.

**Where:** This change applies to all editions of Knowledge in Lightning Experience.

**Note:** As a beta feature, Article Version Comparison is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Article Version Comparison in the [Knowledge group in the Trailblazer Community](#).

**Why:** Your authors and editors can more easily review changes and track progress across versions with the Article Version Comparison component. Your users choose a version to compare against the currently viewed version.

A few things to keep in mind about comparing versions:

- For the best experience, view an older version and then choose a newer version to compare. Content deleted from the current version appears in red strikethrough text. New content is green and underlined.
- The HTML tags show because source code is used in the comparison. By comparing the HTML source, you can see differences in formatting and image or video links, indicating content that changed.
- You can use the Article Version Comparison component only for versions with the same record type and language.

**How:** In the Lightning Page builder, drag the Article Version Comparison component onto your Knowledge layout. We recommend creating a tab in your layout for this tool so it's available for your team when they need it. Comparing articles isn't supported in Microsoft IE11 or the Microsoft Edge browser.

## Spread Knowledge by Linking to Articles in Chat and Messaging

Let your agents provide quick answers to common problems in Chat and Messaging conversations. If your Salesforce org uses these channels, your team can point customers to the right articles by sharing the links from your sites and communities in the conversation feed.



**Where:** This change applies to all editions of Knowledge in Lightning Experience.

**Who:** When “Allow users to share articles via URLs” is enabled, your team can use the **Insert Article URL into Conversation** action in cases.

SEE ALSO:

[Salesforce Help: Set Up Actions to Share Article URLs in Channels and Case Publishers \(can be outdated or unavailable during release preview\)](#)

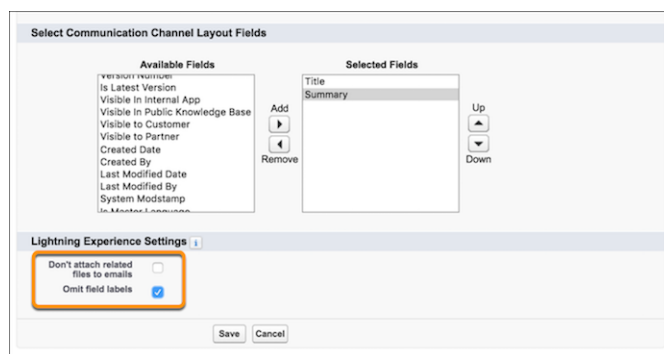
## Show or Hide Field Labels and Skip Related Files from Inserted Articles

Tailor your customer conversations so they feel just right. Choose whether field labels are shown along with the article’s content when agents use the Insert Article into Conversation, Insert Article into Social Post, and Insert Article into Email actions. You can also set a default for whether an article’s related files are attached to emails.

**Where:** This change applies to Professional, Enterprise, Performance, Unlimited, and Developer editions of Knowledge in Lightning Experience.

**Why:** Previously, field labels were automatically inserted in emails but not shown in Social, Chat, and Messaging channels. Now, field labels are included by default in all channels, but you can edit your existing configurations to exclude them.

**How:** In the Object Manager, edit the knowledge object and then choose **Communication Channel Mappings**. Create or edit a mapping to update the new options, “Don’t attach related files to emails” and “Omit field labels” in the Lightning Experience Settings section. These options aren’t selected by default, so related files and field labels are included.



SEE ALSO:

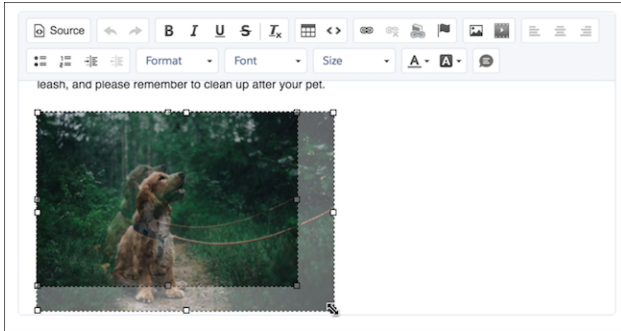
[Salesforce Help: Set Up Actions to Share Article URLs in Channels and Case Publishers \(can be outdated or unavailable during release preview\)](#)

## Resize Images in Rich Text Fields in Google Chrome

Grab the edges of an image to resize it when you edit rich text. In the source code, the style property is added with height and width set in pixels. Image resizing is supported in the Chrome browser.

**Where:** This change applies to all editions of Knowledge in Lightning Experience.

**How:** Select an image to use the resizing controls.



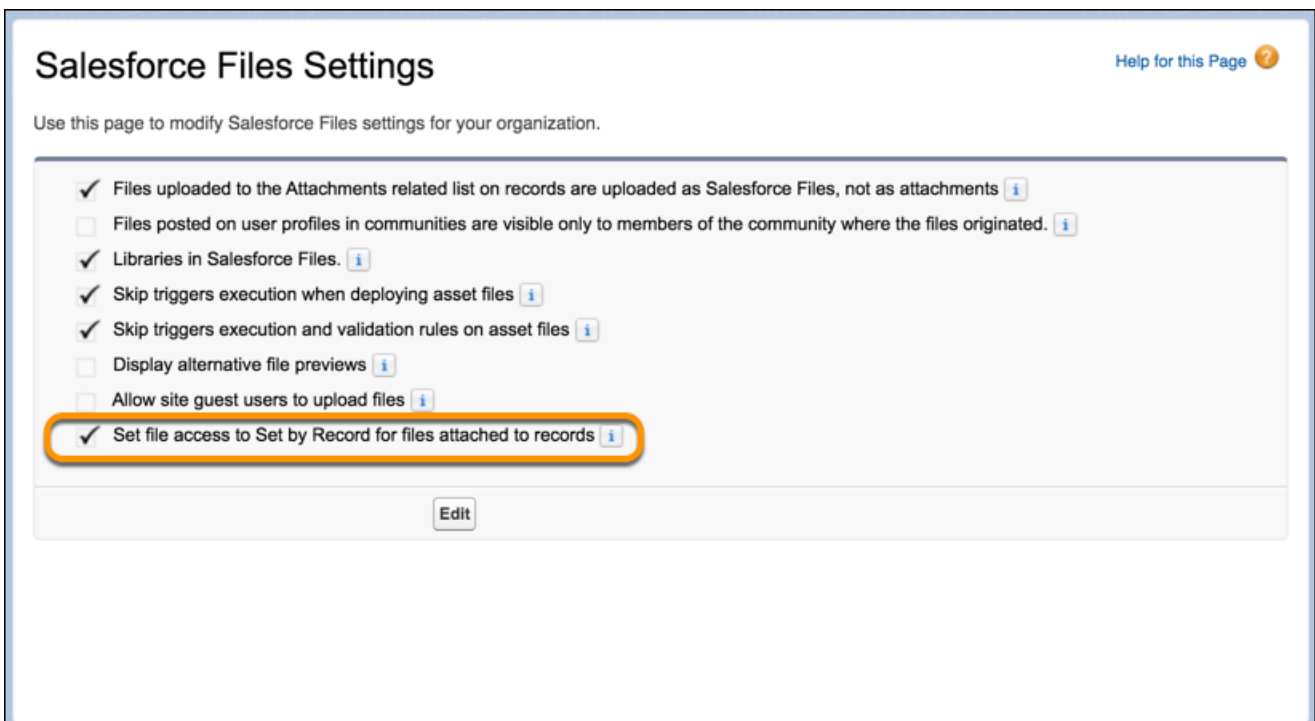
## Control File Attachments for Drafts and Draft Translations

Authors and translation partners can add and remove files from drafts more easily. Users who already can edit drafts can use the Remove from Record action to get rid of old Files attachments and keep each version up-to-date.

**Where:** This change applies to all editions of Knowledge in Lightning Experience.

**Why:** Users can only detach files from draft articles, and only users with permission to edit the draft can detach files. Previously, files could be removed by users with access to the file but not the article, and files could be detached from articles with any publication status.

**How:** From Setup, navigate to **Salesforce Files > General Settings**. Check that your org uses Set by Record to determine how related files are shared.

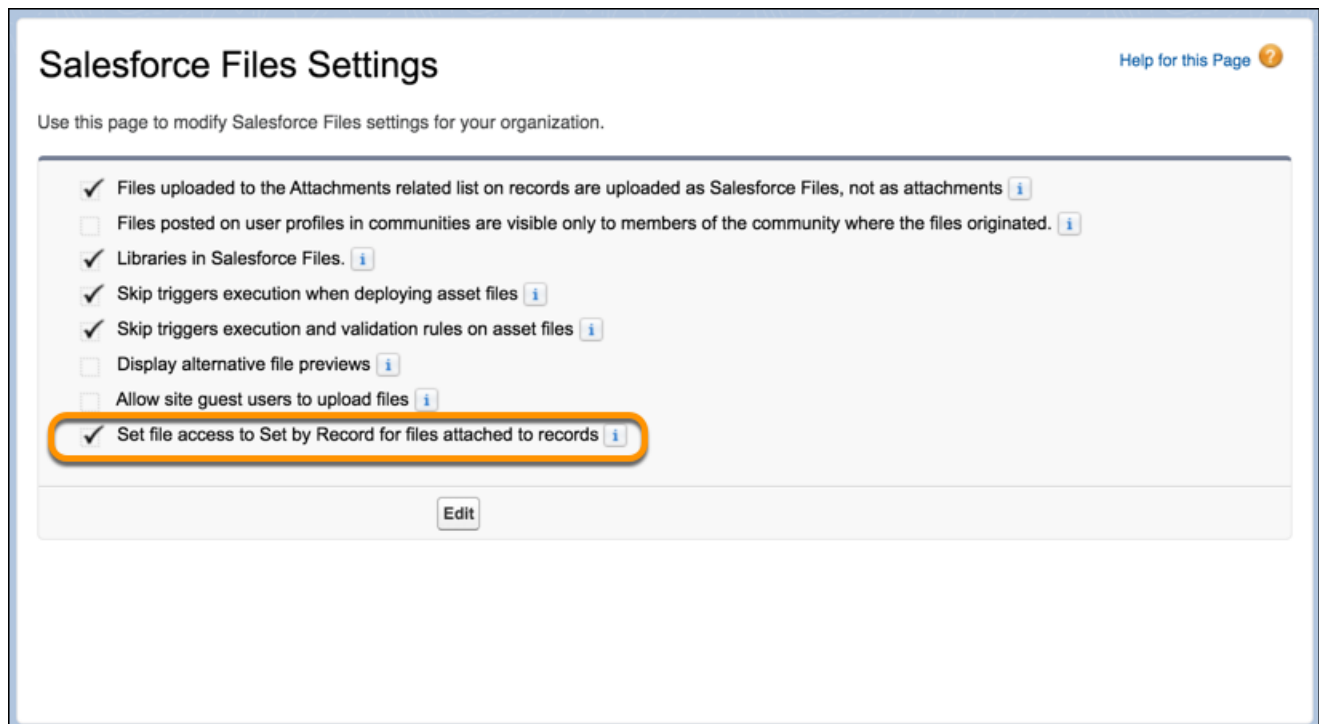


## Set the Default Access for Files Attached to Articles

Make your attachments visible to everyone who can see the article when you use Set by Record as the default user access for related files. Previously, the default access was Owner, which limited who could see uploaded content to the user who uploaded it.

**Where:** This change applies to all editions of Knowledge in Lightning Experience.

**How:** From Setup, navigate to **Salesforce Files > General Settings**. Check that your Salesforce org uses Set by Record to determine how Files attached to records are shared. This default controls a file's sharing during upload.



## Find and Organize Articles with More Data Categories

We increased the maximum number of data categories that can be linked to an article from 25 to 50 so that you can catalog articles more accurately. You can request an increase from the default limit of eight data categories.

**Where:** This change applies to all editions of Knowledge in Lightning Experience and Salesforce Classic. Contact Salesforce Support to increase the data category limit.

## Routing: Sticky Filters, Omni-Channel Widget, and Enhanced Security

Improved filtering in Omni-Channel Supervisor saves settings even after agents log out, so they're ready to go when agents log in again. Automatically minimize the Omni-Channel widget when your agents accept work. Omni-Channel objects are now more secure.

### IN THIS SECTION:

[Keep Your Omni-Channel Supervisor Filters](#)

Your Omni-Channel Supervisor filters are now sticky, so your customizations remain in place even if you log out.

### Make More Room to Work—Minimize the Omni-Channel Widget When Work Is Accepted

Automatically minimize the Omni-Channel widget when your agents accept work.

### Route Chats Directly to Agents Who Aren't in the Queue

Your customers now can chat with a specific agent, regardless of whether they're part of an Omni-Channel queue. Previously, only agents who were in the queue received a direct-to-agent chat.

## Keep Your Omni-Channel Supervisor Filters

Your Omni-Channel Supervisor filters are now sticky, so your customizations remain in place even if you log out.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** Apply filters to customize your screen. To clear filters, click **Clear Filters**.

Queue	Priority	Work Size	Type	Total Waiting	Longest Wait Time	Average Wait Time
NonCaseQueue	1	1 unit		0	--	--
MRChatLeadAdHoc	1	2 units		0	--	--
All	1	100%		0	--	--
IQQueueGroup	1	50%		0	--	--
ATRQueue P1	1	1 unit		0	--	--
ATRQueue P2	2	1 unit		0	--	--
MainQ	1	33.33%		0	--	--
NonChat	1	1 unit		0	--	--
HRQueue	1	1 unit		0	--	--
HumanQueue	1	50%		0	--	--

## Make More Room to Work—Minimize the Omni-Channel Widget When Work Is Accepted

Automatically minimize the Omni-Channel widget when your agents accept work.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** In settings for the service channel, select **Minimize the Omni-Channel widget when work is accepted**.

Service Channels

Route work from a Salesforce object, such as cases, chats, leads, or even custom objects, to support agents.

Save Cancel

**Basic Information**

Service Channel Name: Case

Developer Name: Case

Salesforce Object: Case

Custom Console Footer Component

Minimize the Omni-Channel widget when work is accepted

## Route Chats Directly to Agents Who Aren't in the Queue

Your customers now can chat with a specific agent, regardless of whether they're part of an Omni-Channel queue. Previously, only agents who were in the queue received a direct-to-agent chat.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Salesforce Help: Compare Live Agent and Omni-Channel Routing for Chats](#)(can be outdated or unavailable during release preview)

## Case Management: Case Merge Generally Available, Bulk Macros in Lightning Experience, and Other Improvements

Let your agents solve cases more efficiently in Lightning Experience. Agents can combine duplicate cases with case merge. Bulk macros now are available in Lightning Experience, so agents can quickly address spikes in cases about the same issue. Macros run faster in the background, so agents can work seamlessly. In the Cases list view, an escalation icon indicates which cases are escalated, so agents can prioritize cases more easily. Agents also can hover over a case in the list view to see and edit case details. Agents can insert code snippets in emails in the case feed, so they can better support your customers.

IN THIS SECTION:

[Cases: Case Merge Generally Available, Bulk Macros in Lightning Experience, and Other Improvements](#)

Agents can combine duplicate cases with case merge. Control how timestamps in your case feed display to see more at a glance. A new related list lets you view information about a case's followers and an added icon in the Cases list view indicates which cases are escalated, allowing agents to prioritize cases more easily. Agents can hover over a case in the list view to see and edit case details. Agents can insert code samples in the email publisher in the case feed.

[Agent Productivity: Bulk Macros in Lightning, History Filtering in Actions & Recommendations Component](#)

Agents can increase their efficiency in Lightning Experience by running bulk macros on multiple records. Macros run faster in the background, so agents can focus on their work. If your team uses the Actions & Recommendations list, they can look back on their actions by filtering in the History tab.

## Cases: Case Merge Generally Available, Bulk Macros in Lightning Experience, and Other Improvements

Agents can combine duplicate cases with case merge. Control how timestamps in your case feed display to see more at a glance. A new related list lets you view information about a case's followers and an added icon in the Cases list view indicates which cases are escalated, allowing agents to prioritize cases more easily. Agents can hover over a case in the list view to see and edit case details. Agents can insert code samples in the email publisher in the case feed.

IN THIS SECTION:

[Combine Duplicate Cases with Case Merge \(Generally Available\)](#)

Let agents merge duplicate cases like they merge duplicate accounts and contacts with Case Merge. Now, support agents can consolidate up to three duplicate cases so they can cut through the clutter and focus on what's important: your customers

### [Customize How Timestamps Display in the Case Feed](#)

Control whether the timestamps in your case feed display as a relative time, like "a few minutes ago", or an absolute time, such as "January 1, 2020 at 9:34 AM at 12:01 am." Previously, you could only display timestamps with relative time, but now you can choose to see a more precise timestamp. Relative time is the default setting.

### [View and Edit Case Details from the List View with Case Hover in Lightning Experience](#)

Agents can save time by previewing, editing, and deleting cases directly from the list view with a compact preview that appears when they hover on the case subject.

### [Choose Whether to Show or Hide Closed Statuses in the Case Status Field](#)

Specify whether agents can see closed statuses, such as *Closed*, *Resolved*, etc. in the Status picklist. The picklist component filters out all closed type picklist values when admins disable the setting **Show Closed Statuses in Case Status Field** in Support Settings.

### [Save Time with Case Escalation Marker](#)

Solve cases faster with a more streamlined workflow that lets agents view case escalation status at a glance without any extra keystrokes. When the Escalated checkbox is selected in the case details, an arrow icon is displayed next to the case subject.

### [View Followers from the Case Record Home Page in Lightning Experience](#)

Let your agents see who's following a case directly from the case home page by adding the Followers related list that helps agents prioritize cases.

### [Insert Code Samples into Case Feed Emails](#)

Your agents can insert code snippets into case feed emails to better support your customers. The code formatting appears in both the email composer and in the email message.

### [Change the Case Owner on the Case Related Record Component Via Inline Edit](#)

Reassign cases by editing the Case Owner field directly from the Case related record component. Previously, clicking the Case Owner field opened a modal window.

## Combine Duplicate Cases with Case Merge (Generally Available)

Let agents merge duplicate cases like they merge duplicate accounts and contacts with Case Merge. Now, support agents can consolidate up to three duplicate cases so they can cut through the clutter and focus on what's important: your customers

**Where:** This change applies to Lightning Experience in Essentials, Professional, Performance, Unlimited, Enterprise, and Developer editions.

**Why:** Depending on your settings, the duplicated cases are either added to the Merged Cases related list or soft-deleted. Previously, merging cases also deleted duplicate cases, so agents could only merge cases if they had the Delete permission on the Cases object. Now, you can choose whether to keep or to delete the duplicate cases after the cases are merged.

If your org chooses to keep the duplicate cases, the duplicate cases are added to the Merged Cases related list on the master case record to show which cases were combined to form the master case. "Merged" is appended to the subject in the Highlights panel from the Record Home, so agents immediately know that these cases were merged. Agents can click "Merged" in the subject line as a shortcut to the master case.

If your org chooses to delete merged cases, then only the master case is saved. The merged cases are soft deleted and are available in the recycle bin for 15 days.

RECORD ID	SUBJECT	MASTER REC...	MERGED DATE
<a href="#">00001004</a>	Discounts to b...	<a href="#">00001006</a>	12/4/2019, 1:...
<a href="#">00001005</a>	Unclear Holid...	<a href="#">00001006</a>	12/4/2019, 1:...

[View All](#)

Agents can see duplicate cases from the Case record page in the Merged Cases Related List, which shows a list of all the cases that were merged to form the master case.

If you decide to keep merged cases, they appear in the Merged Cases related list. If you decide to delete merged cases, only the master case is saved. You can find the other merged cases in the Recycle Bin for the next 15 days.

**[Merged] Unexpected returns on new launch**

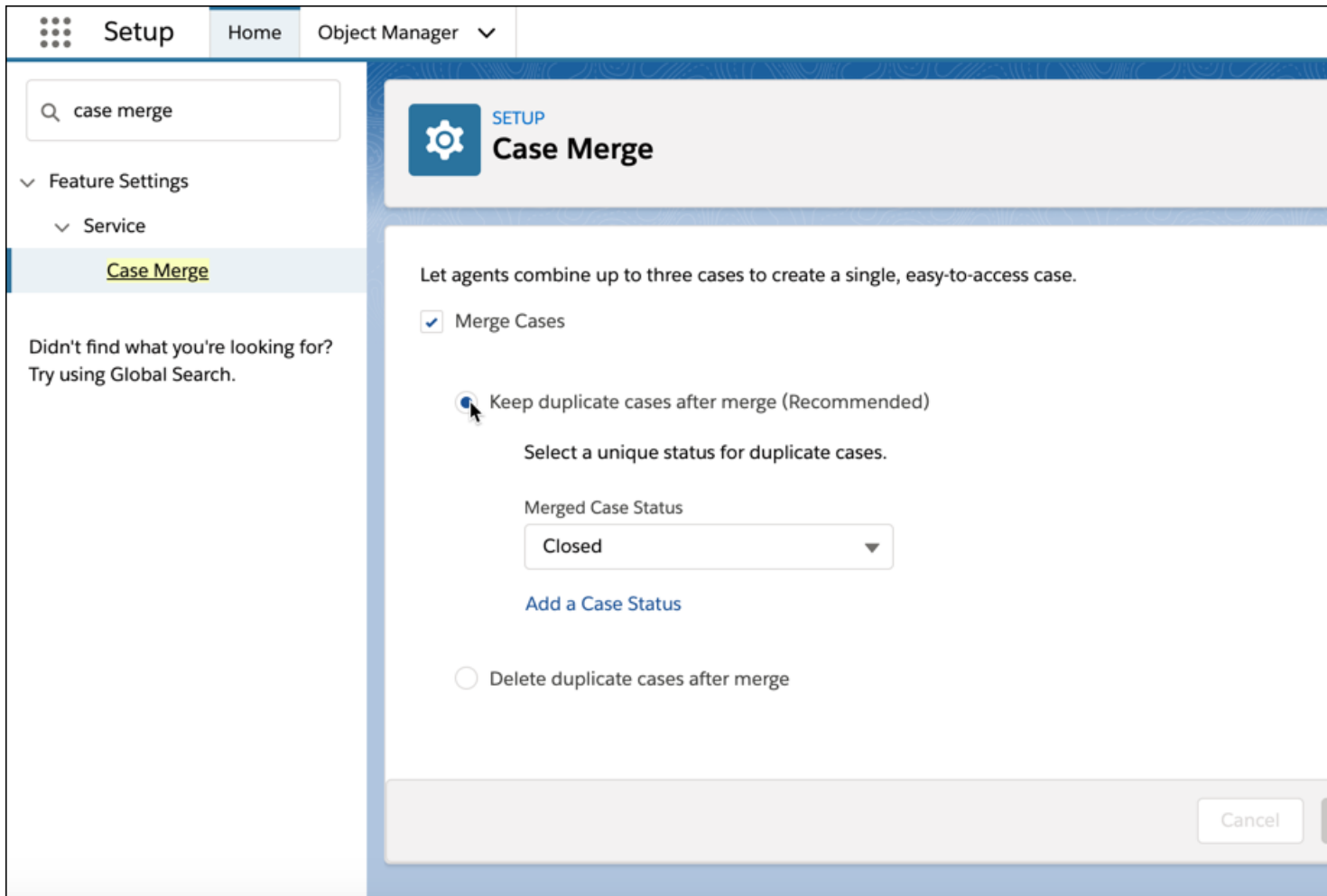
Priority: Medium | Status: Closed | Case Number: 00001008

**Description**  
2/4 Launch stores complaining about returns for sz 10,11,12, and 13 in new CC III colorway. Will call and revisit.

**Latest Update**  
Admin User | Yesterday at 1:35 PM

Case Number	Subject	Status	Date/Time Opened	Cas...
<a href="#">00001008</a>	<a href="#">Unexpected returns on new launch</a>	Closed	12/4/2019, 1:30 PM	AUser
<a href="#">00001003</a>	<a href="#">Bad tongue stitching on new CC IIIs</a>	New	12/4/2019, 1:18 PM	AUser
<a href="#">00001007</a>	<a href="#">Multiple returns from launch stores f...</a>	New	12/4/2019, 1:29 PM	AUser

**How:** From Setup, enter *Case Merge* in the Quick Find box, then select **Case Merge**. Enable **Case Merge** and specify what happens to duplicate cases after your agents merge them.



Deleting duplicate cases after merge still requires the necessary CRUD permissions, otherwise agents can't merge the cases.

SEE ALSO:

[Salesforce Help: Set Up Case Merge in Lightning Experience](#) (can be outdated or unavailable during release preview)

[Salesforce Help: Merge Duplicate Cases from the Cases Record Home](#)(can be outdated or unavailable during release preview)

[Salesforce Help: Merge Duplicate Cases from the Cases List View](#)(can be outdated or unavailable during release preview)

## Customize How Timestamps Display in the Case Feed

Control whether the timestamps in your case feed display as a relative time, like "a few minutes ago", or an absolute time, such as "January 1, 2020 at 9:34 AM at 12:01 am." Previously, you could only display timestamps with relative time, but now you can choose to see a more precise timestamp. Relative time is the default setting.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Performance, Unlimited, Enterprise, and Developer editions.



**How:** From Setup, enter *Chatter Settings* in the Quick Find box, then select **Chatter Settings**. Toggle **Show relative timestamps** according to your desired preferences and save your settings by clicking **Save**.

SEE ALSO:

[Salesforce Help: Chatter Settings](#)(can be outdated or unavailable during release preview)

[Set the Date and Time Stamp Format for Case Feed Items](#)

[Salesforce Help: Use Case Hover to View and Edit Case Details from the List View in Lightning Experience](#)(can be outdated or unavailable during release preview)

## View and Edit Case Details from the List View with Case Hover in Lightning Experience

Agents can save time by previewing, editing, and deleting cases directly from the list view with a compact preview that appears when they hover on the case subject.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Performance, Unlimited, Enterprise, and Developer editions.

**How:** Hover over the Subject line to see a preview of the case and to quickly edit or delete the case.

The screenshot displays the Salesforce Lightning Experience interface. At the top, there is a navigation bar with the 'Service' tab selected. Below the navigation bar, a search bar and a 'Search Cases and more...' dropdown are visible. The main content area shows a 'Cases' list view with a 'Recently Viewed' filter. The list contains 8 items, with the second item, 'Potential manufacture error', highlighted. A hover preview is shown for this case, displaying the following details:

Priority	Status	Case Number
High	Escalated	00001010

The preview also includes a 'Description' section with the text: 'Manufacturers for first batch of CC IIIs called with news of faulty machinery that need a recall.' Below the description is a 'Latest Update' section showing a message from 'Admin User' with the text 'Case created' and a timestamp of '21h'.

You can customize which fields show in the modal by changing the compact layout in Service Settings.

## Choose Whether to Show or Hide Closed Statuses in the Case Status Field

Specify whether agents can see closed statuses, such as *Closed*, *Resolved*, etc. in the Status picklist. The picklist component filters out all closed type picklist values when admins disable the setting **Show Closed Statuses in Case Status Field** in Support Settings.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Performance, Unlimited, Enterprise, and Developer editions.

**Why:** Previously, the status field showed all statuses. Now, you can configure support settings to hide closed statuses in the Status field, so agents get an accurate sample Case record when they use a Close Case quick action on the Case object.

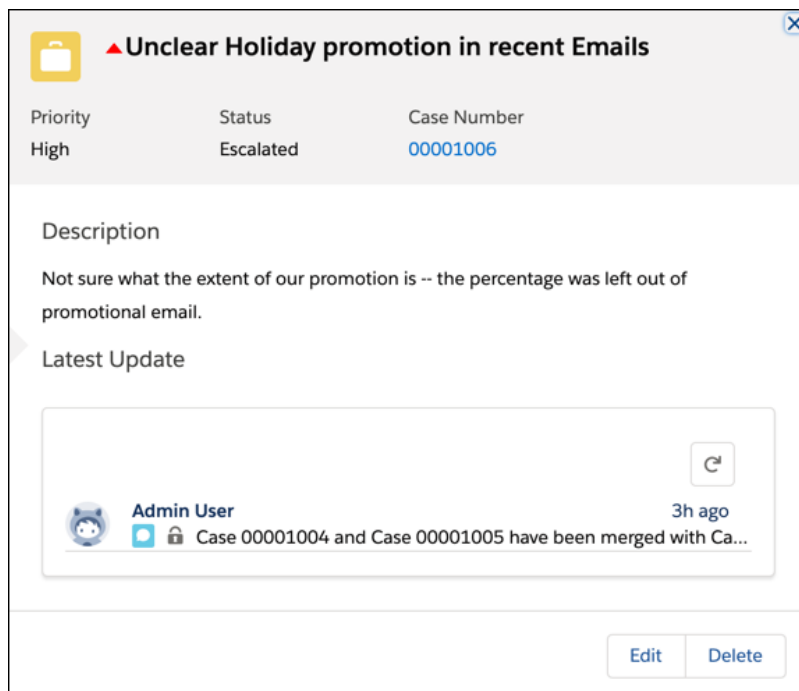
**How:** To show closed statuses in the Case Status Field picklist, go to Support Settings and select **Show Closed Statuses in Case Status Field**. To hide closed statuses, deselect **Show Closed Statuses in Case Status Field**. By default, the setting is disabled, so closed statuses are hidden.

## Save Time with Case Escalation Marker

Solve cases faster with a more streamlined workflow that lets agents view case escalation status at a glance without any extra keystrokes. When the Escalated checkbox is selected in the case details, an arrow icon is displayed next to the case subject.

**Where:** This change applies to Lightning Experience and all versions of the mobile app in Essentials, Professional, Performance, Unlimited, Enterprise, and Developer editions.

**Why:** An arrow icon is displayed before the case subject in the highlights panel, list view, and compact preview modal to indicate that a case is escalated. Previously, they could only view case escalation status by expanding the case details pane.

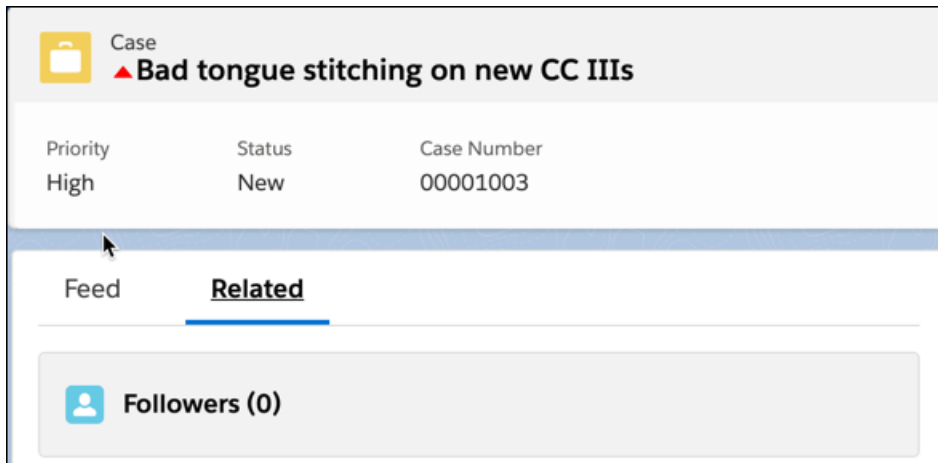


## View Followers from the Case Record Home Page in Lightning Experience

Let your agents see who's following a case directly from the case home page by adding the Followers related list that helps agents prioritize cases..

**Where:** This change applies to Lightning Experience, and all versions of the mobile app in Essentials, Professional, Performance, Unlimited, Enterprise, and Developer editions.

**Why:** Previously, users couldn't see any information about a case's followers in Lightning Experience. Now, users can see how many followers a case has and who follows the case via a related list on the case feed.



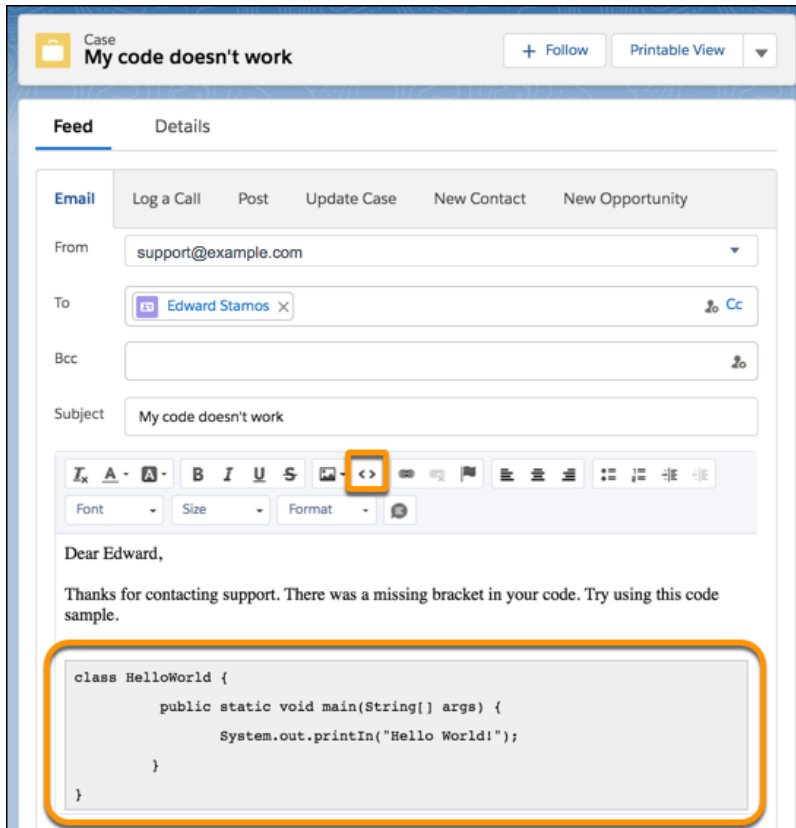
**How:** Add the Followers related list to the Case Page Layout.. You can also use the App Builder by dragging a Related List-Single onto it and selecting **Followers** as the Related List type.

## Insert Code Samples into Case Feed Emails

Your agents can insert code snippets into case feed emails to better support your customers. The code formatting appears in both the email composer and in the email message.

**Where:** Available in the Essentials, Enterprise, Performance, Unlimited, and Developer Editions in Lightning Experience.

**How:** Open a case, and then click **Email** or open the email publisher. Click the code sample icon. In the code sample window, either enter the code or copy and paste it, and click **Insert Code**.



SEE ALSO:

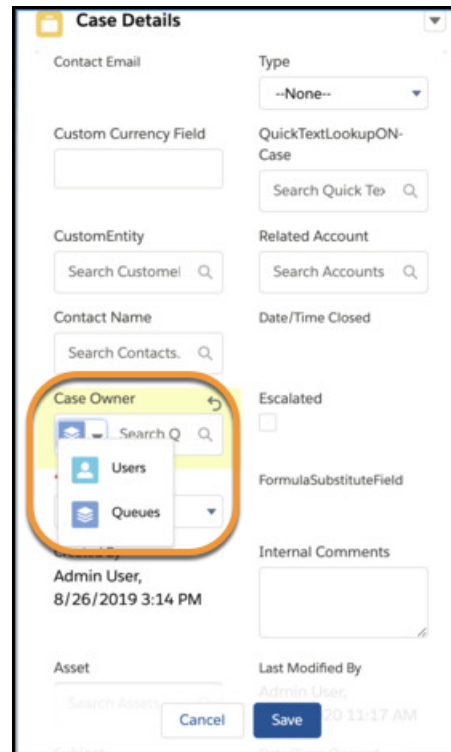
[Salesforce Help: Email Customers in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

## Change the Case Owner on the Case Related Record Component Via Inline Edit

Reassign cases by editing the Case Owner field directly from the Case related record component. Previously, clicking the Case Owner field opened a modal window.

**Where:** Available in the Essentials, Professional, Enterprise, Performance, Unlimited, and Developer Editions in Lightning Experience.

**How:** In the Case related record component, go to the **Case Owner** field and select either **Users** or **Queues** from the menu. Search and select the user or queue that you want to reassign the case to. Click **Save**.



## Agent Productivity: Bulk Macros in Lightning, History Filtering in Actions & Recommendations Component

Agents can increase their efficiency in Lightning Experience by running bulk macros on multiple records. Macros run faster in the background, so agents can focus on their work. If your team uses the Actions & Recommendations list, they can look back on their actions by filtering in the History tab.

### IN THIS SECTION:

#### [Automate Repetitive Tasks with Bulk Macros in Lightning Experience](#)

Agents can increase their efficiency by running bulk macros on multiple records, so agents can quickly address similar customer cases and focus on resolving the underlying issue. Now your agents can use bulk macros to automate tasks such as sending emails, transferring cases to another agent, and updating case fields in Lightning Experience. A lightning bolt indicates whether the macro can be run on multiple cases. Previously, bulk macros were available only in Salesforce Classic.

#### [Run Macros Faster on Record Home Pages](#)

Now, when agents run a macro from a record home page, such as a case, the macro runs in the background and the user interface doesn't change. A toast is displayed when the macro is finished, so the agent knows whether the macro ran successfully.

#### [Filter Actions by Status in the Actions & Recommendations History Tab](#)

Agents can sift through the sands of time to sort started and completed actions in the History tab on the Actions & Recommendations component. Agents can filter actions to narrow the list of actions by status.

#### [Make Actions & Recommendations Deployments Mandatory \(Critical Update, Enforced\)](#)

This update requires that you select a deployment for the Actions & Recommendations component. When you configure Lightning Flow for Service, a deployment lets you control the actions that agents can start when they need an action that doesn't appear in the component's to-do list. Make Actions & Recommendations deployments mandatory was a critical update in Winter '20 and is enforced in Spring '20.

## Automate Repetitive Tasks with Bulk Macros in Lightning Experience

Agents can increase their efficiency by running bulk macros on multiple records, so agents can quickly address similar customer cases and focus on resolving the underlying issue. Now your agents can use bulk macros to automate tasks such as sending emails, transferring cases to another agent, and updating case fields in Lightning Experience. A lightning bolt indicates whether the macro can be run on multiple cases. Previously, bulk macros were available only in Salesforce Classic.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To create and run bulk macros, agents need the Read, Create, and Edit permissions on macros and the Run Macros on Multiple Records permission. If you want agents to be able to use macros that do irreversible actions, such as send emails, give them the “Manage Macros That Users Can’t Undo” permission.

**How:** To let agents create and run bulk macros, add the macro browser to the Service Console and give agents the necessary permissions. To create a bulk macro, open the macro browser in the Service Console, click **+** or **Create Macro**, and add instructions to the macro. To run a bulk macro on multiple cases, go the Cases list view, select some cases, select a macro, and then run the macro.

### SEE ALSO:

[Salesforce Help: Bulk Macros \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Irreversible Macros \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Set Up and Use Macros \(can be outdated or unavailable during release preview\)](#)

## Run Macros Faster on Record Home Pages

Now, when agents run a macro from a record home page, such as a case, the macro runs in the background and the user interface doesn't change. A toast is displayed when the macro is finished, so the agent knows whether the macro ran successfully.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** To improve macro performance, macros that are run on record home pages run in the background on the Salesforce server.

Previously, macros ran on the client-side, and agents saw the updates happening on the screen. For example, if the macro changed a field, the agent saw the field update as it was happening. Now the changes happen in the background.

**How:** Open a record page, such as a case. Then open the macro browser and select a macro. If a lightning bolt icon appears next to the macro, the macro runs in the background. If a lightning bolt doesn't appear, then the macro runs on the client-side and agents see the user interface change as the macro runs. When a macro runs multiple submit actions, it shows a notification toast when all actions are completed.

### SEE ALSO:

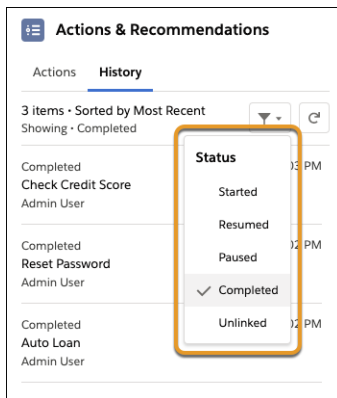
[Salesforce Help: Run a Macro \(can be outdated or unavailable during release preview\)](#)

## Filter Actions by Status in the Actions & Recommendations History Tab

Agents can sift through the sands of time to sort started and completed actions in the History tab on the Actions & Recommendations component. Agents can filter actions to narrow the list of actions by status.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** The History component filters the last 200 actions. Only 20 actions are displayed at one time. Click **View More** to see, well, more.



## SEE ALSO:

[Salesforce Help: Lightning Flow for Service and the Actions and Recommendations Component \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: View the History of Actions \(can be outdated or unavailable during release preview\)](#)

## Make Actions & Recommendations Deployments Mandatory (Critical Update, Enforced)


This update requires that you select a deployment for the Actions & Recommendations component. When you configure Lightning Flow for Service, a deployment lets you control the actions that agents can start when they need an action that doesn't appear in the component's to-do list. Make Actions & Recommendations deployments mandatory was a critical update in Winter '20 and is enforced in Spring '20.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**When:** Make Actions & Recommendations deployments mandatory was a critical update in Winter '20 and becomes mandatory when your org is updated to Spring '20.

**Why:** Deployments specify which actions agents can launch from the component and whether recommendations from a Next Best Action strategy appear. Previously, selecting a deployment in component properties was optional. If you didn't select a deployment, channel defaults were undefined, and users saw all available actions when they clicked **Add**. Requiring a deployment lets you control which actions your agents see when another step is needed.

**How:** From Setup, in the Quick Find box, enter *Critical Updates*. Click **Review** next to Make Actions & Recommendations Deployments Mandatory to learn more about the update. Click **Activate** to require the use of a deployment.

 **Note:** After you activate this update or after it's enforced, if a deployment isn't selected, then no actions appear when the user clicks **Add**. In addition, the Actions & Recommendations component displays an empty list unless other RecordActions exist for the record.

To verify behavior after activation, add the component to a record page. In properties, select an Actions & Recommendations deployment. View record pages where the component appears.

## SEE ALSO:

[Critical Updates and Security Alerts](#)

[Winter '20 Release Notes: Require a Deployment and Show the Right Actions \(Critical Update\)](#)

## Commerce: Introducing Salesforce Order Management

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Salesforce Order Management brings the power of the Salesforce Platform to the world of ecommerce with tools to help you manage every step of the order lifecycle.

### IN THIS SECTION:

#### [Salesforce Order Management: Manage, Fulfill, and Service Orders at Scale \(Generally Available\)](#)

Shoppers today expect a seamless experience from the time that they submit an order to the moment that their purchase shows up at their door. Salesforce Order Management lets you build and automate processes to manage the entire order lifecycle and deliver outstanding service to your customers.

## Salesforce Order Management: Manage, Fulfill, and Service Orders at Scale (Generally Available)

Shoppers today expect a seamless experience from the time that they submit an order to the moment that their purchase shows up at their door. Salesforce Order Management lets you build and automate processes to manage the entire order lifecycle and deliver outstanding service to your customers.

**Where:** This change applies to Lightning Experience in Enterprise edition with Salesforce Order Management.

**Why:** With Salesforce Order Management:

- Consumers can submit orders from any ecommerce channel, and then track and manage their orders throughout the order lifecycle.
- Merchants can manage order fulfillment, shipping, payment capture, invoicing, and service by using integrated and customizable business processes and order workflows.
- Service agents can access a master repository of all order-related information to see a global snapshot of the entire order lifecycle, and process cancellations and returns.

Salesforce Order Management is built on the Salesforce Platform. When you configure your order management solution, you can rely on the trusted power, security, and scalability of all the standard Salesforce platform technologies.

- We adapted the Salesforce data model to provide you with a foundation for building an end-to-end order management solution. We represent an order with a new Order Summary object type that contains the same order details as the standard Order object. We added objects to capture order processing details, including fulfillment, payment, and shipping information. These objects all relate back to the Order Summary object to provide a unified view of the order lifecycle.
- We included Lightning Experience features to provide you with flexible and easy-to-use options for personalizing the look and feel of your user interface. In addition, Lightning framework tools let you customize the pages and components in the Order Management Console, and configure your own fulfillment workflows.

Salesforce Order Management is fully integrated with B2C Commerce and natively available in Service Cloud, which makes managing and servicing orders easier than ever. And, you can access Salesforce APIs and AppExchange to extend the application by integrating with third-party apps and connecting with partner solution providers.

### IN THIS SECTION:

#### [Improve Efficiency with the Order Management Console](#)

The Order Management Console shows all your customer order information at a glance. It includes tools that help you manage and service orders throughout the order lifecycle.



### [Simplify Order Management with a Single View of Order History](#)

Salesforce Order Management summarizes all information for each customer order in an Order Summary object. A single view of order history makes it easy for you to manage and service orders—before, during, and after order fulfillment.

### [Automate Fulfillment and Payment Capture with Flows](#)

Salesforce Order Management provides tools to help you automate and manage the order lifecycle from order submission through fulfillment, payment capture, invoicing, shipping, and service. Building consistent and repeatable workflows and processes with Lightning Flow tools lets you deliver seamless end-to-end shopping experiences for your customers.

### [Connect Commerce with Service](#)

Salesforce Order Management works hand-in-hand with Service Cloud to provide your service agents with a single customer view of order and service history. Agents now have quick access to the information that they need when handling customer requests.

### [Integrate with Supply Chain Partners for End-to-End Automation](#)

Salesforce Order Management is fully integrated with B2C Commerce and natively supports Service Cloud. In addition, with AppExchange, you can connect with solution partners and integrate with third-party apps to configure a true, end-to-end order management system.

#### SEE ALSO:

[Salesforce Order Management Overview](#)

[Salesforce Order Management Implementation Guide \(can be outdated or unavailable during release preview\)](#)

## Improve Efficiency with the Order Management Console

The Order Management Console shows all your customer order information at a glance. It includes tools that help you manage and service orders throughout the order lifecycle.

**Where:** This change applies to Lightning Experience in Enterprise edition with Salesforce Order Management.

**Why:** The console's intuitive tab and subtab layout puts key order details on the same page, and minimizes clicks and scrolling.

Access list views from the Navigation bar to search and open order records for the following objects.

- Order Summaries
- Order Payment Summaries
- Fulfillment Orders
- Accounts
- Invoices
- Credit Memos
- Locations

Use quick links and related lists in each object record type to access more details for customer orders.

Here's the standard Order Management Console.

The screenshot displays the Salesforce Order Management console. On the left, there is a list of 'All Order Summaries' with columns for Order Summary ID, Name, and Status. The main area shows a detailed view for order 100000359. This view includes a 'Totals' table, 'Actions & Recommendations' section, a 'Summary' table, 'Shipping Addresses (1)', and 'Order Payment Summaries (1)'. The 'Summary' table lists items with columns for Description, Status, Quantity, Unit Price, Line Price, Pre-tax, and Tax. The 'Shipping Addresses' table shows the ship-to address for Neil Nguyen. The 'Order Payment Summaries' table shows a payment method of Visa with a captured amount of \$667.79.

You can customize the standard console to make it your own.

- Configure console settings, such as branding and navigation, by using the App Manager in Setup.
- Add, remove, or change the location of components on console pages, and modify the contents of components by using the Lightning App Builder in Setup.
- Add custom tabs and fields, and modify page layouts by using the Object Manager in Setup.

SEE ALSO:

[Salesforce Help: Order Management Console \(can be outdated or unavailable during release preview\)](#)

## Simplify Order Management with a Single View of Order History

Salesforce Order Management summarizes all information for each customer order in an Order Summary object. A single view of order history makes it easy for you to manage and service orders—before, during, and after order fulfillment.

**Where:** This change applies to Lightning Experience in Enterprise edition with Salesforce Order Management.

**Why:** The Order Summary object is created when a customer submits an order. As the order moves through your workflow—from submission to shipping—the Order Summary object updates dynamically to capture all activity associated with the order. The Order Summary object always displays the current state of an order. The original order details remain unchanged.

Related order objects, such as Fulfillment Orders and Order Payment Summaries, are linked to the Order Summary object. Quick links and related lists give you access to all order information from a single page view.

The screenshot displays the Salesforce Order Summary interface for order TO0000359. The top section shows a 'Totals' table with Subtotal (\$0.00), Order Adjustments (\$0.00), Shipping (\$15.99), and Tax (\$0.80), resulting in a Total of \$16.79. Below this, there are 'Actions & Recommendations' and 'Related List Quick Links'. The main content area is divided into three sections: 'Summary', 'Shipping Addresses (1)', and 'Order Payment Summaries (1)'. The 'Summary' section shows the order is 'Fulfilled' and provides details for shipping to Neil Nguyen at 1166 W Newport Center Dr, Deerfield Beach, FL 33442, US. The 'Shipping Addresses' table lists one address with details like Name, Address, City, State/Province, and Zip. The 'Order Payment Summaries' table shows a payment method of Visa ending in 1111, with a full name of Neil Nguyen, an authorization amount of \$667.79, and a captured amount of \$667.79.

SEE ALSO:

[Salesforce Help: Order Summary \(can be outdated or unavailable during release preview\)](#)

## Automate Fulfillment and Payment Capture with Flows

Salesforce Order Management provides tools to help you automate and manage the order lifecycle from order submission through fulfillment, payment capture, invoicing, shipping, and service. Building consistent and repeatable workflows and processes with Lightning Flow tools lets you deliver seamless end-to-end shopping experiences for your customers.

**Where:** This change applies to Lightning Experience in Enterprise edition with Salesforce Order Management.

**Why:** Because every business has its own way of doing things, we make it easy for you to create customized workflows to manage the order lifecycle. The business processes that you build into your fulfillment workflow are captured in a Fulfillment Order object for each customer order. Each Fulfillment Order Object is associated with a corresponding Order Summary object.

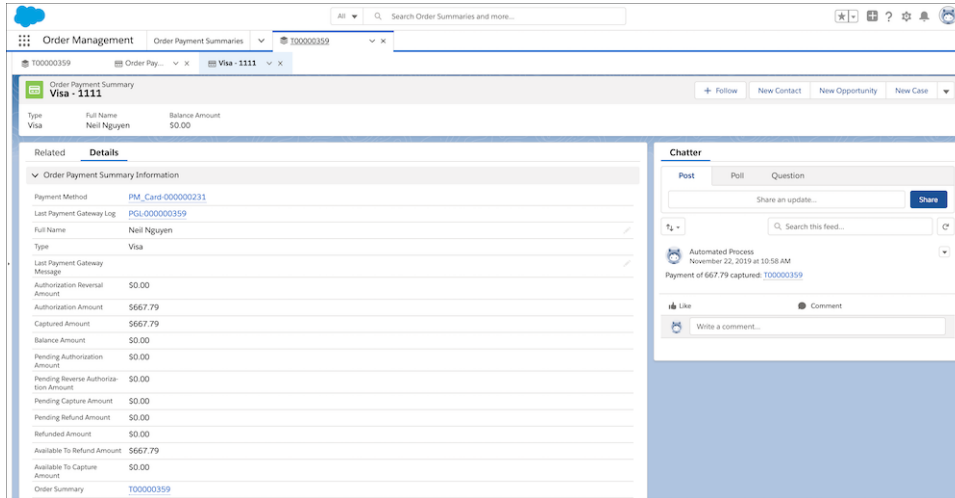
The Fulfillment Order object shows the fulfillment location, shipping information, and order item details for the order. You can track the status of a fulfillment order by opening the Fulfillment Order object or viewing its status on the associated Order Summary object.

You can customize the statuses for fulfillment orders and order summaries to match the stages in your fulfillment workflow.

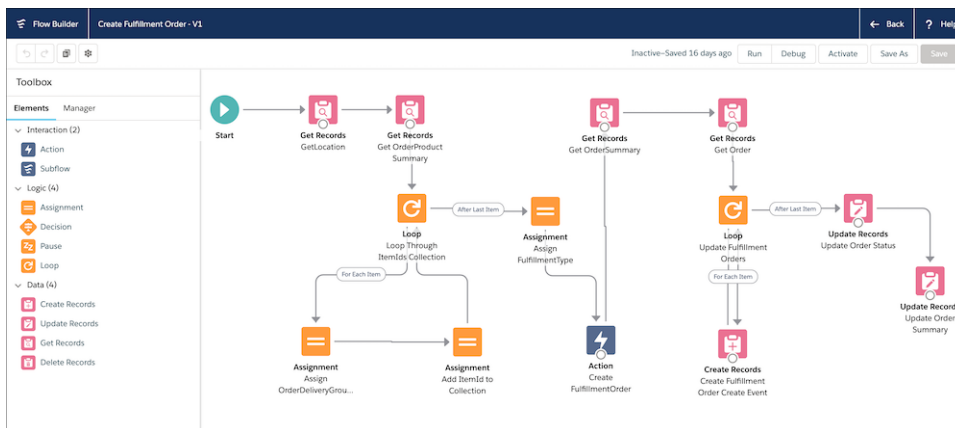
The screenshot displays the Salesforce Fulfillment Order Details interface for order FO-0176. The top section shows the order recipient as Neil Nguyen, status as 'Fulfilled', and fulfillment to address as 1166 W Newport Center Dr, Suite 210, Deerfield Beach, FL 33442, US. The 'Details' section is divided into 'Fulfillment Order Information' and 'Shipping Information'. The 'Fulfillment Order Information' table includes fields for Account (Neil Nguyen), Invoice (DOC-00000145), Type (Warehouse), Delivery Method (Ground), Order Summary (TO0000359), and Status (Fulfilled). The 'Shipping Information' table includes fields for Fulfilled To Address (1166 W Newport Center Dr, Suite 210, Deerfield Beach, FL 33442, US), Order recipient (Neil Nguyen), Fulfilled To Email Address (neil.nguyen@salesforce.com), and Fulfilled To Phone ((954) 254-4264). A map shows the location of the fulfillment address. The 'Totals' section shows Item Count (5), Total Product Amount (\$620.00), Total Product Tax Amount (\$31.00), Total Delivery Amount (\$15.99), and Total Adjustment Amount (\$0.00). On the right, there is a 'Chatter' window with a post from 22481821 Lindsey on November 22, 2019 at 10:58 AM, stating 'Fulfillment Order status changed from Allocated to Fulfilled'.

You can automate the authorization, capture, and reconciliation of customer payments to occur at specific stages in your fulfillment workflow. For example, you can authorize funds when a customer submits an order, and then capture funds and generate an invoice when the order is fulfilled.

All payment transactions for an order, including invoice and credit memo details, are summarized in an Order Payment Summary object. Pre-built integrations with payment providers are available in AppExchange.



**How:** To get you started, we provide an unmanaged package containing sample flows and processes that demonstrate a basic order workflow from start to finish. Your Salesforce admin can use Flow Builder to modify and extend the sample flows and processes to meet your company's requirements.



We also provide three managed flows and a process.

- Cancel Item flow is a screen flow template that you clone and customize to match your cancellation workflow.
- Return Item flow is a screen flow template that you clone and customize to match your return workflow.
- Create Order Summary flow is an autolaunched flow template that you clone and customize to match your order capture requirements.
- Create Order Summary is a process template that you clone and customize to match your order capture requirements. The process runs on each submitted order and launches the Create Order Summary flow.

As an alternative to using Flow Builder, you can configure your fulfillment processes by using Salesforce APIs and Apex custom code.

SEE ALSO:

[Salesforce Help: Order Fulfillment \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Payments and Invoices \(can be outdated or unavailable during release preview\)](#)

[Path: Streamline Order Fulfillment](#)

## Connect Commerce with Service

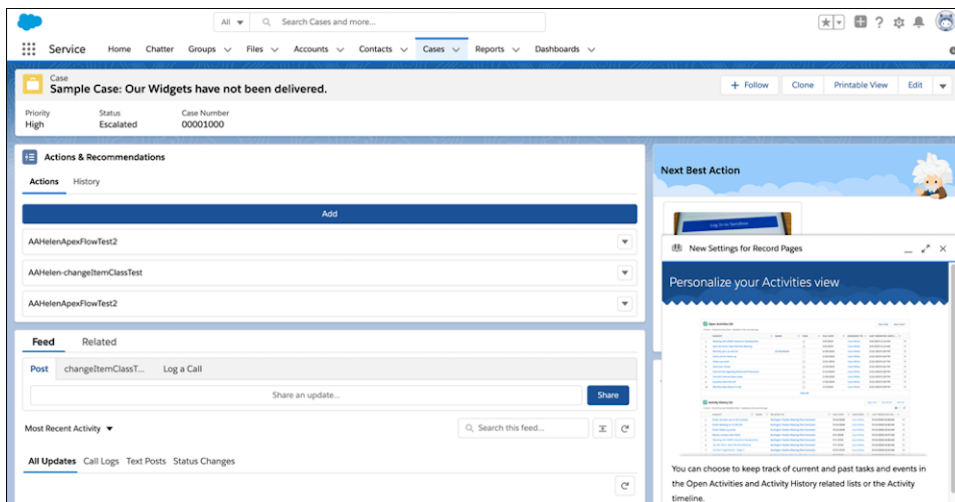
Salesforce Order Management works hand-in-hand with Service Cloud to provide your service agents with a single customer view of order and service history. Agents now have quick access to the information that they need when handling customer requests.

**Where:** This change applies to Lightning Experience in Enterprise edition with Salesforce Order Management.

**Why:** Salesforce Order Management helps you to bridge the gap between B2C Commerce and Service Cloud. With Salesforce Order Management, your service agents no longer have to access order information from external systems to service customer requests.

- Service agents can locate a customer account and view the customer's order history in the Service Console—without switching over to the Order Management Console.
- Service agents can use customized workflows to automatically associate a case with customer's order summary.
- Service agents can see all order information in one place, making it easier to handle customer inquiries and process cancellations and refunds.

All service activity is captured in the case history and the order history.



SEE ALSO:

[Salesforce Help: Service \(can be outdated or unavailable during release preview\)](#)

## Integrate with Supply Chain Partners for End-to-End Automation

Salesforce Order Management is fully integrated with B2C Commerce and natively supports Service Cloud. In addition, with AppExchange, you can connect with solution partners and integrate with third-party apps to configure a true, end-to-end order management system.

**Where:** This change applies to Lightning Experience in Enterprise edition with Salesforce Order Management.

**Why:** Using Heroku, Salesforce Order Management receives orders from your B2C Commerce storefront and automatically creates and populates Salesforce objects with order data. You create and manage personalized business processes to manipulate the Salesforce objects and move orders through your fulfillment workflow.

Order capture is natively supported with B2C Commerce. You can build integrations in Salesforce Order Management to support order capture from other ecommerce channels.

We provide several pre-built connector apps in AppExchange that you can use to integrate supply chain partners into your workflow. Use AppExchange with Salesforce Order Management to fully automate your fulfillment processes.

Go to AppExchange to find the integration solutions that are right for you.

- Allocation
- ERP
- Payment
- Shipping
- Store
- Warehouse

SEE ALSO:

[AppExchange](#)

## Analytics: Faster Report Editing, Dashboard Builder Enhancements, Direct Data Querying, Einstein Discovery What-If Analysis

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Analytics includes Reports & Dashboards, Einstein Analytics, and Einstein Discovery. The Spring '20 Analytics improvements focus on increasing connections and productivity alongside a simplified experience. Build reports faster with a new feature that lets you switch live updates to the report preview on or off. Dashboard builder's collaborative version management, targeted faceting, and interaction building, can all be completed with clicks not code. Query live Salesforce data directly in Einstein Analytics with Direct Data. Build a predictive model in Einstein Discovery and use what-if analysis to determine possible future outcomes.

IN THIS SECTION:

[Reports and Dashboards: Faster Report Editing with Optional Report Previews, Field-to-Field Filtering \(Generally Available\), Unique Record Count \(Generally Available\)](#)

Build reports faster with a new feature that lets you switch live updates to the report preview on or off. Field-to-field filters return report data based on a comparison of one field's values with another's. And how many unique values are there in your report? Find out by applying a unique count summary.

[Einstein Analytics: Dashboard Builder Enhancements, Direct Data Querying, Data Relationship Visualization, Einstein Discovery What-If Analysis](#)

Dashboard builder's collaborative version control, targeted faceting, and interaction building can all be completed with clicks not code. Query live Salesforce data directly in Einstein Analytics with Direct Data. Explore your Analytics assets' data lineage to visualize relationships and dependencies with the Data Catalog. Build a predictive model in Einstein Discovery and use what-if analysis to determine possible future outcomes.

## Reports and Dashboards: Faster Report Editing with Optional Report Previews, Field-to-Field Filtering (Generally Available), Unique Record Count (Generally Available)

Build reports faster with a new feature that lets you switch live updates to the report preview on or off. Field-to-field filters return report data based on a comparison of one field's values with another's. And how many unique values are there in your report? Find out by applying a unique count summary.

### IN THIS SECTION:

#### [Turn Off Automatic Updates to the Report Preview to Edit Reports Faster \(Generally Available\)](#)

Edit reports faster by turning off automatic preview updates. When off, you can make multiple edits without waiting for the preview to refresh after each edit. When you're ready to preview data, manually refresh the report preview. Or, see sample records returned after each edit by keeping automatic previews on.

#### [Attach Formatted Spreadsheets to Report Subscriptions \(Beta\)](#)

When people subscribe to a report, a new option lets them choose to receive results as a formatted spreadsheet attached to the subscription email. The email itself includes high-level report details, such as report name and time run, plus a link back to the full report in Salesforce. It does not include row-level record details, which are included in the spreadsheet instead.

#### [Filter Reports by Field Comparisons with Field-To-Field Filters \(Generally Available\)](#)

Compare the values of two different report fields and return records that satisfy the comparison criteria with a field-to-field filter. For example, return opportunities worth less than projected by comparing the Amount and Projected Amount fields, only returning opportunities which have a lesser Amount.

#### [Count Unique Values in Report Results \(Generally Available\)](#)

See how many distinct values your report returns with a unique count. Opportunity reports often list multiple opportunities with the same account. Add a unique count to the Account Name column to see how many individual account values appear in the report. Unique counts appear as grand totals at the bottom of the report and as subtotals for each group.

#### [Exclude the Confidential Information Disclaimer from Formatted Report Exports](#)

By default, formatted report exports include a disclaimer that reads "Confidential Information - Do Not Distribute." The disclaimer reminds users to be share reports with care, helping to ensure that third parties don't view your report data. A new org-wide setting lets you choose whether to show or hide the disclaimer from all formatted report exports.

#### [Work with Reports and Dashboards in a Right-to-Left Language \(Generally Available\)](#)

Reports and Dashboards now support right-to-left (RTL) languages and locales, such as Hebrew, Arabic, and Urdu. Hebrew and Arabic are supported as end-user languages, and Urdu as a platform language. To better support RTL languages, we rearranged the reports and dashboards interface so that it flows from right to left.

#### [Export up to 5 Reports at Once Per User](#)

We're introducing a per user concurrent report export limit. Each user can export up to 5 reports at once. Formatted report exports from Lightning Experience don't count against this limit.

#### [Legacy Folder Sharing Is Retiring in Winter '21](#)

In the Winter '21 release (subject to change to a later release), legacy folder sharing is retiring and enhanced folder sharing will be enabled for all organizations. Enhanced folder sharing introduces new user permissions and changes each user's access to existing reports and dashboards.

## Turn Off Automatic Updates to the Report Preview to Edit Reports Faster (Generally Available)

Edit reports faster by turning off automatic preview updates. When off, you can make multiple edits without waiting for the preview to refresh after each edit. When you're ready to preview data, manually refresh the report preview. Or, see sample records returned after each edit by keeping automatic previews on.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** To turn automatic preview updates on or off, flip the **Update Preview Automatically** switch on or off. When on, the report preview updates automatically after each edit you make to the report. When off, a message tells you whether the preview shows your most recent edits and provides the option to refresh the preview. When hiding recent edits, the preview turns gray.

To refresh out-of-date data, click **Refresh** (1).

The screenshot shows the Salesforce Reports interface for an 'Opportunity Overview' report. The report is displayed in a table format with columns for Opportunity Owner, Opportunity Name, Stage, Amount, Probability (%), Lead Source, and Next Step. The table contains 15 rows of data. A 'Refresh' button is highlighted with a red circle and the number '1'. A message above the table reads 'To see the latest edits, refresh the preview'. The 'Update Preview Automatically' toggle is turned off.

Opportunity Owner	Opportunity Name	Stage	Amount	Probability (%)	Lead Source	Next Step	
1	Fred Williamson	salesforce.com - 5000 Widgets	Closed Won	\$500,000.00	100%	Advertisement	Closed!
2	Fred Williamson	salesforce.com - 500 Widgets	Closed Won	\$50,000.00	100%	Advertisement	Closed!
3	Fred Williamson	Global Media - 400 Widgets	Id. Decision Makers	\$40,000.00	60%	Partner	-
4	Fred Williamson	Acme - 1,200 Widgets	Value Proposition	\$140,000.00	50%	Trade Show	Need estimate
5	Fred Williamson	Acme - 600 Widgets	Needs Analysis	\$70,000.00	20%	Trade Show	Need estimate
6	Fred Williamson	Acme - 200 Widgets	Prospecting	\$20,000.00	10%	Word of mouth	Need estimate
7	Fred Williamson	salesforce.com - 1,000 Widgets	Negotiation/Review	\$100,000.00	90%	Advertisement	Close the deal!
8	Fred Williamson	salesforce.com - 2,000 Widgets	Value Proposition	\$20,000.00	50%	Partner	Meet at Widget Confe
9	Fred Williamson	Acme - 600 Widgets	Needs Analysis	\$50,000.00	20%	Word of mouth	Need estimate
10	Fred Williamson	Acme - 200 Widgets	Prospecting	\$40,000.00	10%	Word of mouth	Need estimate
11	Fred Williamson	Internet Corporation - 1,000 Widgets	Negotiation/Review	\$140,000.00	90%	Advertisement	Close the deal!
12	Fred Williamson	Internet Corporation - 2,000 Widgets	Value Proposition	\$70,000.00	50%	Partner	Meet at Widget Confe
13	Fred Williamson	DTC Electronics - 300 Widgets	Id. Decision Makers	\$20,000.00	60%	Internet	Phone call
14	Fred Williamson	Internet Corporation - 5000 Widgets	Closed Won	\$100,000.00	100%	Advertisement	Closed!
15	Fred Williamson	Internet Corporation - 500 Widgets	Closed Won	\$20,000.00	100%	Advertisement	Closed!

The preview reloads to show your edits.



The screenshot shows the Salesforce Reports interface for an 'Opportunity Overview' report. The report is in preview mode, displaying a table of opportunities. The table has columns for Opportunity Owner, Opportunity Name, Stage, Amount, Probability (%), and Lead Source. The report is grouped by 'Existing Business (10)' and 'New Business (10)'. The interface includes navigation tabs, a search bar, and various report controls like 'Add Chart', 'Save & Run', and 'Run'.

Type	Opportunity Owner	Opportunity Name	Stage	Amount	Probability (%)	Lead Source
Existing Business (10)	Fred Williamson	salesforce.com - 500 Widgets	Closed Won	\$50,000.00	100%	Advertisement
	Fred Williamson	Acme - 1,200 Widgets	Value Proposition	\$140,000.00	50%	Trade Show
	Fred Williamson	Acme - 200 Widgets	Prospecting	\$20,000.00	10%	Word of mouth
	Fred Williamson	salesforce.com - 2,000 Widgets	Value Proposition	\$20,000.00	50%	Partner
	Fred Williamson	Acme - 200 Widgets	Prospecting	\$40,000.00	10%	Word of mouth
	Fred Williamson	Internet Corporation - 2,000 Widgets	Value Proposition	\$70,000.00	50%	Partner
	Fred Williamson	DTC Electronics - 300 Widgets	Id. Decision Makers	\$20,000.00	60%	Internet
	Fred Williamson	Internet Corporation - 500 Widgets	Closed Won	\$20,000.00	100%	Advertisement
	Fred Williamson	Acme - 1,200 Widgets	Value Proposition	\$500,000.00	50%	Trade Show
	Fred Williamson	Acme - 200 Widgets	Prospecting	\$40,000.00	10%	Word of mouth
Subtotal			\$920,000.00 Avg: \$92,000.00			
New Business (10)	Fred Williamson	salesforce.com - 5000 Widgets	Closed Won	\$500,000.00	100%	Advertisement
	Fred Williamson	Global Media - 400 Widgets	Id. Decision Makers	\$40,000.00	60%	Partner
	Fred Williamson	Acme - 600 Widgets	Needs Analysis	\$70,000.00	20%	Trade Show
	Fred Williamson	salesforce.com - 1,000 Widgets	Negotiation/Review	\$100,000.00	90%	Advertisement

The **Update Preview Automatically** switch does not affect the report run page.

## Attach Formatted Spreadsheets to Report Subscriptions (Beta)

When people subscribe to a report, a new option lets them choose to receive results as a formatted spreadsheet attached to the subscription email. The email itself includes high-level report details, such as report name and time run, plus a link back to the full report in Salesforce. It does not include row-level record details, which are included in the spreadsheet instead.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Note:** As a beta feature, Formatted Spreadsheet Attachments is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Formatted Spreadsheet Attachments in the [IdeaExchange](#) or in the [Trailblazer Community](#). For information on enabling this feature in your org, contact Salesforce.

**How:** Subscribe to a report, select **Attach results as a formatted spreadsheet file**, and click **Save**.

### Edit Subscription

---

#### Schedule

Frequency

Days

Time

#### Conditions

In addition to subscribing, you can set up conditions on this report. You will be notified when conditions are met. This is optional.

Add conditions to this report

#### Subscribe

Run Report As

Me
  Another Person

Attach results as a formatted spreadsheet file ⓘ

SEE ALSO:

[IdeaExchange: Schedule Reports as Attachments and add Adobe PDF, Excel Option](#)

## Filter Reports by Field Comparisons with Field-To-Field Filters (Generally Available)

Compare the values of two different report fields and return records that satisfy the comparison criteria with a field-to-field filter. For example, return opportunities worth less than projected by comparing the Amount and Projected Amount fields, only returning opportunities which have a lesser Amount.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** Add a field filter, and change **Value** to **Field** in the filter dialog. In this example, a field-to-field filter (1) returns opportunities worth less than projected (2).

The screenshot displays the Salesforce Reports interface for an 'Opportunity Overview' report. A 'Filter by Amount' dialog box is open, showing a field-to-field filter configuration. The dialog includes an 'Operator' dropdown set to 'less than', a 'Type' dropdown set to 'Field', and a 'Value' dropdown set to 'Projected Amount'. The report table below shows columns for Opportunity Owner, Opportunity Name, Stage, Amount, Projected Amount, Probability (%), and Age. The dialog box has a 'Filter by Amount' title, an 'Operator' dropdown set to 'less than', a 'Type' dropdown set to 'Field', and a 'Value' dropdown set to 'Projected Amount'. There are 'Cancel' and 'Apply' buttons at the bottom of the dialog.

Now that field-to-field filters are generally available, they can be deployed from one Salesforce org to another as part of a managed or unmanaged package.

**Note:** Because row-level formulas are now generally available, admins no longer need to enable the feature in Setup. We removed **Enable Field-to-Field Filtering in Reports (Lightning Experience Only)** from Reports and Dashboards Settings in Setup.

SEE ALSO:

[IdeaExchange: Report Filters Should Be Able To Compare Fields To Each Other](#)

## Count Unique Values in Report Results (Generally Available)

See how many distinct values your report returns with a unique count. Opportunity reports often list multiple opportunities with the same account. Add a unique count to the Account Name column to see how many individual account values appear in the report. Unique counts appear as grand totals at the bottom of the report and as subtotals for each group.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** To add a unique count of values for a field, in the column, click > **Show Unique Count**.

The screenshot displays the Salesforce Reports interface for an 'Opportunity Overview' report. The report is currently in preview mode, showing a table of 9 rows. The columns include Opportunity Owner, Account Name, Opportunity Name, Stage, Amount, Probability (%), Age, and Close Date. A context menu is open over the 'Account Name' column, with the 'Show Unique Count' option highlighted. The summary row at the bottom shows a total amount of \$940,000.00 and an average of \$117,500.00.

Opportunity Owner	Account Name	Opportunity Name	Stage	Amount	Probability (%)	Age	Close Date
1	Fred Williamson	Global Media	Closed Won	\$500,000.00	100%	0	1/27/20
2	Fred Williamson	Global Media	Closed Won	\$50,000.00	100%	0	1/27/20
3	Fred Williamson	Global Media	Id. Decision Makers	\$40,000.00	60%	210	3/30/20
4	Fred Williamson	Acme	Value Proposition	\$140,000.00	50%	210	3/1/20
5	Fred Williamson	Acme	Needs Analysis	\$70,000.00	20%	210	4/27/20
6	Fred Williamson	Acme	Prospecting	\$20,000.00	10%	210	6/30/20
7	Fred Williamson	salesforce.com	Negotiation/Review	\$100,000.00	90%	210	3/1/20
8	Fred Williamson	salesforce.com	Value Proposition	\$20,000.00	50%	210	4/29/20
9		Unique: 3		\$940,000.00			
				Avg: \$117,500.00			

Now that unique counts are generally available, these actions are supported.

- Deploy unique counts from one Salesforce org to another as part of a managed or unmanaged package.
- Work with unique counts in summary formulas, but not row-level formulas. To work with a unique count in a summary formula, select both a field like Lead Source and **Unique** from the summary menu and click **Insert**. Or type a field's developer name followed by `:UNIQUE`, such as `LEAD_SOURCE : UNIQUE`.

**Note:** Because unique counts are now generally available, admins no longer need to enable the feature in Setup. We removed **Enable Unique Row Count Aggregate in Reports (Lightning Experience Only)** from Reports and Dashboards Settings in Setup.

SEE ALSO:

[IdeaExchange: Report Option for Distinct/Unique Records](#)

## Exclude the Confidential Information Disclaimer from Formatted Report Exports

By default, formatted report exports include a disclaimer that reads "Confidential Information - Do Not Distribute." The disclaimer reminds users to be share reports with care, helping to ensure that third parties don't view your report data. A new org-wide setting lets you choose whether to show or hide the disclaimer from all formatted report exports.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

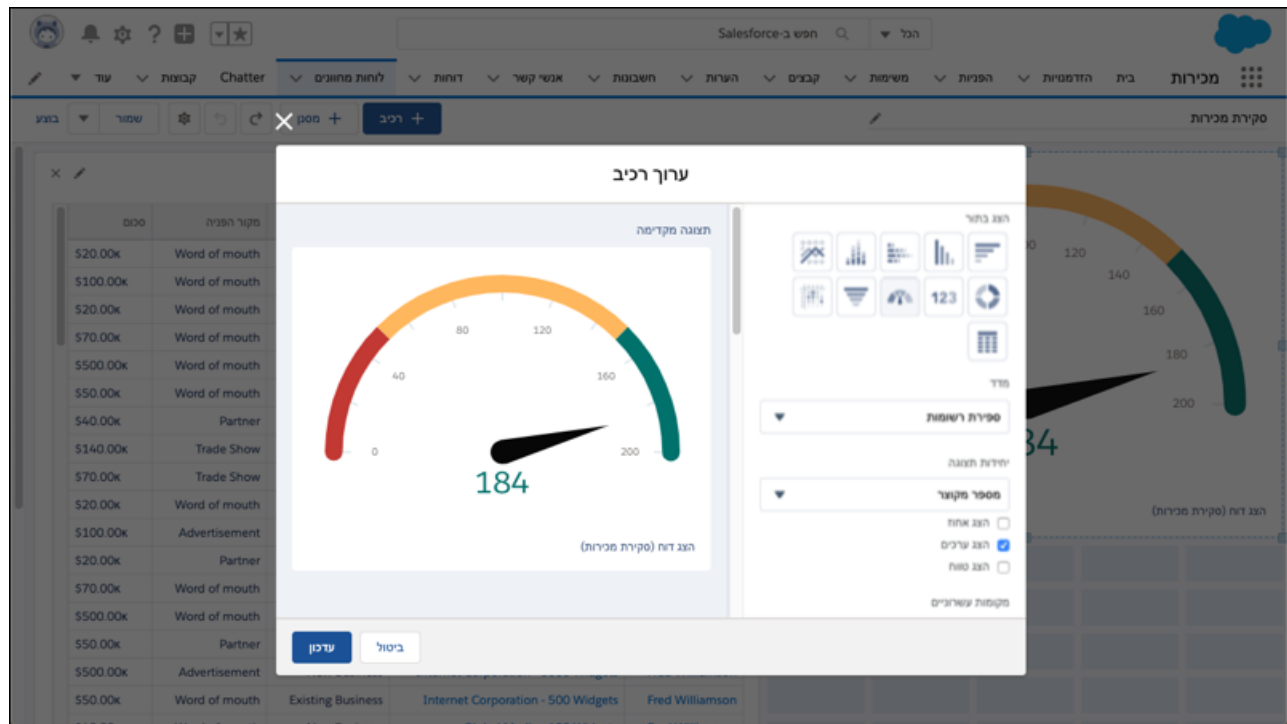
**How:** Hide the disclaimer from Setup. In Reports and Dashboards Settings, select **Exclude Disclaimer from Formatted Report Exports in Lightning Experience** and click **Save**.

## Work with Reports and Dashboards in a Right-to-Left Language (Generally Available)

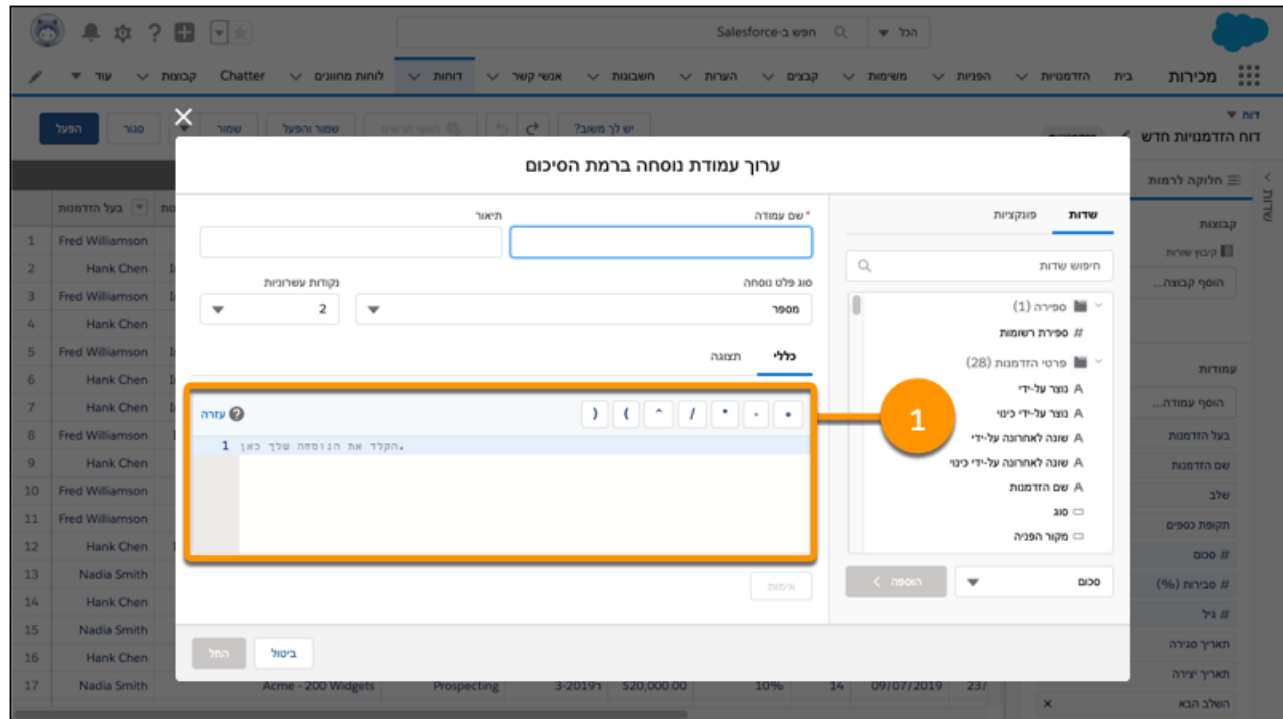
Reports and Dashboards now support right-to-left (RTL) languages and locales, such as Hebrew, Arabic, and Urdu. Hebrew and Arabic are supported as end-user languages, and Urdu as a platform language. To better support RTL languages, we rearranged the reports and dashboards interface so that it flows from right to left.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** All parts of the Lightning dashboard builder support RTL languages. For example, here's a dashboard component in Hebrew.



With one exception, all parts of the Lightning report builder support right-to-left languages. Although the formula editing menu flows from right-to-left, as you would expect, the formula editing field flows left-to-right (1).



SEE ALSO:

[Salesforce Help: Right-to-Left \(RTL\) Language Support \(can be outdated or unavailable during release preview\)](#)

## Export up to 5 Reports at Once Per User

We're introducing a per user concurrent report export limit. Each user can export up to 5 reports at once. Formatted report exports from Lightning Experience don't count against this limit.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## Legacy Folder Sharing Is Retiring in Winter '21

In the Winter '21 release (subject to change to a later release), legacy folder sharing is retiring and enhanced folder sharing will be enabled for all organizations. Enhanced folder sharing introduces new user permissions and changes each user's access to existing reports and dashboards.

**Where:** This change applies to Group, Professional, Enterprise, Performance, Unlimited, and Developer Editions.

**When:** Retirement is targeted for Winter '21 and is subject to change.

**Why:** Enhanced folder sharing introduces three levels of access to report and dashboard folders: viewer, editor, and manager. After enabling enhanced folder sharing, all users in your Salesforce organization get "viewer" access to all their report and dashboard folders, even if they previously had "editor" access, except for hidden folders. Hidden folders aren't shared with anyone, but users with the user permissions View Reports in Public Folders, Manage Reports in Public Folders, and their dashboard equivalents can view or manage hidden folders. To restore editor access to the user, you might have to assign them new user permissions and then grant folder-level access.

For example, in legacy folder sharing, Sally and Tim are building a dashboard that's saved in a public folder with read and write access. Sally has the user permissions Manage Dashboards and View All Data, but Tim has only View All Data. After turning on enhanced folder

sharing, Sally automatically receives the user permissions Manage Dashboards in Public Folders and Create Dashboard Folders, but Tim only receives the user permission View Dashboards in Public Folders. Sally can view, edit, and share the dashboard, but Tim can only view it. Before Tim can receive “editor” access to the folder, a Salesforce admin must assign Tim the user permission Create and Customize Dashboards. Then, Sally can give Tim “editor” access to the dashboard folder, and they can continue collaborating on the dashboard.

**How:** If your org was created in or after the Summer '13 release or later, you already have enhanced folder sharing and won't notice any change. No action is required.

If your org was created before Summer '13, and hasn't already turned on enhanced folder sharing, you can enable it today. For details, see [Transition Your Org to Enhanced Folder Sharing for Reports and Dashboards](#). To familiarize yourself with the new user permissions and folder access levels, Salesforce recommends turning enhanced folder sharing on in a sandbox or developer edition org first. Once turned on, you can't revert to legacy folder sharing.

#### SEE ALSO:

[Salesforce Help: Transition Your Org to Enhanced Folder Sharing for Reports and Dashboards \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: User Permissions for Sharing Reports and Dashboards \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Compare Access Levels for Report and Dashboard Folders \(can be outdated or unavailable during release preview\)](#)

## Einstein Analytics: Dashboard Builder Enhancements, Direct Data Querying, Data Relationship Visualization, Einstein Discovery What-If Analysis

Dashboard builder's collaborative version control, targeted faceting, and interaction building can all be completed with clicks not code. Query live Salesforce data directly in Einstein Analytics with Direct Data. Explore your Analytics assets' data lineage to visualize relationships and dependencies with the Data Catalog. Build a predictive model in Einstein Discovery and use what-if analysis to determine possible future outcomes.

#### IN THIS SECTION:

[Analytics Setup and Data Integration: Data Lineage Graph, Multiple Schedules for Local Data Sync, More Sharing Inheritance Coverage](#)  
Understand where data used in Analytics originated. Create and schedule more local connections. Provide dataset row-level access for more users with Sharing Inheritance.

[Analytics Prebuilt Apps: Analytics Design, Analytics for Consumer Goods, Easier-to-Create Adoption Analytics App, Accuracy Analytics](#)  
Build your own beautiful apps with the Analytics Design app. Improve retail business results with Consumer Goods app. Also, create the Adoption Analytics app with just a few clicks, and improve the reliability of Einstein Discovery stories with Accuracy Analytics.

[Analytics App Building: Direct Data Querying, Dashboard Publisher Collaboration, Connectors and Multiple Dataflows in Templates](#)  
Query live Salesforce data directly in Einstein Analytics with Direct Data. The publisher feature lets your team collaborate on dashboards before you share them with business users. Analytics Templates Framework adds support for connectors and multiple dataflows, and the framework's JSON transformation engine transforms any JSON from Lightning Experience.

[Einstein Discovery: External Data for Predictions, What Could Happen Insights, and Story Versioning](#)

Include external data to better predict outcomes. Get live prediction scores interactively, including top factors and actionable insights. Revisit and work with previous story versions at any time.

[Analytics for Everyone: Watchlist \(Beta\), Multiple Notification Recipients, In-App Trailhead Badges](#)

Track important metrics on the Analytics home page with the Einstein Analytics Watchlist. Add multiple recipients from your org to your notification email distribution list. Earn Trailhead badges for completing learning journeys in the Analytics Studio.

## Analytics Setup and Data Integration: Data Lineage Graph, Multiple Schedules for Local Data Sync, More Sharing Inheritance Coverage

Understand where data used in Analytics originated. Create and schedule more local connections. Provide dataset row-level access for more users with Sharing Inheritance.

### IN THIS SECTION:

#### [Visualize Where Dataset, Lens, Dashboard, and Story Data Originates](#)

The Data Catalog app, free on AppExchange, helps you understand how data is interconnected and visualize the data lineage back to its source with a lineage graph. You use dashboards, lenses, and stories to make business decisions, but it can be challenging to find the source object or dataset to tweak a setting or update stale data. Now you can quickly investigate where your data comes from and what Analytics assets are associated with it.

#### [Analyze 10X More Data Using the Einstein Analytics Plus License](#)

The maximum row limit for the Einstein Analytics Plus license has increased from 1 billion to 10 billion for all registered datasets.

#### [Sync from Mulesoft-Connected Data Sources](#)

Pull your cloud-based data via CloudHub into Analytics without code using Analytics Mulesoft connectors for Einstein Analytics. Analytics Mulesoft connectors are available to connect Microsoft SQL Server on AWS RDS, MySQL on AWS RDS, and Oracle on AWS RDS.

#### [Sync Data from Mulesoft-Connected SAP SuccessFactors](#)

Pull your cloud-based SuccessFactors data via CloudHub into Analytics without code using the Analytics Mulesoft SAP SuccessFactor connector for Einstein Analytics.

#### [Bring Your Customer 360 Global Profile Data into Analytics \(Beta\)](#)

You used Customer 360 Data Manager to create a global profile identifying customers across Salesforce. With the Customer 360 Global Profile Data connector, you can use this profile with other Salesforce and remote data for analysis in Einstein Analytics.

#### [Connect to Your Data in SugarCRM, Zendesk, Teradata, Google Cloud Storage, SAP SuccessFactors, and Zuora AQuA\[Pilot\]](#)

Connect even more remote data to Analytics for analysis and decision making with SugarCRM, Zendesk, Teradata, Google Cloud Storage, SAP SuccessFactors, and Zuora AQuA connectors.

#### [Connect to External Salesforce Object Data with Specialized Connectors \[Pilot\]](#)

Your company's departments use distinct groups of Salesforce features and objects for business-specific purposes to track progress, shorten sales cycles, maintain relationships, and more. Your data sync from an external Salesforce org to Analytics can now be designed, scheduled, and managed per business case with distinct Salesforce object and feature connectors. Use the Salesforce Service Cloud connector, Salesforce Sales Cloud connector, Salesforce Community Cloud connector, Salesforce CPQ connector, and Salesforce Force.com connector to sync data from those external object groups. These remote connectors set up a framework for future cloud-specific and feature-specific data sync capabilities.

#### [Sync Your Google BigQuery Standard SQL Data](#)

Bring your large volumes of Google BigQuery data with standard SQL support into Analytics using the new Google BigQuery Standard SQL connector. This connector supports standard SQL, the newest BigQuery standard, which provides improved composability using WITH clauses and SQL functions, correlated subqueries, and more. If you're using legacy SQL, use the Google BigQuery connector.

#### [Sync Marketing Cloud Data with OAuth 2.0 Authentication](#)

Sync contacts data from Marketing Cloud to Analytics with a tenant-specific endpoint and OAuth 2.0 authentication using the new Salesforce Marketing Cloud Contacts OAuth 2.0 Connector. If your Marketing Cloud package app was created using a legacy endpoint or without OAuth 2.0 authentication, use the Salesforce Marketing Cloud Contacts connector instead of this one.

#### [Schedule Data Sync for Your Local Objects with More Granularity](#)

Strategically manage when your Salesforce data syncs to Einstein Analytics using up to 10 individually scheduled local connections.



### [Filter Data Synced from External Connections](#)

To speed up data sync and only pull the data you need, you can now use data sync filters with connected objects from select remote connectors. Previously, you imported all data from a remote object and used a dataflow or recipe filter to limit the external data in a dataset. Now, you can exclude unnecessary or sensitive data from syncing to Analytics in the first place.

### [New Limits for Microsoft Azure SQL Database and Netsuite Connectors](#)

The connectors to Microsoft Azure SQL Database and Netsuite data sources have updated limits. The Microsoft Azure SQL Database can now sync up to 100 million rows or 50 GB per object, whichever limit it reaches first. The Netsuite connector can now sync up to 100,000 rows or 500 MB per object, whichever limit is first.

### [New Connector Sync Limits for FIPS 140-2 Validated Encryption Orgs](#)

When using Einstein Analytics remote connectors, Salesforce Government Cloud org data is protected in transit with FIPS 140-2 validated encryption. Due to the enhanced encryption, connectors used in Salesforce Government cloud orgs can sync up to 10 million rows or 5 GB for each connected object, whichever limit is reached first. The exception is the Netsuite connector, which can sync up to 100,000 rows or 500 MB per object, whichever limit is reached first.

### [Provide Dataset Row-Level Access to More Users Automatically](#)

Sharing Inheritance can now apply your Salesforce object row-level security settings to Analytics datasets in more situations thanks to higher limits and increased object coverage. Higher limits and wider coverage means that more users will benefit from inheriting Salesforce sharing settings and fewer one-off security predicates to create and manage. Sharing inheritance now applies to a user if their record access is granted by fewer than 3,000 shares from groups or users. You can now apply sharing inheritance from the Opportunity, Account, Case, Lead, and Contact object if the object has fewer than 400 sharing definitions.

### [Save More Dataflows](#)

Strategically manage your dataset generation in Analytics with a greater number of dataflows. You can now save up to 100 dataflows, increased from 30 (that's a factor of 3.333 for numbers fans). This increase frees you to split large dataflows to run more quickly, or to separate dataflows by business requirement to schedule the dataflow when the data will be consumed.

### [Prepare for Automated Schedule Removals in Sandbox and Developer Edition Orgs](#)

Automatic schedule removal will speed up the remaining data sync, dataflow, and recipe jobs across all Salesforce customers. Your sandbox and developer edition orgs will now have their schedules for data sync, dataflow, and recipes removed 90 days after the last save. If you're actively developing, your schedules won't be removed. Set the schedule again anytime for further testing, training, or the joy of scheduling. All users subscribed to a data sync, dataflow, or recipe notifications will receive an email notifying them when a schedule is removed.

### [With Pre-Flight Check, Stay Updated as You Enable Einstein Analytics](#)

With the new pre-flight check and other informative windows, we added education into the first admin task—enabling Einstein Analytics. The pre-flight check shows you the enablement processes and helps you understand what's happening. If enablement is successful, you get confirmation, and if not, you get on-screen help to fix things and try again. Either way, you have more insight into how Einstein Analytics works within your org.

### [Use Current or New Amazon SSL/TLS Certificates from Connected RDS and Aurora Systems](#)

Your remote connections that use any of the Einstein Analytics Amazon RDS connectors automatically support the updated Amazon SSL/TLS certificates. After your Amazon database administrator updates its SSL/TLS certificates, your Einstein Analytics connections and data sync continue as usual in Salesforce.

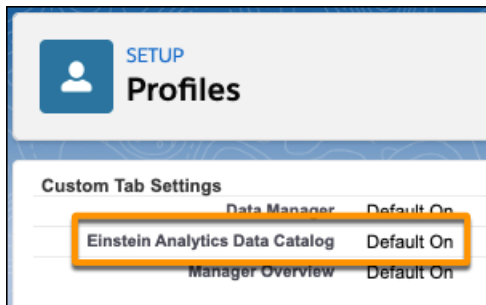
## Visualize Where Dataset, Lens, Dashboard, and Story Data Originates

The Data Catalog app, free on AppExchange, helps you understand how data is interconnected and visualize the data lineage back to its source with a lineage graph. You use dashboards, lenses, and stories to make business decisions, but it can be challenging to find the source object or dataset to tweak a setting or update stale data. Now you can quickly investigate where your data comes from and what Analytics assets are associated with it.

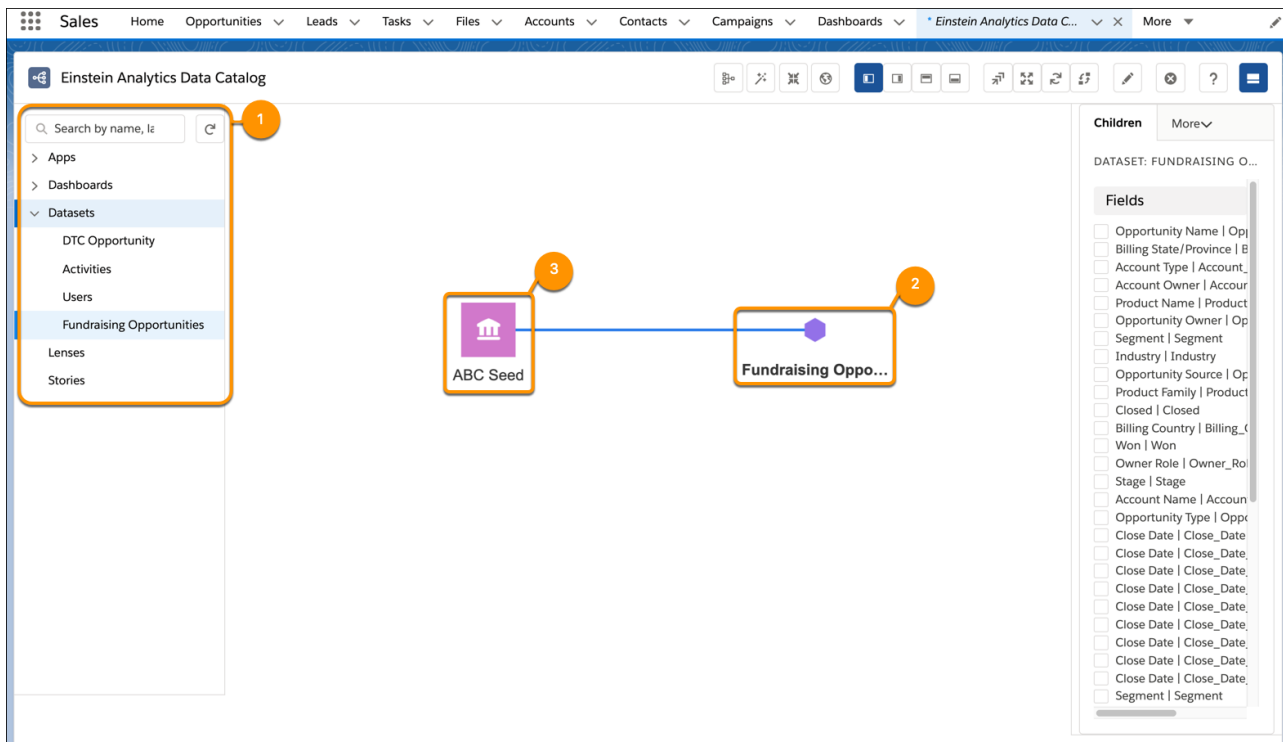
**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

The Einstein Analytics Data Catalog app was built by Salesforce Labs. Salesforce Labs apps are free to use, but aren't official Salesforce products. For help with a Salesforce Labs app, visit the Trailblazer Community.

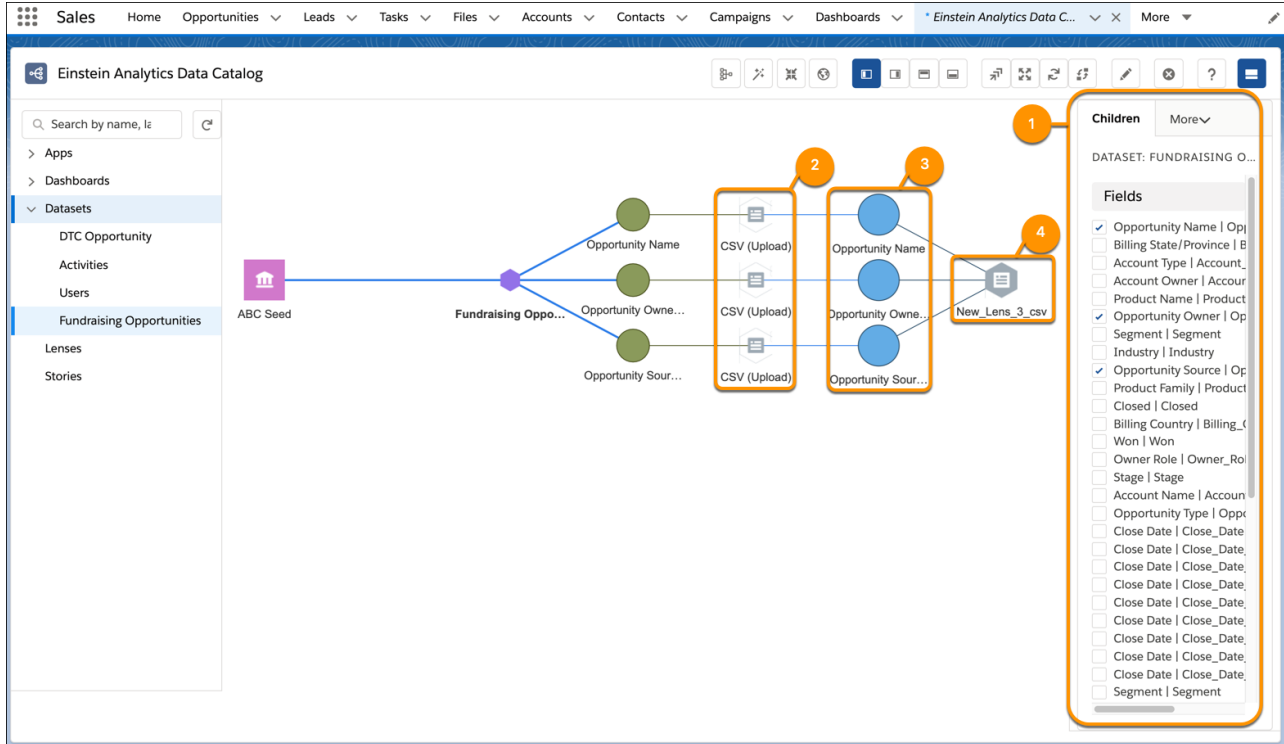
**How:** Install the [Einstein Analytics Data Catalog](#) app from AppExchange. After reviewing [My Domain](#), set up a My Domain subdomain for your org. Set the Einstein Analytics Data Catalog custom tab profile setting to Default On or Default Off for user groups that will use the Data Catalog.



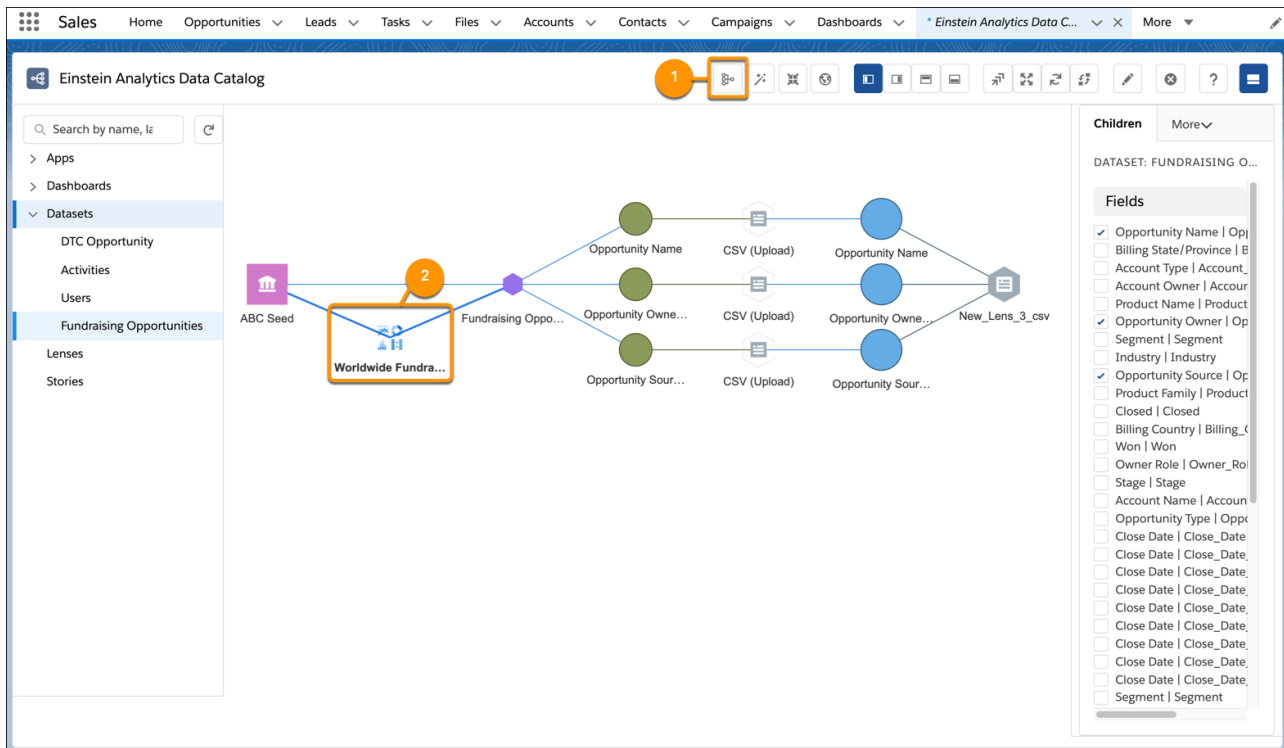
From the App Launcher, find and open the **Einstein Analytics Data Catalog** app. Select or search for the app, dashboard, dataset, lens, or story to investigate (1) and what you selected will appear on the canvas (2). Lines radiate outward from the selected asset to other related assets, such as the app (3).



To investigate data lineage, choose the child fields to investigate (1). The connector or load method (2), local or remote field name (3), and local, remote, or loaded data source (4) are visualized.



To investigate where the asset is used, click **Show Dependencies** (1). The dashboard (2) or other assets are graphed along with those assets' app if not already shown.



SEE ALSO:

[AppExchange: Einstein Analytics Data Catalog](#)

## Analyze 10X More Data Using the Einstein Analytics Plus License

The maximum row limit for the Einstein Analytics Plus license has increased from 1 billion to 10 billion for all registered datasets.

**Where:** This change applies to Einstein Analytics Plus users in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** You don't need to do anything to take advantage of the expanded 10 billion-row data capacity in all registered datasets. Salesforce re-provisions existing Einstein Analytics Plus license-holders with the new capability, and it's automatically available to new customers.

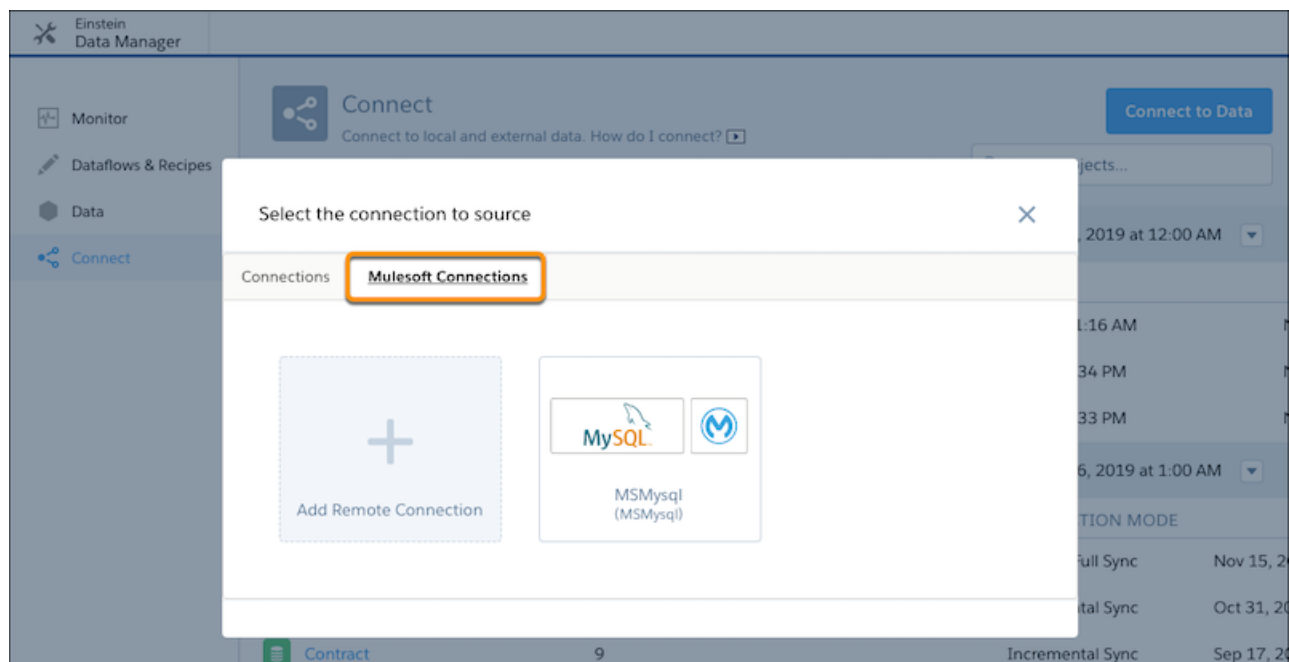
## Sync from Mulesoft-Connected Data Sources

Pull your cloud-based data via CloudHub into Analytics without code using Analytics Mulesoft connectors for Einstein Analytics. Analytics Mulesoft connectors are available to connect Microsoft SQL Server on AWS RDS, MySQL on AWS RDS, and Oracle on AWS RDS.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

A Mulesoft license, purchased or acquired separately, is required to configure this feature. The 30-Day Mulesoft Trial license is supported.

**How:** Ask your Mulesoft admin for CloudHub credentials with access to deploy. Create connections with Mulesoft Analytics connectors on the Connect tab of the Einstein Analytics data manager under the Mulesoft Connections tab.



Analytics automatically deploys a template into CloudHub that spins up a Mule, which securely connects with the source system.


SEE ALSO:

[Salesforce Help: Mulesoft Analytics Connectors \(can be outdated or unavailable during release preview\)](#)

## Sync Data from Mulesoft-Connected SAP SuccessFactors

Pull your cloud-based SuccessFactors data via CloudHub into Analytics without code using the Analytics Mulesoft SAP SuccessFactor connector for Einstein Analytics.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

 **Note:** We provide the Analytics Mulesoft SAP SuccessFactor connector to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. The Analytics Mulesoft SAP SuccessFactor connector isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features. You can provide feedback and suggestions for the Analytics Mulesoft SAP SuccessFactor connector in the [Einstein Analytics Pilot and Beta Connectors group](#) in the Trailblazer Community.

A Mulesoft license, purchased or acquired separately, is required to configure this feature. The 30-Day Mulesoft Trial license is supported.


**How:** Ask your Mulesoft admin for CloudHub credentials with access to deploy. Create a connection with the Analytics Mulesoft SAP SuccessFactor connector on the Connect tab of the Einstein Analytics data manager under the Mulesoft Connections tab. Analytics automatically deploys a template into CloudHub that spins up a Mule, which securely connects with the source system.

## Bring Your Customer 360 Global Profile Data into Analytics (Beta)

You used Customer 360 Data Manager to create a global profile identifying customers across Salesforce. With the Customer 360 Global Profile Data connector, you can use this profile with other Salesforce and remote data for analysis in Einstein Analytics.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

For connecting to Service Cloud or Commerce Cloud, Customer 360 Data Manager requires either Enterprise, Performance, or Unlimited editions.

 **Note:** As a beta feature, Customer 360 Global Profile Data connector is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature.

**Who:** Available to customers who qualify for a Customer 360 Data Manager add-on subscription. To use the connector, admins need these permissions: Add Analytics Remote Connections, Edit Analytics Dataflows, and Use Analytics.

**How:** Before you can use this connector, connect a Salesforce org with Einstein Analytics as a data source in Customer 360 Data Manager. Create and load a data file from your connected data source into Customer 360 Data Manager for processing into global profiles. Then push the global profile data to Einstein Analytics.

After you complete the Customer 360 Data Manager setup, you can enable this connector on the Analytics Settings Setup page by selecting the **Create dashboards from Customer 360 Data Manager global profile data** checkbox. This setting provides access to

Customer 360 data for additional analysis by data architects, cross-cloud admins, and others. Create the connection with Customer 360 Global Profile Data connector on the Connect tab of the Einstein Analytics data manager.

SEE ALSO:


[Analyze Your Global Profile Data with Einstein Analytics \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Customer 360 Global Profile Data Connection \(can be outdated or unavailable during release preview\)](#)

## Connect to Your Data in SugarCRM, Zendesk, Teradata, Google Cloud Storage, SAP SuccessFactors, and Zuora AQuA[Pilot]

Connect even more remote data to Analytics for analysis and decision making with SugarCRM, Zendesk, Teradata, Google Cloud Storage, SAP SuccessFactors, and Zuora AQuA connectors.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

 **Note:** We provide SugarCRM, Zendesk, Teradata, Google Cloud Storage, SAP SuccessFactors, and Zuora AQuA connectors to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. SugarCRM, Zendesk, Teradata, Google Cloud Storage, SAP SuccessFactors, and Zuora AQuA connectors aren't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features. You can provide feedback and suggestions for SugarCRM, Zendesk, Teradata, Google Cloud Storage, SAP SuccessFactors, and Zuora AQuA connectors in the [Einstein Analytics Pilot and Beta Connectors group](#) in the Trailblazer Community.


**When:** These new connectors are added on a rolling basis in the Spring '20 release.

**How:** Create connections with the new SugarCRM, Zendesk, Teradata, Google Cloud Storage, SAP SuccessFactors, and Zuora AQuA connectors on the Connect tab of the data manager.

## Connect to External Salesforce Object Data with Specialized Connectors [Pilot]

Your company's departments use distinct groups of Salesforce features and objects for business-specific purposes to track progress, shorten sales cycles, maintain relationships, and more. Your data sync from an external Salesforce org to Analytics can now be designed, scheduled, and managed per business case with distinct Salesforce object and feature connectors. Use the Salesforce Service Cloud connector, Salesforce Sales Cloud connector, Salesforce Community Cloud connector, Salesforce CPQ connector, and Salesforce Force.com connector to sync data from those external object groups. These remote connectors set up a framework for future cloud-specific and feature-specific data sync capabilities.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

 **Note:** We provide Salesforce Service Cloud, Salesforce Sales Cloud, Salesforce Community Cloud, Salesforce CPQ, and Salesforce Force.com connectors to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Salesforce Service Cloud, Salesforce Sales Cloud, Salesforce Community Cloud, Salesforce Force.com, and Salesforce CPQ connectors aren't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features. You can provide feedback and suggestions for Salesforce Service Cloud, Salesforce Sales Cloud, Salesforce Community Cloud, Salesforce Force.com and Salesforce CPQ connectors in the [Einstein Analytics Pilot and Beta Connectors group](#) in the Trailblazer Community.

**How:** Create connections with the new Salesforce Service Cloud connector, Salesforce Sales Cloud connector, Salesforce Community Cloud connector, Salesforce CPQ connector, and Salesforce Force.com connector on the Connect tab of the data manager.

## Sync Your Google BigQuery Standard SQL Data

Bring your large volumes of Google BigQuery data with standard SQL support into Analytics using the new Google BigQuery Standard SQL connector. This connector supports standard SQL, the newest BigQuery standard, which provides improved composability using WITH clauses and SQL functions, correlated subqueries, and more. If you're using legacy SQL, use the Google BigQuery connector.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Create connections with the new Google BigQuery Standard SQL connector on the Connect tab of the data manager.

## Sync Marketing Cloud Data with OAuth 2.0 Authentication

Sync contacts data from Marketing Cloud to Analytics with a tenant-specific endpoint and OAuth 2.0 authentication using the new Salesforce Marketing Cloud Contacts OAuth 2.0 Connector. If your Marketing Cloud package app was created using a legacy endpoint or without OAuth 2.0 authentication, use the Salesforce Marketing Cloud Contacts connector instead of this one.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Create connections with the Salesforce Marketing Cloud Contacts OAuth 2.0 Connector on the Connect tab of the data manager.

SEE ALSO:

[Salesforce Help: Salesforce Marketing Cloud Contacts OAuth 2.0 Connection](#)

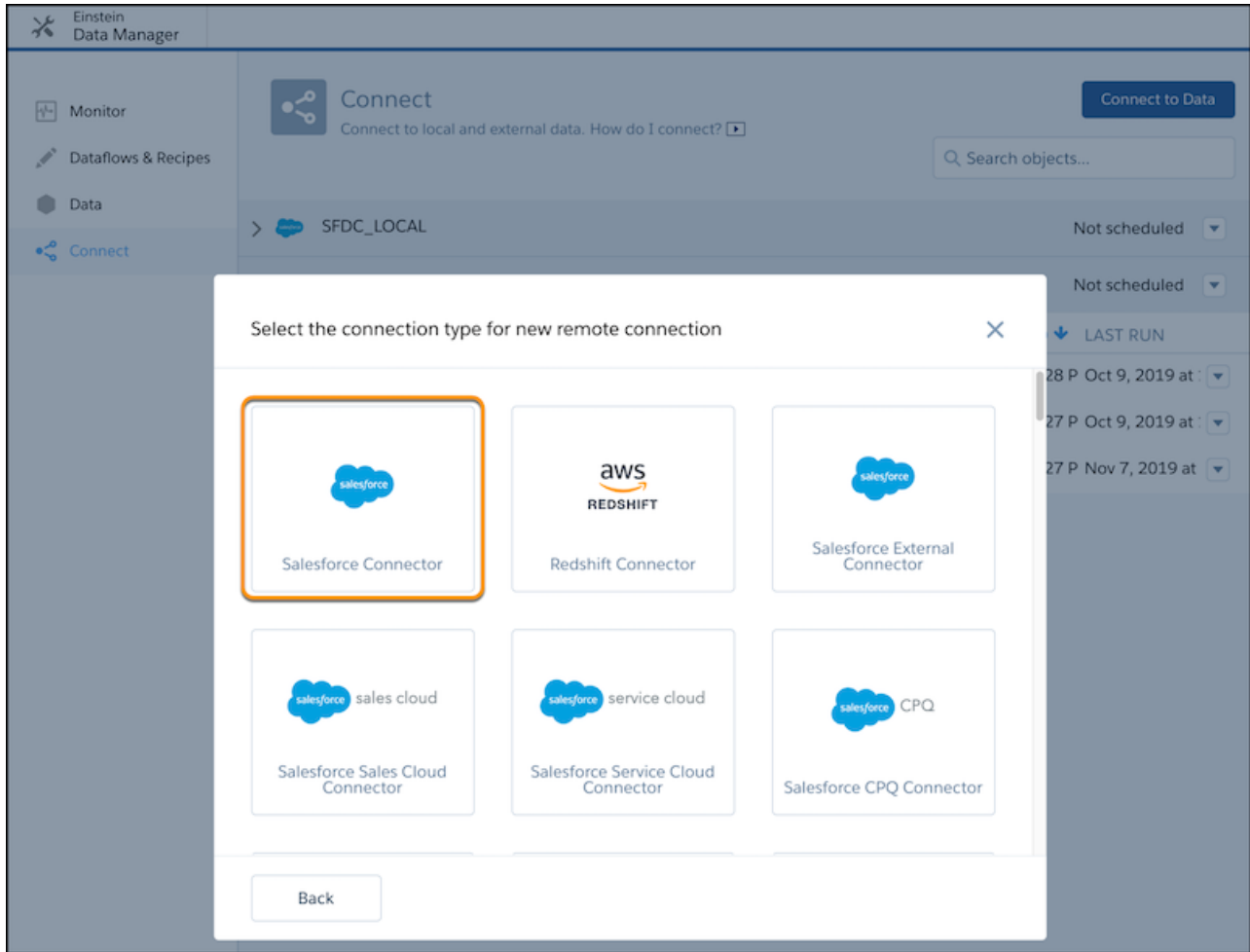
## Schedule Data Sync for Your Local Objects with More Granularity

Strategically manage when your Salesforce data syncs to Einstein Analytics using up to 10 individually scheduled local connections.

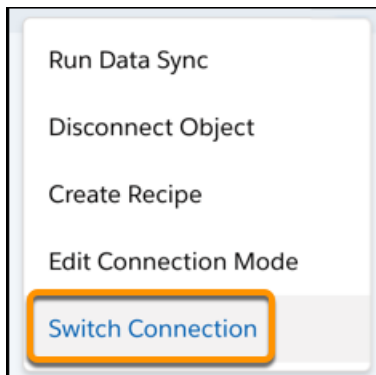
**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Why:** Data sync can be scheduled to run up to every 15 minutes, but an SFDC\_Local connection with many large objects may not finish in time. Previously, you could only choose a less frequent sync. Now you control the data sync scheduling strategy to accomplish your analytics goals with multiple local connections and sync schedules. You can move an object with regularly updated, strategic data to its own connection for a more frequent data sync that runs faster. Or, you can move an object that only updates weekly to its own connection with weekly scheduled data sync to speed up the sync of all other local objects.

**How:** Create SFDC\_Local connections on the Connect tab of the data manager with the Salesforce Connector option.



Add objects not already assigned to the connection during connector setup. Move objects between local connections by clicking the down arrow next to the object and choosing **Switch Connection**. This option is available after you've created another local connection.



Set each local connection's data sync schedule.

SEE ALSO:

[Salesforce Help: Salesforce Local Connector \(can be outdated or unavailable during release preview\)](#)



## Filter Data Synced from External Connections


To speed up data sync and only pull the data you need, you can now use data sync filters with connected objects from select remote connectors. Previously, you imported all data from a remote object and used a dataflow or recipe filter to limit the external data in a dataset. Now, you can exclude unnecessary or sensitive data from syncing to Analytics in the first place.

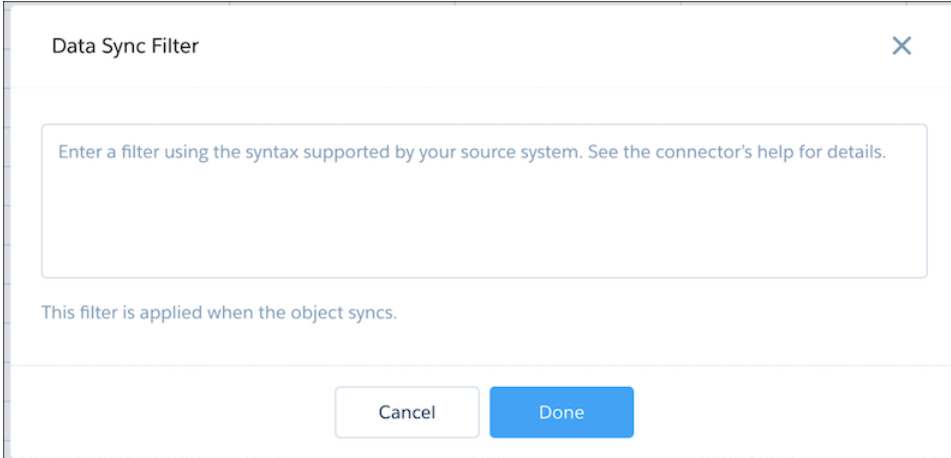
**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**When:** Filter support is added on a rolling basis in the Spring '20 release.

**How:** Use data sync filters with these connectors.

- Salesforce External
- Amazon RDS
- Amazon Redshift
- Google BigQuery
- Heroku Postgres
- Microsoft Azure SQL Data Warehouse
- Microsoft Azure SQL Database
- Snowflake Computing

Click  from the Preview Source Data page when adding or modifying a connected remote object. Enter a filter using the connected data source's syntax described in the remote connector's help.



The screenshot shows a modal dialog titled "Data Sync Filter". At the top right is a close button (X). The main area contains a text input field with the placeholder text: "Enter a filter using the syntax supported by your source system. See the connector's help for details." Below the input field, there is a note: "This filter is applied when the object syncs." At the bottom of the dialog, there are two buttons: "Cancel" and "Done".

## New Limits for Microsoft Azure SQL Database and Netsuite Connectors

The connectors to Microsoft Azure SQL Database and Netsuite data sources have updated limits. The Microsoft Azure SQL Database can now sync up to 100 million rows or 50 GB per object, whichever limit it reaches first. The Netsuite connector can now sync up to 100,000 rows or 500 MB per object, whichever limit is first.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

## New Connector Sync Limits for FIPS 140-2 Validated Encryption Orgs

When using Einstein Analytics remote connectors, Salesforce Government Cloud org data is protected in transit with FIPS 140-2 validated encryption. Due to the enhanced encryption, connectors used in Salesforce Government cloud orgs can sync up to 10 million rows or 5 GB for each connected object, whichever limit is reached first. The exception is the Netsuite connector, which can sync up to 100,000 rows or 500 MB per object, whichever limit is reached first.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

## Provide Dataset Row-Level Access to More Users Automatically

Sharing Inheritance can now apply your Salesforce object row-level security settings to Analytics datasets in more situations thanks to higher limits and increased object coverage. Higher limits and wider coverage means that more users will benefit from inheriting Salesforce sharing settings and fewer one-off security predicates to create and manage. Sharing inheritance now applies to a user if their record access is granted by fewer than 3,000 shares from groups or users. You can now apply sharing inheritance from the Opportunity, Account, Case, Lead, and Contact object if the object has fewer than 400 sharing definitions.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Use the Sharing Inheritance Coverage tool in Setup to evaluate your objects and users coverage with the new limits.

SEE ALSO:

[Salesforce Help: Salesforce Sharing Inheritance for Datasets](#)

## Save More Dataflows

Strategically manage your dataset generation in Analytics with a greater number of dataflows. You can now save up to 100 dataflows, increased from 30 (that's a factor of 3.333 for numbers fans). This increase frees you to split large dataflows to run more quickly, or to separate dataflows by business requirement to schedule the dataflow when the data will be consumed.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

## Prepare for Automated Schedule Removals in Sandbox and Developer Edition Orgs

Automatic schedule removal will speed up the remaining data sync, dataflow, and recipe jobs across all Salesforce customers. Your sandbox and developer edition orgs will now have their schedules for data sync, dataflow, and recipes removed 90 days after the last save. If you're actively developing, your schedules won't be removed. Set the schedule again anytime for further testing, training, or the joy of scheduling. All users subscribed to a data sync, dataflow, or recipe notifications will receive an email notifying them when a schedule is removed.

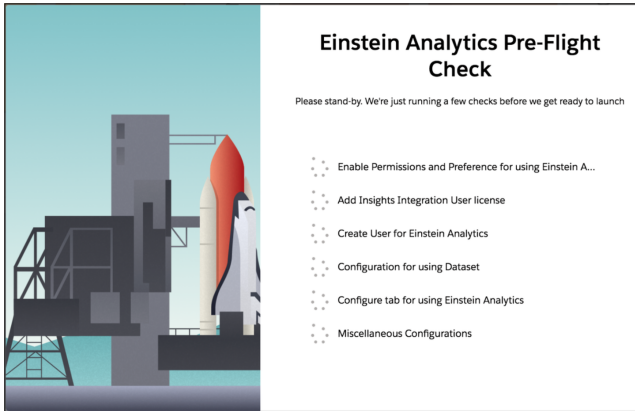
**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

## With Pre-Flight Check, Stay Updated as You Enable Einstein Analytics

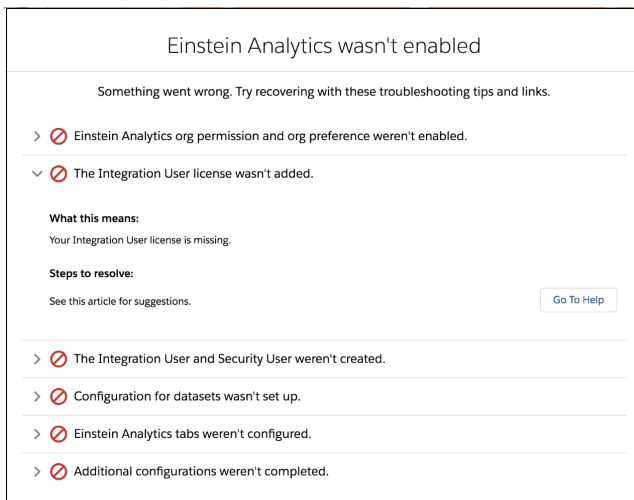
With the new pre-flight check and other informative windows, we added education into the first admin task—enabling Einstein Analytics. The pre-flight check shows you the enablement processes and helps you understand what's happening. If enablement is successful, you get confirmation, and if not, you get on-screen help to fix things and try again. Either way, you have more insight into how Einstein Analytics works within your org.

**Where:** This change applies to Einstein Analytics in Lightning Experience. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** On the Setup > Analytics > Getting Started page, click **Enable Einstein Analytics**. The pre-flight check appears and keeps you informed about background processes and configurations. Taking note here could come in handy when setting up other features in the future.



Within a few minutes, most admins get the success message. If things go wrong, a detailed error message provides troubleshooting tips designed to help you to recover.



## Use Current or New Amazon SSL/TLS Certificates from Connected RDS and Aurora Systems

Your remote connections that use any of the Einstein Analytics Amazon RDS connectors automatically support the updated Amazon SSL/TLS certificates. After your Amazon database administrator updates its SSL/TLS certificates, your Einstein Analytics connections and data sync continue as usual in Salesforce.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

SEE ALSO:

[Salesforce Help: Einstein Analytics Amazon RDS Remote Connectors](#)

[AWS Database Blog: Amazon RDS customers: Update your SSL/TLS certificates by February 5, 2020](#)

## Analytics Prebuilt Apps: Analytics Design, Analytics for Consumer Goods, Easier-to-Create Adoption Analytics App, Accuracy Analytics

Build your own beautiful apps with the Analytics Design app. Improve retail business results with Consumer Goods app. Also, create the Adoption Analytics app with just a few clicks, and improve the reliability of Einstein Discovery stories with Accuracy Analytics.

IN THIS SECTION:

[Build Your Own Beautiful Analytics Apps Fast with the Design Analytics Template](#)

The Design Analytics template gives you a starting point for your own Analytics app design and development. Use the template to create an app with ready-made dashboard, chart, and widget templates that follow the internal Salesforce design guidelines. Brand the app with your own color, then apply the designs to your own data to get started fast with your own app.

[Accelerate Retail Business Results with Einstein Analytics for Consumer Goods](#)

The Analytics for Consumer Goods app gives decision makers insight into Salesforce Consumer Goods Cloud data. Use the app to increase sales, improve store compliance, identify stores at risk, and maximize sales rep effectiveness.

[Get Instant Insights into Survey Data with Einstein Analytics for Salesforce Surveys](#)

Surface survey response metrics anywhere in Salesforce with the Salesforce Surveys app to get insight into your customers right from where you work.

[Create the Latest Version of the Einstein Adoption Analytics App Without Installing a Managed Package](#)

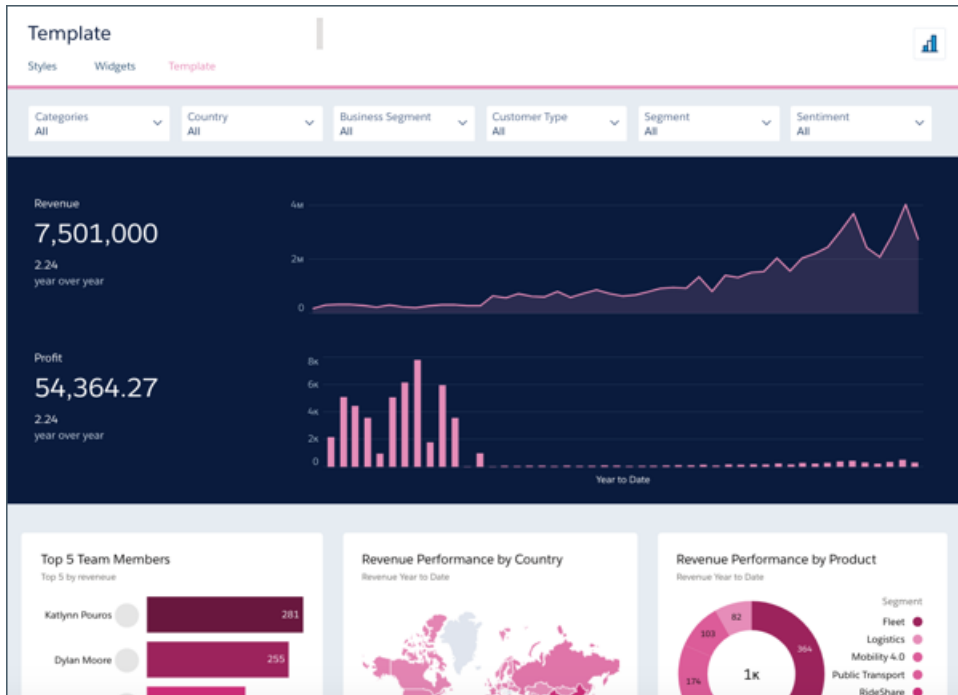
Create an app with the latest version of Adoption Analytics in just a few clicks. Follow the standard Analytics app creation process to give your team an app that measures how your team uses Analytics apps, dashboards, lenses, and datasets. No more downloading and configuring a managed package to extract Analytics asset metadata.

[Improve the Reliability of Einstein Discovery Predictions with the Accuracy Analytics Template](#)

Looking for a quick way to fine-tune insights from Einstein Discovery? Use the Einstein Accuracy Analytics template to analyze and improve the accuracy of predictions from Einstein Discovery stories.

### Build Your Own Beautiful Analytics Apps Fast with the Design Analytics Template

The Design Analytics template gives you a starting point for your own Analytics app design and development. Use the template to create an app with ready-made dashboard, chart, and widget templates that follow the internal Salesforce design guidelines. Brand the app with your own color, then apply the designs to your own data to get started fast with your own app.



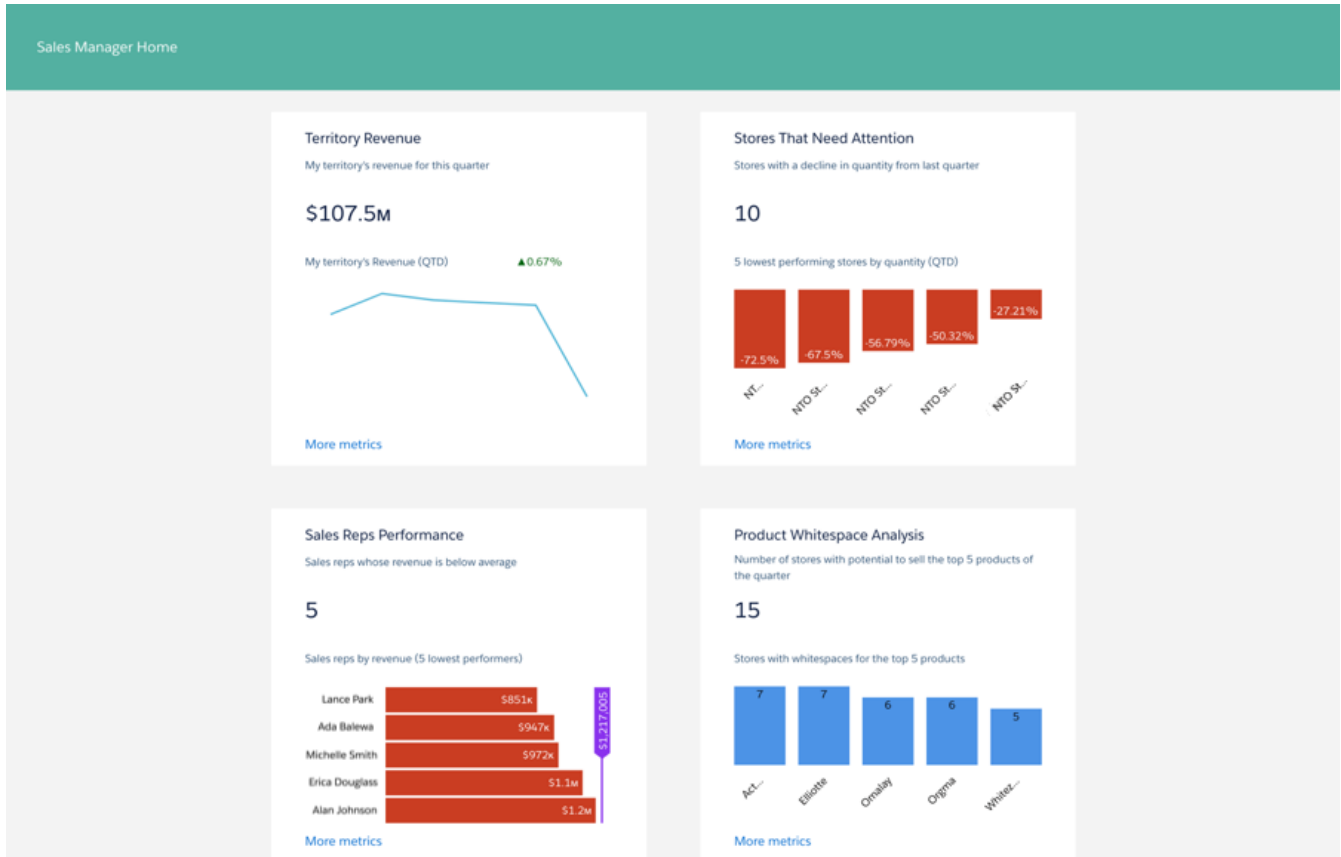
**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Who:** To create an app from the Design Analytics template, you must have an Einstein Analytics Plus license.

**How:** In Analytics Studio, click **Create**, select **App**, and click **Start from Template**. Select the Design Analytics template. The wizard guides you the rest of the way.

## Accelerate Retail Business Results with Einstein Analytics for Consumer Goods

The Analytics for Consumer Goods app gives decision makers insight into Salesforce Consumer Goods Cloud data. Use the app to increase sales, improve store compliance, identify stores at risk, and maximize sales rep effectiveness.



**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Professional, Performance, and Unlimited editions where Consumer Goods Cloud is enabled.

SEE ALSO:

[Accelerate Business Performance with Einstein Analytics for Consumer Goods](#)

## Get Instant Insights into Survey Data with Einstein Analytics for Salesforce Surveys

Surface survey response metrics anywhere in Salesforce with the Salesforce Surveys app to get insight into your customers right from where you work.

**Where:** This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

SEE ALSO:

[Turn Customer Survey Data into Actionable Intelligence with Customer Lifecycle Analytics](#)

## Create the Latest Version of the Einstein Adoption Analytics App Without Installing a Managed Package

Create an app with the latest version of Adoption Analytics in just a few clicks. Follow the standard Analytics app creation process to give your team an app that measures how your team uses Analytics apps, dashboards, lenses, and datasets. No more downloading and configuring a managed package to extract Analytics asset metadata.

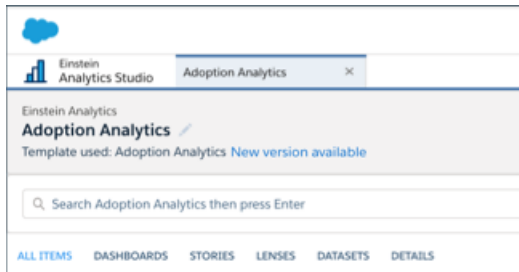
**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Who:** To create an app from the Analytics Adoption template, you must have an Einstein Analytics Growth or Einstein Analytics Plus license.

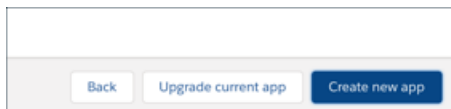
**Why:** The Analytics Adoption app gives you ready-made insights that show how each member of your team uses Analytics assets—apps, dashboards, and lenses. The app also shows how Analytics assets use datasets by mapping apps, dashboards, and lenses to the datasets where they get data.

**How:** In Analytics Studio, click **Create**, select **App**, and click **Start from Template**. If you're creating the app for the first time, select the Adoption Analytics template. The wizard guides you the rest of the way.

If you've already created the app, click the **New version available** link in the app's home page and follow the wizard's instructions.



On the third page of the wizard, choose between upgrading the current app or creating a new app.



If you choose **Upgrade current app**, Analytics retains the historical log data in the WaveChangeEA dataset that you use to track Analytics adoption. Choose **Create new app** to have Analytics retain the current app as is and create a new one based on the new version. The new app collects log data starting when you create it and updates it based on future asset use.

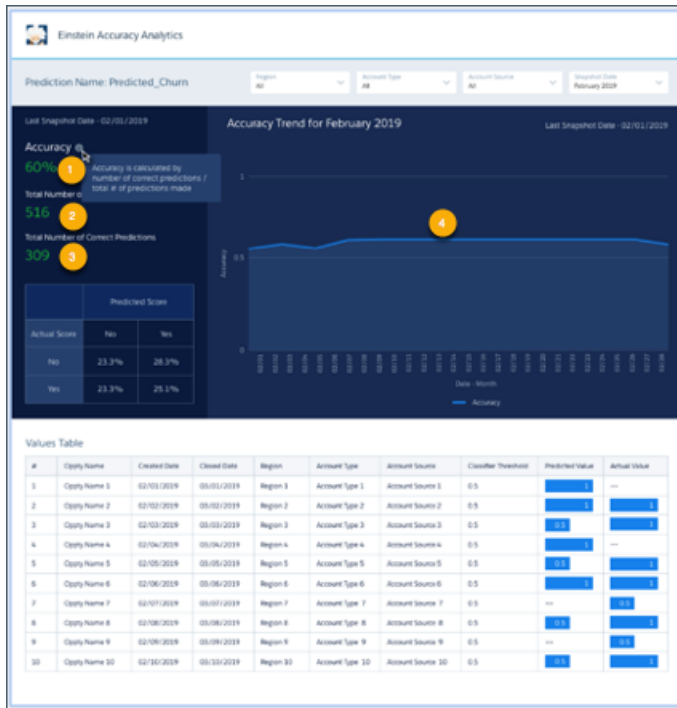
## Improve the Reliability of Einstein Discovery Predictions with the Accuracy Analytics Template

Looking for a quick way to fine-tune insights from Einstein Discovery? Use the Einstein Accuracy Analytics template to analyze and improve the accuracy of predictions from Einstein Discovery stories.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Who:** To create an app from the Einstein Accuracy Analytics template, you must have an Einstein Analytics Plus license.

**How:** In Analytics Studio, go to the **Model Manager**, select the model you'd like to analyze, and click the **Analyze Accuracy** button. Follow the on-screen instructions, then open the dashboard, which assesses the accuracy of the model's previous predictions. It shows the accuracy score (1)—the number of correct predictions (3) divided by the total predictions. You can also view accuracy over time in the trend chart (4).



## Analytics App Building: Direct Data Querying, Dashboard Publisher Collaboration, Connectors and Multiple Dataflows in Templates

Query live Salesforce data directly in Einstein Analytics with Direct Data. The publisher feature lets your team collaborate on dashboards before you share them with business users. Analytics Templates Framework adds support for connectors and multiple dataflows, and the framework's JSON transformation engine transforms any JSON from Lightning Experience.

### IN THIS SECTION:

#### [With Direct Data, Explore Salesforce Data Without Datasets](#)

Query live Salesforce data directly in Einstein Analytics with Direct Data. You're no longer required to set up data sync or complete any data prep in order to explore Salesforce data. Direct Data queries are especially useful when data changes often or scheduled dataflows aren't frequent enough. With Direct Data, you can query Salesforce objects in the dashboard designer's explorer and edit Salesforce Object Query Language (SOQL) queries in the query editor.

#### [Explore Multiple Datasets with a Single Query \(Beta\)](#)

Answers to business questions sometimes require context beyond the current dataset. Your dataset structure might not match the way you want to explore your data. Or you might be in the middle of an exploration and realize you need extra data that's not in the current dataset. Not to worry! With data blending, there's no need to go back into data prep and create joined datasets. Now you can blend data from multiple datasets in the explorer and query the blended data just as you would a single dataset.

#### [Easily Identify Fields in Measure and Group Selectors](#)

Select the field you want more easily now that measure and group selectors show both field labels and field names. When building visualizations in the explorer, having both identifiers means you no longer have to guess whether you're selecting the right field.



### [Bindings Are Now Called Interactions](#)

Interactions, previously called bindings, enable different components in a dashboard to interact. You create interactions between queries to customize your dashboards. We changed the name based on customer feedback, but your processes and workflows haven't changed.

### [Creating Interactions Just Got Easier with the Advanced Interaction Editor](#)

Interactions, previously called bindings, power many parts of Einstein Analytics dashboards. The new Advanced Interaction Editor helps you create interactions for widgets and queries without leaving the dashboard designer. Use clicks instead of code to create multiple interactions for the same widget or query, preview the results, and insert the interactions all from the new editor.

### [Create Dynamic Reference Lines in Charts Without Code](#)

Dynamic reference lines can now be created in the chart widget properties panel, saving builders clicks and reducing time spent in the code. Reference lines add context and help users make sense of chart data. Previously, dynamic reference lines and labels could only be created with interactions (bindings) and code.

### [Specify Targeted Faceting Without Code](#)

With targeted faceting, dashboard designers can use an include or exclude list for faceting only certain queries, all with clicks in the dashboard designer. Faceting is the simplest and most common way to specify interactions between widgets. Previously, faceting was all or nothing and couldn't be configured with exceptions or other important customizations without using code.

### [Manage How Records Open from an Embedded Dashboard](#)

Want to easily navigate back to a dashboard after you open a record from the dropdown on a widget? Enable the **Open Salesforce records in new browser tabs** setting in Setup. That way, you keep your current dashboard open in its own browser tab when you open a record.

### [Add Any URL to Widget Custom Onboarding](#)

Now you can provide content from any website in customized dashboard widget onboarding for your users. Add the Learn option to any chart or table in your dashboard, and when users select it, they see the onboarding frame holding your specialized instructional resource. Within the onboarding frame, users can play your video or navigate to links within your webpage. For embedded dashboards, the draggable, resizable frame now floats anywhere over the Salesforce page and is no longer restricted to the area of the dashboard.

### [Check Out the Refreshed Einstein Analytics Record Actions](#)

Record actions from your Einstein Analytics assets now have a Lightning Experience look and feel. All previously supported record actions still work, including Visualforce actions. Newly supported record actions include Flow and Lightning Actions. By using Lightning Experience styling, users get a more visually appealing and consistent experience across all of Salesforce.

### [Display Grand Totals and Subtotals in Tables](#)

You can add totals and subtotals directly to values and compare tables in dashboards and lenses. Previously, you had to add columns to a table and run these calculations yourself. Now you can add or remove grand totals and subtotals with just a few clicks. Window functions only support totals, not subtotals. In Spring '20, the feature is enabled by default for all new and existing orgs.

### [Customize Number Formatting in Lenses and Dashboards](#)

In addition to the preset formatting options already available, you can now create custom number formats by choosing symbols for the decimal and thousands separator in the number format panel. Select a predefined number format and edit it from there, or enter your own custom string to get started.

### [Streamlined Number Behavior in Charts and Widgets](#)

Previously, number formatting behaved differently in charts, tables, and number widgets. Users now have a consistent number experience no matter where they work with numbers in Einstein Analytics. Highlights include the ability to specify custom negative and custom 0 formats.

### [Packaging and Changesets Include User Extended Metadata \(XMD\)](#)

Extended metadata (XMD) enables you to customize the formatting, default behaviors, and actionability of dataset fields and their values in Analytics dashboards and lenses. We simplified the process of moving your master user XMD between orgs. Now every time you edit your user XMD, we automatically update the master user XMD to match.

### [Meet Compact Form 2.0 \(Beta\)](#)

Get acquainted with the new version of compact form, the representation of queries within JSON, built for handling multiple datasets and queries against any type of data. Although it's phasing in over the next few releases, you can see it now if you view the JSON of a dashboard that has data-blended queries.

### [Gain Insights on Data Directly in Snowflake \(Beta\)](#)

Run explorations on your data in Snowflake warehouse without having to load data into Salesforce or preparing it in datasets. After you set up a live connection to Snowflake, you can run queries on the Snowflake schema associated with the connection in real time. You can even build dashboard charts and tables based on the queries you run on Snowflake data.

### [Collaborate on a New Version of a Dashboard Behind the Scenes with Publisher Feature \(Generally Available\)](#)

With the publisher feature you can review, test, and edit a draft version of a dashboard while keeping the current version live. Analytics Studio users continue to see the current live version until you're ready to publish a new one.

### [Fine-Tune Control Over Data Integration with Multiple Dataflows in an Analytics Template](#)

Einstein Analytics can now process multiple dataflows when creating an app from a template. Template users get more precise control over the data that populates app datasets and dashboards.

### [Import Data from Multiple Sources to Apps by Adding Connectors to Analytics Templates](#)

Adding Analytics connectors to Analytics templates lets you import data from external sources to an app when you create it.

### [Transform Your JSON Content Anywhere in Lightning Experience](#)

Use the Analytics Template Framework JSON transformation engine directly in Lightning Experience in your preferred development environment. Using Lightning Components, the engine takes input from a JSON document and applies values and rules you define to transform the JSON document.

### [React to Asset Loaded with Analytics Web SDK](#)

Listen for Analytics assets to finish loading on the first load and on subsequent resets, then react using the new `wave:assetLoaded` Web SDK event.

### [Get Familiar with JSON Changes for Dashboard Designer](#)

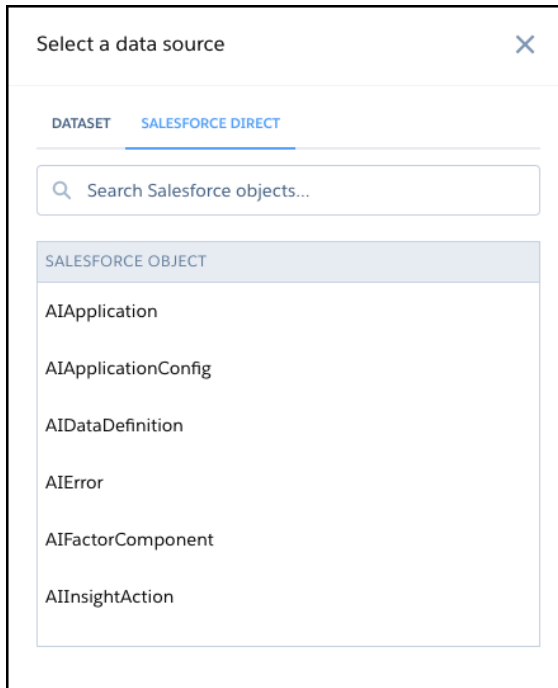
You can control whether a query listens for broadcasted facets. Best of all, it's no longer all or nothing. Now you can use an include or exclude list in the receiving query to facet only certain queries.

## With Direct Data, Explore Salesforce Data Without Datasets

Query live Salesforce data directly in Einstein Analytics with Direct Data. You're no longer required to set up data sync or complete any data prep in order to explore Salesforce data. Direct Data queries are especially useful when data changes often or scheduled dataflows aren't frequent enough. With Direct Data, you can query Salesforce objects in the dashboard designer's explorer and edit Salesforce Object Query Language (SOQL) queries in the query editor.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** In the dashboard designer, click **Create Query**, and then select the Salesforce Direct tab. Select an object and the dashboard designer's explorer opens with the object's data ready to explore and visualize.



For best performance, use filters to limit the data that's queried. For example, rather than querying all cases opened, query only cases opened within a defined period of time. Queries on Salesforce objects with a large number of records could increase query time.

 **Note:** Direct Data widgets aren't automatically refreshed but are updated when the dashboard is refreshed.

SEE ALSO:

[Salesforce Help: Tips for Working with Direct Data Queries \(can be outdated or unavailable during release preview\)](#)

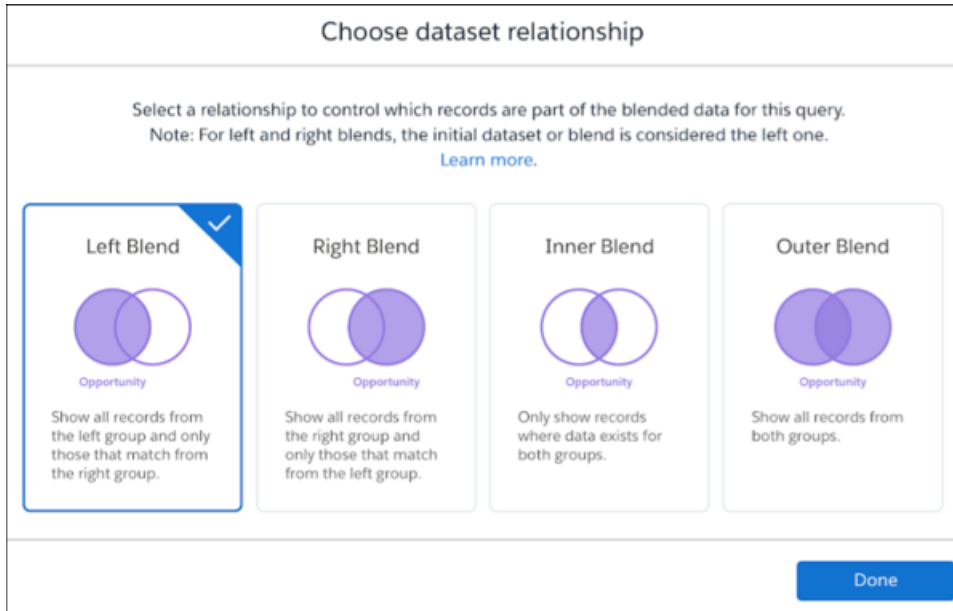
## Explore Multiple Datasets with a Single Query (Beta)

Answers to business questions sometimes require context beyond the current dataset. Your dataset structure might not match the way you want to explore your data. Or you might be in the middle of an exploration and realize you need extra data that's not in the current dataset. Not to worry! With data blending, there's no need to go back into data prep and create joined datasets. Now you can blend data from multiple datasets in the explorer and query the blended data just as you would a single dataset.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

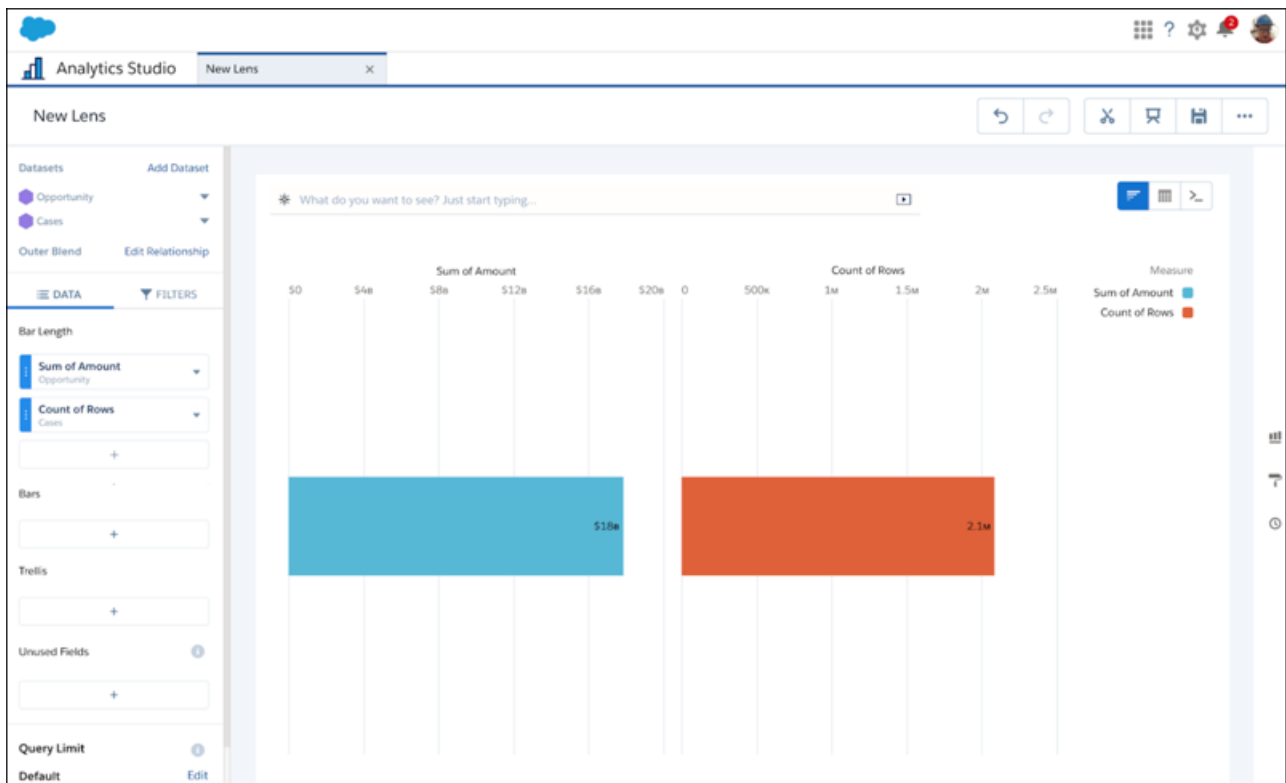
As a beta feature, Data Blending is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for the feature in the [Trailblazer Community](#).

**How:** Enable data blending on the Settings page for Analytics in Setup. From the Einstein Analytics explorer, add up to 4 datasets. Choose left, right, inner, or outer blend.



For side-by-side comparisons, select the field to group by from each dataset. When defining groups, measures, and filters, select fields from any of the blended datasets.

This image shows how the blending of an Opportunity dataset and a Cases dataset allows you to illustrate the relationship between total sales for each account and total number of support tickets.

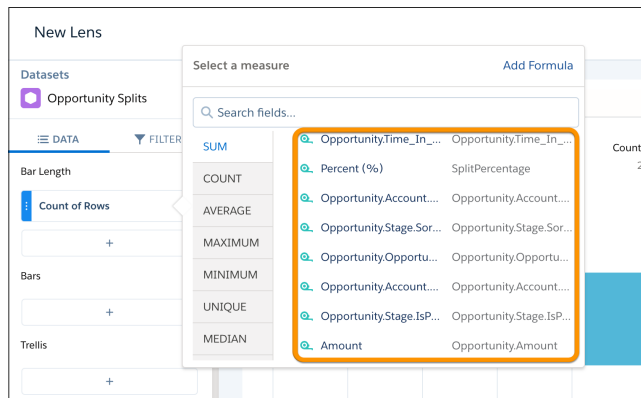


## Easily Identify Fields in Measure and Group Selectors

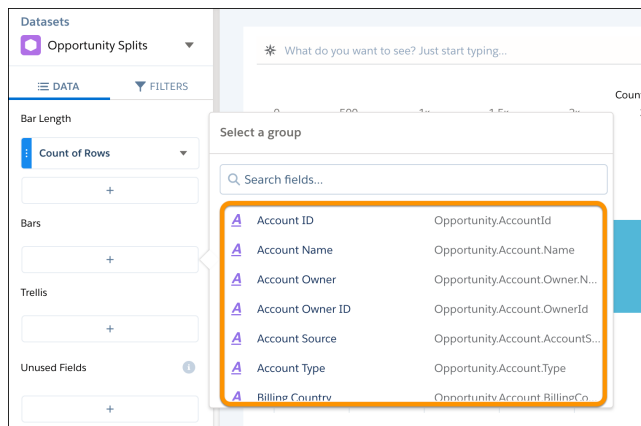
Select the field you want more easily now that measure and group selectors show both field labels and field names. When building visualizations in the explorer, having both identifiers means you no longer have to guess whether you're selecting the right field.

**Where:** These changes apply to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Click to add or change a measure or group. In the list, you see two columns.



With field labels on the left and field names on the right, you can be sure that you select the correct measure or group.



## Bindings Are Now Called Interactions

Interactions, previously called bindings, enable different components in a dashboard to interact. You create interactions between queries to customize your dashboards. We changed the name based on customer feedback, but your processes and workflows haven't changed.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** We're updating our documentation and the Einstein Analytics product to reflect this change.

SEE ALSO:


[Analytics Bindings Developer Guide](#)

## Creating Interactions Just Got Easier with the Advanced Interaction Editor

Interactions, previously called bindings, power many parts of Einstein Analytics dashboards. The new Advanced Interaction Editor helps you create interactions for widgets and queries without leaving the dashboard designer. Use clicks instead of code to create multiple interactions for the same widget or query, preview the results, and insert the interactions all from the new editor.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Click **Advanced Editor** in the widget or query panel to get started. Select a query (1), source data (2), and interaction type (3). The Advanced Interaction Editor generates a preview of your interaction (4) and the result (5). To add your interaction to the SAQL or JSON, copy (6) and paste it (7). Click **Save** to add the interaction to your dashboard.

**Note:** Use the  button to edit your interaction manually. When you edit your interaction this way, you can't return to the original editor without resetting the entire Advanced Interaction Builder. Any interaction you've already created is removed once you reset.


SEE ALSO:

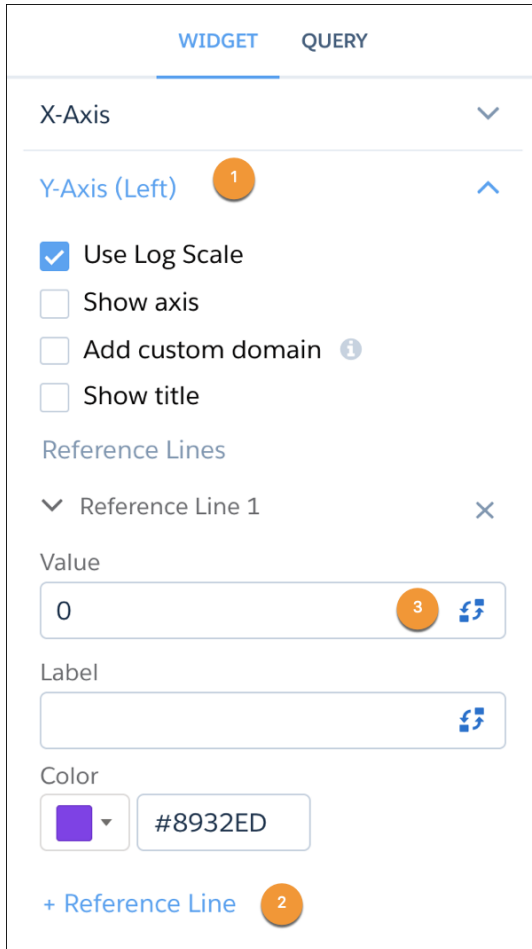
[Analytics Bindings Developer Guide](#)

## Create Dynamic Reference Lines in Charts Without Code


Dynamic reference lines can now be created in the chart widget properties panel, saving builders clicks and reducing time spent in the code. Reference lines add context and help users make sense of chart data. Previously, dynamic reference lines and labels could only be created with interactions (bindings) and code.


**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** In the X-Axis and Y-Axis section of the chart widget panel (1), click **+Reference Line** (2). To create a static reference line, type the desired value and label. For a dynamic reference line, click  (3) and then select a source query, value, and interaction type to power your dynamic reference line. You can create multiple static or dynamic reference lines for each chart.



The screenshot shows the 'WIDGET' configuration panel for a chart. The 'Y-Axis (Left)' section is expanded, showing options for 'Use Log Scale' (checked), 'Show axis', 'Add custom domain', and 'Show title'. Below this is the 'Reference Lines' section, which contains a single 'Reference Line 1' entry. This entry has a 'Value' field set to '0' and a 'Label' field. A '+ Reference Line' button is visible at the bottom of the panel. Numbered callouts 1, 2, and 3 highlight the Y-Axis section, the '+ Reference Line' button, and the dynamic reference line icon in the Value field, respectively.

 **Note:** Dynamic reference lines created with interactions (bindings) before Spring '20 are still supported, but can only be edited in the code.

 **Note:** Although dynamic reference lines can be added in lenses, they are only visible in dashboards.

#### SEE ALSO:

[Salesforce Help: Add Multiple Reference Lines to Charts \(can be outdated or unavailable during release preview\)](#)

[Analytics Bindings Developer Guide: Dynamically Set the Reference Line and Label](#)

[Analytics Bindings Developer Guide: Selection Binding](#)

[Analytics Bindings Developer Guide: Result Binding](#)

## Specify Targeted Faceting Without Code


With targeted faceting, dashboard designers can use an include or exclude list for faceting only certain queries, all with clicks in the dashboard designer. Faceting is the simplest and most common way to specify interactions between widgets. Previously, faceting was all or nothing and couldn't be configured with exceptions or other important customizations without using code.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Why:** Dashboards are highly customized, and applying faceting to every query doesn't always make sense based on the goal of the dashboard and its audience.

For a dashboard that tracks sales performance for a team, being able to filter on the individual sales rep is useful for reps and sales managers. Previously using faceting, every part of the dashboard would be filtered. Now you can keep the total open pipeline for the team static while filtering all other metrics on a specific rep using targeted faceting.

**How:** In the query panel, select All, Include, Exclude, or None. For Include, faceting applies to only the selected queries. For Exclude, faceting applies to all queries except those selected. The queries for both options are listed in the query panel.

 **Note:** If you select All in the query panel, external filters are applied to the query. For any other selection, queries do not receive external filters. Global filters are not external filters.

SEE ALSO:

[Salesforce Help: Filter the Dashboard Results with Faceting \(can be outdated or unavailable during release preview\)](#)


## Manage How Records Open from an Embedded Dashboard

Want to easily navigate back to a dashboard after you open a record from the dropdown on a widget? Enable the **Open Salesforce records in new browser tabs** setting in Setup. That way, you keep your current dashboard open in its own browser tab when you open a record.

**Where:** This change applies to Einstein Analytics in Lightning Experience. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** By default, the **Open Salesforce records in new browser tabs** setting isn't enabled and records open in Lightning tabs. When you click the tab with your dashboard again, the page refreshes. So if you applied filters on the dashboard, they're removed.

To override the default, select **Open Salesforce records in new browser tabs** on the Settings page for Analytics in Setup.

 **Note:** This setting applies to record actions for dashboards in the Analytics tab and dashboards embedded in Salesforce pages. The setting doesn't apply to dashboard links or widget explore actions, which are set when embedding the dashboard component.

SEE ALSO:

[Salesforce Help: Perform Actions on a Salesforce Record from Analytics \(can be outdated or unavailable during release preview\)](#)

## Add Any URL to Widget Custom Onboarding

Now you can provide content from any website in customized dashboard widget onboarding for your users. Add the Learn option to any chart or table in your dashboard, and when users select it, they see the onboarding frame holding your specialized instructional resource. Within the onboarding frame, users can play your video or navigate to links within your webpage. For embedded dashboards, the draggable, resizable frame now floats anywhere over the Salesforce page and is no longer restricted to the area of the dashboard.

**Where:** These changes apply to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.



**How:** In the dashboard designer, in the updated Onboarding section, enter a title for the onboarding frame and any valid URL. To see what your users will experience, click **Preview your content**.

**Onboarding** ^

How do I link to an onboarding resource? ▶

Resource Title

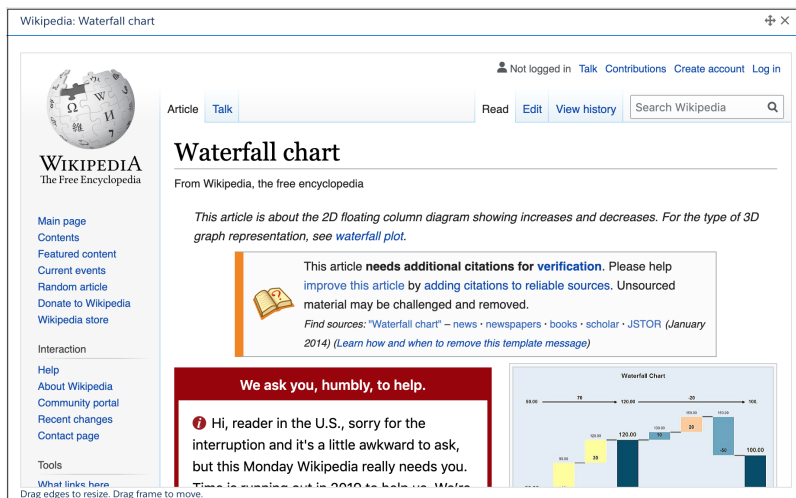
Wikipedia: Waterfall chart

Resource URL ?

https://en.wikipedia.org/wiki/water

Preview your content ▶

Your webpage or video appears in an onboarding frame with your title. The floating onboarding frame keeps your content on top of the current window where it can easily be consulted.



SEE ALSO:

[Salesforce Help: Customize Onboarding with In-Dashboard Instructional Content](#) (can be outdated or unavailable during release preview)

## Check Out the Refreshed Einstein Analytics Record Actions

Record actions from your Einstein Analytics assets now have a Lightning Experience look and feel. All previously supported record actions still work, including Visualforce actions. Newly supported record actions include Flow and Lightning Actions. By using Lightning Experience styling, users get a more visually appealing and consistent experience across all of Salesforce.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.


SEE ALSO:


[Salesforce Help: Perform Actions on a Salesforce Record from Analytics \(can be outdated or unavailable during release preview\)](#)

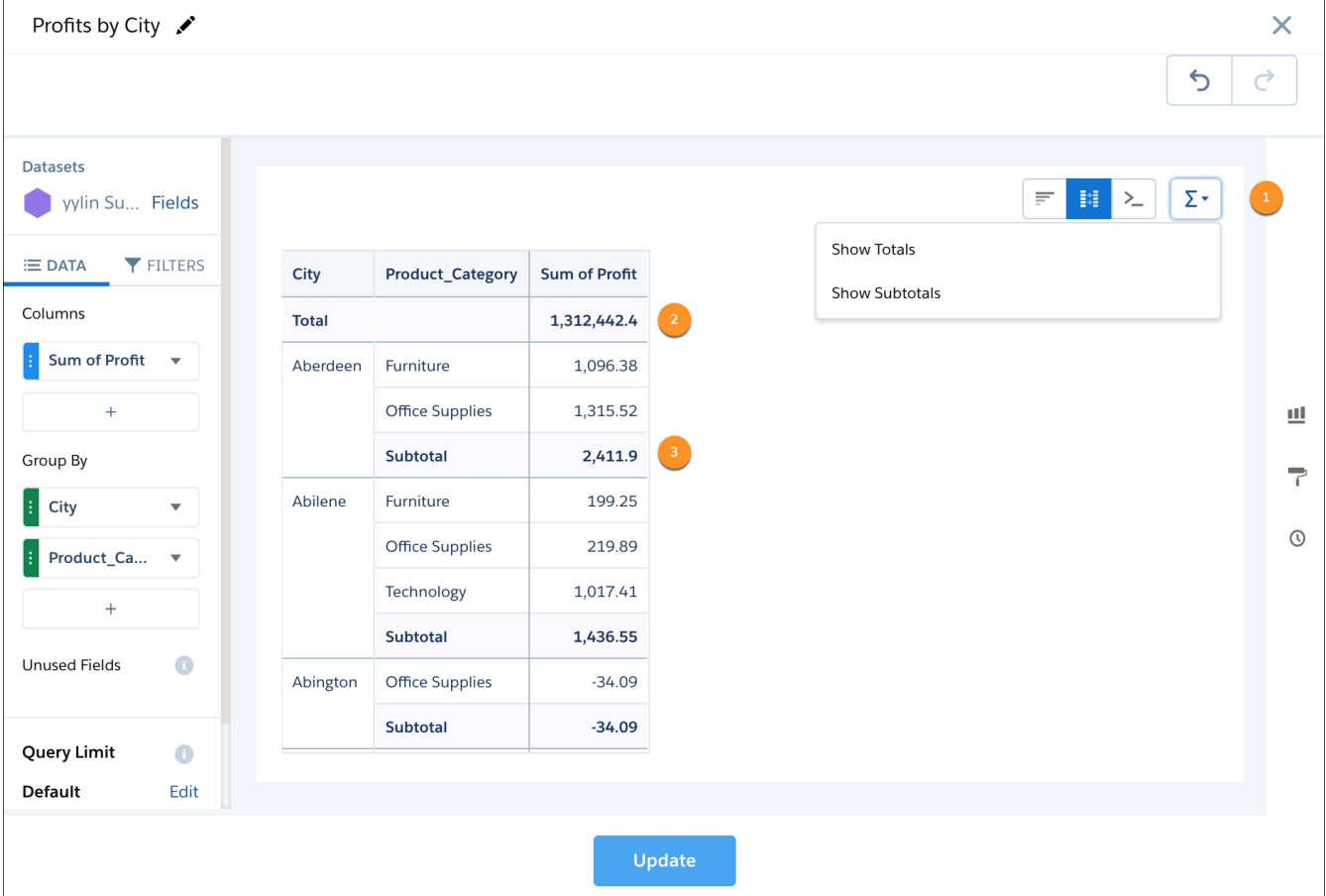
## Display Grand Totals and Subtotals in Tables

You can add totals and subtotals directly to values and compare tables in dashboards and lenses. Previously, you had to add columns to a table and run these calculations yourself. Now you can add or remove grand totals and subtotals with just a few clicks. Window functions only support totals, not subtotals. In Spring '20, the feature is enabled by default for all new and existing orgs.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Click  to add or hide totals and subtotals in the table editor (1). Totals are added as a row at the top of the table (2), and subtotals are added as a row directly below each grouping (3). For subtotals, your dataset requires at least two groupings. Totals and subtotals rows are half the opacity of the header color and can't be changed.

 **Note:** Measures and groups can't be sorted when subtotals are displayed.




The screenshot shows the Einstein Analytics interface for a dashboard titled "Profits by City". The interface includes a left sidebar with "Datasets" (yilin Su... Fields), "DATA" and "FILTERS" tabs, "Columns" (Sum of Profit), "Group By" (City, Product\_Ca...), "Unused Fields", "Query Limit", and "Default" settings. The main area displays a table with the following data:

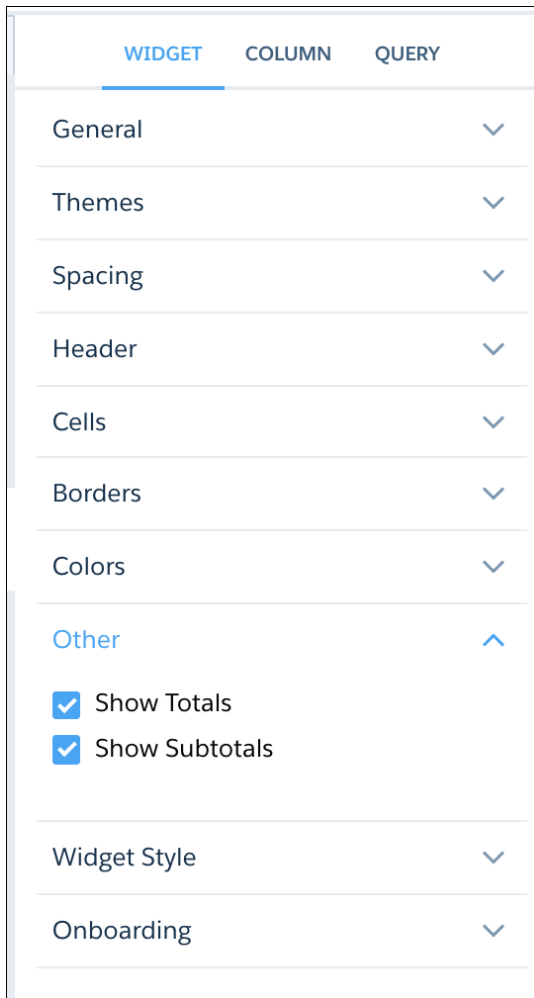
City	Product_Category	Sum of Profit
<b>Total</b>		<b>1,312,442.4</b>
Aberdeen	Furniture	1,096.38
	Office Supplies	1,315.52
	<b>Subtotal</b>	<b>2,411.9</b>
Abilene	Furniture	199.25
	Office Supplies	219.89
	Technology	1,017.41
	<b>Subtotal</b>	<b>1,436.55</b>
Abington	Office Supplies	-34.09
	<b>Subtotal</b>	<b>-34.09</b>

A dialog box titled "Show Totals" is open, with options for "Show Totals" and "Show Subtotals". The table editor interface includes a sigma icon (1) for toggling totals and subtotals, and a table editor toolbar (2) for adding and removing rows. The subtotals are highlighted with a blue circle (3).

Update

 **Note:** Groups can't be sorted when subtotals are displayed. Measures can only be sorted within groups (inner sorts) when subtotals are displayed.

You can also show or hide totals and subtotals in the widget properties panel.



SEE ALSO:

[Salesforce Help: Table Properties \(can be outdated or unavailable during release preview\)](#)

## Customize Number Formatting in Lenses and Dashboards

In addition to the preset formatting options already available, you can now create custom number formats by choosing symbols for the decimal and thousands separator in the number format panel. Select a predefined number format and edit it from there, or enter your own custom string to get started.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Why:** Although preset formats cover most use cases, this update lets you customize number formats for any use case and create highly personalized number views for your end users.

For example, some currencies use a €#.###,00 format, which wasn't available previously. Now creating this format can be done with just a few edits to the existing preset currency format.

**How:** The **Format** string always uses a comma (,) for the thousands separator and a period (.) for the decimal separator. Change the separator in the **Thousands** or **Decimal** string to override the separator in the **Format** string. CSV downloads ignore the specified separators and always use the default values of comma (,) for thousands and period (.) for decimal.

### Custom Number Format ✕

---

Format

Positive: €1.234,57      Negative: -€1.234,57

Multiplier:

Thousands  ⓘ:

Decimal  ⓘ:

Presets

\$#,###.00	\$1,234.57
#%	123457%
#,###.##%	123,456.78%
#,###K	1K
#,###.00;-#,###.00;0	1,234.57

SEE ALSO:

[Streamlined Number Behavior in Charts and Widgets](#)

[Salesforce Help: Format Numbers \(can be outdated or unavailable during release preview\)](#)

## Streamlined Number Behavior in Charts and Widgets

Previously, number formatting behaved differently in charts, tables, and number widgets. Users now have a consistent number experience no matter where they work with numbers in Einstein Analytics. Highlights include the ability to specify custom negative and custom 0 formats.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Why:** Previously, a format string like \$#.00 would return just 0 in some places. Now it returns \$0.00, no longer ignoring the format logic used in the rest of the chart or widget.

Previously, some extremely small numbers returned negative 0. Now the default behavior is to return 0 to make results simpler.

In some charts, short numbers like 1.0x would return 1x and drop the 0. For consistency with number widgets, all short numbers now return the 1.0x format.

**How:** When specifying a custom number format, use the following syntax

<POSITIVE\_FORMAT>;<NEGATIVE\_FORMAT>;<ZERO\_FORMAT>. Negative and zero formats are optional. Separate each format with a semicolon (;).

**Custom Number Format** [X]

Format

Positive: \$1,234.57      Negative: -\$1,234.57

Multiplier:       Thousands:       Decimal:

Presets

\$#,###.00	\$1,234.57
#%	123457%
#,###.##%	123,456.78%
#,###K	1K
#,###.00;-\$#,###.00;0	1,234.57

Cancel      Done

SEE ALSO:

[Customize Number Formatting in Lenses and Dashboards](#)

[Salesforce Help: Format Numbers](#) (can be outdated or unavailable during release preview)

## Packaging and Changesets Include User Extended Metadata (XMD)

Extended metadata (XMD) enables you to customize the formatting, default behaviors, and actionability of dataset fields and their values in Analytics dashboards and lenses. We simplified the process of moving your master user XMD between orgs. Now every time you edit your user XMD, we automatically update the master user XMD to match.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Why:** Updating your master user XMD file used to require an extra manual step. Now your user XMD files are always in sync, helping you move from Sandbox to Production faster.

**How:** For packaging, add your Analytics Dataset asset and the updated master user XMD file is added automatically. For changesets, manually add `Analytics Dataset Metadata` to include the master user XMD file.

 **Note:** If you don't want to migrate your user XMD with an Analytics Dataset asset, patch call on the REST endpoint to delete it.

Once you migrate a master user XMD file to a destination org, edits to the XMD must be made in the source organization and migrated to the destination organization again. Changes to the user XMD via the UI in the destination org are blocked so that there are not two conflicting sources of truth.

SEE ALSO:

[Analytics REST API Developer Guide: Dataset Resource](#)


[Salesforce Help: Package Analytics Assets in Managed Packages \(can be outdated or unavailable during release preview\)](#)

[Analytics Extended Metadata \(XMD\) Reference](#)

## Meet Compact Form 2.0 (Beta)

Get acquainted with the new version of compact form, the representation of queries within JSON, built for handling multiple datasets and queries against any type of data. Although it's phasing in over the next few releases, you can see it now if you view the JSON of a dashboard that has data-blended queries.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

 **Note:** As a beta feature, compact form 2.0 is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature.

**Why:** To support data blending in exploration, the new syntax includes `"sources"` and `"name"`, shown here.

```
"query": {
  "aggregateFilters": [],
  "orders": [],
  "sourceFilters": {},
  "sources": [
    {
      "cogroupType": "left",
      "columns": [

```

```


        "field": [
            "sum",
            "Sales"
        ],
        "name": "A"
    }
],
"groups": [
    "Product_Sub_Category"
],
"name": "SuperStoreSales_2019_dataset"
},
{
    "columns": [
        {
            "field": [
                "sum",
                "Target"
            ],
            "name": "B"
        }
    ],
    "groups": [
        "Product_Sub_Category"
    ],
    "name": "SuperStoreTargets_2019_dataset"
}
]
},

```

## Gain Insights on Data Directly in Snowflake (Beta)

Run explorations on your data in Snowflake warehouse without having to load data into Salesforce or preparing it in datasets. After you set up a live connection to Snowflake, you can run queries on the Snowflake schema associated with the connection in real time. You can even build dashboard charts and tables based on the queries you run on Snowflake data.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

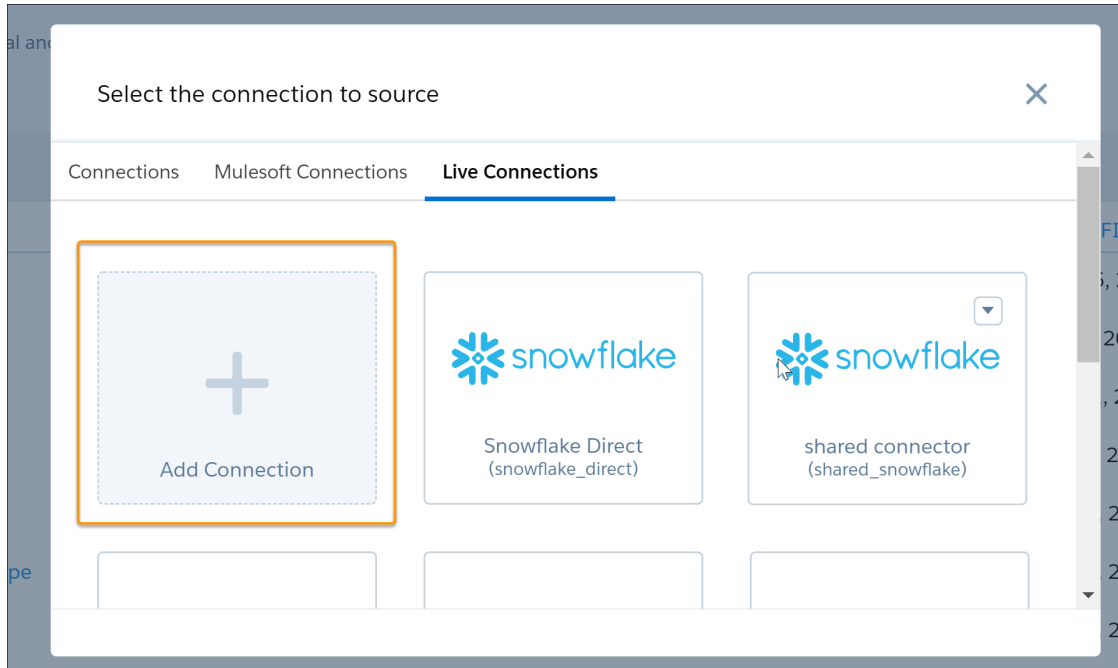
 **Note:** As a beta feature, Einstein Analytics Salesforce Direct Data for Snowflake is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or about it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for the feature in the [Trailblazer Community](#).

**Who:** To explore Snowflake data using a live connection, users need the Explore External Data Directly permission.

### How:

1. To opt your org into the Salesforce Direct Data for Snowflake (beta), check Enable Einstein Analytics Direct Data for external data sources in the Analytics Settings page.






- In Analytics Studio, go to the Connect tab of the Einstein Analytics data manager. Click **Add Connection** on the Live Connections tab and enter its settings.



Here, use the Analytics app to control which Salesforce users, roles, and groups have access to explore Snowflake data from the connection. When done, click **Save** or **Save and Test**.

 **Note:** When creating connections to Snowflake, we recommend using a Snowflake user account with read-only access.

From the Dataset tab, users can view the Snowflake connections under Live Data.

Einstein Analytics						
All Items						
ALL ITEMS APPS DASHBOARDS LENSES DATASETS						
Live Data <span style="float: right;">View All</span>						
Title	App	Type	Created By	Last Modified By	Last Modified	
 Snowflake Direct	<a href="#">Snowflake</a>	SnowflakeDirect	User	User	01/27/20, 12:24 PM	
 snowflake atr	<a href="#">Snowflake</a>	SnowflakeDirect	User	User	01/27/20, 12:53 PM	
 shared connector	<a href="#">Snowflake</a>	SnowflakeDirect	User	User	01/27/20, 12:53 PM	
 Live Connection Test	<a href="#">Snowflake</a>	SnowflakeDirect	User	User	01/28/20, 5:48 PM	
 snowflake so	<a href="#">Snowflake</a>	SnowflakeDirect	User	User	02/11/20, 12:19 PM	

To begin exploring, they can click a connection and select a data object that is available with the connection.

SEE ALSO:

[Salesforce Help: Explore Data Directly in Snowflake \(Beta\)](#)

[Salesforce Help: Create a Live Connection to Snowflake \(Beta\)](#)



## Collaborate on a New Version of a Dashboard Behind the Scenes with Publisher Feature (Generally Available)

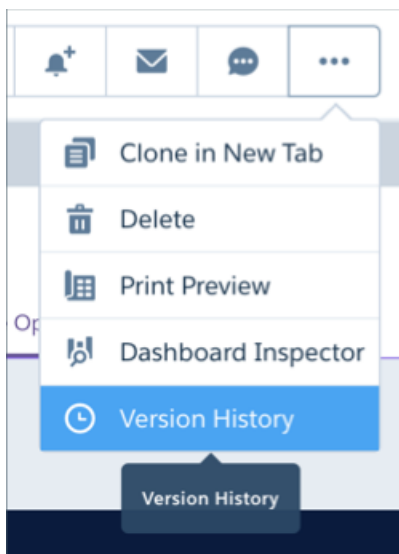
With the publisher feature you can review, test, and edit a draft version of a dashboard while keeping the current version live. Analytics Studio users continue to see the current live version until you're ready to publish a new one.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

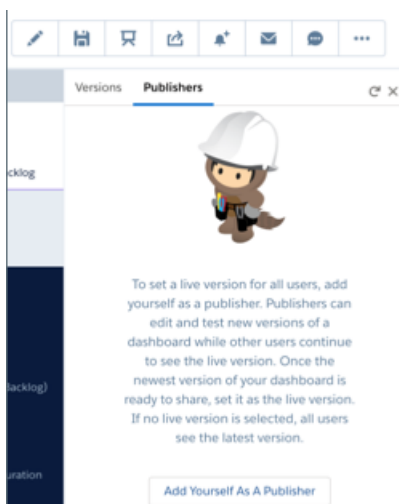
**Why:** The publisher feature lets you keep the current version of a dashboard live for explorers while you work on a new version behind the scenes. Add yourself as a dashboard publisher, which gives lets you review and publish dashboard versions. Once you're on the publishers list, set a previous version as live and edit it until it's ready for primetime. Publishers always see the draft while users not on the publishers list continue to see the live version.

### How:

Open an Analytics dashboard, click the **More** icon at upper right, and select **Version History**.



Then open the **Publishers** tab and click **Add yourself as a Publisher**.



Other members of the team with Editor or Manager access to the app that the dashboard is part of can do the same thing. As a publisher, you can review the draft version of a dashboard. When you decide that the draft is ready for prime time, you can make it live for other Analytics users

## Fine-Tune Control Over Data Integration with Multiple Dataflows in an Analytics Template

Einstein Analytics can now process multiple dataflows when creating an app from a template. Template users get more precise control over the data that populates app datasets and dashboards.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Why:** With multiple dataflows in a templated app, you can separate and organize dataflow logic into manageable segments. Users of an app created from a template can schedule dataflows at different times and frequencies. An app can have a primary dataflow that runs daily data refreshes and one or more secondary dataflows to run less frequently (weekly or monthly). The secondary dataflow can be useful for trending or snapshotting data, when it's preferable to view changes over a longer period than 24 hours.

**How:** Add multiple dataflows to the `eltDataflows` array in the `template-info.json` file. Analytics creates and executes the dataflows according to the order in which they're listed there.

## Import Data from Multiple Sources to Apps by Adding Connectors to Analytics Templates

Adding Analytics connectors to Analytics templates lets you import data from external sources to an app when you create it.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Why:** Templated Analytics apps with Analytics connectors let you combine data from multiple sources and surface it all in a single customized application. The template framework supports all Analytics connector types. You can combine data from external sources with Salesforce data as well as data from multiple Salesforce orgs. For example, say your company stores Leads for each of your geographies (Americas, EMEA, APAC) in a separate Salesforce org. An app template can use connectors to pull Leads data from all your orgs into one master Leads dataset. Then build a single dashboard that visualized all your Leads data.

**How:** To add a connector to a template, define `ConnectorType` variables in the `variables.json` file and reference them in the `ui.json` file. Create dynamic rules to use the `ConnectorType` variable value specified by the user to update the dataflow digest node at runtime. You can define `ConnectorType` variables to include one or many types of connectors as long as they're registered in your org based on the `ConnectorType` attribute. Here's an example that connects data from different orgs.

```
variables.json
{
  "Connector" : {
    "label": "External SFDC Connector",
    "description": "This is an external connector to another SFDC org.",
    "variableType": {
      "type": "ConnectorType",
      "connectorType" : "S"
    },
    "required": true
  }
}

ui.json
{
```

```

"pages" : [
  {
    "title": "Select an External SFDC Connector",
    "variables": [ { "name" : "Connector" } ]
  }
],
"displayMessages" : [ ]
}

```

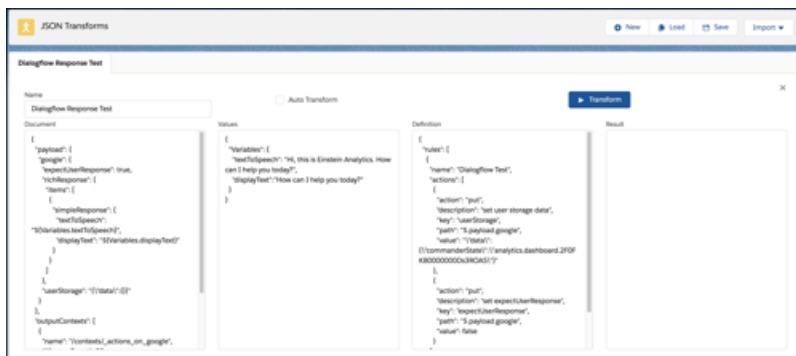
## Transform Your JSON Content Anywhere in Lightning Experience

Use the Analytics Template Framework JSON transformation engine directly in Lightning Experience in your preferred development environment. Using Lightning Components, the engine takes input from a JSON document and applies values and rules you define to transform the JSON document.

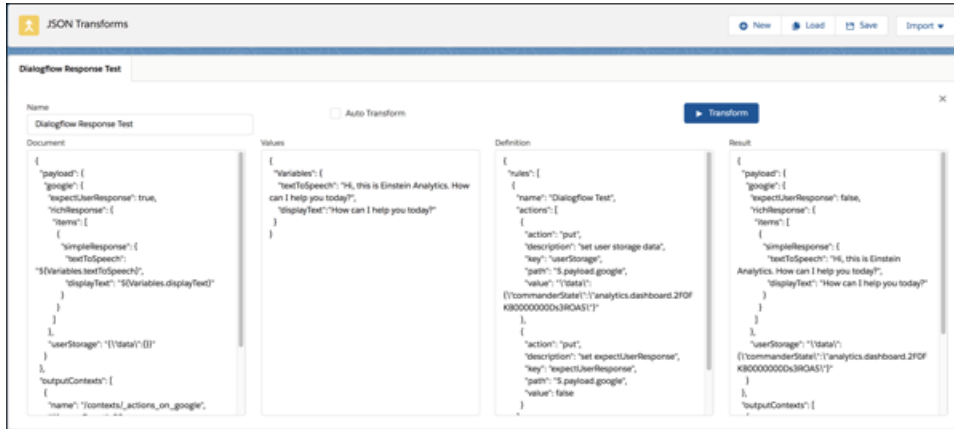
**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Why:** The transformation engine gives you a powerful way to test Analytics template rules, creating voice templates, or do almost anything you can imagine with JSON. Take JSON you've created for a specific purpose in one environment and declare rules for the transformation. Then use the engine to transform the JSON into a format that works with a runtime environment.

**How:** Create an Aura component that lets users submit JSON documents, and define the values and rules for the transformation. The engine returns results of the transformation, which you can use in other actions. Here's an example of JSON before transformation:



And here's the result of transforming the JSON.



## React to Asset Loaded with Analytics Web SDK

Listen for Analytics assets to finish loading on the first load and on subsequent resets, then react using the new `wave : assetLoaded` Web SDK event.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Why:** Einstein Analytics assets, specifically dashboards, can take time to load all their widgets, steps, and queries before being done. If code is created to interact with embedded dashboards, like applying filters or updating state, and this code is run before the dashboard is complete, the dashboard can get into a bad state. The `wave : assetLoaded` event allows users to determine when it is safe to run the code to apply filters or update state.

**How:** Add a listener for the `wave : assetLoaded` event and a handler to receive the event and take action. The `wave : assetLoaded` event is fired on the asset's initial load and on any subsequent resets to the asset view.

```

({
  handleAssetLoaded: function(component, event, helper){
    component.set("v.dashboardStatus", "Dashboard is loaded");
    component.set("v.assetType", event.getParam("type"));
    component.set("v.assetId", event.getParam("id"));
  }
})

```

## Get Familiar with JSON Changes for Dashboard Designer

You can control whether a query listens for broadcasted facets. Best of all, it's no longer all or nothing. Now you can use an include or exclude list in the receiving query to facet only certain queries.

**Where:** This change applies to Einstein Analytics in Lightning Experience. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Why:** In Winter '20, for `aggregateflex` and `sql` step types, you could specify:

```
"receiveFacet": true (or false)
```

Now in Spring '20, for `aggregateflex` and `sql` steps, you can use:

```
"receiveFacetSource": {
  "mode": "all",
```

```
"steps": []
},
```

The mode can be "all", "none", "include", or "exclude". Use steps to list which steps to include or exclude.

`receiveFacetSource` replaces `receiveFacet`. Existing JSON is automatically updated when you edit a dashboard.

SEE ALSO:

[Specify Targeted Faceting Without Code](#)

## Einstein Discovery: External Data for Predictions, What Could Happen Insights, and Story Versioning

Include external data to better predict outcomes. Get live prediction scores interactively, including top factors and actionable insights. Revisit and work with previous story versions at any time.

IN THIS SECTION:

### [Amplify Live Prediction Scoring with External Data](#)

You can now include external data to better predict outcomes. Some predictive models require information that is not found in Salesforce, such as explanatory variables stored in outside data sources, or computed fields. Let's say you're building an opportunity time-to-close predictive model. You want to use counts of opportunity team members and qualified tasks associated with that opportunity record. Creating these aggregations using Einstein Analytics data prep is simple. Quickly build the predictive model as an Einstein Discovery story. When scoring individual records back in Salesforce, tell the predictive model how many tasks or team members are connected to the opportunity. Instead of writing code or modifying the data model, simply build a dataset that refreshes on a frequent basis where this aggregation is performed. Make sure to map the predictive model fields that are not natively found in Salesforce back to the dataset.

### [Simulate Future Outcomes with What Could Happen Insights](#)

Get live prediction scores interactively, including top factors and actionable insights. You can now use What Could Happen insights to perform "What If" simulations on a row of data. What Could Happen insights replace the previous Predictions & Improvements insights with a streamlined, interactive interface.

### [Keep Track of Story Changes](#)

Now you can revisit and work with previous story versions at any time. Each time a user creates a story with updated settings, Einstein saves a snapshot of the previous version under the same name. You can open and work with previous versions of a story.

### [Get the Best Predictions of Three Different Models \(Pilot\)](#)

Einstein Discovery now adds a third modeling approach known as *XGBoost*, which implements gradient boosting learning algorithms. Previously, Einstein Discovery relied on two types of models to predict outcomes: regression and GBM models. Now when you create a story, Einstein Discovery generates predictions using all three types of models. Einstein then shows the results of the one model that performed best. You get the best of all approaches.

### [Smart Feature Selection for Logistic Models](#)

When you create a story with a binary outcome, Einstein Discovery now generates it faster by automatically selecting just the features and variables required to build the model. The story creation process is streamlined and quicker.

### [Identify Key Drivers Before Creating a Story](#)

Before you create a story for the first time, you can now quickly decide ahead of time which fields to include. With manual story setup, Einstein now shows you correlations between dataset columns and the outcome variable. Previously, correlations were visible only after initial story creation.

### Crunch More Data with Einstein Discovery (Pilot)

With increased Einstein Discovery limits, you can now create stories from Einstein Analytics datasets containing up to 100 million rows of data. Previously, the maximum was 20 million rows.

### Deploy Models Without Salesforce Objects

In certain cases, model deployment no longer requires selecting a Salesforce object. This exception applies only if you intend to use the model just for programmatic predictions via the Einstein Prediction Service, or for dataset scoring via the prediction component in Einstein Analytics dataflows. In all other cases, selecting a Salesforce object during deployment is required.

### Quickly Drill Down Into Insights

For insights associated with text fields, you can easily drill down into the underlying details by clicking the Explore button. Einstein displays a Lens view so that you can interactively explore the data for this insight.

### Retiring Einstein Discovery Classic

We retire Einstein Discovery Classic in Spring '20. Einstein Discovery Classic will be replaced with the new experience for all orgs starting in Spring '20.

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You can now include external data to better predict outcomes. Some predictive models require information that is not found in Salesforce, such as explanatory variables stored in outside data sources, or computed fields. Let's say you're building an opportunity time-to-close predictive model. You want to use counts of opportunity team members and qualified tasks associated with that opportunity record. Creating these aggregations using Einstein Analytics data prep is simple. Quickly build the predictive model as an Einstein Discovery story. When scoring individual records back in Salesforce, tell the predictive model how many tasks or team members are connected to the opportunity. Instead of writing code or modifying the data model, simply build a dataset that refreshes on a frequent basis where this aggregation is performed. Make sure to map the predictive model fields that are not natively found in Salesforce back to the dataset.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Populate the Einstein Analytics dataset with the external data you want to bring in. Engage Einstein Analytics' extensive data integration capabilities to pull and transform data from any supported external source.

During model deployment, specify the supplemental dataset and the dataset Record ID column that maps to the Object ID field in the selected Salesforce object.

The screenshot shows the 'Deploy Model' interface with a 'Confirm field mapping' section. It includes a warning about Salesforce sharing rules, a table for mapping fields, and a help sidebar.

Model Field	Object Field	Dataset Field
Total Charges	Total Charges	Total Charges
Tenure	Tenure	
Monthly Charges	Monthly Charges	Monthly Charges
PaymentMethod	PaymentMethod	
Dependents	Dependents	
DeviceProtection	DeviceProtection	
Partner	Partner	
Contract	Contract	


Selected Salesforce Object: Customer\_\_c  
Object ID Field in Selected Salesforce Object: Record ID

Supplemental Dataset: Customers  
Record ID Field in Supplemental Dataset: Record ID

**Einstein is here to help**

**Confirm field mapping**  
Einstein automatically maps fields with matching or similar names. If you are unable to map all of the fields, this model can still be used with the Einstein Prediction Service API or the Einstein Analytics dataflow prediction transformation.

Once deployed, refresh the data in the dataset to support live prediction scoring on individual Salesforce records.

 **Note:** Predictions that connect to a dataset depend on the frequency with which the dataset is refreshed.

SEE ALSO:

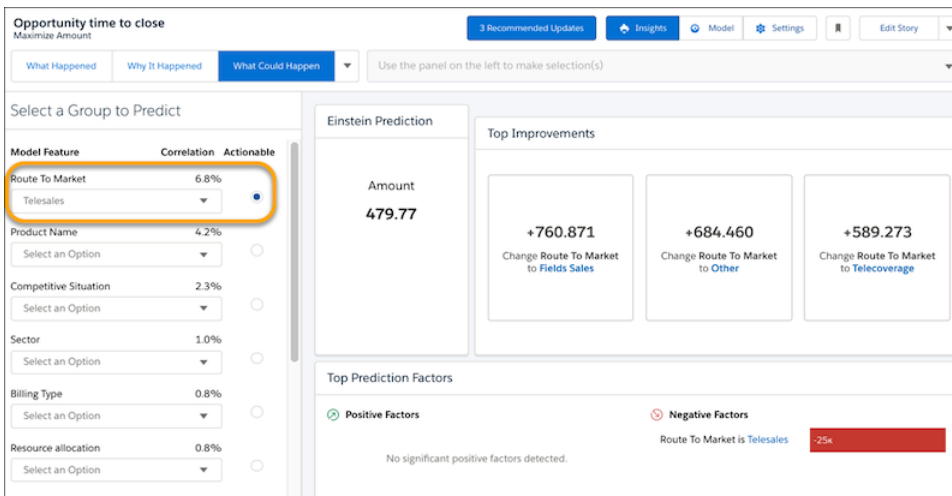
[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\)](#), [Resolve Cases Faster with Article Recommendations](#), and [Predict the Future Using Filters](#)

## Simulate Future Outcomes with What Could Happen Insights

Get live prediction scores interactively, including top factors and actionable insights. You can now use What Could Happen insights to perform “What If” simulations on a row of data. What Could Happen insights replace the previous Predictions & Improvements insights with a streamlined, interactive interface.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Suppose that you want to explore how changing the Route to Market can affect the Opportunity amount. Open the story and click **What Could Happen** on the Insights Navigation bar. In the Model Feature list, select an option under **Route to Market**. Based on your selection, Einstein updates the prediction score and top prediction factors (positive and negative). Select the **Actionable** radio button to see top improvements for your selection.



Model Feature	Correlation	Actionable
Route To Market	6.8%	<input checked="" type="radio"/>
Telesales		<input type="radio"/>
Product Name	4.2%	<input type="radio"/>
Competitive Situation	2.3%	<input type="radio"/>
Sector	1.0%	<input type="radio"/>
Billing Type	0.8%	<input type="radio"/>
Resource allocation	0.8%	<input type="radio"/>

Top Improvements
+760.871 Change Route To Market to Fields Sales
+684.460 Change Route To Market to Other
+589.273 Change Route To Market to Telecoverage

Top Prediction Factors
<b>Positive Factors</b> No significant positive factors detected.
<b>Negative Factors</b> Route To Market is Telesales -25%

SEE ALSO:

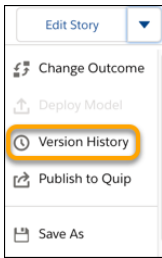
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## Keep Track of Story Changes

Now you can revisit and work with previous story versions at any time. Each time a user creates a story with updated settings, Einstein saves a snapshot of the previous version under the same name. You can open and work with previous versions of a story.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Open a story and choose **Version History** from the dropdown.



In the **Version History** list, click a previous version to open it.



SEE ALSO:

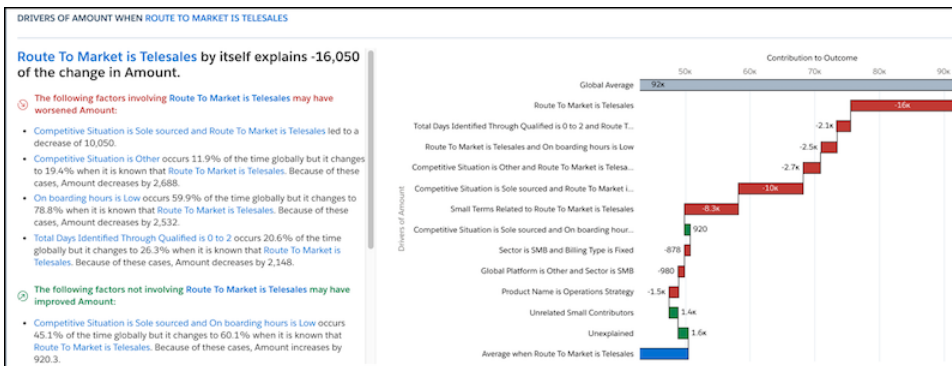
[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\), Resolve Cases Faster with Article Recommendations, and Predict the Future Using Filters](#)

### Get the Best Predictions of Three Different Models (Pilot)


Einstein Discovery now adds a third modeling approach known as *XGBoost*, which implements gradient boosting learning algorithms. Previously, Einstein Discovery relied on two types of models to predict outcomes: regression and GBM models. Now when you create a story, Einstein Discovery generates predictions using all three types of models. Einstein then shows the results of the one model that performed best. You get the best of all approaches.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Story insights are consistently interpretable regardless of what model Einstein used. For example, open a story, choose **Why It Happened** on the Insight Navigation bar, and scroll through the diagnostic insights. The waterfall chart reflects the winning approach.





 **Note:** We provide XGBoost functionality to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. XGBoost support is not generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only based on generally available products and features. You can provide feedback and suggestions for XGBoost in the applicable IdeaExchange group in the Trailblazer Community.

SEE ALSO:

[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\), Resolve Cases Faster with Article Recommendations, and Predict the Future Using Filters](#)

## Smart Feature Selection for Logistic Models

When you create a story with a binary outcome, Einstein Discovery now generates it faster by automatically selecting just the features and variables required to build the model. The story creation process is streamlined and quicker.

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Before you create a story for the first time, you can now quickly decide ahead of time which fields to include. With manual story setup, Einstein now shows you correlations between dataset columns and the outcome variable. Previously, correlations were visible only after initial story creation.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** During story setup, select the **Manual** option, and view the **Correlation** column.

FIELD NAME	TYPE	CORRELATION	DATA ALERT
Time To Close MINIMIZE	Number	N/A	
Amount	Number	0.0%	
Total Days Identified Through Quali...	Number	0.9%	
Global Platform	Text	0.0%	
Competitive Situation	Text	0.3%	
Number of People on Opportunity	Text	7.1%	
Sector	Text	2.9%	
Product Name	Text	0.2%	
Resource allocation	Text	3.0%	

Select the fields that are most highly correlated to the outcome, then create your story.

#### SEE ALSO:

[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\)](#), [Resolve Cases Faster with Article Recommendations](#), and [Predict the Future Using Filters](#)

## Crunch More Data with Einstein Discovery (Pilot)

With increased Einstein Discovery limits, you can now create stories from Einstein Analytics datasets containing up to 100 million rows of data. Previously, the maximum was 20 million rows.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Note:** We provide increased row limits functionality to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Increased row limit support is not generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only based on generally available products and features. You can provide feedback and suggestions for increased row limits in the applicable IdeaExchange group in the Trailblazer Community.

#### SEE ALSO:

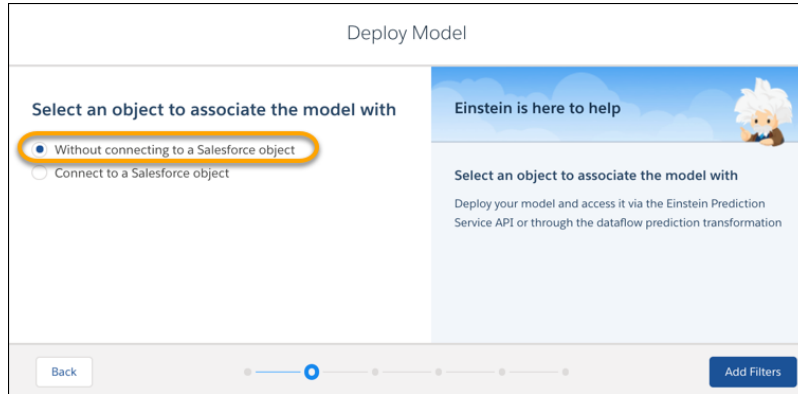
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## Deploy Models Without Salesforce Objects

In certain cases, model deployment no longer requires selecting a Salesforce object. This exception applies only if you intend to use the model just for programmatic predictions via the Einstein Prediction Service, or for dataset scoring via the prediction component in Einstein Analytics dataflows. In all other cases, selecting a Salesforce object during deployment is required.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** When prompted during model deployment, select **Without connecting to a Salesforce object**, and proceed to the next task of adding filters.



SEE ALSO:

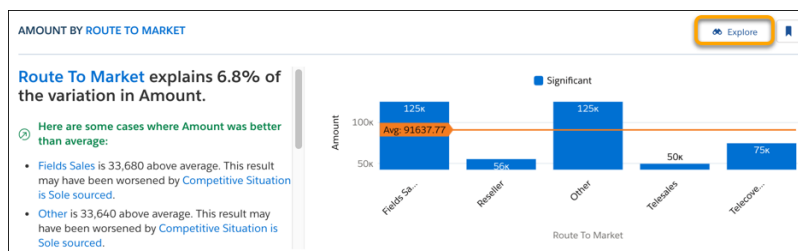
[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\)](#), [Resolve Cases Faster with Article Recommendations](#), and [Predict the Future Using Filters](#)

## Quickly Drill Down Into Insights

For insights associated with text fields, you can easily drill down into the underlying details by clicking the Explore button. Einstein displays a Lens view so that you can interactively explore the data for this insight.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Navigate your story's insights. If available for a given insight, click the **Explore** button.



Einstein launches a Lens view of this insight.

**SEE ALSO:**

[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\)](#), [Resolve Cases Faster with Article Recommendations](#), and [Predict the Future Using Filters](#)

**Retiring Einstein Discovery Classic**

We retire Einstein Discovery Classic in Spring '20. Einstein Discovery Classic will be replaced with the new experience for all orgs starting in Spring '20.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** If you currently use Einstein Discovery Classic and already have the Einstein Analytics Plus license, log a case with Salesforce Support to be switched over to the new experience. If you have the Discovery Analysts license and not EA Growth, contact your Account Executive to swap your license to Einstein Analytics Plus. Free Developer orgs have all the correct licenses and we will automatically switch them to the new experience.

If you want to keep data from your Einstein Discovery datasets, use the "Export to Einstein Analytics" feature before switching over. Once Einstein Discovery in Analytic is enabled in your org, use Analytics Studio to build your Einstein Analytics datasets and manually create your stories.

**SEE ALSO:**

[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\)](#), [Resolve Cases Faster with Article Recommendations](#), and [Predict the Future Using Filters](#)

**Analytics for Everyone: Watchlist (Beta), Multiple Notification Recipients, In-App Trailhead Badges**

Track important metrics on the Analytics home page with the Einstein Analytics Watchlist. Add multiple recipients from your org to your notification email distribution list. Earn Trailhead badges for completing learning journeys in the Analytics Studio.

**IN THIS SECTION:**

[Stay on Track with the Einstein Analytics Watchlist \(Beta\)](#)

The Einstein Analytics Watchlist gives your users a stock-ticker-style experience by tracking and showing important metrics and changes.

### [Email Notifications to Multiple Recipients](#)

Automatically share the knowledge when your notification's conditions are met. Now you can set up notifications to email colleagues at the same time as yourself. Add recipients from your org to the notification email's distribution list, so everyone simultaneously gets the same alerts.

### [Preview and Customize Subscriptions \(Beta\)](#)

Manage your email subscription with a new preview window and editable subscription titles. In the previous release, we introduced dashboard widget subscription with scheduled email updates. Now we're adding a preview window where you can see all of your widget subscriptions together, easily edit email frequency, and remove widget subscriptions. Other enhancements include editable titles and support for number formats of number widgets in the subscription email.

### [Earn Trailhead Badges for Learning in the Analytics Studio](#)

Learn Analytics basics in the studio, and earn the latest Trailhead badges for Einstein Analytics. The new in-app badges reward completion of the learning journeys under Start Your Analytics Adventure in the Learning Center.


### [Analytics Mobile Apps: Explore More in the Salesforce App](#)

Access Einstein Analytics from its own tab in the Salesforce mobile app for quicker access to your assets on the go. Users get a consistent experience whether working in the Salesforce app or Einstein Analytics mobile app.

## Stay on Track with the Einstein Analytics Watchlist (Beta)

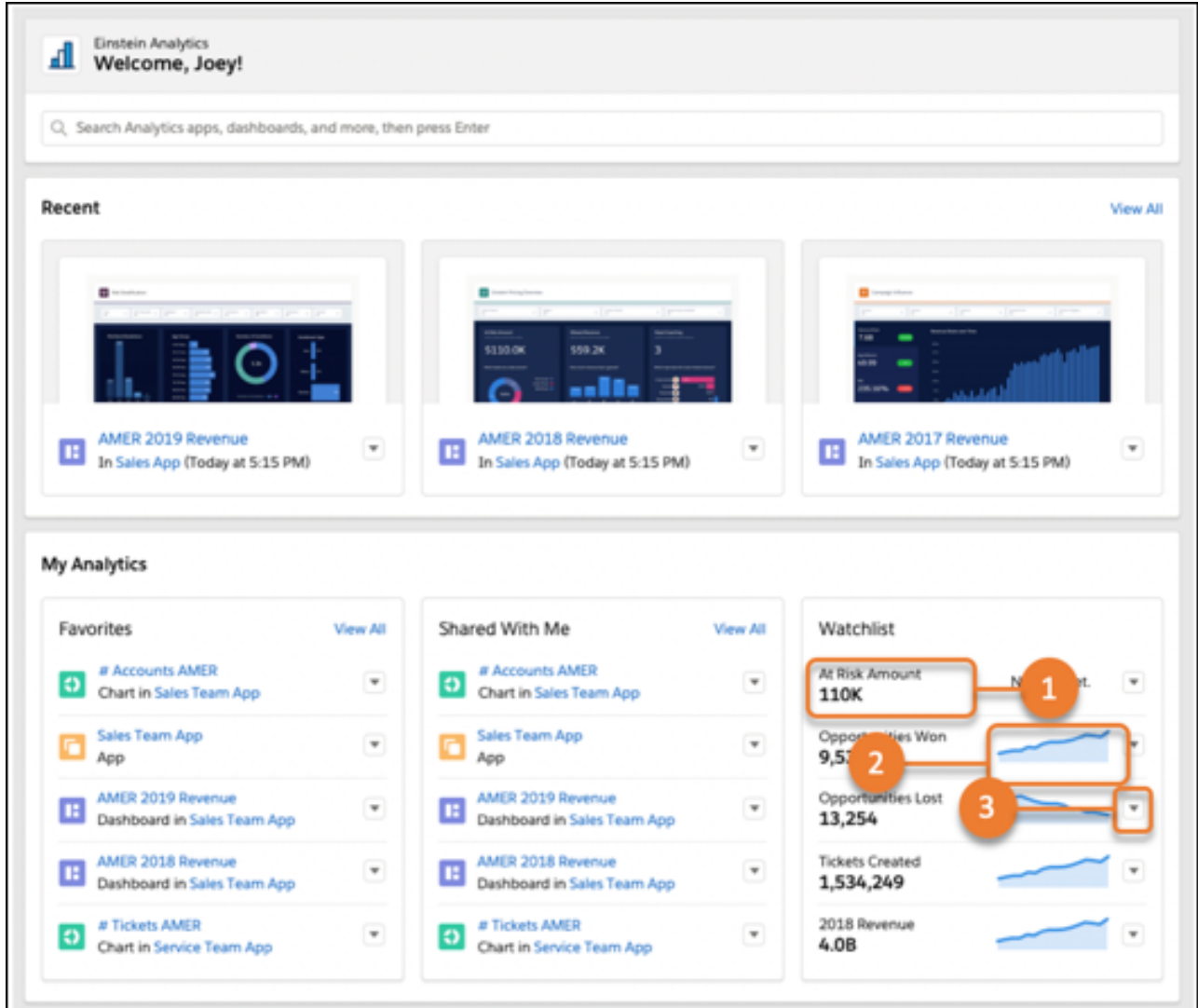
The Einstein Analytics Watchlist gives your users a stock-ticker-style experience by tracking and showing important metrics and changes.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

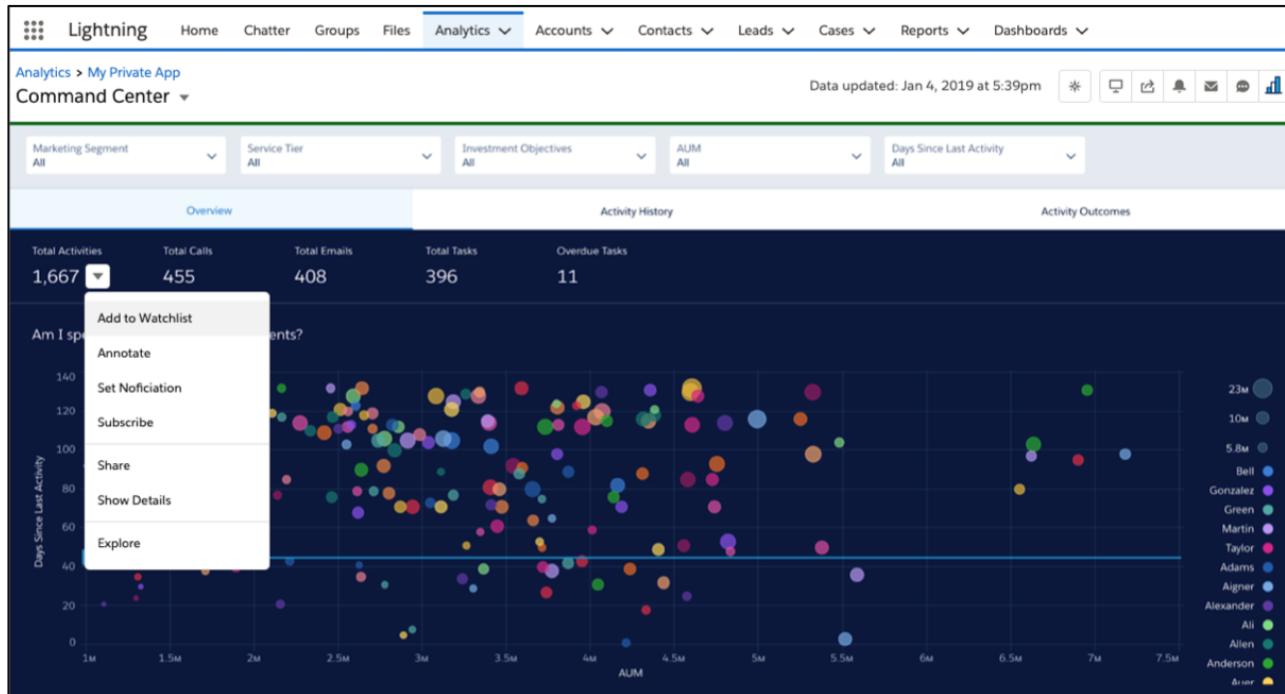
 **Note:** As a beta feature, the Einstein Analytics Watchlist is a preview and isn't part of Einstein Analytics under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or about it. All restrictions, Salesforce reservation of rights, obligations concerning Einstein Analytics, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for the Einstein Analytics Watchlist in the Trailblazer Community.

**How:** In Setup, select **Enable Watchlist** from Analytics Settings.

With the Watchlist, users can create a customized list of dashboard items to monitor their metric values (1) and trends (2). Use the metric's dropdown menu (3) to edit the metric and view its source dashboard. No more switching between assets to see what has changed, users can quickly and easily track them all in one place.



Users can create their Watchlist using items of interest from dashboards they have access to. Simply open the dashboard that contains the item to watch, and use the widget's dropdown menu to add it.



Trending starts immediately when an item is added to the Watchlist. Snapshots are captured at regular intervals to show how dashboard items are performing at any given moment, so there's no stale data.

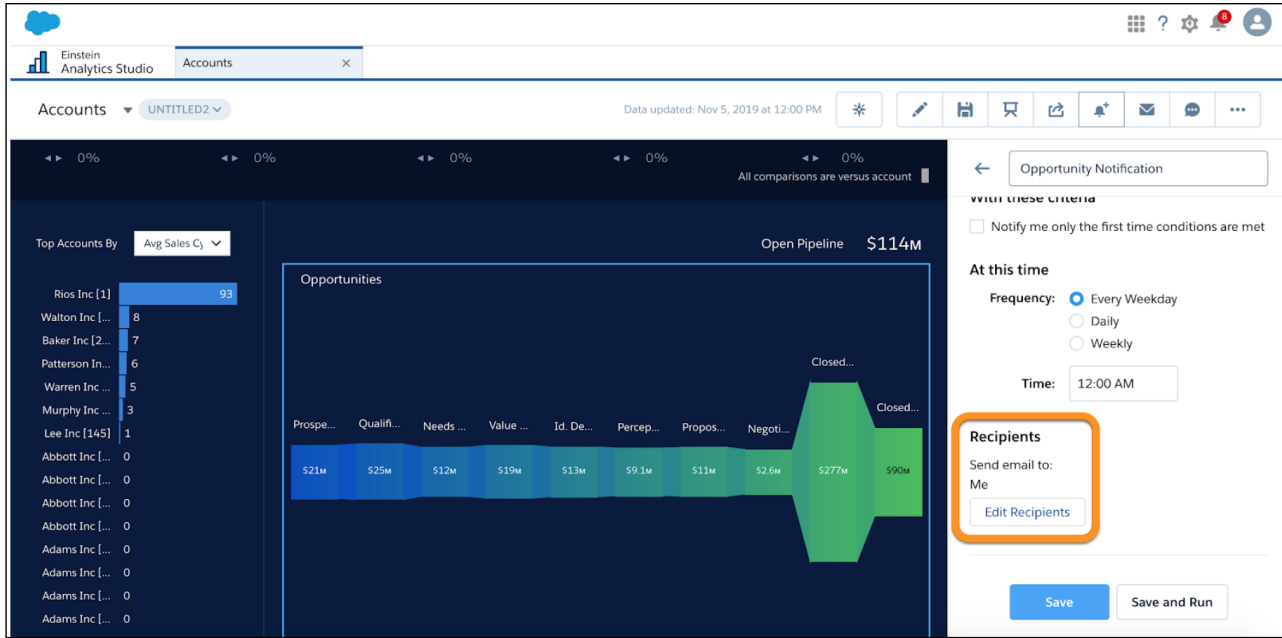
## Email Notifications to Multiple Recipients

Automatically share the knowledge when your notification's conditions are met. Now you can set up notifications to email colleagues at the same time as yourself. Add recipients from your org to the notification email's distribution list, so everyone simultaneously gets the same alerts.

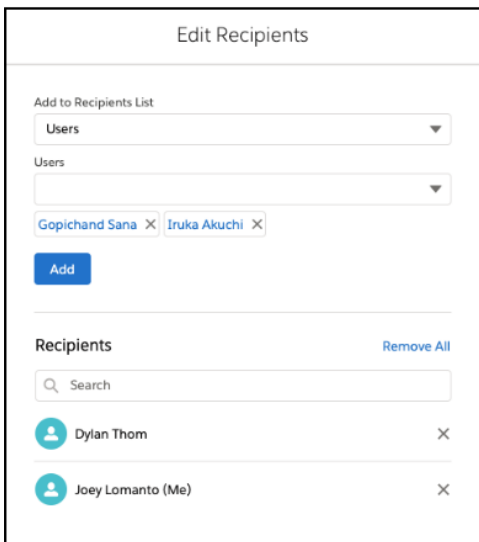
**Where:** These changes apply to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Who:** Access to add notification email recipients is available for users with the Notification Emails: Add Recipients permission.

**How:** To add recipients, open the notification in the dashboard's notifications panel and click **Edit Recipients**.



In the Edit Recipients box, you can add users, view current recipients, and remove recipients. Only users who have access to the dataset and dashboard are available to select, and in this release you can only select users. Groups and roles are scheduled for a future release.



Recipients get the notification email sent from the email address of the user who set up the notification. Adding recipients doesn't create personal notifications for them. The added recipients don't get in-app notification via the bell icon, and they don't see the notification on their home page.

**Note:** Once added to the notification email distribution list, recipients can't remove themselves and must ask the email sender to be removed.

SEE ALSO:

[Salesforce Help: Set Smart Notifications for Important Business Metrics \(can be outdated or unavailable during release preview\)](#)



## Preview and Customize Subscriptions (Beta)

Manage your email subscription with a new preview window and editable subscription titles. In the previous release, we introduced dashboard widget subscription with scheduled email updates. Now we're adding a preview window where you can see all of your widget subscriptions together, easily edit email frequency, and remove widget subscriptions. Other enhancements include editable titles and support for number formats of number widgets in the subscription email.

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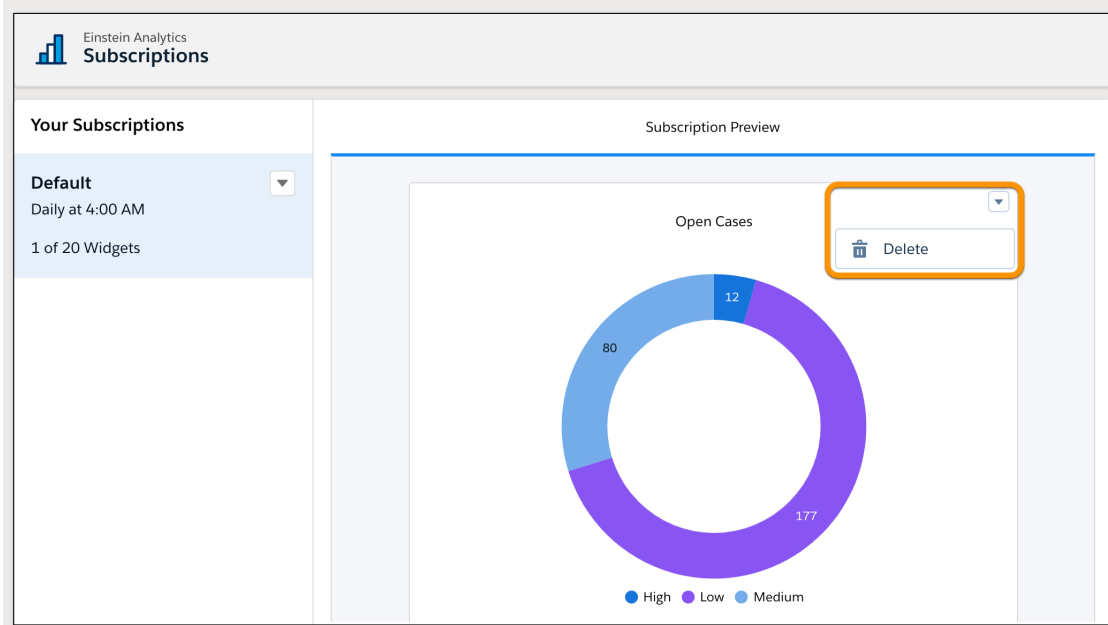
**Note:** As a beta feature, Einstein Analytics subscription is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature.

**How:** In Setup, on the Analytics Settings page, select **Enable email subscriptions to Einstein Analytics dashboard widgets (Beta)**. Then the **Subscribe** option appears in all widget menus, except tables, maps, and custom charts.

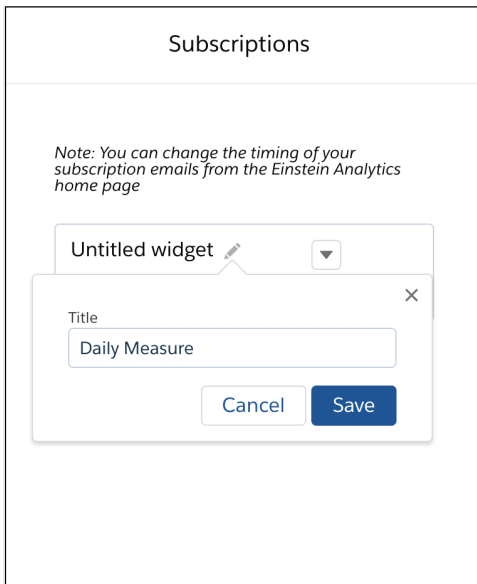
To open the preview, click **Subscriptions** in the left navigation panel of the home page. The preview shows the scheduled frequency and number of widget subscriptions, and it gives you access to edit the timing and frequency of your subscription.

The screenshot displays the Einstein Analytics Subscriptions interface. On the left, the 'Analytics' sidebar has 'Subscriptions' highlighted with an orange box. The main content area is split into two panels. The left panel, titled 'Your Subscriptions', shows a 'Default' subscription with a frequency of 'Daily at 4:00 AM' and '1 of 20 Widgets'. An 'Edit' button is highlighted with an orange box. The right panel, titled 'Subscription Preview', shows a donut chart titled 'Open Cases' with three segments: High (12), Low (177), and Medium (80). A legend below the chart identifies the segments: High (blue), Low (purple), and Medium (light blue).

You can also remove a widget from the subscription by selecting **Delete** on the widget's preview.



In the preview, click a widget title to go to the dashboard subscription panel. In the subscription panel, click the pencil to change the title of a widget's subscription.



SEE ALSO:

[Salesforce Help: Get Scheduled Updates on Key Metrics with Email Subscriptions \(Beta\) \(can be outdated or unavailable during release preview\)](#)

## Earn Trailhead Badges for Learning in the Analytics Studio

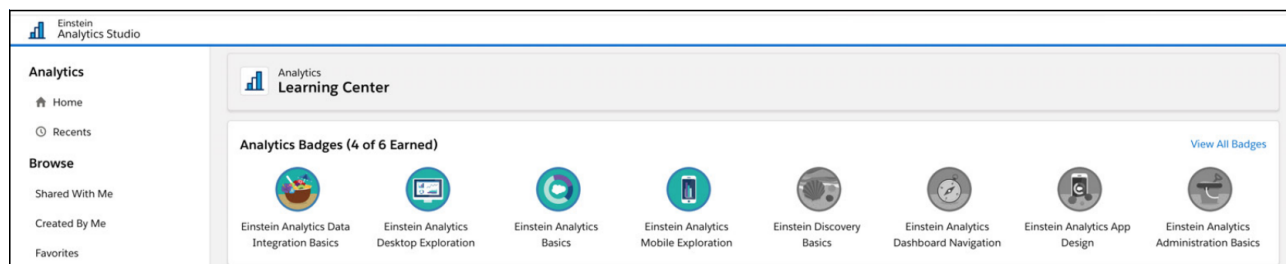
Learn Analytics basics in the studio, and earn the latest Trailhead badges for Einstein Analytics. The new in-app badges reward completion of the learning journeys under Start Your Analytics Adventure in the Learning Center.

**Where:** These changes apply to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Four new badges are available, depending on your account.

			
Data Integration in Einstein Analytics	Data Exploration in Einstein Analytics	App Creation in Einstein Analytics	Einstein Discovery Intelligence

The badges appear in your Trailhead profile and in the top section of the Learning Center. Completed badges are in color, and gray badges are yours to earn.



## Analytics Mobile Apps: Explore More in the Salesforce App

Access Einstein Analytics from its own tab in the Salesforce mobile app for quicker access to your assets on the go. Users get a consistent experience whether working in the Salesforce app or Einstein Analytics mobile app.

### IN THIS SECTION:

#### [Use Einstein Analytics in the New Salesforce Mobile App](#)

With the latest update to the new Salesforce mobile app, users can access Einstein Analytics assets from the new Analytics navigation item. The new item creates a familiar user experience between desktop and mobile, and gives Salesforce mobile app users a home page for accessing apps and dashboards.

#### [Analytics Mobile Apps: Upgrade to the Spring '20 Versions of Einstein Analytics for iOS and Android](#)

Einstein Analytics version 9.0 is generally available starting the week of February, 17, 2020.

## Use Einstein Analytics in the New Salesforce Mobile App

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**Where:** This change applies to the new Salesforce mobile app for iOS. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**When:** The new navigation item will be available the week of February 17, 2020.

SEE ALSO:

[Access Einstein Analytics on the Go With the New Mobile Navigation Item](#)

## Analytics Mobile Apps: Upgrade to the Spring '20 Versions of Einstein Analytics for iOS and Android

Einstein Analytics version 9.0 is generally available starting the week of February, 17, 2020.

IN THIS SECTION:

[More Enhancements in Einstein Analytics for iOS](#)

Einstein Analytics for iOS now supports additional Spring '20 features.

[More Enhancements in Einstein Analytics for Android](#)

Einstein Analytics for Android now supports additional Spring '20 features.

More Enhancements in Einstein Analytics for iOS

Einstein Analytics for iOS now supports additional Spring '20 features.

**Where:** These changes apply to Einstein Analytics for iOS. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Why:** Enhancements in the latest releases include the following features.

- New Range Widget: The new range widget now matches its desktop counterpart.
- Totals and Subtotals: Tables on mobile now support displaying your totals and subtotals.
- APEX Steps: Use custom APEX functionality in your mobile dashboards.
- Bug fixes and other usability enhancements.

**How:** Analytics is available for devices running iOS 10 and later. For the latest enhancements, download Einstein Analytics from the App Store.

More Enhancements in Einstein Analytics for Android

Einstein Analytics for Android now supports additional Spring '20 features.

**Where:** These changes apply to Einstein Analytics for Android. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited Editions.

**Why:** Enhancements in the latest releases include the following features.

- Support for Spring '20 features, such as targeted faceting.
- Bug fixes and performance improvements.

**How:** Analytics is available for devices running Android 5 or later. For the latest enhancements, download Einstein Analytics from Google Play™.

## Communities: Report Builder for Communities, ExperienceBundle, Enhanced Security, and Channel Menu

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Your partners and customers can now create and run reports on communities and portals. With the ExperienceBundle metadata type, quickly update and deploy Lightning communities programmatically using your preferred development tools. Various security enhancements help keep your data safe. And help service agents contact customers on a variety of channels using the Service Cloud's Channel Menu. Create and modify Lightning community audiences programmatically.

 **Tip:** There's lots of Lightning striking Salesforce these days—Lightning Experience, the Lightning framework, Lightning web components—and it can be tricky to know how it all applies to Communities. Here's the rundown.

Lightning communities use the same underlying technology as Lightning Experience—namely, the Lightning Platform and Lightning components—but you aren't required to enable Lightning Experience to use them.

Also check out the [Lightning Components section of the release notes](#) for changes that affect community users.

### IN THIS SECTION:

#### [Lightning Communities: Report Builder, Report Run Page, and Flexible Layouts](#)

Use report builder in your Lightning communities, so customers and partners can create and run reports from a community or portal. Give designers more flexibility when creating Lightning community page layouts.

#### [Developer Productivity: ExperienceBundle, Personalization, and the Build Your Own \(LWC\) Template](#)

Develop communities more efficiently with ExperienceBundle and Personalization API enhancements, new Salesforce CLI commands, and a fresh template that's based on the Lightning Web Component programming model.

#### [Guest User: New Guest User Access Setting and Removed Retired Permissions](#)

Use the Secure guest user record access setting to enforce private org-wide defaults for guest users and restrict the sharing mechanisms that you can use to grant record access to guest users. We removed various obsolete user permissions from guest user profiles to enhance data security.

#### [Security and Sharing: Apple ID Login, Text Message Identity Verification, and Lightning Locker Toggle](#)

Community and portal users can now log in using their Apple ID. You can now have community and portal members verify their identity using text message. Turn Lightning Locker on or off for your community using a toggle.

#### [Other Changes in Communities](#)

Learn about other changes that improve your experience with communities.

## Lightning Communities: Report Builder, Report Run Page, and Flexible Layouts

Use report builder in your Lightning communities, so customers and partners can create and run reports from a community or portal. Give designers more flexibility when creating Lightning community page layouts.

### IN THIS SECTION:

#### [Report Builder for Lightning Communities \(Generally Available\)](#)

Create, delete, and edit reports directly from your community.

### [View Reports in Lightning Communities \(Generally Available\)](#)

Review, analyze, and collaborate on your report records directly from your community.

### [Stretch Your Flexible Layouts Further](#)

Now you can reorder sections in your flexible layout pages by dragging them to the desired location.

### [Use the New Page Name Attribute for Community Navigation](#)

Add a unique API Name when you create a Lightning community page. You can use this value as the `name` attribute in the `comm__namedPage` page reference for the lightning-navigation API.

### [Account and Opportunity Team Related List Customization Supported in Communities](#)

Customize related lists for account and opportunity teams to help reps collaborate more effectively with customers and partners. Previously, these related lists could be customized, but the customizations weren't displayed to end users.

### [Updated Search Route Parameter on Community Search Pages](#)

The URL parameter for communities search routes was updated to `:term` for all Lightning community templates except Koa and Kokua. The URL parameter for the Customer Service template is now `/search-topic/:term` (updated from `/search-topic/:searchString`). For all other Lightning templates (except Koa and Kokua), the URL parameter is now `/global-search/:term` (updated from `/global-search/:searchString`).

### [Go On a Better Round-Trip Between Full Feed and Feed Item Detail](#)

Experience the convenience of better round-trip navigation in full Topics and group feeds in your community. On a topic page or in a group, the round trip from the full feed to a detail view returns you to where you started from. It used to take you all the way back to the top of the feed.

### [Create More Audiences, Search Using Wildcards, and Sort](#)

We raised the limit on the number of audiences you can create to 1,500. With more audiences, you may use search more so we made it easier. Use the % wildcard and the new sort feature to quickly find the audience you want.

### [Add the Record Related List Component to Your Help Center](#)

The Related Record List page and the Record Related List component are now available in the Help Center template. Use them together to add a list of files that are related to a Knowledge article. If users don't get what they need from the article, you can show them a list of related files to get them to a solution.

### [Create Dazzling Experiences Across Channels with Salesforce CMS](#)

Salesforce CMS is a hybrid CMS designed to help you create and deliver content to any channel. Use this flexible tool to create a consistent experience across multiple customer touchpoints. Share a CMS Workspace to channels like Commerce Cloud and Heroku, or build a customized, content-rich site in Experience Builder. Enhance these channels using the same CMS Workspace content.

### [Removed ID Fields from Topics Components](#)

To improve validation of communities and streamline topics components, we removed the Topic ID field from the Related Topics List, Topic Description, and Topic Metrics components. We also removed the Record ID field from the Topics component. These ID fields were dynamically generated and their removal doesn't change the behavior of the components.

## Report Builder for Lightning Communities (Generally Available)

Create, delete, and edit reports directly from your community.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**Who:** The Report Builder page is available to community users with a Partner Community or Customer Community Plus license.

**How:** Lightning Report Builder is available in the following community templates:

- Build Your Own

- Customer Account Portal
- Customer Service
- Partner Central

If you already enabled reports in your community, the New Report button is available on the Report List page in your community. Add the Report List page to your community if you haven't already. If the button isn't available after you enabled reports, republish your community.

With all Salesforce reports, to view, edit, or delete a report you must have access to it.

SEE ALSO:

[Salesforce Help: Set Up Report Management for External Users—Create and Edit Reports \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Build a Report \(can be outdated or unavailable during release preview\)](#)

## View Reports in Lightning Communities (Generally Available)

Review, analyze, and collaborate on your report records directly from your community.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**Who:** The report run page is available to users with a Partner Community or Customer Community Plus license.

**Why:** With the report run page, users can view reports with:

- Key metrics in the header
- Toggle switches to hide or view report properties
- Report management tools in the report header
- Sort and drill functionality for record groups

**How:** The report run page is available in the following community templates:

- Build Your Own
- Customer Account Portal
- Customer Service
- Partner Central

If you already enabled reports in your community, the report run page is automatically available to you. If the report run page isn't available after you enable reports, republish your community.

With all Salesforce reports, to view, edit, or delete a report you must have access to it.

SEE ALSO:


[Salesforce Help: Set Up Report Management for External Users—Create and Edit Reports \(can be outdated or unavailable during release preview\)](#)

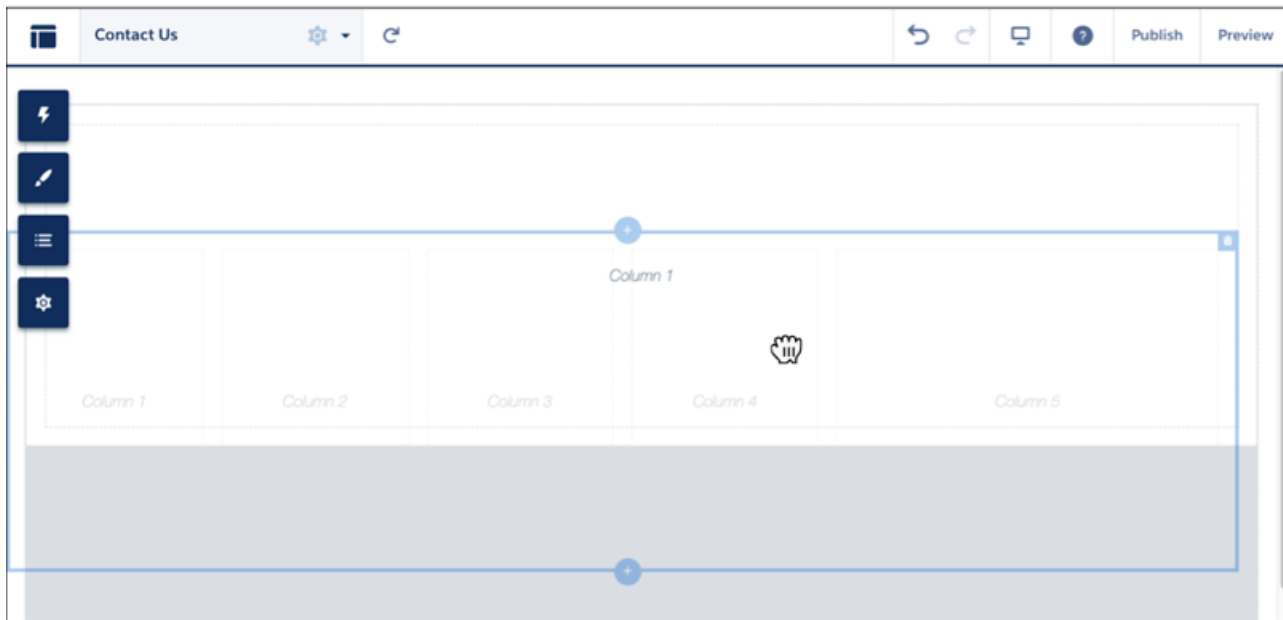
[Salesforce Help: Customize Report Views in the Run Page \(can be outdated or unavailable during release preview\)](#)

## Stretch Your Flexible Layouts Further

Now you can reorder sections in your flexible layout pages by dragging them to the desired location.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**How:** In Experience Builder, open the Pages menu in the top toolbar. Open an existing flexible layout page, or select **New Page** > **Standard Page** > **Flexible Layout**. Add sections using the  icon, then drag the section to place it where you want it.



SEE ALSO:

[Create a Flexible Layout](#)

[Enhance CMS Content with Flexible Layouts](#)

## Use the New Page Name Attribute for Community Navigation

Add a unique API Name when you create a Lightning community page. You can use this value as the `name` attribute in the `comm__namedPage` page reference for the lightning-navigation API.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**How:** When you create new standard community pages, you now see a new field, **API Name**.



The screenshot shows a 'New Page' form with the following fields and a tooltip:


- Name:** A text input field with a red asterisk indicating it is required.
- URL:** A text input field with a red asterisk indicating it is required, containing a forward slash (/).
- API Name:** A text input field with a red asterisk indicating it is required. A blue tooltip is overlaid on this field with the text: "Give your new page an API Name. You can only define this field when creating a new page. This is a unique name that developers can use to navigate between pages. If you don't enter an API Name, we will automatically generate one for you."

At the bottom of the form, there are two buttons: a 'Back' button with a left-pointing arrow and a 'Create' button.

You can define the API name only when you create a page. For existing pages, or if you leave the field blank, a name is generated automatically.

The following communities named pages can use the API Name in `lightning-navigation`.

- Home
- Account Management
- Contact Support
- Error
- Login
- My Account
- Top Articles
- Topic Catalog
- Custom pages

 **Note:** Packaging API names is not currently supported. Communities created from an exported template could have a different API name than the original community. The `pageName` attribute is now deprecated.

## Account and Opportunity Team Related List Customization Supported in Communities

Customize related lists for account and opportunity teams to help reps collaborate more effectively with customers and partners. Previously, these related lists could be customized, but the customizations weren't displayed to end users.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**Who:** The account team change is available to all users with community licenses. The opportunity team change is available only to users with a Partner Community or Lightning External Apps Plus license.

SEE ALSO:

[Account and Opportunity Team Related List Customization Is Supported](#)

## Updated Search Route Parameter on Community Search Pages

The URL parameter for communities search routes was updated to `:term` for all Lightning community templates except Koa and Kokua. The URL parameter for the Customer Service template is now `/search-topic/:term` (updated from `/search-topic/:searchString`). For all other Lightning templates (except Koa and Kokua), the URL parameter is now `/global-search/:term` (updated from `/global-search/:searchString`).

**Where:** This change applies to Lightning communities (except Koa and Kokua communities) accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

The screenshot shows the 'Edit Navigation Menu' interface. On the left, the 'Menu Structure' pane lists items: Home, Topics, Opportunities, Leads, and New menu item. On the right, the 'Menu Item' configuration pane is shown. The 'URL' field is highlighted with an orange box and contains the text `/global-search/:term`. Below the URL field, there is a note: 'Please replace the parameters in the url of the page you selected. Parameters start with ":" and point to specific data, For example, :recordId.' and a checkbox for 'Publicly available'.

**Note:** All components using the old URL parameters continue to work after this change.

## Go On a Better Round-Trip Between Full Feed and Feed Item Detail

Experience the convenience of better round-trip navigation in full Topics and group feeds in your community. On a topic page or in a group, the round trip from the full feed to a detail view returns you to where you started from. It used to take you all the way back to the top of the feed.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**Why:** For example, let's say you're on a topic page or in a group looking for specific information. You click **View More** and navigate more deeply into the list of feed items to find the right information. But when you find a promising post and click to go to detail view, you realize that it's not the information that you want. Now, clicking your browser's back button returns you to the same page where you jumped to the detail view. Previously, clicking the back button brought you to the top of the full feed, requiring you to scroll back to where you were.

**Note:** For Compact Feed, we support the improved Back button behavior for Topics feeds only.

## Create More Audiences, Search Using Wildcards, and Sort

We raised the limit on the number of audiences you can create to 1,500. With more audiences, you may use search more so we made it easier. Use the % wildcard and the new sort feature to quickly find the audience you want.


**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

## Add the Record Related List Component to Your Help Center

The Related Record List page and the Record Related List component are now available in the Help Center template. Use them together to add a list of files that are related to a Knowledge article. If users don't get what they need from the article, you can show them a list of related files to get them to a solution.

**Where:** This change applies to the Help Center Lightning community template accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**How:** In your Help Center, add the Record Related List component to an Article Detail page. Publish your changes. On the Article Detail page, a user clicks **View All** in the Record Related List component, and they land on the Related Record List page.

 **Note:** In Help Center, a file is the only object that is supported in the Record Related List component.

## Create Dazzling Experiences Across Channels with Salesforce CMS

Salesforce CMS is a hybrid CMS designed to help you create and deliver content to any channel. Use this flexible tool to create a consistent experience across multiple customer touchpoints. Share a CMS Workspace to channels like Commerce Cloud and Heroku, or build a customized, content-rich site in Experience Builder. Enhance these channels using the same CMS Workspace content.

**Where:** This change applies to Lightning Experience in Essentials, Enterprise, Performance, Unlimited, and Developer editions. Salesforce CMS content is available to use in Lightning and Salesforce Tabs + Visualforce communities.

SEE ALSO:

[Salesforce CMS: B2C Commerce Page Designer Integration, Multiple Varied Channels, CMS Home, and Flexible Layouts](#)  
[Deliver Engaging Content Across Multiple Channels and Sites](#)

## Removed ID Fields from Topics Components

To improve validation of communities and streamline topics components, we removed the Topic ID field from the Related Topics List, Topic Description, and Topic Metrics components. We also removed the Record ID field from the Topics component. These ID fields were dynamically generated and their removal doesn't change the behavior of the components.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

## Developer Productivity: ExperienceBundle, Personalization, and the Build Your Own (LWC) Template

Develop communities more efficiently with ExperienceBundle and Personalization API enhancements, new Salesforce CLI commands, and a fresh template that's based on the Lightning Web Component programming model.

## IN THIS SECTION:

[Update and Deploy Lightning Communities with ExperienceBundle \(Generally Available\)](#)

The ExperienceBundle metadata type, which was previously available as a pilot program, is now generally available. ExperienceBundle provides human-readable, text-based representations of the different Experience Builder settings and site components, such as pages, branding sets, and themes. Whether it's for your own org or you're a consulting partner or ISV, quickly update and deploy Lightning communities using your preferred development tools, including Salesforce Extensions for VS Code, Salesforce CLI, Workbench, or your favorite IDE or text editor.

[Personalize Your Community Via the API \(Generally Available\)](#)

Create and modify Lightning Community audiences programmatically and target those audiences to pages, components, branding sets, and data with code. Use Chatter REST API, Apex, and Metadata API to create audiences in Lightning Communities and assign them to targets, such as pages, components, custom objects, and branding sets. The new features don't affect the user experience or require any action on your part. However, we encourage you to test your existing community personalizations after the Spring '20 sandbox and production releases.

[Build Fast, Efficient Experiences with a New LWC-Based Template \(Developer Preview\)](#)

Use the latest *Build Your Own (LWC)* template to develop communities that load quickly and scale well. Based on Lightning Web Components (LWC), a new programming model that delivers exceptional performance, this lightweight template supports fully customized LWC solutions. For example, if you specialize in building experiences with your own design system and component library, you can remove SLDS and include custom Lightning web components to achieve the pixel-perfect experience that you want.

[Use Relaxed CSP in Lightning Components for Communities](#)

Tag Lightning web components for Lightning communities with `lightningCommunity__RelaxedCSP` to enable components to run in a community that has Lightning Locker disabled.

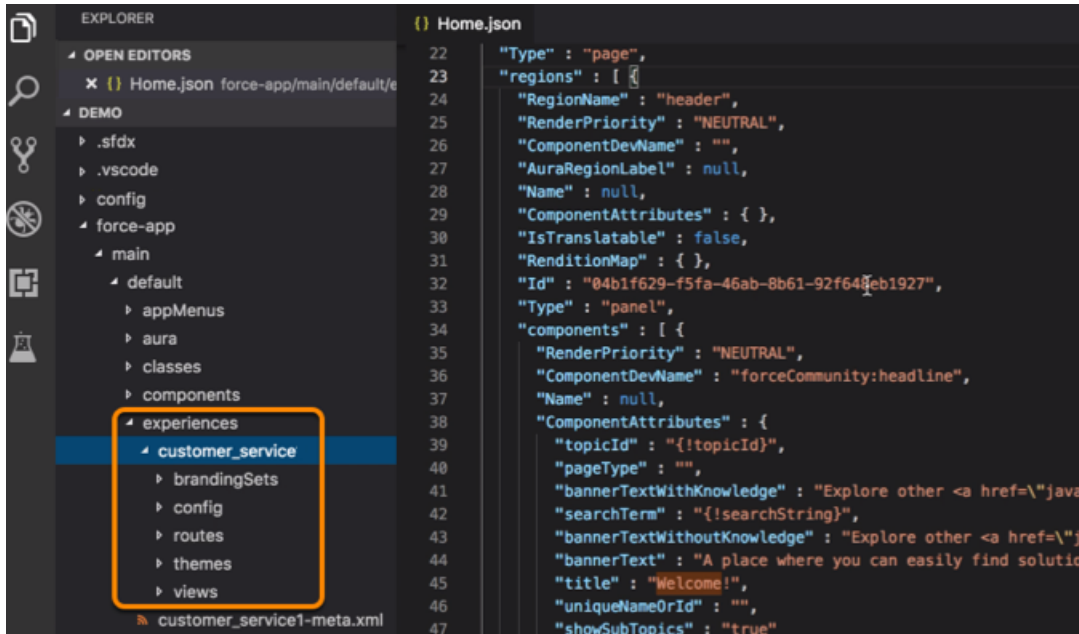
## Update and Deploy Lightning Communities with ExperienceBundle (Generally Available)

The ExperienceBundle metadata type, which was previously available as a pilot program, is now generally available. ExperienceBundle provides human-readable, text-based representations of the different Experience Builder settings and site components, such as pages, branding sets, and themes. Whether it's for your own org or you're a consulting partner or ISV, quickly update and deploy Lightning communities using your preferred development tools, including Salesforce Extensions for VS Code, Salesforce CLI, Workbench, or your favorite IDE or text editor.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Previously, the Network, CustomSite, and SiteDotCom metadata types combined to define a community. However, retrieving the SiteDotCom type produces a binary `.site` file, which isn't human readable. By retrieving the ExperienceBundle type instead of SiteDotCom, you can extract granular community metadata in a human-readable format, contained in a three-level folder structure.


The `experiences` folder contains all the Lightning communities in your org. Each community folder contains subfolders that represent the different components that you access in Experience Builder. Edit the `.json` files on your local machine or scratch org, and then quickly deploy your changes.



**How:** To enable the ExperienceBundle metadata type, from Setup, enter *Communities Settings* in the Quick Find box, and then select **Communities Settings**. Select **Enable ExperienceBundle Metadata API**, and save your changes.

Or you can enable this feature when creating a scratch org using a scratch org definition file. (See the [Metadata Coverage report](#).)

```
{
  "orgName": "Sample Org",
  "edition": "developer",
  "features": [
    "COMMUNITIES"
  ],
  "settings": {
    "experienceBundleSettings": {
      "enableExperienceBundleMetadata": true
    },
    "communitiesSettings": {
      "enableNetworksEnabled": true
    }
  }
}
```

 **Tip:** Before you begin editing the `.json` files of your community, make a copy of the files as a backup.

#### IN THIS SECTION:

##### [Programmatically Create and Publish Communities in Scratch Orgs](#)

Speed up the process of creating and publishing communities when working with ExperienceBundle in scratch orgs. Using several new Salesforce CLI commands, you can programmatically retrieve a list of available templates, create Lightning or Salesforce Tabs + Visualforce communities, and publish Lightning communities.

### [Do More with ExperienceBundle](#)

ExperienceBundle includes improvements since the pilot release. Unlocked packages are now supported, along with the CMS Collection, CMS Connect (JSON), and CMS Single Item components. And UUIDs are automatically generated for components when you add them to ExperienceBundle.

## Programmatically Create and Publish Communities in Scratch Orgs

Speed up the process of creating and publishing communities when working with ExperienceBundle in scratch orgs. Using several new Salesforce CLI commands, you can programmatically retrieve a list of available templates, create Lightning or Salesforce Tabs + Visualforce communities, and publish Lightning communities.

**Where:** This change applies to Lightning and Salesforce Tabs + Visualforce communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Discover New and Changed CLI Commands](#)

## Do More with ExperienceBundle

ExperienceBundle includes improvements since the pilot release. Unlocked packages are now supported, along with the CMS Collection, CMS Connect (JSON), and CMS Single Item components. And UUIDs are automatically generated for components when you add them to ExperienceBundle.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Metadata API](#)

## Personalize Your Community Via the API (Generally Available)

Create and modify Lightning Community audiences programmatically and target those audiences to pages, components, branding sets, and data with code. Use Chatter REST API, Apex, and Metadata API to create audiences in Lightning Communities and assign them to targets, such as pages, components, custom objects, and branding sets. The new features don't affect the user experience or require any action on your part. However, we encourage you to test your existing community personalizations after the Spring '20 sandbox and production releases.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

See these release notes for more detail about changes this release.

- [Chatter REST API: Personalization](#)
- [Chatter in Apex: Personalization](#)


See these developer guides for even more detail.

- [Apex Developer Guide: Personalization Class](#)
- [Chatter REST API Developer Guide: Personalization Resources](#)
- [Metadata API Developer Guide: Audience](#)

## Build Fast, Efficient Experiences with a New LWC-Based Template (Developer Preview)


Use the latest *Build Your Own (LWC)* template to develop communities that load quickly and scale well. Based on Lightning Web Components (LWC), a new programming model that delivers exceptional performance, this lightweight template supports fully customized LWC solutions. For example, if you specialize in building experiences with your own design system and component library, you can remove SLDS and include custom Lightning web components to achieve the pixel-perfect experience that you want.

**Where:** This developer preview applies to communities accessed through Lightning Experience and Salesforce Classic in Developer editions.

 **Note:** The Build Your Own (LWC) template is available as a developer preview in new Developer orgs. Build Your Own (LWC) isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. All commands, parameters, and other features are subject to change or deprecation at any time, with or without notice. Don't implement functionality developed with these commands or tools. You can provide feedback and suggestions for the template in the [Lightning Web Runtime Communities group in the Trailblazer Community](#).

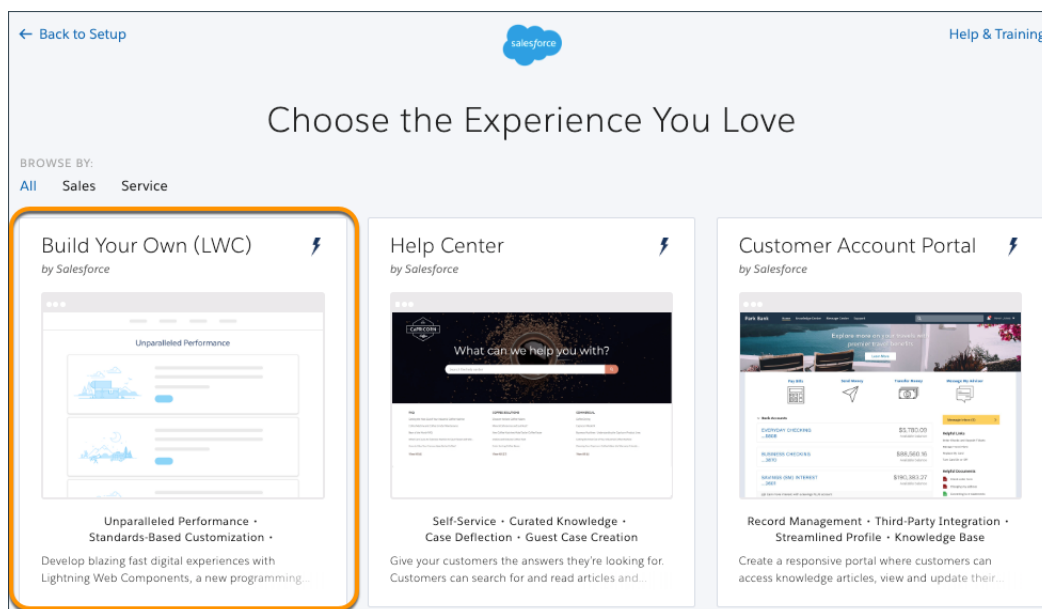
**Why:** Community Cloud has an existing Build Your Own template, which supports Aura and Lightning web components. However, because Build Your Own (LWC) is based exclusively on the Lightning Web Components programming model, the template:


- Delivers unparalleled performance with page load speeds that are up to three times faster.
- Supports the development of reusable Lightning web components and themes that follow modern web standards. Most of the code you write is standard JavaScript and HTML, making the model easy to learn.
- Includes Apex and User Interface API support, so you can access Salesforce records, SOSL, and more, to provide data-rich experiences for your customers.

 **Tip:** Build Your Own (LWC) is a minimal template that provides few components and only the most essential pages. Therefore, the template is best suited to developers who are comfortable developing Lightning web components, and working with Salesforce DX, User Interface API, and Apex.

**How:** To start using the template in new Developer orgs, from Setup, enter *Communities Settings* in the Quick Find box, and then select **Communities Settings**. Select **Enable the Build Your Own (LWC) template**, and save your changes. (For existing Developer orgs, you must first contact Salesforce to access the checkbox.)

After you enable the template, it appears in the community creation wizard.



 **Important:** For previous pilot participants, ensure that you publish your community when the Spring '20 release becomes available. Until you republish your community, your live site won't function correctly.

## Use Relaxed CSP in Lightning Components for Communities

Tag Lightning web components for Lightning communities with `lightningCommunity__RelaxedCSP` to enable components to run in a community that has Lightning Locker disabled.

**Where:** This change applies to Lightning web components in Lightning communities.

SEE ALSO:

[Use Components in Lightning Communities with Lightning Locker Disabled](#)

## Guest User: New Guest User Access Setting and Removed Retired Permissions

Use the Secure guest user record access setting to enforce private org-wide defaults for guest users and restrict the sharing mechanisms that you can use to grant record access to guest users. We removed various obsolete user permissions from guest user profiles to enhance data security.

IN THIS SECTION:

[Secure Guest Users' Org-Wide Defaults and Sharing Model \(Security Alert, Enforced\)](#)

Learn about the **Secure guest user record access** setting in this security alert, and how to safeguard your org's data. This setting enforces private org-wide defaults for guest users and restricts the sharing mechanisms that you can use to grant record access to guest users. If you have a Salesforce org created before Winter '20, we recommend that you review the external org-wide defaults, public groups, queues, manual sharing, and Apex managed sharing that you use to grant access to guest users. Then replace the access previously granted by these sharing mechanisms with guest user sharing rules before the security alert is enforced.

[Secure Object Permissions for Guest Users \(Security Alert\)](#)

In Summer '20, Salesforce is enforcing a new security policy restricting guest users to a maximum read or create access on all standard and custom objects. Previously, you could grant guest users View All Data, Modify All Data, or delete on specific objects. Salesforce is only enforcing this new security policy on new orgs and on compliant existing orgs (in that they don't have View All Data, Modify All Data, or delete permissions for guest users on any object). Orgs that don't comply with this new security policy see a Security Alert in their org, and must assess their guest object permissions to ensure that their org data is secure.

[Removed View All Users and Other Permissions from Guest User Profiles in Sandbox Environments](#)

To promote data security, we removed the following permission in all guest user profiles in your sandbox org: View All Users, Enable UI Tier Architecture, Remove People from Direct Messages, View Topics, and Send Non-Commercial Email. We removed these permissions in sandbox environments so you can test your implementation and make any necessary changes to your production orgs.

[View All Users and Other Permissions Disabled in Guest User Profiles \(Security Alert, Enforced\)](#)

Guest users typically don't need access to view all users in a Salesforce org, so to promote data security, we disabled the View All Users permission in guest user profiles. If you have an org created before Winter '20, we recommend that you check guest user access and deselect the View All Users permission in all your guest user profiles. To enhance security, we also removed these permissions from the guest user profile: Can Approve Feed Post and Comments, Enable UI Tier Architecture, Remove People from Direct Messages, View Topics, and Send Non-Commercial Email.



### [Automatically Assign Records Created by Guest Users to a Default Owner \(Previously Released Security Alert\)](#)

To increase the security of your Salesforce data, set up your org so that guest users are no longer automatically the owner of records they create. Instead, when a guest user creates a record, the record is assigned to a default active user in the org, who becomes the owner.

### [Retiring Some User Permissions on the Guest User Profile](#)

We removed a few obsolete permissions from guest user profiles in new Salesforce orgs, and turned them off by default for new guest user profiles in orgs created before Spring '20.

### [Opt Out of Guest User Security Policies Before Summer '20 \(Critical Update\)](#)

By activating this update, you opt out of three policies aimed at increasing your data security with regards to guest, or unauthenticated, users. Activating this critical update opts your org out of having the following settings automatically enabled with the Summer '20 release: **Secure guest user record access**, **Assign new records created by guest users to the default owner**, and **Assign new records created by Salesforce Sites guest users**. If your org already has these settings enabled, activating this critical update doesn't change your configuration.

### [Opt Out of Turning Off Community-Specific Setting for Guest Users to See Other Members \(Critical Update\)](#)

By activating this critical update, you opt out of turning off the community-specific **Let guest users see other members of this community** setting in the Winter '21 release.

### [Ensure That Your Guest User Sharing Rules Provide Intended Access](#)

To increase the security of your data, we added a reminder about user access that is displayed when you create guest user sharing rules. By creating a guest user sharing rule, you're allowing immediate and unlimited access to all records matching the sharing rule's criteria to anyone, because this sharing rule type grants access to guest users without login credentials. To secure your Salesforce data and ensure that community guest users see what they need, consider all the use cases and implications of creating guest user sharing rules. Implement security controls that you think are appropriate for the sensitivity of your data. Salesforce is not responsible for any exposure of your data to unauthenticated users based on this change from default settings.

### [Ensure Guest User Access to Emails Created with Visualforce Email Templates](#)

Protect access to your company's data when you send emails that use Visualforce Classic email templates to guest users. Review and update these templates so that they can still be used.

## Secure Guest Users' Org-Wide Defaults and Sharing Model (Security Alert, Enforced)

Learn about the **Secure guest user record access** setting in this security alert, and how to safeguard your org's data. This setting enforces private org-wide defaults for guest users and restricts the sharing mechanisms that you can use to grant record access to guest users. If you have a Salesforce org created before Winter '20, we recommend that you review the external org-wide defaults, public groups, queues, manual sharing, and Apex managed sharing that you use to grant access to guest users. Then replace the access previously granted by these sharing mechanisms with guest user sharing rules before the security alert is enforced.

**Where:** This change applies to orgs with active communities and sites in Enterprise, Essentials, Unlimited, Performance, and Developer editions.

**When:** The timelines for the rollout and enforcement of this setting will be published in the [Securing Community Cloud](#) group on the Trailblazer Community (Salesforce login required).

**How:** Review the required actions before this security alert is enforced. From Setup, enter *Security Alerts* in the Quick Find box, then select **Security Alerts**. For Secure Guest Users' Org-Wide Defaults and Sharing Model, click **Get Started**. Follow the instructions in the step-by-step guides for reviewing guest user sharing settings and creating guest user sharing rules.

SEE ALSO:

[Critical Updates and Security Alerts](#)

[Salesforce Help: Secure Guest Users' Sharing Settings and Record Access \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Secure Your Community or Portal \(can be outdated or unavailable during release preview\)](#)


## Secure Object Permissions for Guest Users (Security Alert)

In Summer '20, Salesforce is enforcing a new security policy restricting guest users to a maximum read or create access on all standard and custom objects. Previously, you could grant guest users View All Data, Modify All Data, or delete on specific objects. Salesforce is only enforcing this new security policy on new orgs and on compliant existing orgs (in that they don't have View All Data, Modify All Data, or delete permissions for guest users on any object). Orgs that don't comply with this new security policy see a Security Alert in their org, and must assess their guest object permissions to ensure that their org data is secure.

**Where:** This change applies to all orgs with guest user profiles for communities, Site.com sites, and Salesforce Sites.

**When:** This security policy is being enforced in Summer '20, but we want you to have time to assess the effect of this change in your org.

**How:** If your org has any objects that give guest users View All Data, Modify All Data, update, or delete permissions to guest users, you see a Security Alert asking you to tighten your security standards. See the Security Alerts in your org in **Setup > Security Alerts**. To see which objects have too permissive object permissions, download and install **Guest User Access Report** from the AppExchange. Follow the installation directions and check the report showing guest access for all objects in your org.

 **Important:** While we're not removing the update permission for guest users in the Summer '20 release, we're removing it at a future date. Test your configuration by removing the update permission on all objects for guest users to see how your implementation is affected.

## Removed View All Users and Other Permissions from Guest User Profiles in Sandbox Environments

To promote data security, we removed the following permission in all guest user profiles in your sandbox org: View All Users, Enable UI Tier Architecture, Remove People from Direct Messages, View Topics, and Send Non-Commercial Email. We removed these permissions in sandbox environments so you can test your implementation and make any necessary changes to your production orgs.

**Where:** This change applies to all sandbox orgs with guest user profiles in Lightning Experience and Salesforce Classic.

## View All Users and Other Permissions Disabled in Guest User Profiles (Security Alert, Enforced)

Guest users typically don't need access to view all users in a Salesforce org, so to promote data security, we disabled the View All Users permission in guest user profiles. If you have an org created before Winter '20, we recommend that you check guest user access and deselect the View All Users permission in all your guest user profiles. To enhance security, we also removed these permissions from the guest user profile: Can Approve Feed Post and Comments, Enable UI Tier Architecture, Remove People from Direct Messages, View Topics, and Send Non-Commercial Email.

**Where:** This change applies to orgs with active communities in Enterprise, Essentials, Unlimited, Performance, and Developer editions.

**When:** The timelines for the rollout and enforcement of this setting will be published in the [Securing Community Cloud](#) group on the Trailblazer Community (Salesforce login required).

**How:** These changes are auto-enabled in your org. However, you have the ability to opt-out. In the Summer '20 release, these changes are mandatory and you no longer have the option to opt out.

## Automatically Assign Records Created by Guest Users to a Default Owner (Previously Released Security Alert)

To increase the security of your Salesforce data, set up your org so that guest users are no longer automatically the owner of records they create. Instead, when a guest user creates a record, the record is assigned to a default active user in the org, who becomes the owner.

**Where:** This change applies to orgs with active communities in Enterprise, Essentials, Unlimited, Performance, and Developer editions.

**Why:** Having an internal org user be the owner of records created by guest users is a Salesforce security best practice. While we strongly encourage you to assign a default owner, changing record ownership can affect your guest users' ability to access records. Test all changes in a sandbox environment to see the effects on data sharing and visibility before you change your implementation in production.

**How:** From Setup, enter *Communities Settings* in the Quick Find box, then select **Communities Settings**. Select **Assign new records created by guest users to the default owner**. Click **Save**.

In newly created communities, Salesforce automatically assigns the user that created the community as the default owner of all records created by guest users. Change the default owner in the Administration workspace of your community, under Preferences.

## Retiring Some User Permissions on the Guest User Profile


We removed a few obsolete permissions from guest user profiles in new Salesforce orgs, and turned them off by default for new guest user profiles in orgs created before Spring '20.

**Where:** This change applies to all orgs with active guest user profiles in Lightning Experience and Salesforce Classic.

**Why:** Guest users have less access to object data in communities and portals, and need fewer user permissions than authenticated users.

The following permissions are no longer available for guest user profiles:

- `ShareInternalArticles` (Share internal Knowledge articles externally)
- `HideReadByList` (Hide the Seen By List)
- `RecordVisibilityAPI` (Enable RecordVisibility API)
- `AssignTopics` (Assign Topics)
- `CanVerifyComment` (Verify Answers to Chatter Questions)
- `CloseConversations` (Close Conversation Threads)
- `EditTopics` (Edit Topics)
- `CreateTopics` (Create Topics)
- `DeleteTopics` (Delete Topics)
- `MergeTopics` (Merge Topics)
- `PrivacyDataAccess` (Allow user to access privacy data)
- `ModifyDataClassification` (Modify Data Classification)
- `UseAnyApiClient` (Use Any API Client)
- `CanApproveFeedPost` (Can Approve Feed Post and Comment)

 **Note:** These permissions are still available in guest user profiles created in orgs before Spring '20, but are off by default.

## Opt Out of Guest User Security Policies Before Summer '20 (Critical Update)


By activating this update, you opt out of three policies aimed at increasing your data security with regards to guest, or unauthenticated, users. Activating this critical update opts your org out of having the following settings automatically enabled with the Summer '20 release: **Secure guest user record access**, **Assign new records created by guest users to the default owner**, and **Assign new records created by Salesforce Sites guest users**. If your org already has these settings enabled, activating this critical update doesn't change your configuration.

**Where:** This change applies to orgs with active communities in Enterprise, Essentials, Unlimited, Performance, and Developer editions.

**When:** The **Secure guest user record access**, **Assign new records created by guest users to the default owner**, and **Assign new records created by Salesforce Sites guest users** settings are automatically enabled with the Summer '20 release. This critical update gives you the extra time you may need to get ready. If you opt out of these settings for the Summer '20 release, you must comply with our new guest security policies before Winter '21, when they are enforced on all orgs.

**How:** To opt out of automatically enabling these settings, activate the critical update. To access the settings in the UI to see if they are enabled or not:

- From Setup, enter *Sharing Settings* in the Quick Find box. Select **Sharing Settings**. You can see the **Secure guest user record access** checkbox on the page.
- From Setup, enter *Communities Settings* in the Quick Find box, then select **Communities Settings**. You can see the **Assign new records created by guest users to the default owner** checkbox on the page.
- From Setup, enter *Sites* in the Quick Find box, then select **Sites**. You can see the **Assign new records created by Salesforce Sites guest users** checkbox on the page.

 **Important:** Activating this critical update only affects orgs that don't have these settings enabled. If your org already has these settings enabled, activating this critical update doesn't change your configuration.

SEE ALSO:

[Salesforce Help: Secure Guest Users' Sharing Settings and Record Access](#)

[Salesforce Help: Assign Records Created by Guest Users to a Default User in the Org Critical Updates and Security Alerts](#)

## Opt Out of Turning Off Community-Specific Setting for Guest Users to See Other Members (Critical Update)

By activating this critical update, you opt out of turning off the community-specific **Let guest users see other members of this community** setting in the Winter '21 release.

**Where:** This change applies to Salesforce orgs with active public communities in Enterprise, Essentials, Unlimited, Performance, and Developer editions.

**When:** The **Let guest users see other members of this community** setting is automatically disabled in all communities in Winter '21. This critical update gives you the extra time you may need to get ready.

**How:** Before Winter '20, the **Community User Visibility** setting, when enabled, allowed guest users and authenticated community users to see each other within the community. In the Winter '20 release, we introduced a new community-specific setting, **Let guest users see other members of this community**, that lets admins control guest user visibility independently from community user visibility.

Depending on your security configuration, this setting might allow a guest user, essentially anyone on the internet, to access community users' personally identifying information. This can include first and last name, email, custom, and other fields.

To protect your customer data and privacy, Salesforce is turning off the **Let guest users see other members of this community** setting for all communities.

Depending on your business needs, enabling this setting and allowing guest users to see one another may be required for your site to function properly. Therefore, we are asking that you reassess and validate the need to enable **Let guest users see other members of this community for each community**. If you have one or more communities that must have this setting turned on, activate this critical update to opt out of the Winter '21 update. However, we encourage you to work towards modifying your site's customization to allow this setting to be disabled. Limiting guest user visibility is a Salesforce security best practice.

If you don't activate this critical update, the **Let guest users see other members of this community** setting is turned off on all your communities (not just the ones created after Winter '20). Make sure to assess all the communities in your org, including the ones created after Winter '20.

If you turn off the **Let guest users see other members of this community setting** on your own on all your communities, and test your implementation, then you aren't impacted by the Winter '21 release.

SEE ALSO:

[Salesforce Help: Control User Visibility in Your Community or Portal](#)

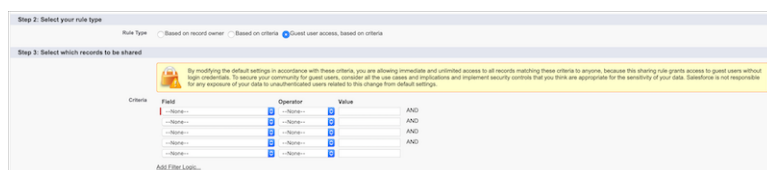
[Salesforce Help: Community User Visibility Best Practices for Guest Users](#)

## Ensure That Your Guest User Sharing Rules Provide Intended Access

To increase the security of your data, we added a reminder about user access that is displayed when you create guest user sharing rules. By creating a guest user sharing rule, you're allowing immediate and unlimited access to all records matching the sharing rule's criteria to anyone, because this sharing rule type grants access to guest users without login credentials. To secure your Salesforce data and ensure that community guest users see what they need, consider all the use cases and implications of creating guest user sharing rules. Implement security controls that you think are appropriate for the sensitivity of your data. Salesforce is not responsible for any exposure of your data to unauthenticated users based on this change from default settings.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions.

**How:** From Setup, enter *Sharing Settings* in the Quick Find box, then select **Sharing Settings**. Under Other Settings, ensure that the Secure guest user record access setting is enabled. In the Sharing Rules related list for the object, click **New** and select the **Guest user access, based on criteria** rule type. The reminder is displayed whenever this sharing rule type is selected.



SEE ALSO:

[Salesforce Help: Secure Your Community or Portal](#)

[Salesforce Help: Create Sharing Rules](#)

## Ensure Guest User Access to Emails Created with Visualforce Email Templates


Protect access to your company's data when you send emails that use Visualforce Classic email templates to guest users. Review and update these templates so that they can still be used.

**Where:** This change applies to Salesforce orgs with active public communities, sites, and portals in Enterprise, Performance, Unlimited, and Developer editions.

**When:** This security policy released in Summer '20 and is immediately enforced.

**Who:** This change applies to Visualforce email templates that target guest users in communities.

**Why:** Emails that use Visualforce email templates send information based on a user's access to Salesforce data. But because data access for guest users is limited in Salesforce, the template doesn't work.

 **Important:** Assess the impact of the guest security policy and, if necessary, update Visualforce email templates sent to guest users.

**How:** Add an attribute to the `emailTemplate` tag in your Visualforce email template.

1. Ensure that you have the Author Apex user permission.

 **Note:** Any user who creates or updates Visualforce email templates must have this permission.

2. Open a Visualforce email template and add this attribute to the `emailTemplate` tag:

```
renderUsingSystemContextWithoutSharing="True"
```

3. Save the template.

SEE ALSO:

[Update Visualforce Email Templates for Guest Users](#)

[Salesforce Help: Create Visualforce Email Templates in Salesforce Classic](#)

## Security and Sharing: Apple ID Login, Text Message Identity Verification, and Lightning Locker Toggle

Community and portal users can now log in using their Apple ID. You can now have community and portal members verify their identity using text message. Turn Lightning Locker on or off for your community using a toggle.

IN THIS SECTION:

[Let Community Users Log In with Their Apple ID](#)

Users can now log in to communities with their Apple ID when you use the new Apple authentication provider.

[Verify Your Community Domain for External Services](#)

Some external services require you to prove control over your community domain name. If so, the service must verify that you actually own the domain. For example, the Sign In with Apple service requires domain verification to allow users to log in with their Apple ID. You can now verify your community domain from the Domains Setup page.

[Verify Identity by Text Message Instead of Email](#)

To impose a stricter identity verification policy, you can have community users verify their identity by text message if they already verified their phone number. If users haven't verified their phone number, Salesforce verifies their identity by email.

[Switch Lightning Locker On and Off in the UI](#)

Turn Lightning Locker on and off for all components in a community, regardless of API version, with a simple switch in Experience Builder. The switch is available in Lightning Communities that use the Script Security level Allow Inline Scripts and Script Access to Whitelisted Third-party Hosts.

#### [Limit API Access to Installed Connected Apps](#)

You can limit community and portal (external) users' access to Salesforce APIs with a new API Access Control setting. With this setting, external users can only access APIs if they use a connected app that is installed in your org.

#### [Block Certain Fields in the User Record for Orgs with Communities and Portals \(Security Alert and Critical Update, Enforced\)](#)

Salesforce is giving customers the option to enable a user setting that allows the hiding of certain personal information fields on the user records in orgs with communities or portals. The fields are hidden from view when external users are accessing user records. External users can still see their own user records. This change doesn't apply to queries running in System Mode.

#### [Set External Access Levels for More Standard Objects \(Generally Available\)](#)

You can now set external access levels for Leads and Campaigns. The objects available for external org-wide defaults vary depending on your Salesforce org's licenses and other settings.

#### [Prevent Using Standard External Profiles for Self-Registration and User Creation \(Security Alert and Critical Update, Enforced\)](#)

This update restricts the use of standard external profiles for self-registration and assignment to users.

## Let Community Users Log In with Their Apple ID

Users can now log in to communities with their Apple ID when you use the new Apple authentication provider.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Let Users Log In to Salesforce with Their Apple ID](#)

## Verify Your Community Domain for External Services

Some external services require you to prove control over your community domain name. If so, the service must verify that you actually own the domain. For example, the Sign In with Apple service requires domain verification to allow users to log in with their Apple ID. You can now verify your community domain from the Domains Setup page.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Verify Your Domain Name for External Services](#)

## Verify Identity by Text Message Instead of Email

To impose a stricter identity verification policy, you can have community users verify their identity by text message if they already verified their phone number. If users haven't verified their phone number, Salesforce verifies their identity by email.

**Where:** This change applies to Lightning and Salesforce Tabs + Visualforce communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions. SMS verification messaging is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce app. The Identity Verification Credits add-on license is available for purchase for all editions.

**Who:** Customers who have an Identity Verification Credits license and use device activation by text message can enable identity verification by text message. If you don't know your org's limit of SMS messages for identity verification, contact your Salesforce account rep. On external users' profiles, the option **Enable Device Activation** allows external users to verify their identity by text message.

**How:** From Setup, in the Quick Find box, enter *Identity Verification*, and then select **Prevent identity verification by email when other methods are registered**.

SEE ALSO:

[Prevent Identity Verification by Email](#)

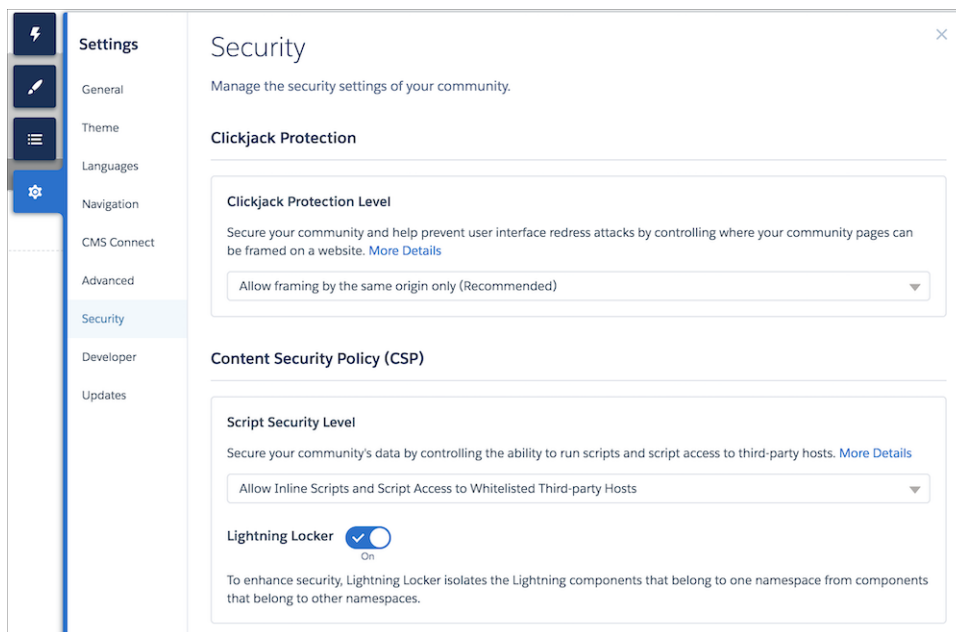
## Switch Lightning Locker On and Off in the UI

Turn Lightning Locker on and off for all components in a community, regardless of API version, with a simple switch in Experience Builder. The switch is available in Lightning Communities that use the Script Security level Allow Inline Scripts and Script Access to Whitelisted Third-party Hosts.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**Why:** Lightning Locker provides security in your community by isolating components from other components. For example, it can isolate a component that captures password information and prevent other components from reading that data. However, sometimes you don't require this level of security. In the past, if you wanted to bypass the Lightning Locker security feature in your community, you could use components based on API versions 39.0 or earlier. With the new switch, you can use components based on later API versions and still turn off Lightning Locker in the community.

**How:** In Experience Builder, go to **Settings > Security > Content Security Policy (CSP)**.



## Limit API Access to Installed Connected Apps

You can limit community and portal (external) users' access to Salesforce APIs with a new API Access Control setting. With this setting, external users can only access APIs if they use a connected app that is installed in your org.

**Where:** This change applies to all communities accessed through Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.



**How:** Contact Salesforce Customer Support to enable API Access Control for your org.

SEE ALSO:

[Limit API Access for External Users](#)

## Block Certain Fields in the User Record for Orgs with Communities and Portals (Security Alert and Critical Update, Enforced)

Salesforce is giving customers the option to enable a user setting that allows the hiding of certain personal information fields on the user records in orgs with communities or portals. The fields are hidden from view when external users are accessing user records. External users can still see their own user records. This change doesn't apply to queries running in System Mode.

**Where:** This change applies to all orgs with communities or portals.

**How:** Salesforce is introducing an org setting that allows for the hiding of other users' personal information in pages showing the user record to external user profiles, and in SOSL and SOQL queries that run as external users.

The affected fields are


- Alias
- EmployeeNumber
- FederationIdentifier
- SenderEmail
- Signature
- Username
- Division
- Title
- Department
- Extension

Admins can enable the setting **Hide Personal Information** for the org under User Management Settings. After enabling the setting, searches on user records don't show the affected fields of other users to external users.

 **Important:**

Enabling the **Hide Personal Information** setting is a Salesforce security best practice.

Test any changes in a sandbox environment before introducing it in production.

 **Tip:** This update is both a critical update and a security alert, and appears in both the Critical Update Console and the Security Alerts page in Setup. To ensure a smooth transition, follow the step-by-step recommendations on the Security Alerts page.

## Set External Access Levels for More Standard Objects (Generally Available)

You can now set external access levels for Leads and Campaigns. The objects available for external org-wide defaults vary depending on your Salesforce org's licenses and other settings.

**Where:** This change applies to communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Safeguard Your Data by Setting External Access Levels for the Lead and Campaign Objects \(Generally Available\)](#)

[Salesforce Help: External Organization-Wide Defaults Overview \(can be outdated or unavailable during release preview\)](#)

## Prevent Using Standard External Profiles for Self-Registration and User Creation (Security Alert and Critical Update, Enforced)

This update restricts the use of standard external profiles for self-registration and assignment to users.

**Where:** This change applies to Lightning and Salesforce Tabs + Visualforce communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** This change applies to all orgs using standard external profiles associated with the following licenses:

- BronzePartner ExternalAppsPlusLogin
- CSPLitePortal
- CustomerCommunity
- CustomerCommunityLogin
- CustomerCommunityPlus
- CustomerCommunityPlusLogin
- CustomerPortalManager
- CustomerPortalManagerCustom
- CustomerPortalManagerStandard
- ExternalAppsLogin
- ExternalAppsMember
- ExternalAppsPlusMember GoldPartner
- HighVolumeCustomerPortal
- HighVolumePortal
- IdeasOnlyPortal
- LimitedCustomerPortalMgrCustom
- LimitedCustomerPortalMgrStandard
- OverageAuthenticatedWebsite
- OverageCustomerPortalMgrCustom
- OverageCustomerPortalMgrStandard
- OverageHighVolumeCustomerPortal
- Partner
- PartnerCommunity
- PartnerCommunityLogin
- PlatformPortal
- SilverPartner AuthenticatedWebsite

**Why:** This update prevents using standard external profiles for self-registration and user creation. For self-registration, we recommend that you assign users to a cloned community profile, rather than a standard community profile. We also recommend that you use cloned community profiles for new users.

**How:** To allow self-registration and user creation using standard external profiles, go to **Setup > Communities Settings** and enable the new **Allow standard external profiles for self-registration and assignment to users** preference. Force.com and legacy portal users can enable the preference using Metadata API.



**Note:** Allowing self-registration and community user setup with standard external profiles is not a Salesforce best practice. Review the object permissions and field-level security settings for all standard external profiles before turning on the preference.



**Tip:** This update is both a critical update and a security alert, and appears in both the Critical Update Console and the Security Alerts page in Setup. To ensure a smooth transition, follow the step-by-step recommendations on the Security Alerts page.

## Other Changes in Communities

Learn about other changes that improve your experience with communities.

### IN THIS SECTION:

#### [Talk to Customers Where They Want with the Channel Menu](#)

Start conversations with your customers using the channels they prefer. Customize their engagement choices in an Embedded Channel Menu on your community or portal. Agents respond directly from their Service Console, where all the benefits of Service Cloud are at their fingertips.

#### [Display Warning When a Community Is Accessed with an Unsupported Browser](#)

A new org-wide setting lets you display a warning to community users who are accessing their community with an unsupported browser. The warning asks users to update their browser to the newest version or use another browser.

#### [External Account Hierarchy \(Beta\)](#)

Now users with Partner Community and Customer Community Plus licenses can view the records of other external users within their account hierarchy. External account hierarchies take the complexity out of sharing data with external users.

#### [Use a Permission Set to Assign the Delegated External User Administrator Permission](#)

Instead of creating a user profile just for delegated external admins, use your regular profiles and assign the Delegated External User Administrator (DEUA) permission using a permission set. Configure the list of profiles and permission sets an external user with the DEUA permission can manage on that external user profile.

#### [Name Change for Community Workspaces and Builder](#)

You already use Builder and Workspaces to create incredible experiences for your customers. That's why we changed the name of the Community Builder and Workspaces to Experience Builder and Experience Workspaces.

#### [Experience Workspaces Is No Longer Supported in Microsoft Internet Explorer 11](#)

Support for working in Experience Workspaces from Microsoft Internet Explorer version 11 (IE11) ends in Spring '20. To continue to build your community, switch to a more secure supported browser. You can still view Lightning communities with IE11.

## Talk to Customers Where They Want with the Channel Menu

Start conversations with your customers using the channels they prefer. Customize their engagement choices in an Embedded Channel Menu on your community or portal. Agents respond directly from their Service Console, where all the benefits of Service Cloud are at their fingertips.

**Where:** This change applies to communities accessed through Salesforce Classic and Lightning Experience in Essentials, Professional, Performance, and Unlimited editions.

SEE ALSO:

[Hello! Meet the Channel Menu \(Generally Available\)](#)

## Display Warning When a Community Is Accessed with an Unsupported Browser

A new org-wide setting lets you display a warning to community users who are accessing their community with an unsupported browser. The warning asks users to update their browser to the newest version or use another browser.


**Where:** This change applies to all communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**How:** To disable the warning message, from Setup, enter *Communities Settings* in the Quick Find box, then select **Communities Settings**. Clear the Display warning for unsupported browsers in Communities checkbox, and click **Save**.

## External Account Hierarchy (Beta)

Now users with Partner Community and Customer Community Plus licenses can view the records of other external users within their account hierarchy. External account hierarchies take the complexity out of sharing data with external users.

**Where:** This change applies to Lightning and Salesforce Tabs + Visualforce communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

 **Note:** As a beta feature, External Account Hierarchy is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. For information on enabling this feature in your org, contact Salesforce Customer Support.

**Why:** Like Salesforce role hierarchies, data belonging to accounts in an external account hierarchy is available to the parent accounts in the hierarchy. This way, external users don't have to rely on sharing rules to access data from their child accounts.

**How:** When your enrollment in this beta program is complete, enable external account hierarchies in Communities Settings. After you enable the preference, the External Account Hierarchy object is available in your org.

## Use a Permission Set to Assign the Delegated External User Administrator Permission

Instead of creating a user profile just for delegated external admins, use your regular profiles and assign the Delegated External User Administrator (DEUA) permission using a permission set. Configure the list of profiles and permission sets an external user with the DEUA permission can manage on that external user profile.

**Where:** This change applies to all communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

## Name Change for Community Workspaces and Builder

You already use Builder and Workspaces to create incredible experiences for your customers. That's why we changed the name of the Community Builder and Workspaces to Experience Builder and Experience Workspaces.

**Where:** This change applies to communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Experience Builder Overview](#)

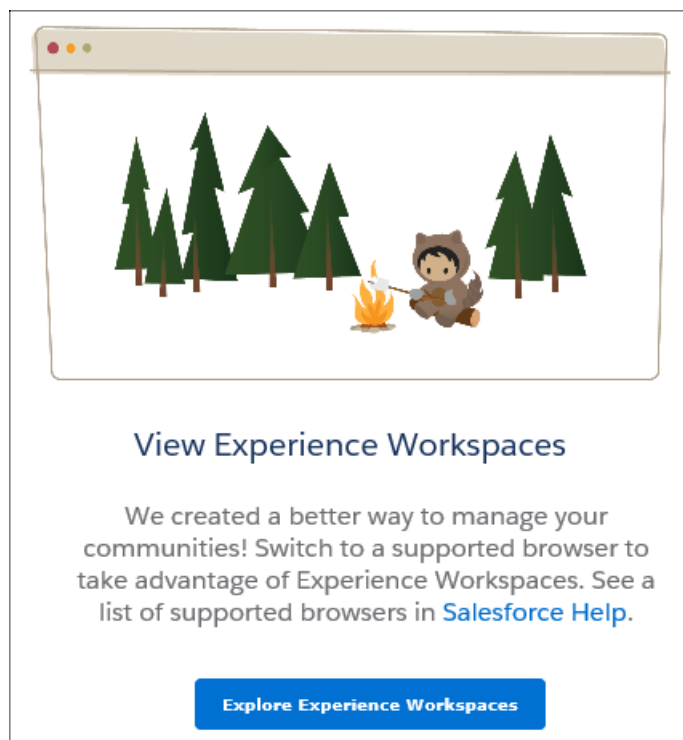
[Manage Your Community with Experience Workspaces](#)

## Experience Workspaces Is No Longer Supported in Microsoft Internet Explorer 11

Support for working in Experience Workspaces from Microsoft Internet Explorer version 11 (IE11) ends in Spring '20. To continue to build your community, switch to a more secure supported browser. You can still view Lightning communities with IE11.

**Where:** This change applies to communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**How:** The next time you access Experience Workspaces with IE11, a message provides you with a link to a list of the browsers that Salesforce supports.



SEE ALSO:

[Browser Support for Communities](#)

[Manage Your Community with Experience Workspaces](#)

## Chatter Feeds: Absolute or Relative Time Stamps in Case Feeds

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Choose how to display time stamps for case feed posts and comments.

### Set the Date and Time Stamp Format for Case Feed Items

In Case feeds, you can now show users an absolute or relative date and time stamp on feed items. Show your users an absolute date and time stamp like "January 7, 2020 at 12:15PM", or a relative period like "10 minutes ago".

**Where:** This change is available in Lightning Experience in Essentials, Group, Professional, Enterprise, Performance, Unlimited, Developer, and Contact Manager editions.

**How:** There's a new Chatter setting in Setup, **Show relative timestamp**. The relative time stamp is the default. To use an absolute time stamp, clear the checkbox. In a Case feed, the setting affects the date and time stamps on posts and comments. If you navigate to a feed item's detail view, the time stamp is always relative. When relative time is in effect in the feed, users can see the absolute date and time by hovering over the stamp.

SEE ALSO:

[IdeaExchange: Show exact date time of Chatter post or activity in Lightning Case Console feed](#)

## Files: Retiring Support for Adobe Flash Rendition

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Prepare to switch your file rendition in the Chatter REST API from Adobe Flash to SVG.

IN THIS SECTION:

[Switch Your File Rendition Resource with the Chatter REST API](#)

As of the Winter '21 release, the [Chatter REST API File Rendition resource](#) no longer returns an Adobe Flash rendition. Instead, that you can use an SVG rendition resource from the [Chatter REST API File Preview resource](#).

### Switch Your File Rendition Resource with the Chatter REST API

As of the Winter '21 release, the [Chatter REST API File Rendition resource](#) no longer returns an Adobe Flash rendition. Instead, that you can use an SVG rendition resource from the [Chatter REST API File Preview resource](#).

As of the Summer '20 release, the [Chatter REST API File Rendition resource](#) stops creating Adobe Flash renditions by default. To create Adobe Flash renditions for the Summer '20 release, contact Customer Support. But Adobe Flash renditions are unavailable as of the Winter '21 release.

## Mobile: An Upgraded Experience for All

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In Spring '20, all active Salesforce mobile app users get upgraded to the new Salesforce mobile app. Admins and users alike can take advantage of expanded customization options, powerful Lightning functionality, and improved performance. Mobile Publisher for Communities gets even better with Apple Wallet access and a new app specifically for testing.

## IN THIS SECTION:

[New Salesforce Mobile App: A Major Upgrade, Plus Navigation and Search Improvements](#)

In Spring '20, all active Salesforce mobile app users, including Salesforce Classic and Lightning Experience users, get upgraded to the new Salesforce mobile app. Get quick access to the items you use the most with a customizable navigation bar and a new Einstein Analytics navigation item. Search enhancements and Einstein Voice Assistant (Beta) make it easier to find what you want, and link sharing makes it easier to share it.

[Mobile Publisher for Communities: Sandbox Testing App and Apple Wallet Access](#)

Your mobile communities get more robust with the new Mobile Publisher for Communities improvements. Make sure that your mobile communities app works the way you want it to before publishing with the Playground app. Add passes to Apple Wallet directly from your branded mobile communities app.

[Other Mobile Enhancements: Objects, Fields, Setup Audit Trail](#)

Out with the old and in with the new. We did some spring cleaning to keep your mobile implementations happy and healthy.

## New Salesforce Mobile App: A Major Upgrade, Plus Navigation and Search Improvements

In Spring '20, all active Salesforce mobile app users, including Salesforce Classic and Lightning Experience users, get upgraded to the new Salesforce mobile app. Get quick access to the items you use the most with a customizable navigation bar and a new Einstein Analytics navigation item. Search enhancements and Einstein Voice Assistant (Beta) make it easier to find what you want, and link sharing makes it easier to share it.

## IN THIS SECTION:

[Welcome to the New Salesforce Mobile App](#)

The new Salesforce mobile app is going prime time! The new app debuted in Winter '20. In Spring '20, all active Salesforce mobile app users, including Salesforce Classic and Lightning Experience users, get upgraded to the new Salesforce mobile app. Admins get access to [more customization options](#) on page 443. End users get an intuitive UI, faster performance, and familiar Lightning features that make switching between desktop and mobile easier than ever.

[Everything That's New in the New Salesforce App](#)

Our latest round of new and improved Salesforce app features makes it easier to access Salesforce on the go.

[App Store and Google Play Updates](#)

Although major releases bring major changes to the Salesforce mobile app, we're always working to improve your mobile experience. We sometimes make smaller but still mighty changes that we can't wait to share with you, so we release them in App Store® and Google Play™ updates. Learn about our latest release in Salesforce Help.

[Enable the New Salesforce Mobile App \(Critical Update\)](#)

This update upgrades all mobile users to the new Salesforce mobile app.

## Welcome to the New Salesforce Mobile App

The new Salesforce mobile app is going prime time! The new app debuted in Winter '20. In Spring '20, all active Salesforce mobile app users, including Salesforce Classic and Lightning Experience users, get upgraded to the new Salesforce mobile app. Admins get access to [more customization options](#) on page 443. End users get an intuitive UI, faster performance, and familiar Lightning features that make switching between desktop and mobile easier than ever.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and the Salesforce mobile app for iOS and Android in all editions, except Database.com.

**When:** Lightning-powered customization options will be available when Spring '20 rolls out to your org. If your users are running the most recent version of the Salesforce mobile app available in the App Store or Google Play, they'll see improved navigation and Lightning features. All other changes, including Einstein Voice Assistant (Beta), search Recommended Result, and the Einstein Analytics navigation item, will be available in a mobile app update the week of February 17, 2020.

**Why:** In Spring '20, you get [everything from Winter '20](#) with a few enhancements, based on your feedback.

### The new Salesforce mobile app is yours, automatically on page 348

You don't have to turn on your Lightning Experience org preference or assign the New Salesforce Mobile App user permission to access the new app admin or end-user experience.

### Essentials is now supported

Essentials users, rejoice! It's your turn to experience the productivity-boosting functionality and styling of the new Salesforce mobile app.

### The navigation bar is more customizable on page 341

In a Lightning app, the first four items of your mobile navigation bar reflect the first four tabs of your desktop navigation bar. In the Mobile Only app, the first four items of your mobile navigation bar reflect the first four tabs in your mobile navigation menu. Previously, all but the first item in the navigation bar was fixed.

### Notifications, search, and favorites have new homes

You can search and view notifications from the top right of the mobile app. You can view your favorites list from the profile menu. Previously, the search, notification, and favorites list icons were located in the navigation bar.

SEE ALSO:

[Salesforce Winter '20 Release Notes: Get Ready for the New Salesforce Mobile App](#)

[Knowledge Article: New Salesforce Mobile App Automatic Upgrade FAQ](#)

## Everything That's New in the New Salesforce App

Our latest round of new and improved Salesforce app features makes it easier to access Salesforce on the go.

The new Salesforce mobile app is available for all editions, except Database.com, without an additional license. Your org's Salesforce edition and licenses, as well as a user's assigned profile and permission sets, determine the Salesforce data and features that are available to each user.

Lightning-powered customization options will be available when Spring '20 rolls out to your org. If your users are running the most recent version of the Salesforce mobile app available in the App Store or Google Play, they'll see improved navigation and Lightning features. All other changes, including Einstein Voice Assistant (Beta), search Recommended Result, and the Einstein Analytics navigation item, will be available in a mobile app update the week of February 17, 2020.

Salesforce App Enhancements and Changes	Salesforce for Android	Salesforce for iOS	Salesforce Mobile Web	Set Up in the Full Site
<b>Browser and Operating System</b>				
<a href="#">Salesforce Mobile App Requirements</a>	✓	✓	✓	
<a href="#">Support Has Changed for the New Salesforce Mobile App Tablet Experience</a>	✓	✓		✓
<a href="#">Plan for Salesforce Mobile Web Browser Experience's Retirement</a>			✓	
<b>Einstein Analytics</b>				



Salesforce App Enhancements and Changes	Salesforce for Android	Salesforce for iOS	Salesforce Mobile Web	Set Up in the Full Site
<a href="#">Access Einstein Analytics on the Go With the New Mobile Navigation Item</a>		✓		✓
<b>Data Access and Views</b>				
<a href="#">Mobile Cards Are Not Available in the New Salesforce Mobile App</a>	✓	✓		✓
<b>Navigation and Actions</b>				
<a href="#">Customize More of the Navigation Bar</a>	✓	✓		✓
<b>Search</b>				
<a href="#">See More Details When You Search</a>	✓	✓		
<a href="#">Find the Right Record Fast with Recommended Result on Mobile (Beta)</a>	✓	✓		✓
<b>Sales Features</b>				
<a href="#">Account and Opportunity Team Related List Customization Supported on Mobile Devices</a>	✓	✓	✓	✓
<a href="#">Update Paths with Dependent Picklists on Mobile Devices</a>	✓	✓	✓	✓
<b>Productivity Features</b>				
<a href="#">Get Your Colleagues on the Same Page with Link Sharing</a>	✓	✓		✓
<a href="#">Boost Productivity for Your Mobile Users with Einstein Voice Assistant (Beta)</a>	✓	✓		✓
<b>Access and Security</b>				
<a href="#">Shield Your Data with Enhanced Mobile Security Updates</a>	✓	✓		✓
<b>Setup</b>				
<a href="#">Enable the New Salesforce Mobile App (Critical Update)</a>	✓	✓		✓
<b>Ongoing Enhancements</b>				
<a href="#">App Store and Google Play Updates</a>	✓	✓		

## App Store and Google Play Updates

Although major releases bring major changes to the Salesforce mobile app, we're always working to improve your mobile experience. We sometimes make smaller but still mighty changes that we can't wait to share with you, so we release them in App Store® and Google Play™ updates. Learn about our latest release in Salesforce Help.

### 224.010

This version of the Salesforce mobile app is available the week of March 2, 2020.

### 224.020

This version of the Salesforce mobile app is available the week of March 16, 2020.

**224.030**

This version of the Salesforce mobile app is available the week of March 30, 2020.

## Salesforce Mobile App Requirements

Salesforce is revising the requirements for using the Salesforce mobile app for Android, iOS, and mobile web. Learn about the mobile platform requirements and the devices that we use for feature and performance testing as we continue to improve the Salesforce experience.

### Mobile Platform Requirements

Users can run the Salesforce mobile app on mobile devices that meet these mobile platform requirements.

Operating System and Version Requirements	Mobile Browser Requirements *
Android 6.0 or later	Google Chrome on Android
iOS 12.0 or later	Apple Safari on iOS

\* The latest mobile browser version is required. Mobile browser requirements apply to Salesforce mobile web only.

To allow for innovation and to keep Salesforce current in the rapidly evolving mobile market, minimum platform requirements are subject to change at the sole discretion of Salesforce, with or without advance notice.

### Mobile Devices Used for Salesforce Testing

Salesforce performs automated and manual testing of the Salesforce mobile app for Android, iOS, and mobile web on a select set of mobile devices. For the Spring '20 release, we used these devices for testing.

Platform	Phones	Tablets
<b>Android</b>	<ul style="list-style-type: none"> <li>• Google Pixel 4 / Pixel 4 XL</li> <li>• Google Pixel 3</li> <li>• Google Pixel 2 / Pixel 2 XL</li> <li>• Samsung Galaxy S10 / S10+</li> <li>• Samsung Galaxy S9 / S9+</li> <li>• Samsung Galaxy S8</li> <li>• Samsung Galaxy S7</li> <li>• Samsung Galaxy Note 9</li> <li>• Samsung Galaxy Note 8</li> </ul>	<ul style="list-style-type: none"> <li>• Samsung Tab A 9.7</li> <li>• Samsung Tab A 8.0</li> </ul>
<b>iOS</b>	<ul style="list-style-type: none"> <li>• iPhone 11 Pro Max</li> <li>• iPhone 11 Pro</li> <li>• iPhone 11</li> <li>• iPhone XS Max</li> <li>• iPhone XR</li> </ul>	<ul style="list-style-type: none"> <li>• iPad Pro 12.9" (2nd Generation)</li> <li>• iPad Pro 10.5"</li> <li>• iPad Pro 9.7"</li> <li>• iPad 2017 (5th Generation)</li> <li>• iPad Air 2</li> </ul>

Platform	Phones	Tablets
	<ul style="list-style-type: none"> <li>• iPhone X</li> <li>• iPhone 8 / 8 Plus</li> <li>• iPhone 7 / 7 Plus</li> <li>• iPhone 6 / 6 Plus</li> </ul>	<ul style="list-style-type: none"> <li>• iPad Mini 4</li> </ul>

Customers aren't blocked from using the Salesforce mobile app on untested devices that meet current platform requirements. Salesforce might not be able to replicate some issues for customers using the Salesforce mobile app on untested devices due to manufacturer-specific customizations.

To allow for innovation and to keep Salesforce current in the rapidly evolving mobile market, the list of Salesforce-tested devices is subject to change at the sole discretion of Salesforce, with or without advance notice.

## Salesforce Mobile App Updates

Customers whose devices meet current minimum platform requirements are eligible to receive Salesforce mobile app feature updates and fixes.

Our goal is to release Salesforce mobile feature and functionality updates to coincide with each Salesforce major release. This information is provided to help with your release planning, but is subject to change at Salesforce's discretion.

### Salesforce Mobile Web

Enhanced features and functionality are automatically available with each Salesforce major release.

### Salesforce Mobile App for Android and iOS

Enhanced features and functionality are provided in major version updates. We aim to release a new major version of the Salesforce mobile app for Android and iOS after the completion of each Salesforce major release to all production instances. The timeframe in which a new major version is released varies and can be affected by factors outside of Salesforce's control, including new requirements from Apple or Google or changes to the iOS or Android operating systems.

Customers can install new major and bug fix versions from the App Store and Google Play as long as their mobile devices meet Salesforce's current minimum mobile operating system requirements. If a device is running an older operating system, updated versions of the Salesforce mobile app don't appear in Google Play or the App Store.

## Customer Support Services for the Salesforce Mobile App

Salesforce Customer Support uses commercially reasonable efforts to troubleshoot issues with the Salesforce mobile app, provided:

- A user's device meets current minimum platform requirements
- Salesforce for Android and iOS users have the most recent version installed

When customers run the Salesforce mobile app on Salesforce-tested devices, it's more efficient for us to troubleshoot issues. For customers using untested devices, even those meeting minimum platform requirements, we might not be able to replicate some issues due to device manufacturer-specific customizations.

Running the Salesforce mobile app on older devices or devices with low computation and memory capabilities can adversely affect performance, compared to performance on Salesforce-tested devices.

Because we enhance functionality with every release, customers should install the latest update of the Salesforce mobile app available in Google Play or the App Store. We can only support the latest version.

## Support Has Changed for the New Salesforce Mobile App Tablet Experience

Admins who opted in to the new Salesforce mobile app during the pilot or in Winter '20 can choose whether all tablet users in the org see the new tablet experience or the previous tablet experience. Previously, Salesforce mobile app users who had the app installed on a tablet were limited to the new tablet experience. If you didn't opt in to the new Salesforce mobile app, all users in your org will continue to see the previous Salesforce mobile app tablet experience.

**Where:** This change applies to the new Salesforce mobile app for iOS and Android installed on tablets in all editions, except Database.com.

**Who:** This change applies to all tablet users in orgs that previously opted in to the new Salesforce mobile app.

**Why:** The new Salesforce mobile app has a narrow view on tablets instead of the full-screen view that was in the previous mobile app. We learned that some admins prefer the full-screen view, which is not supported in the new tablet experience. Now admins who opted in to the new Salesforce mobile app during the pilot or in Winter '20 can toggle the new tablet experience on and off for all users in the org.

If you didn't opt in to the new Salesforce mobile app during the pilot or in Winter '20, the narrow view is unavailable.

If you have iPad users, check out the Lightning Experience on iPad browsers (beta) feature for another way to use Salesforce on the go.

**How:** To toggle the new Salesforce mobile app tablet experience, go to Setup. Enter *QuickStart* in the Quick Find box, then select **New Salesforce Mobile App Quickstart**. Look for the New Salesforce Mobile App for Tablet section.

SEE ALSO:

[Salesforce Help: Lightning Experience on iPad Browsers \(Beta\) \(can be outdated or unavailable during release preview\)](#)

## Plan for Salesforce Mobile Web Browser Experience's Retirement

Mobile web browser access to Salesforce is scheduled to retire with the Summer '20 release. For more information, see [Salesforce Mobile Web Experience Retirement](#). To access Salesforce from a mobile device, use the downloadable Salesforce mobile app from Google Play or the App Store or use Lightning Experience on iPad Browsers.

**Where:** This change applies to the Salesforce Mobile Web in all editions, except Database.com.

## Access Einstein Analytics on the Go With the New Mobile Navigation Item

Salesforce for iOS users now have a home base for their Einstein Analytics lenses and dashboards with the new Analytics navigation item for Lightning apps. With the new item users can run and browse their apps, add assets to their favorites, and share links to their assets with email, SMS, and more. With more functionality in the Salesforce app, Einstein Analytics users don't have to switch between apps to complete important business tasks.

**Where:** This change applies to the new Salesforce mobile app for iOS. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**When:** The new navigation item will be available the week of February 17, 2020.

**How:** Admins can add the Analytics navigation item to Lightning apps in the Lightning App Builder. Analytics does not show up in the **Mobile Only** navigation item list in the App Launcher.

SEE ALSO:

[Use Einstein Analytics in the New Salesforce Mobile App](#)

## Mobile Cards Are Not Available in the New Salesforce Mobile App

Mobile cards were available in the page layout editor and appeared in a record's related information page in the previous Salesforce mobile app. They don't appear in the new Salesforce mobile app, so you can take advantage of more powerful Lightning customization options instead.

**Where:** This change applies to the new Salesforce mobile app in all editions, except Database.com.

**Why:** News, Twitter, and Visualforce mobile cards have been replaced with Lightning components, which are available across desktop and mobile form factors. Many Expanded Lookups can be recreated with the Related Record component. The Related Record component not only displays the details of a related record, including the details of a parent record, but also allows your users to update the related record.

**How:** News and Twitter Lightning components work automatically in the new Salesforce mobile app.

To replace a Visualforce mobile card, add a Visualforce component to your Lightning page, then configure the component to point to the desired mobile-enabled Visualforce page. To enable your Visualforce page for mobile, ensure that the **Available for Lightning Experience, Lightning Communities, and the mobile app** checkbox is selected in the page's details.

To replace an Expanded Lookup, add a Related Record component to your Lightning page, then specify a Lookup Field and an Update Action. If no actions are available for your lookup, follow the links in the Lightning App Builder property editor to create an action. To change the displayed fields for the Related Record component, customize the associated action in Setup.

SEE ALSO:

[Salesforce Help: Standard Lightning Page Components](#)

## Customize More of the Navigation Bar

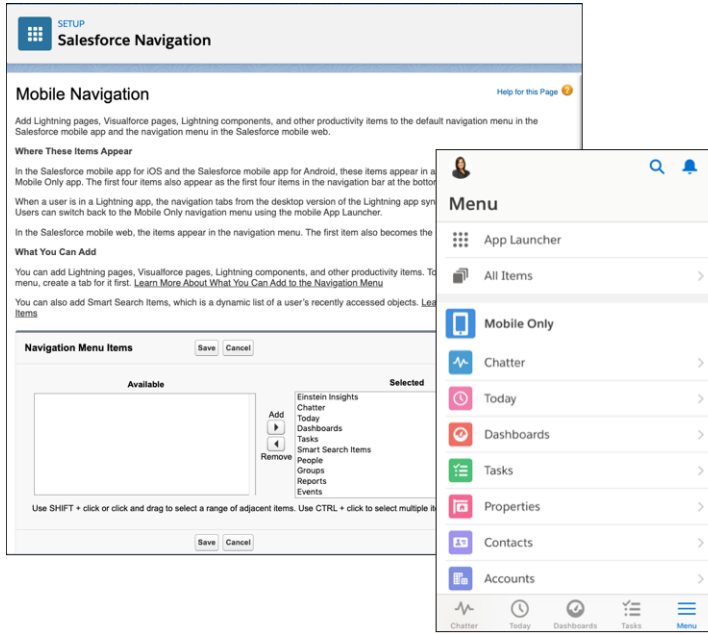
Put users' frequently used items within easy reach. Now you can customize the first four items in the navigation bar at the bottom of the screen. Previously, you could customize only the first item.

**Where:** This change applies to the new Salesforce mobile app for iOS and Android in all editions, except Database.com.

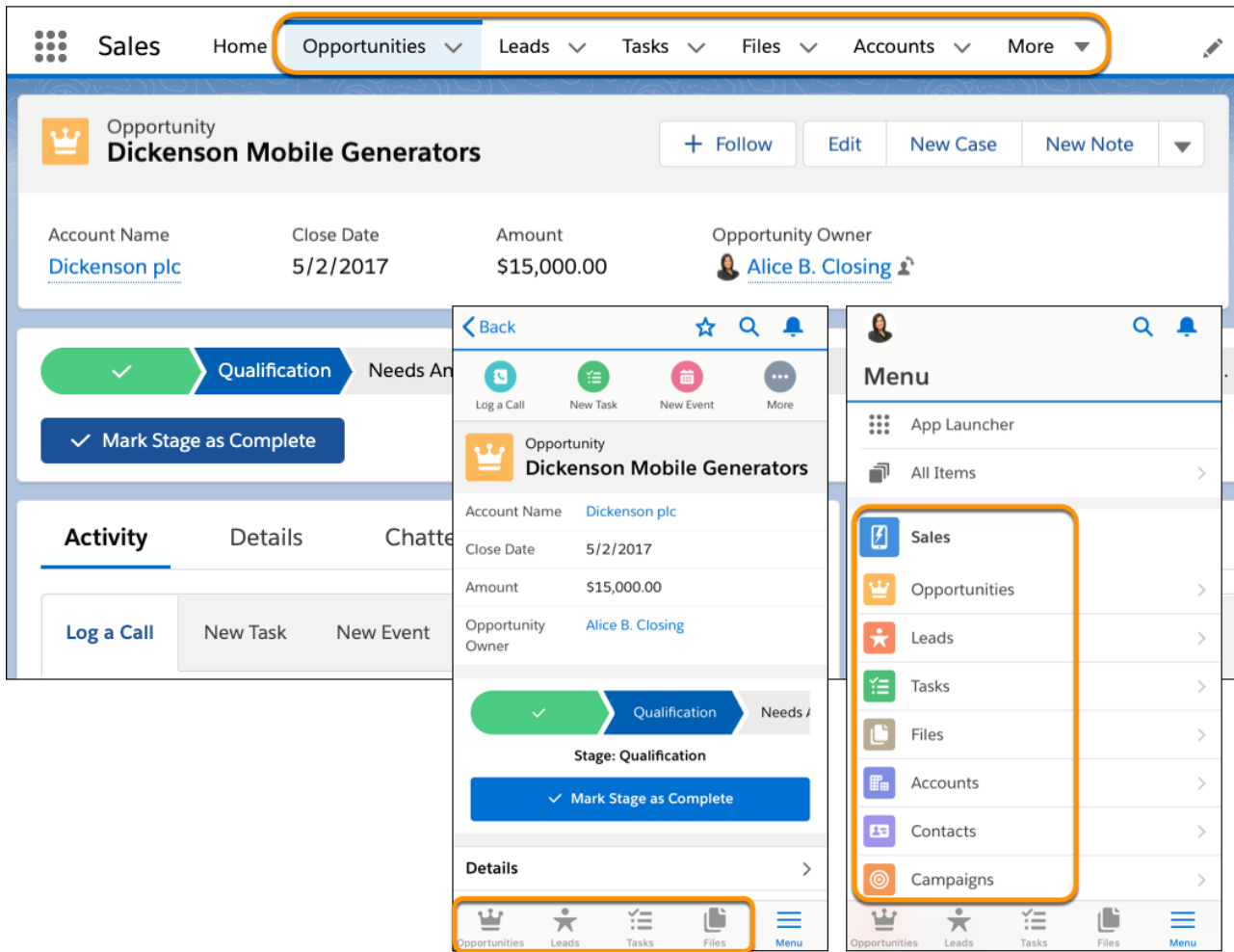
**Why:** In the previous navigation bar, the Favorites, Search, and Notifications items couldn't be changed. Now the search and notifications icons live at the top of the screen, like they do in the desktop version of Lightning Experience. Your favorites list is in the profile menu. These changes free up your navigation bar for the items that make you most productive.

**How:** The two navigation experiences in the new Salesforce mobile app are customized differently.

For users in the Mobile Only app, the first four items in the navigation bar are the first four items of the navigation menu. Add Lightning pages, Visualforce pages, Lightning components, and other productivity items to the navigation menu in Setup. Enter *Navigation* in the Quick Find box, then select **Salesforce Navigation**.



For users in a Lightning app, the first four items in the navigation bar are the first four items in the navigation bar of the desktop version of the app. The complete list of desktop navigation bar items is in the mobile navigation menu. If a user has permission to customize the navigation bar on desktop, the changes sync to the mobile navigation menu and navigation bar.



SEE ALSO:

[Salesforce Help: Customize the Salesforce Mobile App Navigation Menu \(can be outdated or unavailable during release preview\)](#)

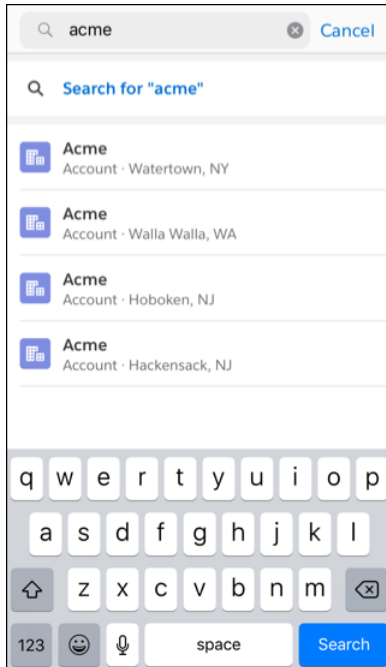
## See More Details When You Search

When you search, the instant results you get as you type show more information, just like they do in Lightning Experience desktop. The extra information can help you figure out which result is the one you want.

**Where:** This change applies to the new Salesforce mobile app for iOS and Android in all editions except Database.com.

**When:** This change will be available the week of February 17, 2020.

**Why:** When you search for a record with a common name, the search results can all look alike. Is that Acme account for the office in Hoboken, or the one in Hackensack? Now, the search results that are shown as you type make it clear. The secondary field from the search results layout appears next to the object name, giving you extra context about a record.



**How:** To choose the secondary field for an object, go to the Object Manager in Setup. Select an object, then select **Search Layouts**. Edit the Search Results layout. The second supported field in the layout is the secondary field. Not all fields are supported.


SEE ALSO:

[Salesforce Help: Configure Search Results in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

## Find the Right Record Fast with Recommended Result on Mobile (Beta)

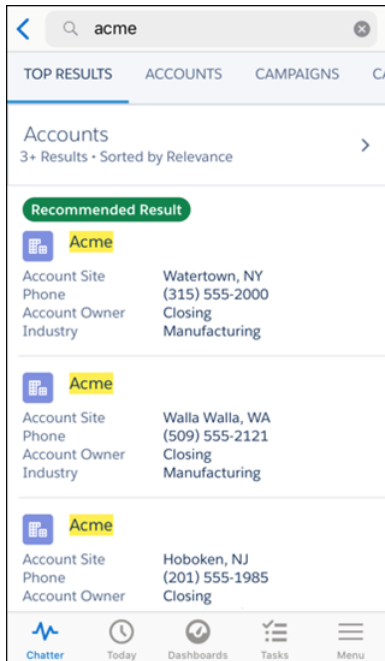
When a record is likely to be just what your users are looking for, it now gets highlighted in Top Results.

**Where:** This change applies to the new Salesforce mobile app for iOS and Android in Unlimited, Enterprise, and Performance editions.

 **Note:** As a beta feature, Einstein Search is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Einstein Search in the [Trailblazer Community](#).

**Who:** Recommended Result requires the Einstein Search permission set license.





SEE ALSO:

[Salesforce Help: Set Up and Manage Einstein Search Features \(Beta\)\(can be outdated or unavailable during release preview\)](#)

## Account and Opportunity Team Related List Customization Supported on Mobile Devices

Customize related lists for account and opportunity teams to help reps collaborate more effectively. Previously, customizations weren't displayed to mobile users.

**Where:** This change applies to Lightning Experience and all versions of the new Salesforce mobile app in Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Account and Opportunity Team Related List Customization Is Supported](#)

## Update Paths with Dependent Picklists on Mobile Devices

Boost reps' productivity when they use their phones to work opportunities. Paths now support dependent picklists in the Salesforce mobile app, so that sales teams can complete dependent fields as they move through a path. Reps no longer have to open and edit each record separately to complete fields. Previously, dependent picklist fields were available on paths only in Lightning Experience.

**Where:** This change applies to the new Salesforce mobile app in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** When you use dependent picklists in a path, and a rep selects a stage containing a child picklist, the rep is prompted to enter a value.

SEE ALSO:

[Salesforce Help: Define Dependent Picklists \(can be outdated or unavailable during release preview\)](#)

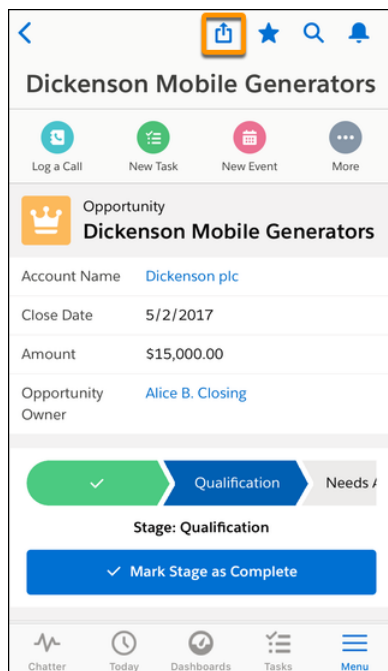
[IdeaExchange: Path on Salesforce1 Not Showing Dependent Fields](#)

## Get Your Colleagues on the Same Page with Link Sharing

Collaboration is key, and it can get challenging when you're not in the office. With the new share icon, it's easy to share record pages, list view pages, object home pages, and Lightning app pages with a colleague, right from the Salesforce mobile app.

**Where:** This change applies to the new Salesforce mobile app for iOS and Android in all editions, except Database.com.

**Why:** We learned users were finding creative ways to share pages with colleagues: screenshots, elaborate search instructions, copying and pasting, interpretive dance. Now, all it takes is a tap or two, and users can share a Lightning URL to a Salesforce page using their device's native share sheet.



**How:** The share icon appears automatically on shareable pages, including record pages, list view pages, object home pages, and Lightning app pages. However, you can disable link sharing for your org by adding a connected app custom attribute. In Setup, search for *Connected Apps* and select **Manage Connected Apps**. Click the name of the connected app you want to modify. In the Custom Attributes section on the connected app page, click **New**, then enter `ENABLE_SHARE` for the attribute key and `false` for the attribute value.


SEE ALSO:

[Salesforce Help: Control Access and Security for the Salesforce App \(can be outdated or unavailable during release preview\)](#)

## Boost Productivity for Your Mobile Users with Einstein Voice Assistant (Beta)

With Einstein Voice Assistant, your users can get more done while they're on the go by speaking in to their mobile phone. From the new Salesforce mobile app, they can ask Einstein to make changes to Salesforce, like logging events, creating contacts, and updating opportunities.

**Where:** This feature is available in the new Salesforce mobile app for iOS and Android in Professional, Enterprise, Unlimited, and Developer editions. Setup for this feature is available in Lightning Experience.

 **Note:** As a beta feature, Einstein Voice Assistant is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. For information on enabling this feature in your org, contact your Account Executive. To provide feedback on Einstein Voice Assistant, contact Salesforce Customer Support.

**When:** You can use Einstein Voice Skills to create voice skill sets right away. Your changes become visible to mobile users the week of February 17, 2020.

**Who:** Einstein Voice Assistant will initially be available to most orgs already using an Einstein product. Within eligible orgs, users with a Salesforce license can use Einstein Voice Assistant.

**Why:** Users can access Einstein Voice Assistant from a convenient navigation item in the new Salesforce mobile app navigation bar. In the default mobile app navigation experience, called Mobile Only, Einstein Voice Assistant is always the leftmost item in the navigation bar.

SEE ALSO:

[Einstein Voice Assistant: Get More Done on the Run \(Beta\)](#)

[Customize More of the Navigation Bar](#)

## Shield Your Data with Enhanced Mobile Security Updates

More protection has been built into the enhanced mobile security for the Salesforce mobile app. You can now enforce new policies such as disabling microphone or camera usage to further secure your Salesforce app data and users' personal data.

**Where:** Available for an extra cost for the new Salesforce mobile app in all editions, except Essentials and Database.com.

**When:** This change will be available the week of February 17, 2020.

**Who:** Available for users with the Enforce Enhanced Mobile App Security user permission.

**Why:** Updates to enhanced mobile security include enabling malware detection (Android only) and blocking the use of a debugger, microphone, or camera (iOS only).

**How:** In Setup, search for *Connected Apps* and select **Manage Connected Apps**. Select the app that you want to modify, and add and configure policies as custom attributes.

The screenshot shows the Salesforce Setup interface. On the left sidebar, under 'Connected Apps', the 'Manage Connected Apps' link is highlighted with an orange box. The main content area shows various settings for a mobile application, including Notifications Settings, Mobile Integration, Custom Connected App Handler, User Provisioning Settings, Trusted IP Range for OAuth Web Server Flow, Custom Attributes (with a 'New' button highlighted), and OAuth Custom Scopes.

Action	Attribute key	Attribute value
<a href="#">Edit</a>   <a href="#">Del</a>	mobile.security.MINIMUM_OS_VERSION	"[{\"value\": \"12.0\", \"severity\": \"warn\"}]"
<a href="#">Edit</a>   <a href="#">Del</a>	mobile.security.DEVICE_PASSCODE	"[{\"value\": \"true\", \"severity\": \"error\"}]"
<a href="#">Edit</a>   <a href="#">Del</a>	mobile.security.BLOCK_FILE_BACKUP	"[{\"value\": \"true\"}]"
<a href="#">Edit</a>   <a href="#">Del</a>	mobile.security.MAN_IN_MIDDLE	"[{\"value\": \"true\", \"severity\": \"critical\"}]"
<a href="#">Edit</a>   <a href="#">Del</a>	mobile.security.JAILBROKEN_DEVICE	"[{\"value\": \"true\", \"severity\": \"critical\"}]"

SEE ALSO:

[Salesforce Mobile App Security Guide \(can be outdated or unavailable during release preview\)](#)

## Enable the New Salesforce Mobile App (Critical Update)

This update upgrades all mobile users to the new Salesforce mobile app.

**Where:** This change applies to the new Salesforce mobile app for iOS and Android in all editions, except Database.com.

**Why:** With this update, all active Salesforce mobile app users, including both Salesforce Classic and Lightning Experience users, will be upgraded to the new Salesforce mobile app. Users don't need to download a new version of the Salesforce mobile app for iOS or the Salesforce mobile app for Android to get the new experience.

**How:** To get ready for the transition, we recommend that you use the tools on the New Salesforce Mobile App QuickStart page in Setup. Run the Salesforce Optimizer for Mobile Lightning Pages Report (Beta) to see how your custom Lightning pages will be affected by the transition, and get recommendations to fine-tune the mobile experience. Then use our tools to update your Lightning apps and pages for mobile.

SEE ALSO:

[Critical Updates and Security Alerts](#)

## Mobile Publisher for Communities: Sandbox Testing App and Apple Wallet Access

Your mobile communities get more robust with the new Mobile Publisher for Communities improvements. Make sure that your mobile communities app works the way you want it to before publishing with the Playground app. Add passes to Apple Wallet directly from your branded mobile communities app.

### IN THIS SECTION:

#### [Test Your Mobile Communities with the Playground App \(Beta\)](#)

You can quickly test and preview the in-app experience of your communities before publishing your app with the Playground app. The app is a non-branded version of the Mobile Publisher for Communities app.


#### [Add a Pass to Apple Wallet \(iOS Only\)](#)

Your users can now add a pass to their Apple Wallet from your branded mobile communities app.

## Test Your Mobile Communities with the Playground App (Beta)

You can quickly test and preview the in-app experience of your communities before publishing your app with the Playground app. The app is a non-branded version of the Mobile Publisher for Communities app.

**Where:** This change applies to Lightning communities accessed through Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

 **Note:** We provide this app to customers through a Beta program that activates the app for sandbox orgs. To activate the app, contact your Salesforce sales rep to obtain a courtesy license or log a case in <https://help.salesforce.com/home>. Because Beta programs are subject to change, we can't guarantee acceptance. This Beta app isn't generally available, as referenced in this document or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available features.

**When:** This Beta app is available in the Spring '20 release.

**Who:** Available for users who request and obtain a courtesy license. Contact your Salesforce sales rep for more information.

**Why:** We want to make sure that you can test the functionality of your mobile communities before applying your company's branding assets.

**How:** The Playground app supports most of the features and functionality of the fully branded Mobile Publisher for Communities app.

- Persistent login
- Face ID / Touch ID
- Push Notifications
- Upload a file
- Download a file
- Share a file

**Community Details**

\*Community URL  
https://

Login URL  
https://

Community Nickname  
Nickname for your community

Continue

The Playground app is available for iOS and Android.

## Add a Pass to Apple Wallet (iOS Only)

Your users can now add a pass to their Apple Wallet from your branded mobile communities app.

**Where:** This change applies to Lightning communities accessed through Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

**When:** This change will be available the week of February 17, 2020.

## Other Mobile Enhancements: Objects, Fields, Setup Audit Trail

Out with the old and in with the new. We did some spring cleaning to keep your mobile implementations happy and healthy.

## IN THIS SECTION:

[MobileSession Object Was Removed](#)

MobileSession was used by the Salesforce Classic Mobile app, but hasn't been functional since we retired Salesforce Classic Mobile in Winter '18. If you have existing custom reports or custom report types that pull Mobile Session data, they may return no results or generate an error. We recommend deleting these reports or types.

[Apex Mobile User \(Salesforce Internal Use Only\) Field Was Removed](#)

The Apex Mobile User (Salesforce Internal Use Only) field, previously named Salesforce Classic User, represented users of the Salesforce Classic Mobile app, but hasn't been functional since we retired Salesforce Classic Mobile in Winter '18. The API name for this field was UserPermissionsMobileUser. List views and reports that use this field may return different results than expected or generate an error. Review and, if necessary, edit the criteria for these list views and reports to ensure that your results meet your requirements.

[Track Changes to Connected App and Notification Delivery Settings](#)

We added items to the Setup Audit Trail to help you track important mobile and notification updates in Salesforce. Now you can track changes to your connected app's PIN length and inactivity timeout length. You can also track changes to your notification delivery settings for custom and standard notification types, including changes to mobile, desktop, and connected app delivery settings.

## MobileSession Object Was Removed

MobileSession was used by the Salesforce Classic Mobile app, but hasn't been functional since we retired Salesforce Classic Mobile in Winter '18. If you have existing custom reports or custom report types that pull Mobile Session data, they may return no results or generate an error. We recommend deleting these reports or types.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions.

## SEE ALSO:

[Salesforce Winter '18 Release Notes: Salesforce Mobile Classic App to Retire in December 2017](#)

## Apex Mobile User (Salesforce Internal Use Only) Field Was Removed

The Apex Mobile User (Salesforce Internal Use Only) field, previously named Salesforce Classic User, represented users of the Salesforce Classic Mobile app, but hasn't been functional since we retired Salesforce Classic Mobile in Winter '18. The API name for this field was UserPermissionsMobileUser. List views and reports that use this field may return different results than expected or generate an error. Review and, if necessary, edit the criteria for these list views and reports to ensure that your results meet your requirements.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions.

## SEE ALSO:

[Salesforce Winter '18 Release Notes: Salesforce Mobile Classic App to Retire in December 2017](#)

## Track Changes to Connected App and Notification Delivery Settings

We added items to the Setup Audit Trail to help you track important mobile and notification updates in Salesforce. Now you can track changes to your connected app's PIN length and inactivity timeout length. You can also track changes to your notification delivery settings for custom and standard notification types, including changes to mobile, desktop, and connected app delivery settings.

**Where:** You can track connected app changes in the Setup Audit Trail in Lightning Experience and Salesforce Classic in Contact Manager, Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions. You can track changes to notification delivery

settings in the Setup Audit Trail in Lightning Experience in Contact Manager, Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Monitor More Changes in the Setup Audit Trail](#)

## Salesforce Sustainability Cloud: Trusted Platform to Achieve Carbon Neutrality

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Gain critical insights about your carbon footprint. Using global emission factors to calculate greenhouse gas emissions, Sustainability Cloud helps you collect, categorize, and analyze energy usage and greenhouse gas emissions data throughout your organization's business activities. And because it's built on top of the Salesforce Lightning Platform, you have access to tools that facilitate collaboration, project management, and reporting.

For the latest information, see the monthly release notes on the [Sustainability Cloud Trailblazer](#) or [Sustainability Cloud Partner](#) community.

IN THIS SECTION:

[Report and Reduce Your Carbon Footprint](#)

Sustainability Cloud streamlines carbon footprint data capture and audit. It solves many of the issues with traditional carbon accounting: incomplete or missing records, manual data tracking in multiple spreadsheets, and unstructured data. Data collection and auditing activities that once took months can be reduced to weeks.

### Report and Reduce Your Carbon Footprint

Sustainability Cloud streamlines carbon footprint data capture and audit. It solves many of the issues with traditional carbon accounting: incomplete or missing records, manual data tracking in multiple spreadsheets, and unstructured data. Data collection and auditing activities that once took months can be reduced to weeks.

**Where:** This change applies to Lightning Experience and the Salesforce mobile app in Enterprise, Performance, and Unlimited editions.

**When:** Sustainability Cloud releases on December 17, 2019.

**Who:** Sustainability Cloud is available to users with a Sustainability Cloud license. To install and configure the app, you must have the Customize Application and Modify All Data user permissions.

**Why:** Because your data is in one place, you can quickly measure your environmental impact and gain actionable insights. You can use these insights to report the findings to your key stakeholders and determine your climate action strategy. Sustainability Cloud generally aligns with widely used and accepted standards of greenhouse gas reporting, such as the Greenhouse Gas Protocol from the World Resources Institute. Use it as a key tool to disclose your carbon footprint to various reporting bodies.

The app is preloaded with reference data from the:

- US Environmental Protection Agency (EPA)
- US Energy Information Administration (EIA)
- UK Department for Business, Energy & Strategy (BEIS)
- Greenhouse Gas (GHG) Protocol

The carbon inventory calculations are automated and accurate. You no longer have to check calculation accuracy in spreadsheet-driven inventories.



Sustainability Cloud is designed around a logical workflow process that is optimized for carbon footprinting. Sustainability Cloud guides you through the process from start to finish: from identifying assets to be included in the carbon inventory, to reporting out data after an external audit.

**How:** To obtain Sustainability Cloud, contact your account executive. Once your system administrator installs and configures the app and provides login credentials, use the App Launcher to find and open **Sustainability**.

SEE ALSO:

[Salesforce Help: Report and Reduce Your Carbon Footprint](#)

[Sustainability Cloud Trailblazer Community](#)

[Sustainability Cloud Partner Community](#)

## Industries: Easier Setup, More Flexibility, Bigger Impact

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Our vertical solutions now include Salesforce Emergency Response Management, which helps you deliver resources and services faster when people need it most. In Health Cloud, you get contact tracing and monitoring, plus easier setup for care plans and more options for finding the right care provider. Financial Services Cloud brings you more visibility into distributors and a new API for creating mortgages. Consumer Goods Cloud helps field reps maximize their impact and track stock levels, and Manufacturing Cloud offers account managers greater control and improved visibility into sales agreements and account forecasts.

IN THIS SECTION:

[Introducing Salesforce Emergency Response Management](#)

Salesforce Emergency Response Management helps you serve your constituents and communities when they need it most. Provide healthcare to symptomatic patients and trace and monitor potentially exposed individuals. Allocate emergency resources and services with more speed and efficiency than ever before.

[Financial Services Cloud: Mortgage APIs, Distributor Performance Management, and Action Plan Templates](#)

Create your own mortgage process with new Mortgage business APIs. Add document checklist items to action plan templates. Monitor distributor performance with a new dashboard, reports, and performance metrics. Clone and share your action plan templates.

[Health Cloud: Emergency Management, Easier Setup for Care Plans and Programs, and More Provider Information](#)

To help you make the world a better (and healthier) place to live in, we've added ways to help stop the spread of infection and quickly provide care in a public health emergency, and we've made it easier to create and customize care plans and care programs. We've also given you more ways to design provider cards and more flexibility to customize how users can search for providers, so you can deliver information efficiently to your users. And now you can gather information about how patients and members want to be contacted.

[Consumer Goods Cloud: Optimized Visit Sequences, Stock Level Monitoring, and Improved Business Performance](#)

Do business more effectively with your retail partners. Give your field reps a productivity boost by helping them reach stores faster. They now have more time to build relationships with store managers and consumers. You also can ensure that your products are never out of stock.

[Manufacturing Cloud: Enrich Your Experience with Sales Agreement and Account Forecast Enhancements](#)

Get a closer look at your sales agreements and account forecasts with additional features. Add products to an account forecast. Add your own metrics to customize your account forecast. View revenue metrics of an account forecast in the account's currency. Filter your sales agreements and account forecasts by products. Simultaneously update multiple values of a sales agreement metric or an account forecast metric. Get a visual representation of your organization's data with the provided dashboards.

[Shared Industries Metadata API](#)


Metadata API includes new types. These metadata API types apply to two or more Salesforce Industries clouds.

## Introducing Salesforce Emergency Response Management

Salesforce Emergency Response Management helps you serve your constituents and communities when they need it most. Provide healthcare to symptomatic patients and trace and monitor potentially exposed individuals. Allocate emergency resources and services with more speed and efficiency than ever before.

### EDITIONS

Available in: **Enterprise**, **Performance**, and **Unlimited** editions.

 **Note:** Both Emergency Response Management for Public Health and Emergency Release Management for Public Sector are available in the Spring '20 release.

### IN THIS SECTION:

#### [Introducing Contact Tracing for Employees](#)

With Contact Tracing for Employees, your company can manage the manual contact tracing process and track the spread of disease while caring for your employees.

#### [Introducing Emergency Response Management for Public Health](#)

Mobilize your public health department to serve its constituents and communities when there's a health emergency. Quickly triage and evaluate patients, provide ongoing engagement and monitoring, and protect communities from further infection with contact tracing. Use the Emergency Response community to feature different services and programs that are available for public agencies and hospitals, such as emergency supply requests. For individuals, create programs such as food delivery services or short-term housing requests. Using Salesforce Maps, dispatch your field responders with speed and efficiency to the locations or citizens who need assistance. We've included a set of Einstein Analytics dashboards to give you powerful insights into community health so that you can make faster and smarter decisions.

#### [Introducing Emergency Response Management for Public Sector](#)

Quickly deploy a single digital destination for constituents and communities to access available emergency program information and incident updates. Use the Emergency Response community to feature different services and programs that are available for public agencies and hospitals, such as emergency supply requests. For individuals, create assistance programs such as food delivery services or short-term housing requests.

#### [Emergency Response Management Has New and Changed Objects](#)

Access more data through these new and changed Emergency Response Management objects. Emergency Response Management for Public Health uses all the new objects and fields. Emergency Response Management for Public Sector uses the objects and fields in the Emergency Response section of this topic.

## Introducing Contact Tracing for Employees

With Contact Tracing for Employees, your company can manage the manual contact tracing process and track the spread of disease while caring for your employees.

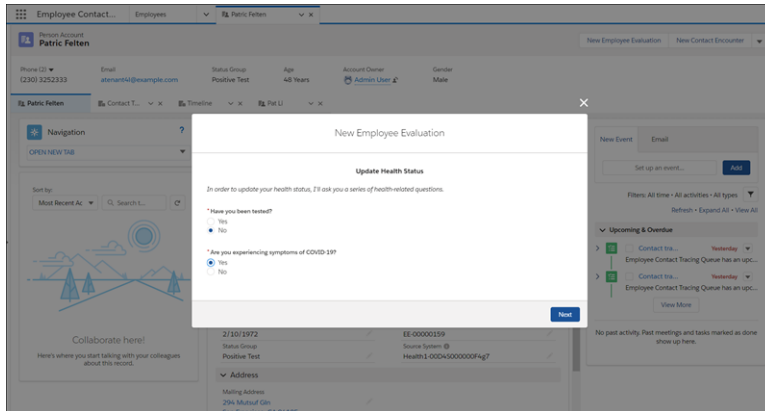
 **Note:** Contact Tracing for Employees is available in the Spring '20 release.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions where Contact Tracing for Employees is enabled.

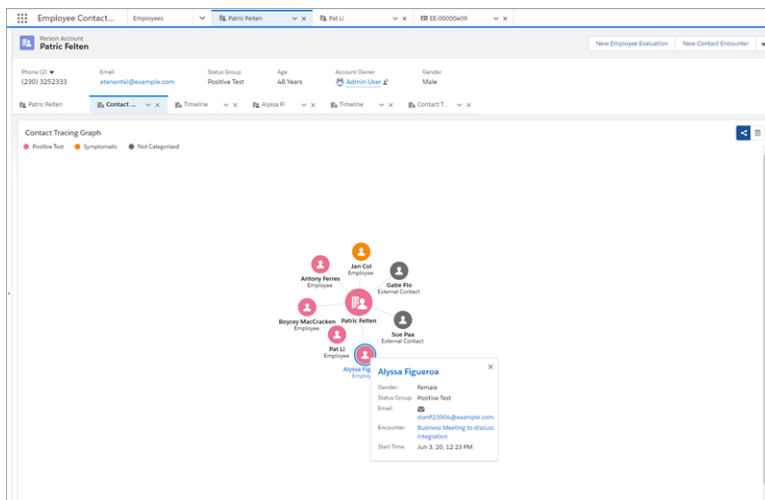
**Who:** To use Contact Tracing for Employees, you must have the Health Cloud and the Health Cloud Platform permission set licenses provisioned in Salesforce. To use Contact Tracing for Employees in Work.com, you must also have the Workplace Command Center permission set license provisioned.

**Why:** Salesforce Contact Tracing for Employees helps you to monitor your employees, their contacts, and the events that were a source of potential infection.

Tracing and contacting people who were possibly exposed to an infected person is one of the most efficient ways to fight widespread community infection. Tracers pick up tasks to evaluate employees, gather details about potentially exposed contacts, and enroll employees in care programs. You have the employee's status, a map of exposed contacts, and information on the person's condition consolidated in one place.



The employee evaluation flow gathers crucial information about a person's condition, so that you can enroll affected employees into a care program and monitor their health.



The Contact Tracing Graph gives you a comprehensive view of employees and external contacts so that you can trace infection by people, places, or events. Follow up, assessment, and triage can happen without having to leave the console.

Salesforce recommends that you make contact tracing functionality available only to users who are trained on privacy best practices. We recommend that you share contact tracing data only on a need-to-know basis.

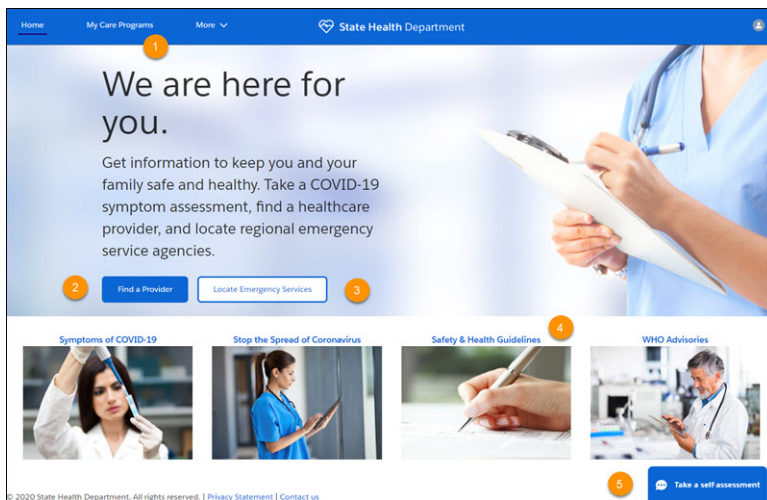
## Introducing Emergency Response Management for Public Health

Mobilize your public health department to serve its constituents and communities when there's a health emergency. Quickly triage and evaluate patients, provide ongoing engagement and monitoring, and protect communities from further infection with contact tracing. Use the Emergency Response community to feature different services and programs that are available for public agencies and hospitals, such as emergency supply requests. For individuals, create programs such as food delivery services or short-term housing requests. Using Salesforce Maps, dispatch your field responders with speed and efficiency to the locations or citizens who need assistance. We've included a set of Einstein Analytics dashboards to give you powerful insights into community health so that you can make faster and smarter decisions.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions where Emergency Management for Public Sector is enabled.

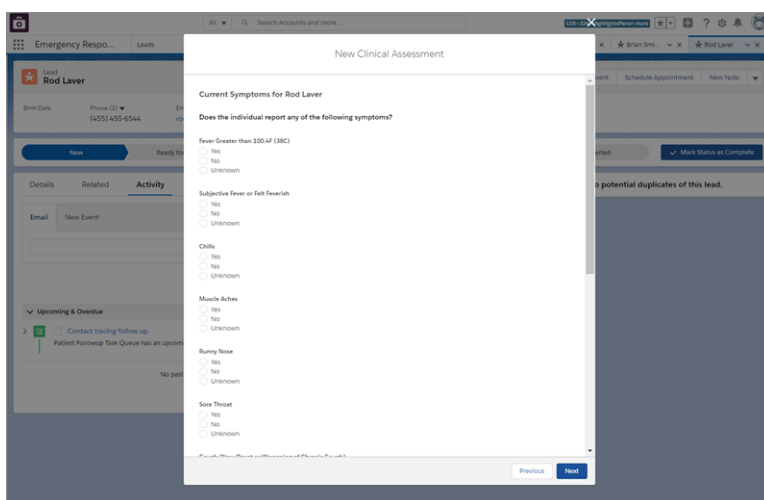
**Who:** To use Emergency Response Management for Public Health, you must have the Emergency Response for Public Sector and the Health Cloud Platform permission set license provisioned in Salesforce. Community users must have the HealthCloud for Community and the Public Sector Community permission set licenses provisioned in Salesforce.

**Why:** Emergency Response Management for Public Health provides a broad range of pre-configured tools that help you respond to a public health emergency at scale. During a public health emergency, the safety, health, and well-being of your community is your top priority. In the Emergency Public Health Portal, citizens can take action to get the help they need.



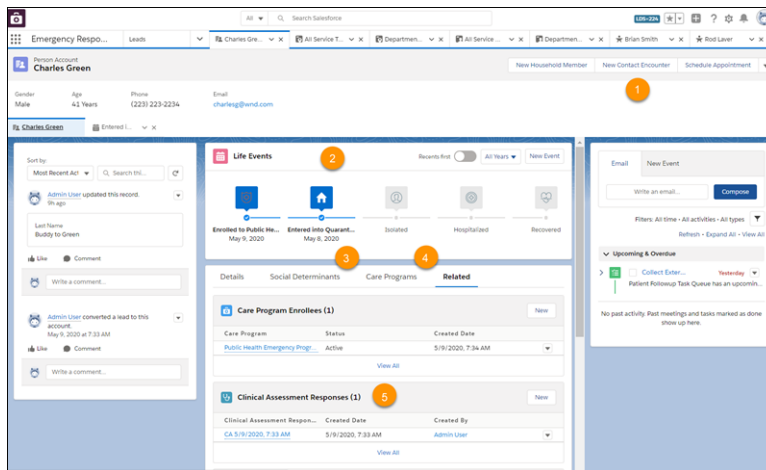
Citizens can see the emergency care programs that they're enrolled in (1) and search for health care providers by specialty, location, and other factors (2). A click of a button gives them the location of the closest emergency services (3) and access to vital information to stay healthy and safe (4). A pre-defined chatbot dialog guides individuals through a self-assessment based on Centers for Disease Control guidelines with the option to schedule an appointment for follow-up.

During a public health emergency, efficiency in getting individuals assessed, enrolled in a care program, and monitored is crucial. We delivered a clinical assessment flow that gathers crucial information about an individual's condition, so that you can make care decisions with speed and accuracy.



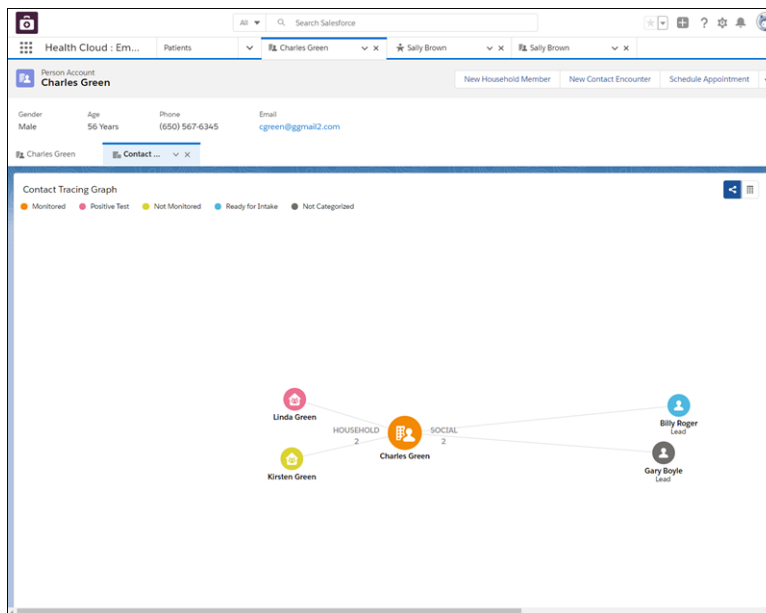
Using the Emergency Response Management Console, create a consistent intake experience using guided workflows and pre-built assessments that can quickly adapt as protocols or guidelines change.

Once a patient is triaged and enrolled in a care program, your care teams can remotely monitor and connect patients to the right care when called for. Care coordinators have all the information they must make sure that each patient has a program and services tailored to their needs.



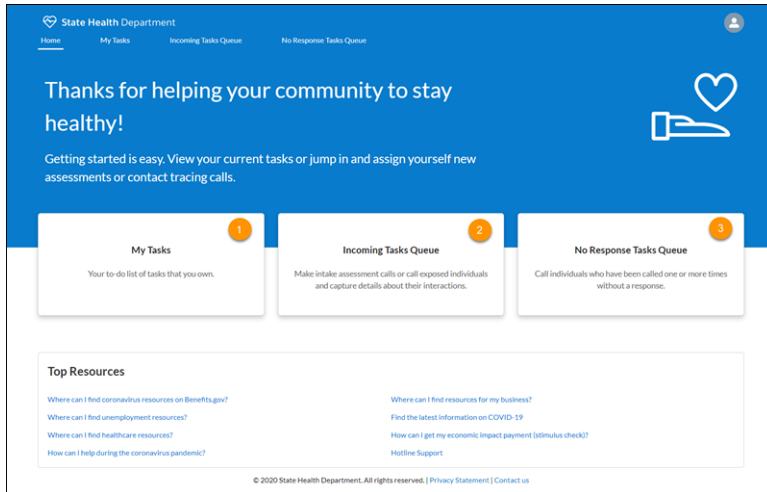
Each patient record shows actionable and comprehensive care and social services plans, personalized to each patient. Add information about individuals the patient has been in contact with (1) and track incidents and milestones to gain insight into the patient's condition (2). Understand the social and environmental factors that define extra services a patient needs (3), and keep tabs on the care program the patient is enrolled in (4). You can check the patient's symptoms and progress as measured through the daily assessments that are sent to patients enrolled in the emergency care program.

Tracing and then contacting individuals who may have been exposed to an infected person is one of the most efficient ways of fighting widespread community infection. You can see the exposed contacts for every patient right from the patient record.



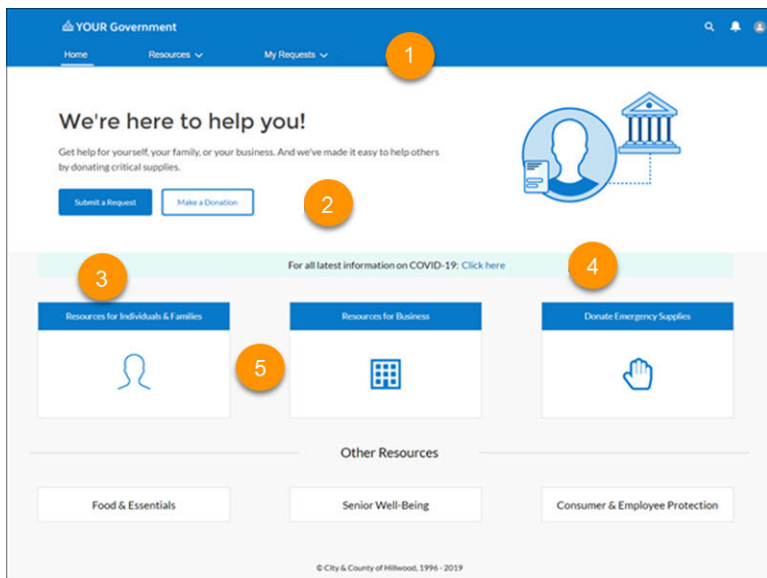
The Contact Tracing Graph gives you a comprehensive view of household members and social relationships so that you can trace infection by people, places, or events. Follow up, assessment, and triage can happen without having to leave the console.

With many exposed individuals to contact, it makes sense to bring in workers or volunteers whose job it is to call those exposed contacts.



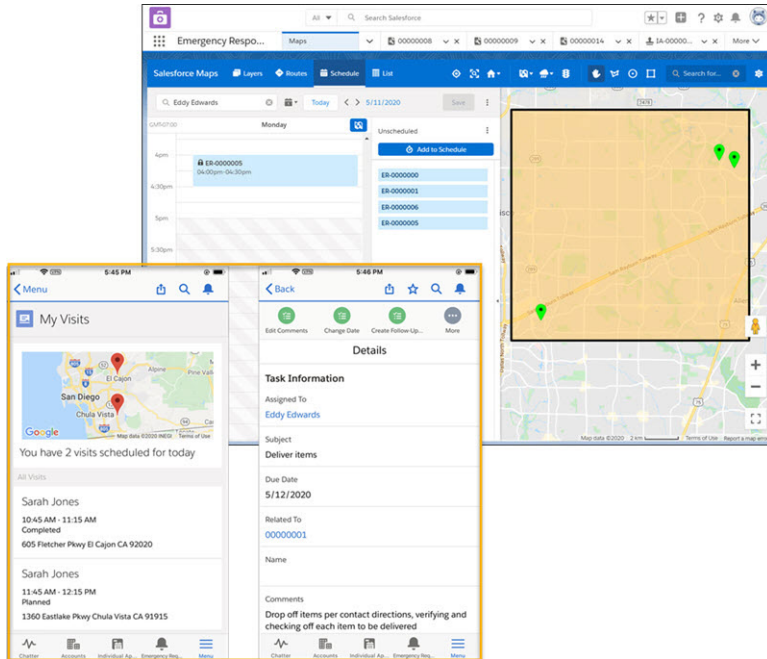
The Contact Tracing Community gives contact tracers an easy and efficient way to pick up contact tracing tasks from a queue and work on them. Tracers can find the tasks that they own (1), pick up new call tasks (2), or add tasks to call contacts who haven't been reached (3).

The pre-configured Emergency Response Community template makes it easy for citizens to request emergency assistance and get information when they need it most.



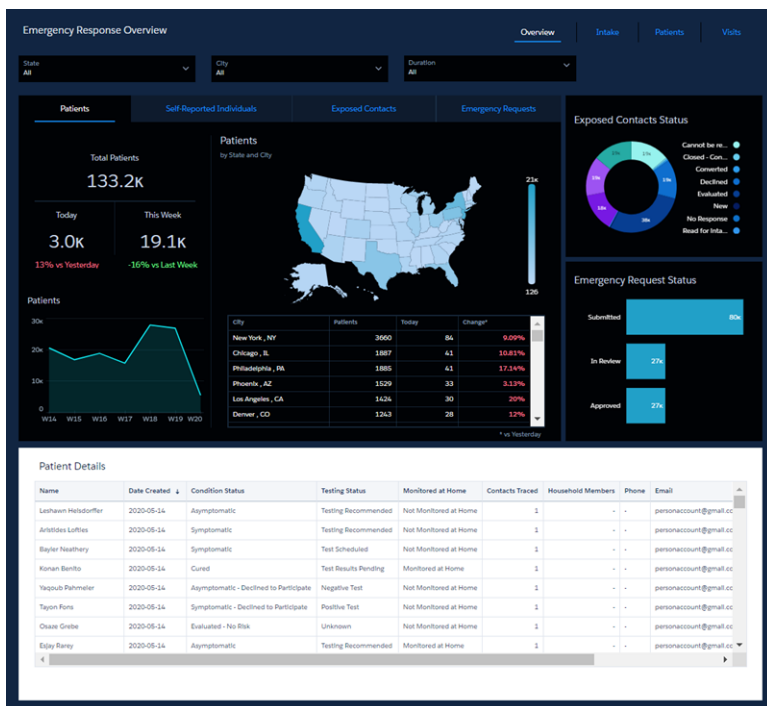
The pre-configured Emergency Response Community template lets you create a hub for citizens during an emergency. Citizens can check the status of existing requests (1), donate surplus emergency supplies (2), submit requests for assistance (3), view updates from your agency (4), or find links to important resources (5). Businesses also can request critical supplies that enable them to keep their employees and customers safe and healthy.

From the Emergency Request Console's home page, your agency can quickly approve requests and send them to a dispatcher to schedule a visit.



Help is on its way in no time when your dispatchers use Salesforce Maps. Salesforce Maps injects location intelligence into field operations to make emergency supplies delivery services more efficient. When an emergency event is created, the Schedule an Emergency Visit process starts a flow that creates the visit record, applies the action plan template, and creates the tasks. Your field responders have everything they need to complete a visit right on their mobile phone. Contact information, directions, and a detailed accounting of their tasks are at their fingertips. When a visit and its tasks are finished, the field responder marks it as complete and moves to the next assignment.

Bring actionable, AI-powered insights to your organization with Einstein Analytics for Emergency Response Management. Pre-built templates with industry standard KPIs and best practice analytics help you get to the right answer faster when responding to crises and emergencies.



## Introducing Emergency Response Management for Public Sector

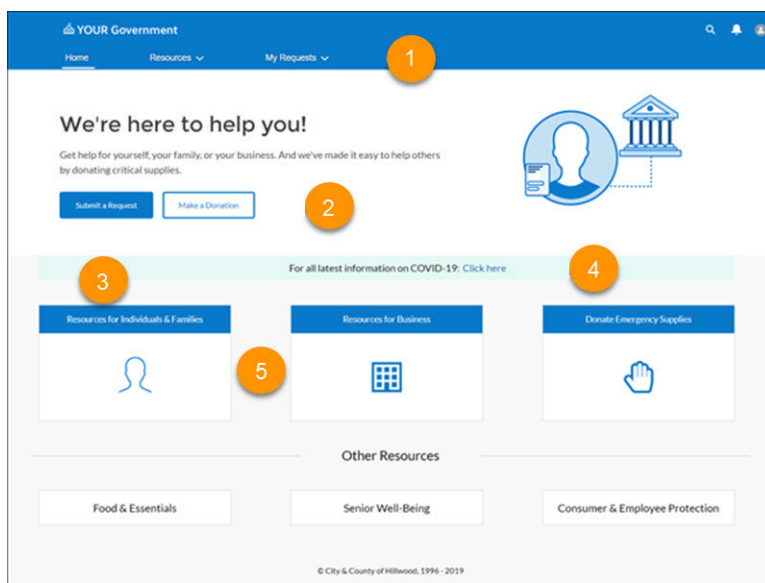
Quickly deploy a single digital destination for constituents and communities to access available emergency program information and incident updates. Use the Emergency Response community to feature different services and programs that are available for public agencies and hospitals, such as emergency supply requests. For individuals, create assistance programs such as food delivery services or short-term housing requests.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions where Emergency Management for Public Sector is enabled.

**Who:** To use Emergency Response Management, you must have the Emergency Response for Public Sector permission set license provisioned in Salesforce. Community users must have the Public Sector Community permission set licenses provisioned in Salesforce.

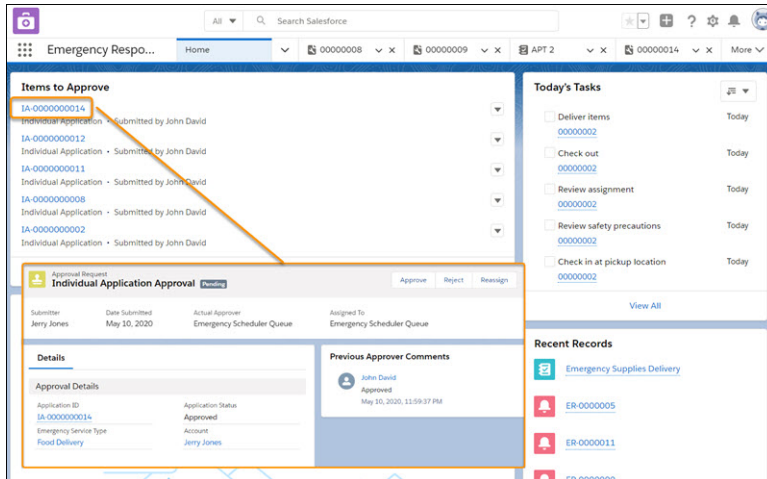
**Why:** When someone requests an emergency service, the mobile Visit app ensures that you can complete that request quickly and efficiently. You can tailor each emergency request delivery or visit with action plans that create tasks for that request. When you use Salesforce Maps, you add location intelligence into field operations to make emergency supplies delivery services more efficient. When an emergency event is created, the Schedule an Emergency Visit process starts a flow that creates the visit record, applies the action plan template, and creates the tasks. Whether you send someone to deliver medicine or to perform medical work at a site, it's easy to assign specific, actionable tasks to each field responder.

The pre-configured Emergency Response Community template makes it easy for citizens to request emergency assistance and get information when they need it most.

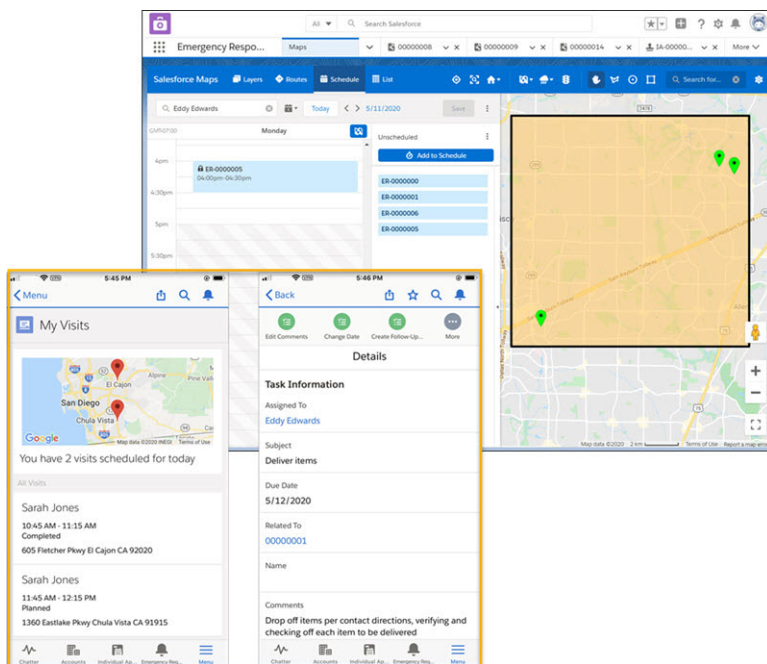


The pre-configured Emergency Response Community template lets you create a hub for citizens during an emergency. Citizens can check the status of existing requests (1), donate surplus emergency supplies (2), submit requests for assistance (3), view updates from your agency (4), or find links to important resources (5). Businesses also can request critical supplies that enable them to keep their employees and customers safe and healthy.





From the Emergency Response Console's home page, your agency can quickly approve requests and send them to a dispatcher to schedule a visit.



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## Emergency Response Management Has New and Changed Objects

Access more data through these new and changed Emergency Response Management objects. Emergency Response Management for Public Health uses all the new objects and fields. Emergency Response Management for Public Sector uses the objects and fields in the Emergency Response section of this topic.

## Public Health

### Get info on a person's condition based on their most recent test or assessment

Use the new `ConditionStatus__pc` field on the `Account` object.

### Check whether a person's condition is being monitored at their home, rather than a clinical setting

Use the new `Monitored_at_Home__pc` field on the `Account` object.

### Check a person's stage within the testing and monitoring process

Use the new `StatusGroup__pc` field on the `Account` object.

### Get the result of a person's most recent test

Use the new `Testing_Status__pc` field on the `Account` object.

### Get info on a person's condition based on their most recent test or assessment

Use the new `ConditionStatus__pc` field on the `Contact` object.

### Check whether a person's condition is being monitored at their home, rather than a clinical setting

Use the new `Monitored_at_Home__pc` field on the `Contact` object.

### Check a person's stage within the testing and monitoring process

Use the new `StatusGroup__pc` field on the `Contact` object.

### Get the result of a person's most recent test

Use the new `Testing_Status__pc` field on the `Contact` object.

### Get the date of the appointment

Use the new `AppointmentDate` field on the `Lead` object.

### Get the identifier of the appointment

Use the new `AppointmentId` field on the `Lead` object.

### Check a person's stage within the testing and monitoring process

Use the new `StatusGroup__pc` field on the `Lead` object.

### Display the results of an assessment of a patient's health condition

Use the new `ClinicalAssessmentResponse__c` object.

### Display a period of time during which two or more people were in contact with each other

Use the new `ContactEncounter` object.

### Display details about a person who was present during a contact encounter

Use the new `ContactEncounterParticipant` object.

## Emergency Response

### Create an authorization from a regulatory agency to provide emergency services or products

Use the new `BusinessLicense` (`Emergency Service Authorization`) object.

### Create an application form submitted by a business owner

Use the new `BusinessLicenseApplication` (`Business Application`) object.

### Create a category of business activity

Use the new `BusinessType` object.

### Create a license or permit requirement to provide an emergency service

Use the new `BusRegAuthorizationType` (`Business Emergency Service Type`) object.

### Create a request for emergency supplies or services from an organization or individual

Use the new `EmergencyRequest__c` object.

**Create an application form submitted by an individual**

Use the new `IndividualApplication` object.

**Create a field that displays a type of emergency service**

Use the new `InspectionType (Emergency Service Execution Type)` object.

**Create a field that displays an organization or government agency that authorizes emergency service providers**

Use the new `RegulatoryAuthority (Public Sector Organization)` object.

**Create a license or permit that grants authority to a business or individual to provide emergency services or products**

Use the new `RegulatoryAuthorizationType (Emergency Service Type)` object.

**Create a field that displays an authorization type that's required before an applicant can provide a specific product**

Use the new `RegAuthorizationTypeProduct (Emergency Service Type Product)` object.

**Create a field that displays a visit related to an emergency service**

Use the new `Visit` object.

## Financial Services Cloud: Mortgage APIs, Distributor Performance Management, and Action Plan Templates

Create your own mortgage process with new Mortgage business APIs. Add document checklist items to action plan templates. Monitor distributor performance with a new dashboard, reports, and performance metrics. Clone and share your action plan templates.

### IN THIS SECTION:

[Mortgage for Financial Services Cloud: New Mortgage Lending API, Create Loan Applications from Accounts](#)

Seamlessly connect loan applications in Salesforce to 3rd-party mortgage, point-of-sale, and loan origination systems. The new Mortgage Business API lets you create, update, and query loan application data. Create loan applications from Accounts, with or without related Opportunities.

[Document Tracking and Approvals: Track Documents with Action Plans, Set Item Deletion Rules](#)

Streamline document tracking by adding document checklist items to Action Plans. Customize document checklist processes by setting item deletion rules.

[Insurance for Financial Services Cloud: Distributor Performance Management, Producer Life Event Management, Producer Relationship Cards, and Enhanced Metrics and Charts](#)

View a consolidated performance summary for all your distributors or monitor their individual performances with a new dashboard, tailored reports, and performance metrics. Add the enhanced Life Events or Business Milestones component to the Contact record page to get an at-a-glance view of producers' life events. Producer relationship cards provide easy access to key information about your producers.

[Action Plans: Action Plan Template Cloning and Packaging](#)

Create an action plan template based on an existing one and share action plan templates between organizations.

[Enhanced Usability for Financial Services Cloud](#)

You can hide activity rollups on group member and group member-configurable components. Hover is now enabled on group member components. And Financial Services Cloud now supports right-to-left text.

[Fine-Tune Your Pipeline with Einstein Referral Scoring \(Generally Available\)](#)

Now it's easier for your managers to evaluate referrals. Einstein Referral Scoring helps you build a prediction that scores referrals in Salesforce org. Your users can view referral scores on the Einstein Top Referrals component.

[Financial Services Cloud Has New and Changed Objects](#)

Do more with new and changed Financial Services Cloud objects.

## REST API

Financial Services Cloud REST API includes new calls.

# Mortgage for Financial Services Cloud: New Mortgage Lending API, Create Loan Applications from Accounts

Seamlessly connect loan applications in Salesforce to 3rd-party mortgage, point-of-sale, and loan origination systems. The new Mortgage Business API lets you create, update, and query loan application data. Create loan applications from Accounts, with or without related Opportunities.

## IN THIS SECTION:

### [Enhance Mortgage Lending with API Calls](#)

Streamline the 1003 Residential Loan Application process with the new Mortgage Business API. You can create and update loan applications, and manage borrower, asset, and liability information using the API. You can also query and report on loan applications.

### [Create Loan Applications from Accounts or Opportunities](#)

Save time by creating a Residential Loan Application for a new or existing Account without creating an Opportunity first. Some loan application fields are pre-filled with data from the Account. A Loan Application can still be created from an Opportunity, which also relates that Loan Application to the Opportunity's Account. The data pulled from an Account is a snapshot at the time the loan application is created. Future updates to Account data do not automatically update Loan Application fields.

## Enhance Mortgage Lending with API Calls

Streamline the 1003 Residential Loan Application process with the new Mortgage Business API. You can create and update loan applications, and manage borrower, asset, and liability information using the API. You can also query and report on loan applications.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, and Unlimited editions where Financial Services Cloud is enabled.

**Why:** Reduce the time required to integrate with external systems and automate the mortgage process from application to loan close. With the Mortgage API, use a single REST API call to create mortgage applications and integrate with third-party systems. Gather borrower and loan application data from external sources, like point-of-sale and loan origination systems, so you can manage mortgages in just one system.

**How:** Make a POST, PATCH, or GET request to `/services/data/vXX.X/connect/financialservices/mortgages`. Each request can include a list of assets, liabilities, borrowers, declarations, incomes, addresses, employments, properties, and financials related to a loan application or loan applicant.

## SEE ALSO:

### [REST API](#)

## Create Loan Applications from Accounts or Opportunities

Save time by creating a Residential Loan Application for a new or existing Account without creating an Opportunity first. Some loan application fields are pre-filled with data from the Account. A Loan Application can still be created from an Opportunity, which also relates that Loan Application to the Opportunity's Account. The data pulled from an Account is a snapshot at the time the loan application is created. Future updates to Account data do not automatically update Loan Application fields.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, and Unlimited editions where Financial Services Cloud is enabled.

**Why:** Opportunities provide a great way to track the loan origination life cycle. But sometimes loans can originate directly from existing, qualified customers. To support this and other custom loan management processes, you can create a Loan Application directly for an existing Account without creating an Opportunity.

## Document Tracking and Approvals: Track Documents with Action Plans, Set Item Deletion Rules

Streamline document tracking by adding document checklist items to Action Plans. Customize document checklist processes by setting item deletion rules.

### IN THIS SECTION:

#### [Streamline Document Tracking with Action Plans](#)

Deliver step-by-step guidance for customers, loan officers, and other agents by adding document checklist items to Action Plans. Customize action plan templates to define tasks and document tracking steps that fit your business processes. You can associate action plan templates with tasks, document checklist items, or a combination of both.

#### [Clean up Document Checklists While Keeping Attachments](#)

Let your users delete document checklist items without removing related documents by setting the new Checklist Items with Attachments custom preference.

## Streamline Document Tracking with Action Plans

Deliver step-by-step guidance for customers, loan officers, and other agents by adding document checklist items to Action Plans. Customize action plan templates to define tasks and document tracking steps that fit your business processes. You can associate action plan templates with tasks, document checklist items, or a combination of both.

**Where:** This change applies to Lightning Experience in Enterprise and Unlimited editions where Financial Services Cloud is enabled.

**Why:** Action Plans let you define repeatable tasks and sequences, and then automate task assignment and tracking. Often those tasks involve collecting and reviewing supporting documents needed for processes like loan origination or claim management. By including document checklist items in action plan templates, you can standardize and automate document tracking and approval steps for these processes.

### SEE ALSO:

[Associate Document Checklist Items with Action Plan Templates](#)

## Clean up Document Checklists While Keeping Attachments

Let your users delete document checklist items without removing related documents by setting the new Checklist Items with Attachments custom preference.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, and Unlimited editions where Financial Services Cloud is enabled.

## Insurance for Financial Services Cloud: Distributor Performance Management, Producer Life Event Management, Producer Relationship Cards, and Enhanced Metrics and Charts

View a consolidated performance summary for all your distributors or monitor their individual performances with a new dashboard, tailored reports, and performance metrics. Add the enhanced Life Events or Business Milestones component to the Contact record page to get an at-a-glance view of producers' life events. Producer relationship cards provide easy access to key information about your producers.

### IN THIS SECTION:

#### [Monitor Distributor Performance with the Distributor Performance Dashboard and Metrics](#)

Create an information-rich home page for sales managers with the Distributor Performance Dashboard and the Insurance Distributor Performance Metrics component. With a consolidated performance summary for all distributors available at a glance, sales managers can monitor their businesses' overall health. They can quickly identify distributors who need attention and help them align with the company's goals.

#### [Develop Deeper Bonds with Producers with the Life Events or Business Milestones Component](#)

The Life Events or Business Milestones component is now supported on the Contact record page. With an at-a-glance view of producers' life events, sales managers can know their producers better and build a long-term and mutually beneficial relationship with them.

#### [Keep Key Producer Information Handy with Producer Relationship Cards](#)

With producer relationship cards, sales managers can get quick and easy access to key producer information from different objects, without going through multiple related lists. On a distributor's record page, sales managers see one card for each producer working with that distributor. On a producer's record page, they see one card for the producer.

#### [Include Multi-Producer Policies When Calculating Policy-Related Metrics and Charts](#)

Ensure that metrics and charts show accurate policy and premium figures by including policies with multiple producers in your calculations. By default, the policy-related metrics and charts include only the policies that are assigned to single producers.

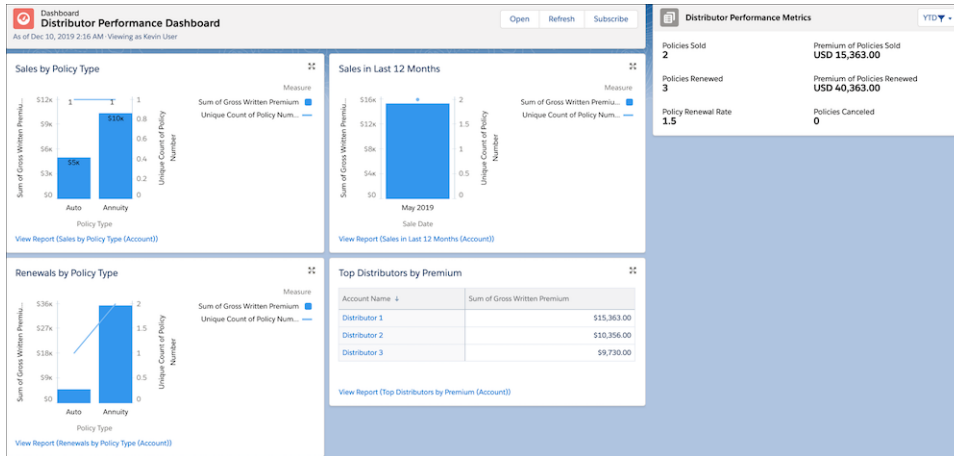
### Monitor Distributor Performance with the Distributor Performance Dashboard and Metrics

Create an information-rich home page for sales managers with the Distributor Performance Dashboard and the Insurance Distributor Performance Metrics component. With a consolidated performance summary for all distributors available at a glance, sales managers can monitor their businesses' overall health. They can quickly identify distributors who need attention and help them align with the company's goals.

**Where:** This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions that have Financial Services Cloud enabled.

**Who:** Users need the FSC Insurance permission set to use this feature.

**How:** Choose from the provided performance metrics and reports to create custom home pages that suit the needs of your sales managers. Add metrics and reports to the Account record page to let sales managers drill down and view the performances of individual distributors. Add reports to the Contact record page to let sales managers view the performances of individual producers. Sales managers can view the performance metrics for a month, quarter, or year.



After you enable the Deploy Distributor Performance Reports and Dashboard setting, create a custom home page, and add the new components to the page. Add relevant metrics and reports to the Account and Contact record pages. Filter the reports by Account ID or Contact ID, depending on the record page.

SEE ALSO:

[Salesforce Help: Enable Distributor Performance Management \(can be outdated or unavailable during release preview\)](#)

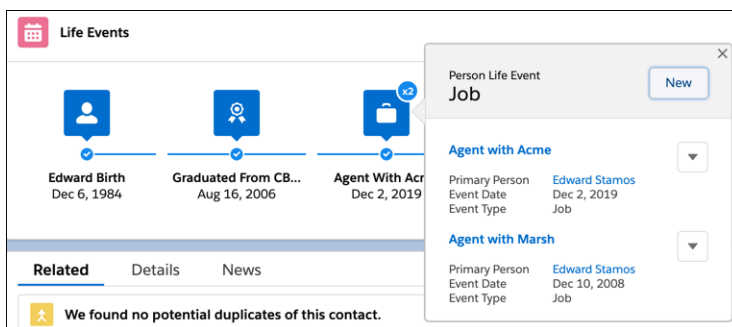
## Develop Deeper Bonds with Producers with the Life Events or Business Milestones Component

The Life Events or Business Milestones component is now supported on the Contact record page. With an at-a-glance view of producers' life events, sales managers can know their producers better and build a long-term and mutually beneficial relationship with them.

**Where:** This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions that have Financial Services Cloud enabled.

**Who:** Users need the FSC Insurance permission set to use this feature.

**How:** Edit the Contact record page, and then add the Life Events or Business Milestones component.



SEE ALSO:

[Salesforce Help: Manage Producers' Life Events \(can be outdated or unavailable during release preview\)](#)

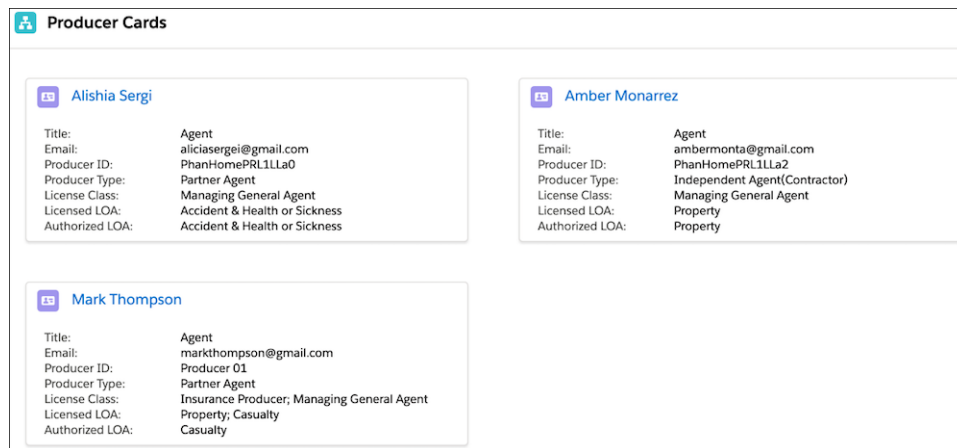
## Keep Key Producer Information Handy with Producer Relationship Cards

With producer relationship cards, sales managers can get quick and easy access to key producer information from different objects, without going through multiple related lists. On a distributor's record page, sales managers see one card for each producer working with that distributor. On a producer's record page, they see one card for the producer.

**Where:** This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions that have Financial Services Cloud enabled.

**Who:** Users need the FSC Insurance permission set to use this feature.

**How:** Edit the Account and Contact record pages, and then add the Relationship Card component. In the properties pane, under Card Types, select **Producer Account Configuration** or **Producer Contact Configuration**, depending on the record page you are on.



SEE ALSO:

[Salesforce Help: Provide Easy Access to Producer Information \(can be outdated or unavailable during release preview\)](#)

## Include Multi-Producer Policies When Calculating Policy-Related Metrics and Charts

Ensure that metrics and charts show accurate policy and premium figures by including policies with multiple producers in your calculations. By default, the policy-related metrics and charts include only the policies that are assigned to single producers.

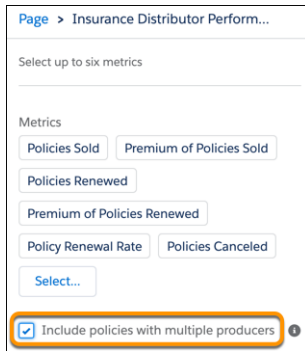
**Where:** This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions that have Financial Services Cloud enabled.

This change affects the policy-related metrics and charts on the Insurance Distributor Performance Metrics, Insurance Agent Performance Metrics, Insurance Agent Action Items, and Insurance Agent Reports components.

**Who:** Users need the FSC Insurance permission set to use this feature.

**How:** Edit the home page or the record page that contains report charts or metrics. In the properties pane, select **Include policies with multiple producers**.





SEE ALSO:

[Salesforce Help: Include Multi-Producer Policies in Metrics and Charts \(can be outdated or unavailable during release preview\)](#)

## Action Plans: Action Plan Template Cloning and Packaging

Create an action plan template based on an existing one and share action plan templates between organizations.

IN THIS SECTION:

### [Create Copies of Action Plan Templates with Deep Cloning](#)

Now you can create an action plan template from an existing template. This feature simplifies template creation when your business process changes by eliminating the need to start from scratch. Users can also use an existing template as a reference to create a different version for their own use.

### [Share Action Plan Templates Using Packaging](#)

With action plan template packaging, you can create an action plan template in one organization and deploy it in a different organization. Create and test an action plan template in a sandbox environment and deploy in production when the template is ready. To use a packaged action plan template, clone the packaged template, make any necessary changes, and then publish it.

### [Associate Document Checklist Items with Action Plan Templates](#)

Action plan templates can now include document checklist items. An action plan template can have tasks, document checklist items, or a combination of both.

### [Changes to Action Plans License](#)

Few objects are not available with the Action Plans license: AssessmentIndicatorDefinition, AssessmentTask, AssessmentTaskContentDocument, AssessmentTaskOrder, and ActionPlanTmplItemAssessmentInd. This change doesn't impact existing action plan functionality.

## Create Copies of Action Plan Templates with Deep Cloning

Now you can create an action plan template from an existing template. This feature simplifies template creation when your business process changes by eliminating the need to start from scratch. Users can also use an existing template as a reference to create a different version for their own use.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, and Unlimited editions where Salesforce Government Cloud with Lightning Scheduler or Financial Services Cloud are enabled.

**How:** Open an action plan template, click Clone Template, make any necessary changes to the template or the underlying tasks and document checklist items, and save.

SEE ALSO:

[Salesforce Help: Clone Action Plan Templates \(can be outdated or unavailable during release preview\)](#)

[IdeaExchange: Add Edit and Clone functions to Action Plan Templates](#)

## Share Action Plan Templates Using Packaging

With action plan template packaging, you can create an action plan template in one organization and deploy it in a different organization. Create and test an action plan template in a sandbox environment and deploy in production when the template is ready. To use a packaged action plan template, clone the packaged template, make any necessary changes, and then publish it.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, and Unlimited editions where Salesforce Government Cloud with Lightning Scheduler or Financial Services Cloud are enabled.

SEE ALSO:

[Create Copies of Action Plan Templates with Deep Cloning](#)

[Salesforce Help: Create a Package with Action Plan Templates \(can be outdated or unavailable during release preview\)](#)

## Associate Document Checklist Items with Action Plan Templates

Action plan templates can now include document checklist items. An action plan template can have tasks, document checklist items, or a combination of both.

**Where:** This change applies to Lightning Experience in Enterprise and Unlimited editions where Financial Services Cloud is enabled.

SEE ALSO:

[Streamline Document Tracking with Action Plans](#)

## Changes to Action Plans License

Few objects are not available with the Action Plans license: AssessmentIndicatorDefinition, AssessmentTask, AssessmentTaskContentDocument, AssessmentTaskOrder, and ActionPlanTmplItemAssessmentInd. This change doesn't impact existing action plan functionality.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

## Enhanced Usability for Financial Services Cloud

You can hide activity rollups on group member and group member-configurable components. Hover is now enabled on group member components. And Financial Services Cloud now supports right-to-left text.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, Unlimited, and Performance editions.

## Fine-Tune Your Pipeline with Einstein Referral Scoring (Generally Available)

Now it's easier for your managers to evaluate referrals. Einstein Referral Scoring helps you build a prediction that scores referrals in Salesforce org. Your users can view referral scores on the Einstein Top Referrals component.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, and Unlimited editions that have Financial Services Cloud enabled.

**Who:** To use Einstein Referral Scoring, you must have the Einstein Analytics for Financial Services Add-on license. To add the Einstein Top Referral component to a Financial Services Cloud app home page, admins must be assigned the Financial Services Cloud Referral Scoring User permission set. For users to view the component, assign them the same permission set.

**How:** To build a referral scoring prediction, from Setup, enter Einstein Referral Scoring for Financial Services Cloud, and then select Einstein Referral Scoring for Financial Services Cloud. Enable Einstein Referral Scoring for Financial Services Cloud. Click **New Prediction**, and define your prediction settings.

After the prediction is built, you can add the Einstein Top Referral component to the home page of Financial Services Cloud apps.

Einstein Top Referrals		
Referrals created in last 7 days		
Expressed Inter	Personal Loan	Last 7 days
Adria Darby	New - Not Contacted • Nov 28, 2019	94
Ada Balewa	New - Not Contacted • Nov 28, 2019	82
Robert Bullard	New - Not Contacted • Nov 28, 2019	68
Awhina Oahu	New - Not Contacted • Nov 28, 2019	65
Lance Park	New - Not Contacted • Nov 28, 2019	24

[View All](#)

SEE ALSO:

[Salesforce Help: Einstein Referral Scoring \(can be outdated or unavailable during release preview\)](#)

## Financial Services Cloud Has New and Changed Objects

Do more with new and changed Financial Services Cloud objects.

### New Fields on LoanApplication and LoanApplicant Related Objects

Integrate with other systems using external ids for objects related to LoanApplications and LoanApplicants. These external identifiers are used with Mortgage API calls, and are not exposed in the user interface by default.

#### Link to a borrower address in an external system

Use the new `AddressExtIdentifier` field on the LoanApplicantAddress object.

#### Link to a borrower declaration in an external system

Use the new `DeclarationExtIdentifier` field on the LoanApplicantDeclaration object.

#### Link to a borrower employment record in an external system

Use the new `EmploymentExtIdentifier` field on the LoanApplicantEmployment object.

**Link to a borrower income record in an external system**

Use the new `IncomeExtIdentifier` field on the `LoanApplicantIncome` object.

**Link to an asset record in an external system**

Use the new `AssetExtIdentifier` field on the `LoanApplicationAsset` object.

**Link to a financial record in an external system**

Use the new `FinancialExtIdentifier` field on the `LoanApplicationFinancial` object.

**Link to a liability record in an external system**

Use the new `LiabilityExtIdentifier` field on the `LoanApplicationLiability` object.

**Link to a property record in an external system**

Use the new `PropertyExtIdentifier` field on the `LoanApplicationProperty` object.

**Link to a title holder record in an external system**

Use the new `TitleHolderExtIdentifier` field on the `LoanApplicationTitleHolder` object.

## Insurance

**Store the details about a distributor's authorization with an insurance company**

Use the new `DistributorAuthorization` object.

**Store the insurance lines that an insurance company is authorized to sell**

Use the new `AuthorizedInsuranceLine` object.

**View the line of authority that a distributor is licensed to sell**

Use the new `LineOfAuthority` field on the `BusinessLicense` object.

**View the types of licenses a distributor has**

Use the new `LicenseClass` field on the `BusinessLicense` object.

**View the residence status of a distributor**

Use the new `ResidenceStatus` field on the `BusinessLicense` object.

**DEPRECATED: The `RenewalChannel` field on the `Claim` object is deprecated in API version 48 and will be removed in API version 52**

We strongly recommend that you don't use the `RenewalChannel` field on the `Claim` object. However, if you're already using this field, you can continue to use it until it's removed in API version 52 (the Summer '21 release).

**DEPRECATED: The `FnoChannel` field on the `InsurancePolicy` object is deprecated in API version 48 and will be removed in API version 52**

We strongly recommend that you don't use the `FnoChannel` field on the `InsurancePolicy` object. However, if you're already using this field, you can continue to use it until it's removed in API version 52 (the Summer '21 release).

## REST API

Financial Services Cloud REST API includes new calls.

### Mortgage

**Create Mortgage Applications**

Make a POST request to `/services/data/vXX.X/connect/financialservices/mortgages` to create mortgage applications. Each request can include a list of assets, liabilities, borrowers, declarations, incomes, addresses, employments, properties, and financials related to a mortgage application.

### Get Mortgage Applications

Make a GET request to `/services/data/vXX.X/connect/financialservices/mortgages/{loanId}` to get a mortgage application. You can use both `loanApplicationId` and `externalId` to get applications.

### Update Mortgage Applications

Make a PATCH request to `/services/data/vXX.X/connect/financialservices/mortgages/{loanId}` with your changes to update mortgage applications.

## Health Cloud: Emergency Management, Easier Setup for Care Plans and Programs, and More Provider Information

To help you make the world a better (and healthier) place to live in, we've added ways to help stop the spread of infection and quickly provide care in a public health emergency, and we've made it easier to create and customize care plans and care programs. We've also given you more ways to design provider cards and more flexibility to customize how users can search for providers, so you can deliver information efficiently to your users. And now you can gather information about how patients and members want to be contacted.

### IN THIS SECTION:

#### [Protect Your Community with Emergency Response Management](#)

During a public health emergency, Health Cloud helps you assess, monitor, and track contacts to stop the spread of infection. Quickly triage and evaluate patients, provide ongoing engagement and monitoring, and protect communities from further infection with contact tracing.

#### [Templates and Improved Usability for Care Plans](#)

We've made improvements to the way your users can use care plans. These enhancements let your users create care plans that fit their use cases better. We've also made care plan creation simpler, along with many other enhancements.

#### [Customize Provider Relationship Cards](#)

Now you have more flexibility in setting up your provider cards to fit your users' needs. You can use provider relationship cards to quickly and efficiently show users what they want to know about providers, all in one place. The data is taken from different objects, but users don't have to go to those objects via related lists.

#### [More Options for Helping Users Find Care Providers](#)

Now you can choose the fields to include in the search panel and in search output. You can even use custom fields. Enable users to find health care providers based on criteria such as location, specialty, and availability. Search results show up in a detailed list and on a handy map.

#### [Create and Customize Care Programs More Efficiently](#)

We made it easier to create and customize care programs. Save time and effort by copying and using existing consent forms instead of creating forms from scratch. Use a tailor-made disclaimer message when capturing electronic signatures. Save clicks and navigation by associating care plans with patients from within the Program Enrollment flow itself.

#### [Access Control Changes](#)

We tightened access to Health Cloud objects that are delivered as part of core Salesforce, not in the Health Cloud package.

#### [Magnify Patient Care Delivery Expertise With Einstein Analytics for Healthcare Enhancements](#)

We've made it easier for care coordinators, utilization managers, and referral managers to use the Analytics for Healthcare app for critical insights about their patient populations.

#### [Health Cloud Has New and Changed Objects](#)

Access more data through these new and changed Health Cloud objects.

## Protect Your Community with Emergency Response Management

During a public health emergency, Health Cloud helps you assess, monitor, and track contacts to stop the spread of infection. Quickly triage and evaluate patients, provide ongoing engagement and monitoring, and protect communities from further infection with contact tracing.

**Where:** This change applies to Lightning Experience in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use Emergency Response Management for Public Health, you must have the Health Cloud license provisioned in Salesforce. Users need the Health Cloud and Health Cloud Platform permission set licenses. Community users must have the Customer Community Plus license.

**Why:** During a public health emergency, the safety, health, and well-being of your community depends on getting people assessed, enrolled in a care program, and monitored. Once a patient is triaged and enrolled in a care program, your care teams can remotely monitor and connect patients to the right care when called for. Care coordinators have all the information they need to make sure that each patient has a program and services tailored to their needs.

SEE ALSO:

[Salesforce Help: Emergency Response Management](#)

## Templates and Improved Usability for Care Plans

We've made improvements to the way your users can use care plans. These enhancements let your users create care plans that fit their use cases better. We've also made care plan creation simpler, along with many other enhancements.

IN THIS SECTION:

### [Create Care Plans with a Single Flow](#)

Your users can save clicks and time when creating care plans. Previously, users used three separate flows to create a care plan—creation of a case, addition of a care team, and addition of care plan templates. Now your users can do everything in the same flow where you create the case.

### [Create Care Plan Templates That Fit Your Use Case](#)

Flexible care plan templates let your users decide which components to use. Not all care plans require problems and goals.

### [Categorize Templates, Problems, and Goals](#)

Sorting care plan templates, their problems, and their goals into categories can help you create reports and gain insight into care plan usage. You can select from customizable category picklists for care plan templates, template problems, and template goals.

### [Add Templates to Existing Care Plans Faster with a New Button](#)

You can now place the Apply Care Plan Templates button on the highlights panel of the case page. Your users can easily add more templates to an existing care plan with this button, right from the case page of that care plan.

### [Customize Task Names and Dates During Care Plan Creation](#)

Your users can now customize tasks in their selected templates, before applying them to their care plan. Using in-line edits, they can easily change task names and due dates.

### [Change Task Status with Fewer Clicks](#)

Your users can now change the status of each of their tasks with far fewer clicks.

### [Create Care Plans Faster with Fewer Clicks](#)

Enhancements to care plans provide your users with increased template capacity, easier access to the templates they use frequently, and reduced clicks.

## Create Care Plans with a Single Flow

Your users can save clicks and time when creating care plans. Previously, users used three separate flows to create a care plan—creation of a case, addition of a care team, and addition of care plan templates. Now your users can do everything in the same flow where you create the case.

**Where:** These changes apply to Lightning Experience in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use care plans, you must have the Health Cloud license provisioned in Salesforce. Users need the Health Cloud and Health Cloud Platform permission set licenses. Community users must have the Customer Community Plus license.

**How:** Now your users can create complete care plans in a single flow.

Your users can add care teams (1) and apply templates (2) while they create cases for their care plans.



**Warning:** If your org has custom triggers that add care teams to newly created cases, those triggers conflict with this new flow. To resolve this conflict, deactivate your custom triggers or disable the Health Cloud setting that lets you add care teams when creating care plans.

SEE ALSO:

[Disable Care Team Section in the New Care Plan Flow](#)

## Create Care Plan Templates That Fit Your Use Case

Flexible care plan templates let your users decide which components to use. Not all care plans require problems and goals.

**Where:** These changes apply to Lightning Experience in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use care plans, you must have the Health Cloud license provisioned in your org. Users need the Health Cloud and Health Cloud Platform permission set licenses. Community users must have the Customer Community Plus license.

**How:** Now that problems and goals are optional, create the care plan template that works for your use cases.

The screenshot shows a 'Review Care Plan' interface for a 'Diabetes' care plan. The start date is 11/21/2019. The main section is 'Weight Gain', which is a 'Problem'. Underneath, there are three sections:

- Diet Management (Goal):** Contains one task: 'Replace meat with vegetables', assigned to 'Care Coordinator' with a due date of 11/21/2019 and a priority of 'Normal'.
- Problem Tasks (1):** Contains one task: 'Run a mile everyday', assigned to 'Care Coordinator' with a due date of 11/21/2019 and a priority of 'Normal'.
- Blood Sugar Tracking (Goal, 2):** Contains one task: 'Check sugar levels every night', assigned to 'Care Coordinator' with a due date of 11/21/2019 and a priority of 'Normal'.
- Care Plan Tasks (3):** Contains one task: 'Take insulin shots everyday', assigned to 'Care Coordinator' with a due date of 11/21/2019 and a priority of 'Normal'.

You can create care plan templates with any or all of these combinations of components:

- Problems with tasks, but no goal (1)
- Goals with tasks, but no problems (2)
- Tasks without any problems or goal (3)

And you still can use the more traditional care plan template that has problems, goals, and tasks.

When you create a template task, you can associate it with a template or a template problem instead of a template goal. When you create a template goal, you can choose to associate it with a template instead of a template problem.

## Categorize Templates, Problems, and Goals

Sorting care plan templates, their problems, and their goals into categories can help you create reports and gain insight into care plan usage. You can select from customizable category picklists for care plan templates, template problems, and template goals.

**Where:** These changes apply to Lightning Experience in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use care plans, you must have the Health Cloud license provisioned in Salesforce. Users need the Health Cloud and Health Cloud Platform permission set licenses. Community users must have the Customer Community Plus license.

**How:** The new category picklist fields are enabled by default on the Care Plan Template, Care Plan Template Problem, and Care Plan Template Goal objects. You can configure the available categories in these picklists using the object manager.



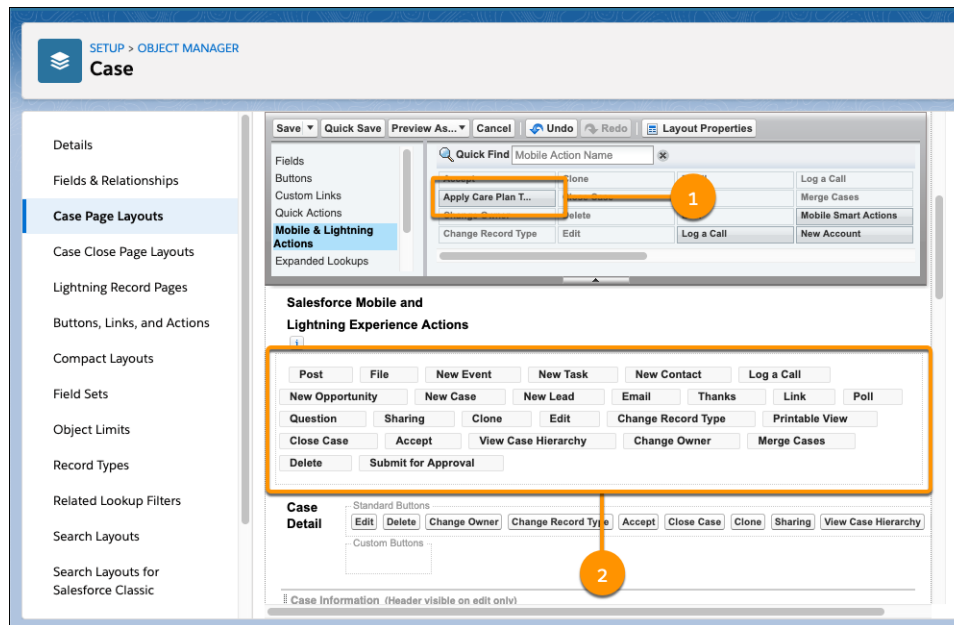
## Add Templates to Existing Care Plans Faster with a New Button

You can now place the Apply Care Plan Templates button on the highlights panel of the case page. Your users can easily add more templates to an existing care plan with this button, right from the case page of that care plan.

**Where:** These changes apply to Lightning Experience in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use care plans, you must have the Health Cloud license provisioned in Salesforce. Users need the Health Cloud and Health Cloud Platform permission set licenses. Community users must have the Customer Community Plus license.

**How:** You can add this button to the case page of a care plan by configuring `CarePlan` Layout of the `Case` object.



In this layout, add the **Apply Care Plan Templates** button (1) to the Salesforce Mobile and Lightning Experience Actions area (2). But, if you want to see the new button directly on the page header, you must place it at the top-left corner.

## Customize Task Names and Dates During Care Plan Creation

Your users can now customize tasks in their selected templates, before applying them to their care plan. Using in-line edits, they can easily change task names and due dates.

**Where:** These changes apply to Lightning Experience in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use care plans, you must have the Health Cloud license provisioned in Salesforce. Users need the Health Cloud and Health Cloud Platform permission set licenses. Community users must have the Customer Community Plus license.

**How:** Your users can click the edit icon next to a task name or its due date.

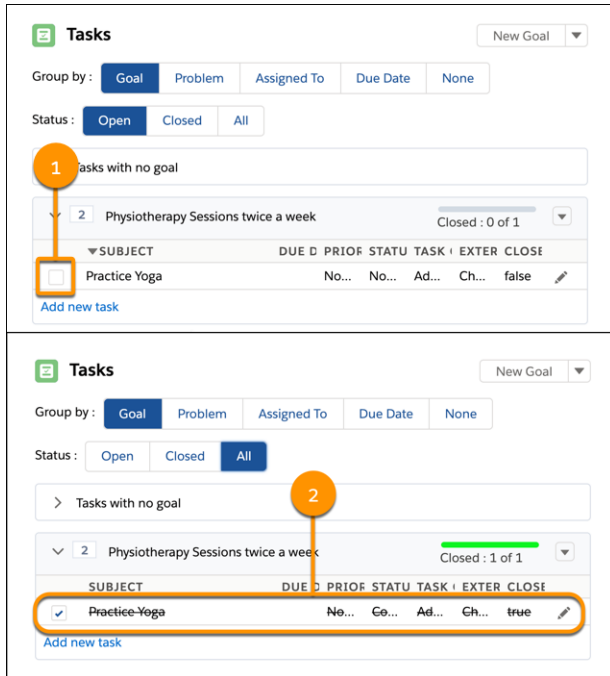
## Change Task Status with Fewer Clicks

Your users can now change the status of each of their tasks with far fewer clicks.

**Where:** These changes apply to Lightning Experience in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use care plans, you must have the Health Cloud license provisioned in Salesforce. Users need the Health Cloud and Health Cloud Platform permission set licenses. Community users must have the Customer Community Plus license.

**How:** Use the checkboxes next to tasks to change their statuses.



Select the checkbox (1) to mark the task as complete with a single click. Completed tasks appear with strikethrough formatting (2) to indicate that they're closed. To change the status again, deselect the checkbox. This time, the status can be set to deferred, in progress, waiting on someone else, or not started.

## Create Care Plans Faster with Fewer Clicks

Enhancements to care plans provide your users with increased template capacity, easier access to the templates they use frequently, and reduced clicks.

**Where:** These changes apply to Lightning Experience in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use care plans, you must have the Health Cloud license provisioned in Salesforce. Users need the Health Cloud and Health Cloud Platform permission set licenses. Community users must have the Customer Community Plus license.

### How:

- The template selection screen shows a sorted list of up to 200 templates before a search. The default sorting is based on which templates were used most recently to create care plans. But the list can also be sorted by name.
- The number of templates your users can apply to care plans has increased from 5 to 15. This increase helps your users create more complex care plans easily.
- Users bypass the template selection screen and automatically start with a blank care plan in these cases:
  - The org doesn't have any templates defined in it.
  - The user doesn't have access to any templates.
- The first row of the care team is set to the care coordinator role by default. This row helps your users save clicks and reminds them to add care coordinators to their teams.

## Customize Provider Relationship Cards

Now you have more flexibility in setting up your provider cards to fit your users' needs. You can use provider relationship cards to quickly and efficiently show users what they want to know about providers, all in one place. The data is taken from different objects, but users don't have to go to those objects via related lists.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use provider cards, you must provision the Health Cloud license. Users need the Health Cloud and the Health Cloud Platform permission set licenses.

**How:** Consider the information your users look for on each provider's card, then use the card setup wizard to connect the various objects that contain that information.

**Design a Relationship Card** Activate card?  Active

**Name the Card**

Reference Name:  Developer Name:

**What page will this card appear on?**

Select Object...:  Select Record Type...:

**How is this card related to the page where it appears?**

Same object  
 Directly  
 Indirectly

**Which object holds the principal information this card will display?**

Select Object...:  Select Record Type...:

Source Object:

For example, create a card for each practitioner at a given health center (from the HealthCareFacility object), with their contact information (HealthCareProvider object) and specialty (HealthcareFacilitySpecialty object). You can add whether that provider is available under the user's insurance plan (PlanBenefit).

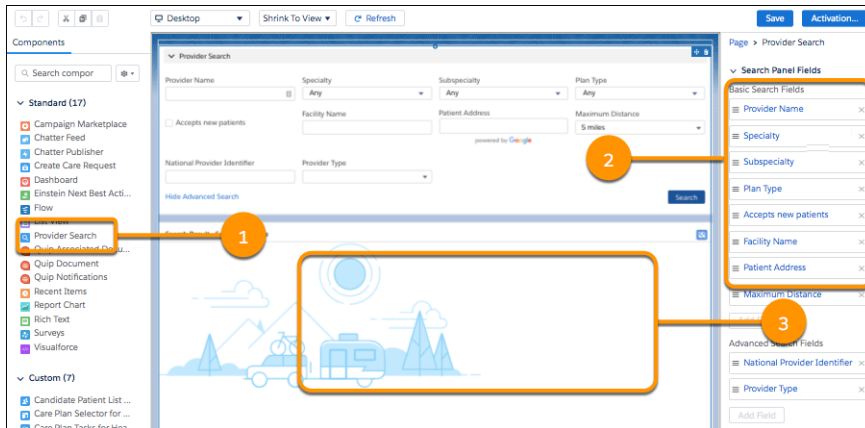
## More Options for Helping Users Find Care Providers

Now you can choose the fields to include in the search panel and in search output. You can even use custom fields. Enable users to find health care providers based on criteria such as location, specialty, and availability. Search results show up in a detailed list and on a handy map.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use provider search, your Salesforce org must have the Health Cloud license. Users need the Health Cloud and the Health Cloud Platform permission set licenses. Community users must have the Customer Community Plus license.

**How:** You can create a standalone provider search app or add it to the Accounts record page as a tab. In either case, you start with a pre-configured object called Searchable Fields that contains most of the fields users normally search for. You can add fields to suit your users' needs.



Drag the Provider Search component onto your workspace (1) and select the fields you want to show users (2). Search results show up below the search fields (3), along with a handy Google map.

#### SEE ALSO:

- [Salesforce Help: Enable Users to Search for Care Providers](#)
- [Salesforce Help: Find a Care Provider](#)
- [Salesforce Help: Set Up Provider Cards](#)

## Create and Customize Care Programs More Efficiently

We made it easier to create and customize care programs. Save time and effort by copying and using existing consent forms instead of creating forms from scratch. Use a tailor-made disclaimer message when capturing electronic signatures. Save clicks and navigation by associating care plans with patients from within the Program Enrollment flow itself.

#### IN THIS SECTION:

##### [Copy Existing Consent Forms for a New Care Program](#)

When you create a care program, you can now reuse existing consent forms instead of creating forms from scratch.

##### [Customize the Disclaimer Message for Capturing Electronic Signatures](#)

You can now use a customized disclaimer message that is tailored to your scenario when capturing electronic signatures. You can now use a customized disclaimer message that is tailored to your scenario when capturing electronic signatures.

##### [Include Care Plans in the Program Enrollment Flow](#)

Say goodbye to extra clicks and navigation. You can now include the care plan component in the Program Enrollment flow and associate care plans with patients from within the flow itself.

### [Keep Track of Your Patients' Communication Preferences](#)

Users have more control over the communications that they send to patients, such as scheduling reminders, appointment reminders, and pre-appointment tasks. They can use the communication subscription objects to keep track of patients' contact information, consent to be contacted, and preferred timing of messages.

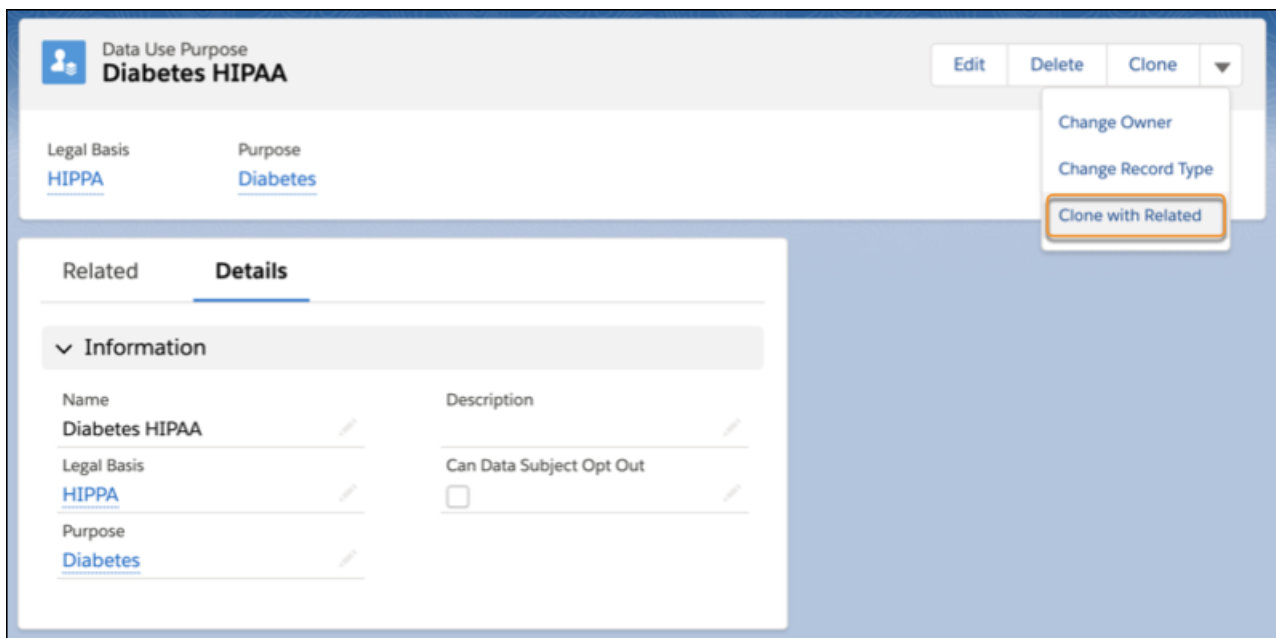
## Copy Existing Consent Forms for a New Care Program

When you create a care program, you can now reuse existing consent forms instead of creating forms from scratch.

**Where:** This change applies to Lightning Experience in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use this feature, you must have the Health Cloud license provisioned in Salesforce. Users need the Health Cloud and Health Cloud Platform permission set licenses.

**How:** On the record page of the Data Use Purpose record you want to clone, click **Clone**, and then select **Clone with Related**. Select the objects you want to clone and click **Next**. Give this data use purpose a descriptive name, such as Pre-Arthroscopy Program Consent Forms Clone. In the **Purpose** field, select the care program to clone the consent forms to, and then click **Save**.



SEE ALSO:

[Salesforce Help: Add Consent Documents to a Care Program](#)

## Customize the Disclaimer Message for Capturing Electronic Signatures

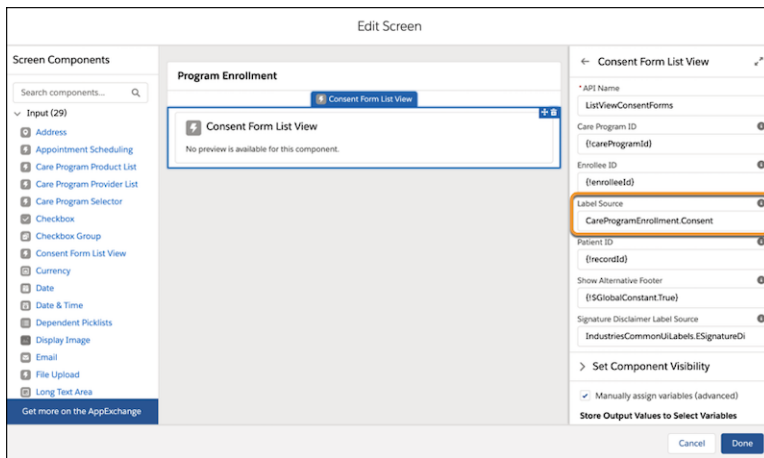
You can now use a customized disclaimer message that is tailored to your scenario when capturing electronic signatures. You can now use a customized disclaimer message that is tailored to your scenario when capturing electronic signatures.

**Where:** This change applies to Lightning Experience in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use this feature, you must have the Health Cloud license provisioned in Salesforce. Users need the Health Cloud and Health Cloud Platform permission set licenses.

**Why:** You want to use your own tailor-made disclaimer message instead of the default disclaimer message that comes with Health Cloud. For example, you want to use a message like "My signature below certifies that I have read, understood, and agreed to the terms in the document."

**How:** In the Flow Builder, edit the Enrollment Consent Forms Screen or any other screen that contains the Consent Form List View component. On the Edit Screen page, click the Consent Form List View component. In the Signature Disclaimer Label Source field, enter the API name of an existing custom label for the signature disclaimer.



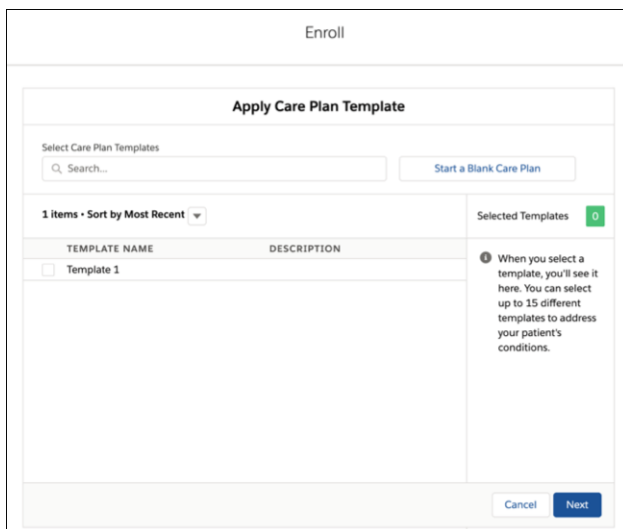
## Include Care Plans in the Program Enrollment Flow

Say goodbye to extra clicks and navigation. You can now include the care plan component in the Program Enrollment flow and associate care plans with patients from within the flow itself.

**Where:** This change applies to Lightning Experience in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use this feature, you must have the Health Cloud license provisioned in Salesforce. Users need the Health Cloud and Health Cloud Platform permission set licenses.

**How:** In the Flow Builder, edit the Program Enrollment flow or any other flow to which you want to add care plans. Add a screen, and then add the Care Plan component to the screen. You can then add the new Care Plan screen anywhere after the Care Program Selector screen.



SEE ALSO:

[Salesforce Help: Use Care Plans to Help Patients and Members Reach Their Goals](#)

## Keep Track of Your Patients' Communication Preferences

Users have more control over the communications that they send to patients, such as scheduling reminders, appointment reminders, and pre-appointment tasks. They can use the communication subscription objects to keep track of patients' contact information, consent to be contacted, and preferred timing of messages.

**Where:** To use care plans, you must have the Health Cloud license provisioned in Salesforce. Users need the Health Cloud and Health Cloud Platform permission set licenses. Community users must have the Customer Community Plus license.

**Why:** Contact your patients when they want, through their preferred channels, and only for the information they've subscribed to. For example, you can ensure that you're calling patients only during times they've indicated that they're available and avoid untimely, unanswered calls.

SEE ALSO:

[Manage Your Customers' Communication Subscriptions](#)

[Salesforce Help: Communication Subscription Objects \(can be outdated or unavailable during release preview\)](#)

## Access Control Changes

We tightened access to Health Cloud objects that are delivered as part of core Salesforce, not in the Health Cloud package.

**Where:** To use Health Cloud, you must have the Health Cloud license provisioned in Salesforce. Users need the Health Cloud and Health Cloud Platform permission set licenses. Community users must have the Customer Community Plus license.

**Why:** Health Cloud uses a mix of standard objects (delivered as part of the core Salesforce Platform) and custom objects (delivered in the Health Cloud package).

**How:**

- Admin users now have Read access to all Health Cloud objects. Previously, those users had full Create/Read/Update/Delete access to Health Cloud objects delivered as part of the Salesforce platform.
- A standard user with the View Setup permission now has Read access to Health Cloud objects delivered in the package but no access to objects delivered as part of the Salesforce platform. Previously, that user had full Create/Read/Update/Delete access to Health Cloud objects delivered as part of the platform.

## Magnify Patient Care Delivery Expertise With Einstein Analytics for Healthcare Enhancements

We've made it easier for care coordinators, utilization managers, and referral managers to use the Analytics for Healthcare app for critical insights about their patient populations.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Enterprise and Unlimited editions where Health Cloud is enabled. Analytics for Healthcare is only for Salesforce Health Cloud users.

**Who:** To create an app from the Einstein Analytics for Healthcare template, you must also have the Healthcare Analytics Plus add-on license.

**Why:** New Patient Segmentation and Social Determinants dashboards let you drill into your population to identify at-risk patients and design the right care plans for them. Three Einstein Discovery stories isolate promising patient referrals, review risks of pre-authorization care requests being denied, and identify patients who are at risk of not adhering to their care plan tasks. We've also added a dashboard to give care coordinators a curated view of all relevant metrics about plan members. Updated Utilization Analytics dashboards now give utilization managers insights into care request trends.

**How:** Go to Analytics Studio, click **Create**, choose **App**, and click **Start from Template**. Select **Analytics for Health** and follow the instructions in the wizard to create your app.

## Health Cloud Has New and Changed Objects

Access more data through these new and changed Health Cloud objects.

### Care Plan Templates

#### **Specify which category of treatment a care plan template belongs to**

Use the `Category__c` picklist field in the `CarePlanTemplate__c` object.

#### **Specify which category of ailment a care plan template problem belongs to**

Use the `Category__c` picklist field in the `CarePlanTemplateProblem__c` object.

#### **Specify which category of goals a care plan template goal belongs to**

Use the `Category__c` picklist field in the `CarePlanTemplateGoal__c` object.

#### **Associate your care plan template goal directly with a care plan template**

Use the `CarePlanTemplate__c` lookup field in the `CarePlanTemplateGoal__c` object.

#### **Associate your care plan template goal with a parent record**

The `ValidateCarePlanGoalAssociation` validation rule in the `CarePlanTemplateGoal__c` object throws an error if your care plan template goal isn't associated with any parent record.

#### **Associate your care plan template goal with only one parent record**

The `ValidateCarePlanGoalAssociationForSingle` validation rule in the `CarePlanTemplateGoal__c` object throws an error if your care plan template goal is associated with more than one parent record.

#### **Associate your care plan template task directly with a care plan template**

Use the `CarePlanTemplate__c` lookup field in the `CarePlanTemplateTask__c` object.

#### **Associate your care plan template task directly with a care plan template problem**

Use the `CarePlanTemplateProblem__c` lookup field in the `CarePlanTemplateTask__c` object.

#### **Associate your care plan template task with a parent record**

The `ValidateCarePlanTaskAssociation` validation rule in the `CarePlanTemplateTask__c` object throws an error if your care plan template task isn't associated with any parent record.

#### **Associate your care plan template task with only one parent record**

The `ValidateCarePlanTaskAssociationForSingle` validation rule in the `CarePlanTemplateTask__c` object throws an error if your care plan template task is associated with more than one parent record.

### Care Plans

#### **Specify which category of ailment a care plan problem belongs to**

Use the `Category__c` picklist field in the `CarePlanProblem__c` object.

#### **Specify which category of goals a care plan goal belongs to**

Use the `Category__c` picklist field in the `CarePlanGoal__c` object.

### Provider Data Model

#### **Specify fields that can appear in provider search results**

Use the new `CareProviderSearchConfig` object.



## Communication Subscriptions

### Manage a patient's preferences for a specific communication, such as an appointment reminder

Use the new `CommSubscription` object.

### Specify the engagement channels through which you can reach a patient for a communication subscription

Use the new `CommSubscriptionChannelType` object.

### Get info on the feed activity of a communication subscription channel type record

Use the new `CommSubscriptionChannelTypeFeed` object.

### Get info on the changes to values in the fields of a communication subscription channel type record

Use the new `CommSubscriptionChannelTypeHistory` object.

### Get info on rules for sharing a communication subscription channel type object with users other than the owner

Use the new `CommSubscriptionChannelTypeOwnerSharingRule` object.

### Get info on the list of access levels to a communication subscription channel type record

Use the new `CommSubscriptionChannelTypeShare` object.

### Store your patient's consent to a communication subscription

Use the new `CommSubscriptionConsent` object.

### Get info on the feed activity of a communication subscription consent record

Use the new `CommSubscriptionConsentFeed` object.

### Get info on the changes to values in the fields of a communication subscription consent record

Use the new `CommSubscriptionConsentHistory` object.

### Get info on rules for sharing a communication subscription consent object with users other than the owner

Use the new `CommSubscriptionConsentOwnerSharingRule` object.

### Get info on the list of access levels to a communication subscription consent record

Use the new `CommSubscriptionConsentShare` object.

### Get info on the feed activity of a communication subscription record

Use the new `CommSubscriptionFeed` object.

### Get info on the changes to values in the fields of a communication subscription record

Use the new `CommSubscriptionHistory` object.

### Get info on rules for sharing a communication subscription object with users other than the owner

Use the new `CommSubscriptionOwnerSharingRule` object.

### Get info on the list of access levels to a communication subscription record

Use the new `CommSubscriptionShare` object.

### Store your patient's timing preferences for receiving a communication subscription

Use the new `CommSubscriptionTiming` object.

### Get info on the feed activity of a communication subscription timing record

Use the new `CommSubscriptionTimingFeed` object.

### Get info on the changes to values in the fields of a communication subscription timing record

Use the new `CommSubscriptionTimingHistory` object.

### Indicate a channel on which a patient can be reached for communication

Use the new `EngagementChannelType` object.

### Get info on the feed activity of an engagement channel type record

Use the new `EngagementChannelTypeFeed` object.

**Get info on the changes to values in the fields of an engagement channel type record**

Use the new `EngagementChannelTypeHistory` object.

**Get info on rules for sharing an engagement channel type object with users other than the owner**

Use the new `EngagementChannelTypeOwnerSharingRule` object.

**Get info on the list of access levels to an engagement channel type record**

Use the new `EngagementChannelTypeShare` object.

## SEE ALSO:

[Salesforce Health Cloud Developer Guide: Health Cloud Objects](#)

## Consumer Goods Cloud: Optimized Visit Sequences, Stock Level Monitoring, and Improved Business Performance

Do business more effectively with your retail partners. Give your field reps a productivity boost by helping them reach stores faster. They now have more time to build relationships with store managers and consumers. You also can ensure that your products are never out of stock.

## IN THIS SECTION:

[Accelerate Business Performance with Einstein Analytics for Consumer Goods](#)

The Analytics for Consumer Goods app gives you insights on territory, stores, and sales rep performance. Sales managers can use the app to increase sales, improve store compliance, identify stores at risk, and maximize sales rep effectiveness. Sales reps get store-level insights on visits performance, sales, compliance, and top-selling products.

[Simplify Retail Execution with Sales Agreements for Consumer Goods Cloud](#)

Sales managers can now use Sales Agreements to get a consolidated view of all their products, track performance indicators, predict profits and revenue, and build long-term business relationships. Automatically assign assessment indicator definition targets to help sales managers get the values right. Sales managers can also automate the quantity and revenue updates for an order.

[Get Optimized Visit Sequences with Salesforce Maps](#)

Give field reps a productivity boost with optimized visit sequences. Consumer Goods Cloud uses Salesforce Maps to determine the best sequence of store visits based on distance, travel time, and store hours. Field reps get an optimized daily list of visits on their mobile devices.

[Find Product Details on Mobile Devices Using the Barcode Scanner](#)

Say goodbye to scrolling through an endless list of items to fetch product details. Field reps can scan a barcode of a product to get its details on their mobile devices.

[Track Key Performance Indicators for Product Categories](#)

Sales managers can choose whether key performance indicators are captured for a specific product or for a category of products. This saves field reps the time it takes to record information product by product.

[Save Reusable Tasks and Use Them Across Templates](#)

Simplify action plan template creation by reusing tasks and their assessment indicator definitions. Sales managers can create a task with assessment indicator definitions once and reuse it every time they create action plan templates for visits.

[Changes to Action Plans License](#)

For better accessibility, these objects are available with the Consumer Goods permission set and not with the Action Plans license: `AssessmentIndicatorDefinition`, `AssessmentTask`, `AssessmentTaskContentDocument`, `AssessmentTaskOrder`, and `ActionPlanTmplTmAssessmentInd`. This change doesn't impact existing action plan functionality.

[More Control of Object Detection Data](#)

Einstein Object Detection data is now stored locally in the European Union, and you can decide which users have permission to access detection information. You also can disable vision models that you no longer use.

[Consumer Goods Cloud Has New and Changed Objects](#)

Access more data through these new and changed Consumer Goods Cloud objects.

## Accelerate Business Performance with Einstein Analytics for Consumer Goods

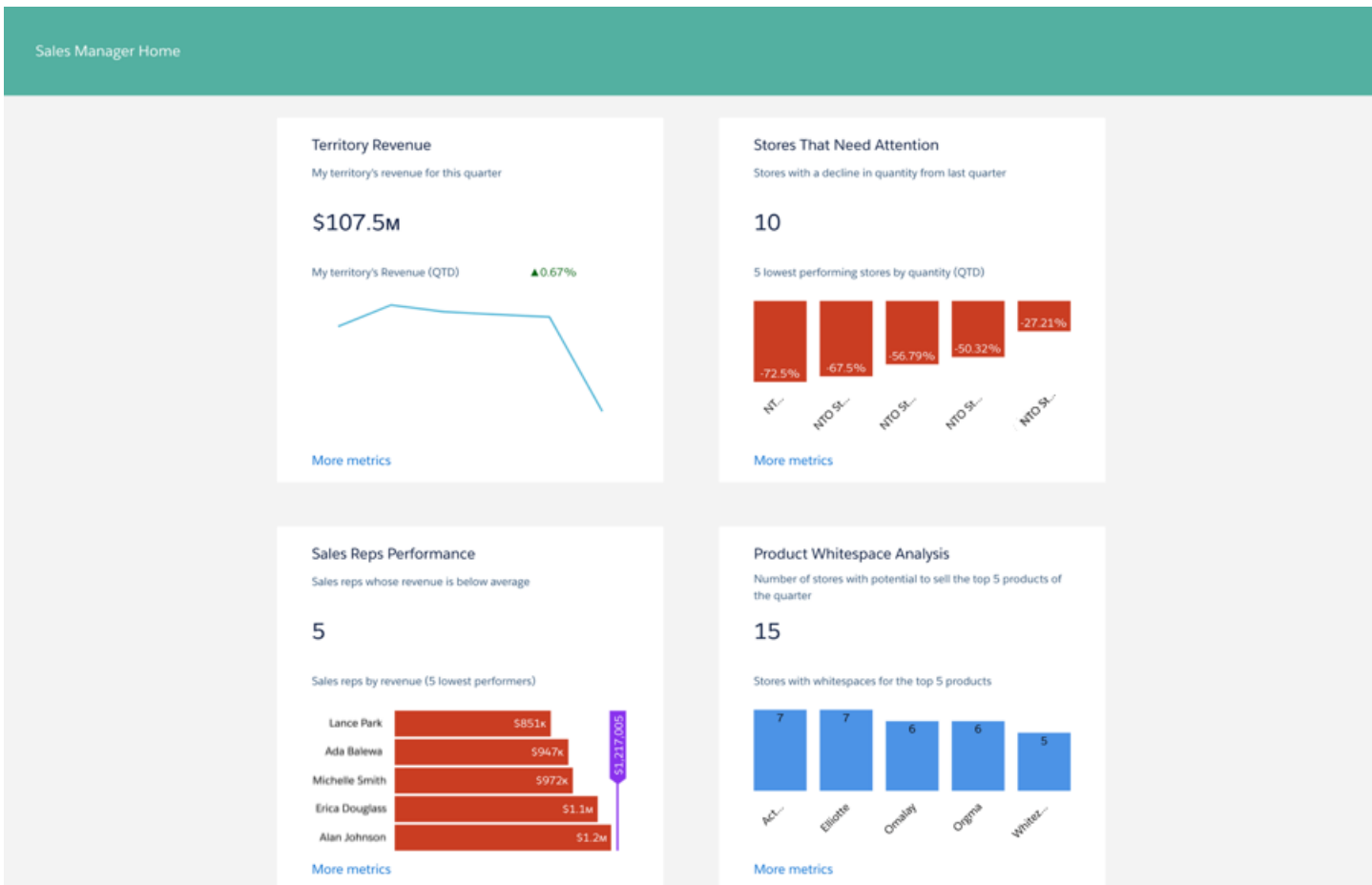
The Analytics for Consumer Goods app gives you insights on territory, stores, and sales rep performance. Sales managers can use the app to increase sales, improve store compliance, identify stores at risk, and maximize sales rep effectiveness. Sales reps get store-level insights on visits performance, sales, compliance, and top-selling products.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Professional, Performance, and Unlimited editions where Consumer Goods Cloud is enabled.

**When:** This feature is available in Consumer Goods Cloud by late February 2020.

**Who:** Analytics for Consumer Goods is only for Salesforce Consumer Goods Cloud users. To create an app from the Einstein Analytics for Consumer Goods template, you must also have the Einstein Analytics for Consumer Goods add-on license.

**Why:** Help your sales managers increase sales and support sales reps.



**How:** Go to Analytics Studio, click **Create**, choose **App**, and click **Start from Template**. Select **Analytics for Consumer Goods**, and follow the instructions in the wizard to create your app.

## Simplify Retail Execution with Sales Agreements for Consumer Goods Cloud

Sales managers can now use Sales Agreements to get a consolidated view of all their products, track performance indicators, predict profits and revenue, and build long-term business relationships. Automatically assign assessment indicator definition targets to help sales managers get the values right. Sales managers can also automate the quantity and revenue updates for an order.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Enterprise, Performance, and Unlimited editions where Retail Execution is enabled.

**Who:** This feature is available to users with the Consumer Goods Sales Agreements permission set and the Lightning Retail Execution Plus permission set.

SEE ALSO:

[Salesforce Help: Sales Agreements \(can be outdated or unavailable during release preview\)](#)

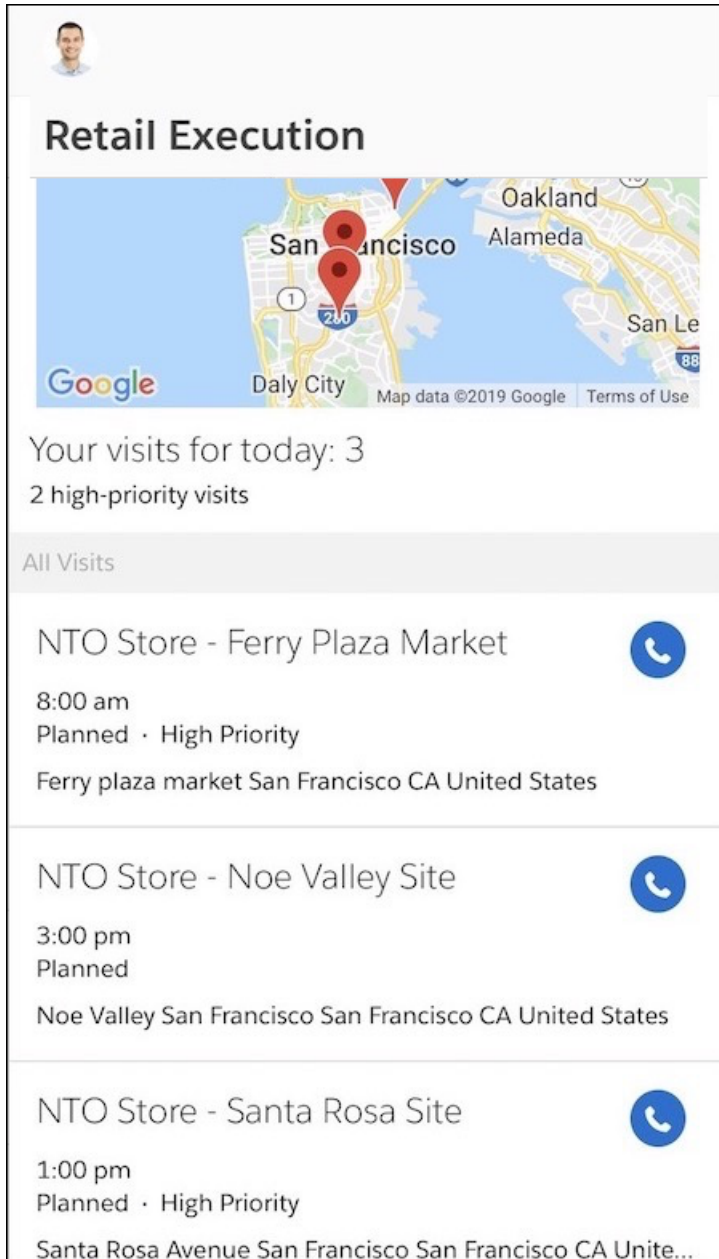
## Get Optimized Visit Sequences with Salesforce Maps

Give field reps a productivity boost with optimized visit sequences. Consumer Goods Cloud uses Salesforce Maps to determine the best sequence of store visits based on distance, travel time, and store hours. Field reps get an optimized daily list of visits on their mobile devices.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Enterprise, Performance, and Unlimited editions where Retail Execution is enabled.

**Who:** This feature is available to users with the Consumer Goods License.




**How:** When creating a retail store record, enter the latitude and longitude of the store location to get a recommended visit sequence.



**Retail Execution**

Your visits for today: 3  
2 high-priority visits

All Visits

NTO Store - Ferry Plaza Market	
8:00 am Planned · High Priority Ferry plaza market San Francisco CA United States	
NTO Store - Noe Valley Site	
3:00 pm Planned Noe Valley San Francisco San Francisco CA United States	
NTO Store - Santa Rosa Site	
1:00 pm Planned · High Priority Santa Rosa Avenue San Francisco San Francisco CA Unite...	

SEE ALSO:

[Salesforce Maps](#)

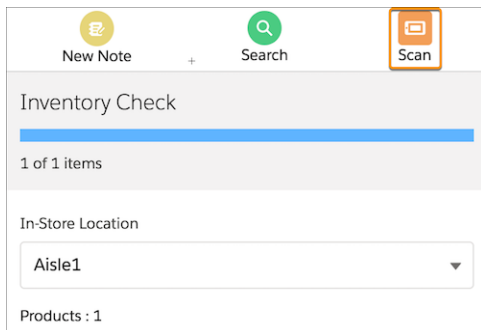
## Find Product Details on Mobile Devices Using the Barcode Scanner

Say goodbye to scrolling through an endless list of items to fetch product details. Field reps can scan a barcode of a product to get its details on their mobile devices.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Enterprise, Performance, and Unlimited editions where Retail Execution is enabled.

**Who:** This feature is available to users with the Consumer Goods License.

**How:** Field reps can find product details on their mobile device by tapping **Scan** and using the mobile camera to scan the barcode of the product.



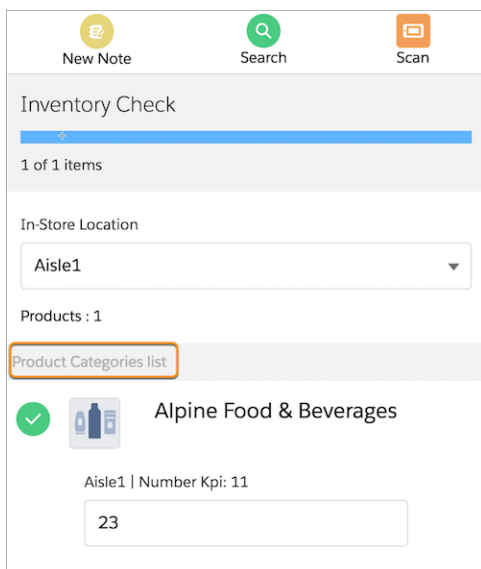
## Track Key Performance Indicators for Product Categories

Sales managers can choose whether key performance indicators are captured for a specific product or for a category of products. This saves field reps the time it takes to record information product by product.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Enterprise, Performance, and Unlimited editions where Retail Execution is enabled.

**Where:** This feature is available to users with the Consumer Goods License.

**How:** To capture information for a product category, when creating a retail store KPI, select a product category.



## Save Reusable Tasks and Use Them Across Templates

Simplify action plan template creation by reusing tasks and their assessment indicator definitions. Sales managers can create a task with assessment indicator definitions once and reuse it every time they create action plan templates for visits.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Enterprise, Performance, and Unlimited editions where Retail Execution is enabled.

**Who:** This feature is available to users with the Consumer Goods License.

**How:** Create an assessment task definition and associate it with an assessment indicator definition. When you create an action plan template, associate this assessment task definition with it.

## Changes to Action Plans License

For better accessibility, these objects are available with the Consumer Goods permission set and not with the Action Plans license: AssessmentIndicatorDefinition, AssessmentTask, AssessmentTaskContentDocument, AssessmentTaskOrder, and ActionPlanTmplTmAssessmentInd. This change doesn't impact existing action plan functionality.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

## More Control of Object Detection Data

Einstein Object Detection data is now stored locally in the European Union, and you can decide which users have permission to access detection information. You also can disable vision models that you no longer use.

### IN THIS SECTION:

#### [Store Your Einstein Object Detection Data Locally](#)

For Salesforce orgs in the European Union (EU), Einstein Object Detection data is now stored locally.

#### [Control Access to Einstein Object Detection](#)

You can now choose which users in your Salesforce org can access Einstein Object Detection.

#### [Disable Einstein Object Detection Models](#)

You can disable object detection models that you are in the process of building. You can also disable underperforming models and models that aren't used. You can always enable a model later.

#### [Increase Productivity with New Key Performance Indicator Type](#)

Sales manager can automatically identify out-of-stock products and keep their stocks replenished with the new Out-of-Stock KPI. When field reps take a picture of a shelf, Salesforce automatically identifies and records the out-of-stock products.

## Store Your Einstein Object Detection Data Locally

For Salesforce orgs in the European Union (EU), Einstein Object Detection data is now stored locally.

**Where:** This change applies to Lightning Experience in Unlimited and Enterprise editions that have Consumer Goods Cloud enabled.

## Control Access to Einstein Object Detection

You can now choose which users in your Salesforce org can access Einstein Object Detection.

**Where:** This change applies to Lightning Experience in Unlimited and Enterprise editions that have Consumer Goods Cloud enabled.

**How:** To provide users access to Einstein Object Detection, in the permission set assigned to the users, edit System Permissions, and enable **Allow user to use Object Detection for prediction**.

## Disable Einstein Object Detection Models

You can disable object detection models that you are in the process of building. You can also disable underperforming models and models that aren't used. You can always enable a model later.

**Where:** This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

**How:** From the quick action on the vision model page, select **Disable**.

## Increase Productivity with New Key Performance Indicator Type

Sales manager can automatically identify out-of-stock products and keep their stocks replenished with the new Out-of-Stock KPI. When field reps take a picture of a shelf, Salesforce automatically identifies and records the out-of-stock products.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Enterprise, Performance, and Unlimited editions where Retail Execution is enabled.

**Who:** This feature is available to users with the Consumer Goods License.

**How:** When defining a retail store KPI, select Out of Stock from the KPI Type list. Select a Boolean target value for the KPI.

The screenshot shows the 'New Retail Store KPI' configuration interface. The 'Information' section includes fields for Retail Store Group (NTO San Francisco), In-Store Location Category (None), Product (Alpine - Oat Cereal), Unit of Measure (None), Effective From, Planogram, Custom Context, Assessment Indicator Definition, Effective To, Promotion, Product Category, and Search Categories. The 'KPI Type' dropdown is highlighted with an orange box and shows 'Out of Stock' selected. The 'Target Values' section includes a 'Number' field, a 'Boolean' dropdown set to 'False', a 'Text' field, and a 'Decimal' field. At the bottom, there are 'Cancel', 'Save & New', and 'Save' buttons.

## Consumer Goods Cloud Has New and Changed Objects

Access more data through these new and changed Consumer Goods Cloud objects.

**Where:** This feature applies to the Retail Execution app in Developer, Enterprise, Performance, and Professional editions.

### Associate an assessment indicator definition with an assessment task definition

Use the new `AssessmentTaskIndDefinition` junction object.

### Associate an action plan template with a store

Use the new `StoreActionPlanTemplate` object.

### Associate an assessment task with an assessment indicator definition

Use the new `AssessmentTaskDefinition` object



**REMOVED:** The `ActionPlanTmplItmAssessmentInd` object was removed.

## New Fields for Visit Object

### Identify a location or retail store for a visit

Use the new `Place` field on the `Visit` object.

### Identify the purpose of a visit, such as claim, business license application, or work type

Use the new `ContextId` field on the `Visit` object.

### Identify the account that is associated with a visit

Use the new `AccountId` field on the `Visit` object.

## New Fields for AssessmentTask Object

### Identify the visit associated with an assessment task

Use the new `ParentId` field on the `AssessmentTask` object.

### Indicate whether a task must be completed to complete a visit

Use the new `IsRequired` field on the `AssessmentTask` object.

### View the sequence in which the tasks must be performed

Use the new `SequenceNumber` field on the `AssessmentTask` object.

### View the status of a task

Use the new `Status` field on the `AssessmentTask` object.

### View the assessment task definition that is referenced for the task

Use the new `AssessmentTaskDefinitionId` field on the `AssessmentTask` object.

## These Fields Have New Picklist Values

### RetailStoreKpi

The `KpiType` field has new picklist values.

### RetailVisitKpi

The `KpiType` field has new picklist values.

## New Field for Einstein Object Detection Object

### Disable models that aren't being used in your org

Use the new `IsActive` field on the `AiVisionModel` object.

# Manufacturing Cloud: Enrich Your Experience with Sales Agreement and Account Forecast Enhancements

Get a closer look at your sales agreements and account forecasts with additional features. Add products to an account forecast. Add your own metrics to customize your account forecast. View revenue metrics of an account forecast in the account's currency. Filter your sales agreements and account forecasts by products. Simultaneously update multiple values of a sales agreement metric or an account forecast metric. Get a visual representation of your organization's data with the provided dashboards.

## IN THIS SECTION:

[Use Your Metrics to Customize Account Forecasts](#)

If the provided set of account forecast metrics doesn't meet your requirements, you can add custom metrics to your account forecasts for quantity and revenue indicators.

[View Forecast Revenue Metrics in Your Account's Currency](#)

Your account managers can now view revenue metrics of an account forecast in the account's currency. The revenue metrics sourced from orders, opportunities, and sales agreements are converted into the currency of an account.

[Add New Products to Account Forecast with One Click](#)

Account managers can add new products to an account forecast at any time with the click of a button, even if the products are not associated with any sales agreements, orders, or opportunities. They don't have to wait for an adjustment period. Forecasts are automatically recalculated to reflect the forecast metrics for the new products.

[Find Agreement Terms and Account Forecasts by Product](#)

Your account managers can now filter agreement terms and account forecasts by product. They don't have to navigate through multiple pages to find what they're looking for.

[Update Multiple Values in Agreement Terms and Account Forecasts](#)

Help your account managers respond crisply to seasonal product changes that affect sales agreement and account forecasting metrics. Now they can simultaneously update multiple values of a single metric in sales agreements or account forecasts.

[Monitor Revenue Realization and Account Performance with Dashboards \(Beta\)](#)

Account managers can easily compare planned and actual values for accounts and revenue realization. Dashboards on the Manufacturing home page now leverage Einstein Analytics to show performance metrics of sales agreements and products.

[Strengthen Forecasting and Get Deeper Insight Into Product Demand with Einstein Analytics for Manufacturing](#)

New dashboards give account managers and demand planners data analysis tools to improve the accuracy of forecasts and anticipate customer demand. Dashboard visualizations let you create informed forecasts for your accounts and track their performance against it. You can also analyze changes in forecast and improve accuracy with insights on historical trends. And embedded insights show a complete picture of your business right from the main Salesforce pages you use everyday to run your business.

[Use the Manufacturing Partner Community Template with a New License](#)

Now your community users need the Manufacturing Sales Agreements For Community license to access the Manufacturing community portal.

[Add Field Recalculations and Mass Updates to Your Processes and Flows](#)

Process Builder and Flow Builder now include standard Manufacturing Cloud actions to perform recalculations and mass updates to account forecast and sales agreement fields. For more information about these actions, see the [Manufacturing Cloud Has New Invocable Actions](#) on page 398 release note.

[Manufacturing Cloud Has New and Changed Metadata Types](#)

Use sales agreements and account forecasts better with these new and changed metadata types for Manufacturing Cloud.

[Manufacturing Cloud Has New Tooling APIs](#)

Create sales agreements and generate account forecasts with these new Tooling API objects for Manufacturing Cloud.

[Manufacturing Cloud Has New Invocable Actions](#)

Use invocable actions to perform recalculations and mass updates to account forecast and sales agreement fields instantly.

## Use Your Metrics to Customize Account Forecasts

If the provided set of account forecast metrics doesn't meet your requirements, you can add custom metrics to your account forecasts for quantity and revenue indicators.

**Where:** This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

**Who:** This feature is available to users with the Manufacturing Cloud license and the Manufacturing Account Forecasting permission set.

**How:** In the Object Manager, create custom fields on the Account Product Forecast and Account Product Period Forecast objects. In Setup, enter *Account Forecasting* in the Quick Find box, and then select **Account Forecasting**. Under Metrics Mapping, map a product period metric to a product metric.

SEE ALSO:

[Salesforce Help: Create Custom Fields in Account Product Forecast and Account Product Period Forecast Objects \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Map Custom Fields of Account Product Forecast and Account Product Period Forecast \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Select Metrics to Display in Forecast \(can be outdated or unavailable during release preview\)](#)

## View Forecast Revenue Metrics in Your Account's Currency

Your account managers can now view revenue metrics of an account forecast in the account's currency. The revenue metrics sourced from orders, opportunities, and sales agreements are converted into the currency of an account.

**Where:** This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

**Who:** This feature is available to users with the Manufacturing Cloud license and the Manufacturing Account Forecasting permission set.

## Add New Products to Account Forecast with One Click

Account managers can add new products to an account forecast at any time with the click of a button, even if the products are not associated with any sales agreements, orders, or opportunities. They don't have to wait for an adjustment period. Forecasts are automatically recalculated to reflect the forecast metrics for the new products.

**Where:** This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

**Who:** This feature is available to users with the Manufacturing Cloud license and the Manufacturing Account Forecasting permission set.

**How:** On the Account Forecast page, click **Add Products**.

SEE ALSO:

[Salesforce Help: Add Products to an Account Forecast \(can be outdated or unavailable during release preview\)](#)

## Find Agreement Terms and Account Forecasts by Product

Your account managers can now filter agreement terms and account forecasts by product. They don't have to navigate through multiple pages to find what they're looking for.

**Where:** This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

**How:** On the Agreement Terms tab or the Forecast tab, click  and select the appropriate products.

SEE ALSO:

[Salesforce Help: Filter Sales Agreement Terms by Products \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Filter Account Forecasts by Products \(can be outdated or unavailable during release preview\)](#)

## Update Multiple Values in Agreement Terms and Account Forecasts

Help your account managers respond crisply to seasonal product changes that affect sales agreement and account forecasting metrics. Now they can simultaneously update multiple values of a single metric in sales agreements or account forecasts.

**Where:** This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

**How:** On the Sales Agreements or the Account Forecasting page, click **Mass Update**. Your account managers receive in-app notifications when the process is complete. For each updated cell value, they can get a change history of the last three edits.

SEE ALSO:


[Salesforce Help: Update Multiple Values in Sales Agreement Terms \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Update Multiple Values of Account Forecasts \(can be outdated or unavailable during release preview\)](#)

## Monitor Revenue Realization and Account Performance with Dashboards (Beta)

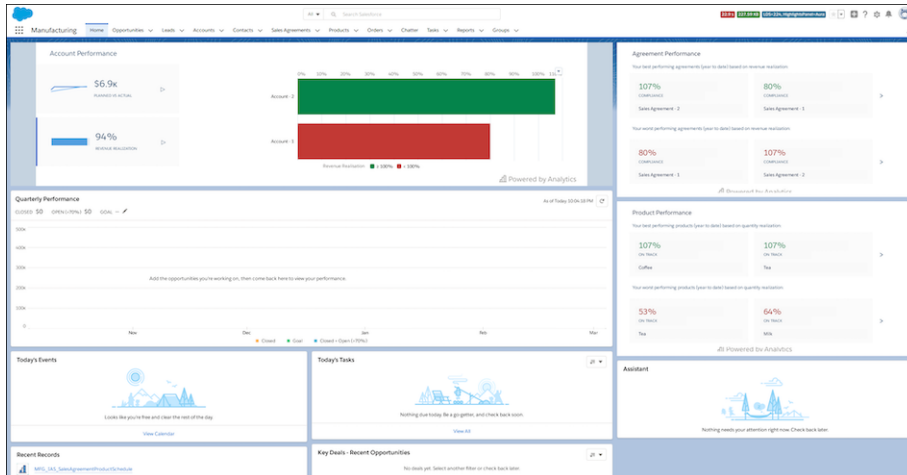
Account managers can easily compare planned and actual values for accounts and revenue realization. Dashboards on the Manufacturing home page now leverage Einstein Analytics to show performance metrics of sales agreements and products.

**Where:** This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

 **Note:** As a beta feature, the Manufacturing Default Analytics Dashboards is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature.

**Who:** This feature is available to users with the Manufacturing Cloud license and the Manufacturing Sales Agreements permission set.

**How:** In Setup, enter *Sales Agreements* in the Quick Find box, and select Sales Agreements. Enable the **Default Analytics Dashboards** setting.



## SEE ALSO:

[Salesforce Help: Enable Default Analytics Dashboards \(Beta\) \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: View Revenue Realization and Account Performance with Dashboards \(Beta\) \(can be outdated or unavailable during release preview\)](#)

## Strengthen Forecasting and Get Deeper Insight Into Product Demand with Einstein Analytics for Manufacturing

New dashboards give account managers and demand planners data analysis tools to improve the accuracy of forecasts and anticipate customer demand. Dashboard visualizations let you create informed forecasts for your accounts and track their performance against it. You can also analyze changes in forecast and improve accuracy with insights on historical trends. And embedded insights show a complete picture of your business right from the main Salesforce pages you use everyday to run your business.

**Who:** To create an app from the Einstein Analytics for Manufacturing template, you must also have the Manufacturing Analytics Plus add-on license.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Enterprise and Unlimited editions where Manufacturing Cloud is enabled. Analytics for Manufacturing is only for Salesforce Manufacturing Cloud users.

**How:** Go to Analytics Studio, click **Create**, choose **App**, and click **Start from Template**. Select **Analytics for Manufacturing**, and follow the instructions in the wizard to create your app.

## Use the Manufacturing Partner Community Template with a New License

Now your community users need the Manufacturing Sales Agreements For Community license to access the Manufacturing community portal.

**Where:** This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

**Who:** This feature is available to users with the Manufacturing Cloud license and the Manufacturing Cloud For Community add-on license.

## Add Field Recalculations and Mass Updates to Your Processes and Flows

Process Builder and Flow Builder now include standard Manufacturing Cloud actions to perform recalculations and mass updates to account forecast and sales agreement fields. For more information about these actions, see the [Manufacturing Cloud Has New Invocable Actions](#) on page 398 release note.

## Manufacturing Cloud Has New and Changed Metadata Types

Use sales agreements and account forecasts better with these new and changed metadata types for Manufacturing Cloud.

### Enable Manufacturing cloud features

Use the `IndustriesManufacturingSettings` metadata settings type to enable sales agreements and account forecasts. Introduced in API version 47.0, this type has been added to the [Manufacturing Cloud Developer Guide](#).

### Configure sales agreements

Use the new `SalesAgreementSettings` metadata type. Introduced in API version 47.0, this type has been added to the [Manufacturing Cloud Developer Guide](#).

### Configure account forecasts

Use the new `AccountForecastSettings` metadata type. Introduced in API version 47.0, this type has been added to the [Manufacturing Cloud Developer Guide](#).

### Customize account forecasts

Use the new `DisplayedRevenueMetrics` field on the `AccountForecastSettings` type.

### Use invocable actions

The `actionType` (`FlowActionCall` subtype) field of the Flow Metadata Type has new enumerated values for Manufacturing Cloud.

- `refreshActualsCalculation`-Refreshes actuals calculations for sales agreements for current and future periods. Available in API version 47.0 and later.
- `recalculateForecast`-Recalculates forecasts based on orders, opportunity, and sales agreement figures. Available in API version 47.0 and later.
- `massUpdateAccountForecast`-Mass updates account forecast fields for different products and periods with this single action. Available in API version 48.0 and later.
- `massUpdateSalesAgreement` Mass updates sales agreement fields for different products and periods with this single action. Available in API version 48.0 and later.

## Manufacturing Cloud Has New Tooling APIs

Create sales agreements and generate account forecasts with these new Tooling API objects for Manufacturing Cloud.

### Create sales agreements

Use the new `SalesAgreementSettings` object. Introduced in API version 47.0, this object has been added to the [Manufacturing Cloud Developer Guide](#).

### Generate account forecasts

Use the new `AccountForecastSettings` metadata type. Introduced in API version 47.0, this object has been added to the [Manufacturing Cloud Developer Guide](#).

## Manufacturing Cloud Has New Invocable Actions

Use invocable actions to perform recalculations and mass updates to account forecast and sales agreement fields instantly.

**Refresh actuals calculation**

Use the new `refreshActualsCalculation` action. Introduced in API version 47.0, this is in the [Manufacturing Cloud Developer Guide](#).

**Recalculate account forecasts**

Use the new `recalculateForecast` action. Introduced in API version 47.0, this type is in the [Manufacturing Cloud Developer Guide](#).

**Mass update account forecasts**

Use the new `massUpdateAccountForecast` action.

**Mass update Sales Agreement**

Use the new `massUpdateSalesAgreement` action.

## Shared Industries Metadata API

Metadata API includes new types. These metadata API types apply to two or more Salesforce Industries clouds.

### Industries

**Enable features for your Industries vertical**

Use the new `IndustriesSettings` metadata type. Introduced in API version 47.0, this type has been added to the *Metadata API Developer Guide*.

### Consumer Goods Cloud and Financial Services Cloud

**Create an action plan template**

Use the new `ActionPlanTemplate` type. Introduced in API version 47.0, this type has been added to the *Metadata API Developer Guide*.

## myTrailhead: A Fresh New Look for Trailmaker Content, and Customer-Created Subdomains

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Trailmaker Content gets a makeover. Customers can set up their own myTrailhead subdomain. Support for Internet Explorer 11 (IE 11) is ending.

**IN THIS SECTION:**[Create Content with Efficiency and Ease Using the Redesigned Trailmaker Content](#)

All the features that myTrailhead content creators rely on are still in place, redesigned for an optimal module- and trail-building experience.

[Create Your Own myTrailhead Subdomain in a Flash](#)

When your company signs up for myTrailhead, you can create your own subdomain and namespace using our quick new setup flow.

[Support for Internet Explorer \(IE11\) on myTrailhead Is Ending](#)

As of March 31, 2020, IE11 is no longer supported for myTrailhead. The latest stable versions of Google Chrome, Mozilla Firefox, Microsoft Edge, and Apple Safari are still supported.

## Create Content with Efficiency and Ease Using the Redesigned Trailmaker Content

All the features that myTrailhead content creators rely on are still in place, redesigned for an optimal module- and trail-building experience.

**Where:** myTrailhead is available to customers with Enterprise, Performance, or Unlimited editions for an extra cost.

**When:** These changes are available in March 2020.

**Who:** Users with the myTrailhead Content Access and myTrailhead Content Creation permissions can log in to their company's myTrailhead site and access Trailmaker Content.

**Why:** With the new list view, it's easier to manage the trails and modules in your Trailmaker Content workspace. And with the new Actions menu, you can efficiently add content to a release, download a backpack, or open a module or trail for editing.

The screenshot shows the Trailmaker Content workspace interface. At the top, there's a navigation bar with 'Trailmaker', 'Content', 'Releases', and 'Settings'. A user profile for 'Wallace Fox' is visible in the top right. Below the navigation is a banner with a cartoon character and the text 'WELCOME, WALLACE. LET'S GET BUILDING!'. The main area is titled 'My Content' and features a search bar and an 'Add' button. A table lists content items with columns for NAME, LAST MODIFIED, TYPE, and ACTIONS. The ACTIONS column for the first item is expanded, showing options: Edit, Add to Release, Download, and Delete.

NAME	LAST MODIFIED ↓	TYPE	ACTIONS
Apex Basics and Database	01/15/2018	Module	<ul style="list-style-type: none"> <li>Edit</li> <li>Add to Release</li> <li>Download</li> <li>Delete</li> </ul>
Sell Lightning Fast with Sales Cloud	01/08/2018	Trail	
Coaching & Feedback	01/08/2018	Module	
CRM Basics	01/08/2018	Module	
Data Leak Prevention	01/08/2018	Module	
Desk.com Toolkit	01/03/2018	Module	
Apex Basics and Database	01/03/2018	Module	
Apex Specialist	01/03/2018	Trail	
Sell Lightning Fast with Sales Cloud	01/03/2018	Module	

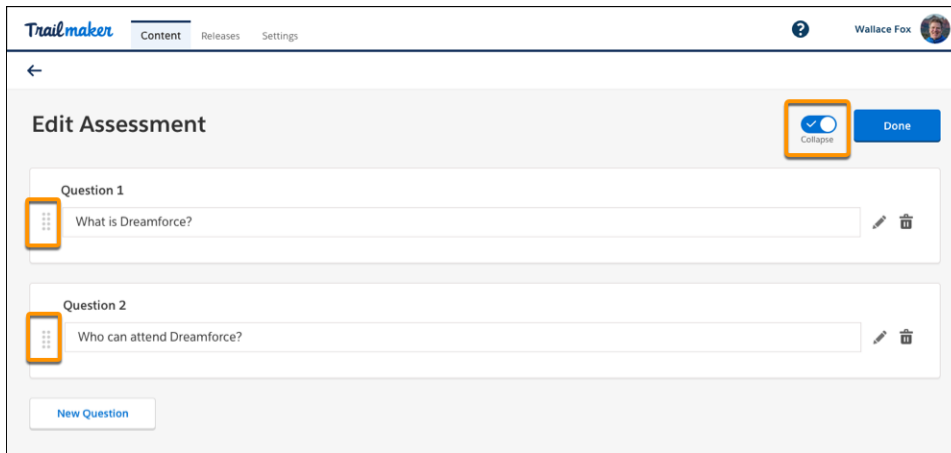
The updated module- and unit-creation pages have a clean, streamlined style.



The screenshot shows the Trailmaker interface for configuring a module. At the top, there are tabs for 'Content', 'Releases', and 'Settings', along with a user profile for Wallace Fox. A back arrow is visible on the left. The main content area includes a module icon, an 'Add to Release' button, and a 'Download' dropdown. Below this, there are input fields for 'Title' (Chatter for Lightning Experience), 'API Name' (chatter\_for\_lightning\_experience), and 'Description' (Learn how to use Chatter, update your profile, and start collaborating.). A filter section shows 'Role: Admin', 'Role: Developer', and 'Level: Beginner' selected. At the bottom, a list of units is shown under 'Units in This Module', including 'Get Started with Chatter', 'Create Posts, Polls, and Questions', 'Customize Your Chatter Experience', and 'Untitled Unit', each with edit and delete icons.

The screenshot shows the Trailmaker interface for configuring a unit. At the top, there are tabs for 'Content', 'Releases', and 'Settings', along with a user profile for Wallace Fox. A back arrow is visible on the left. The main content area includes a unit icon, a 'Create Assessment' button, and input fields for 'Title' (Learn About Chatter) and 'API Name' (learn-about-chatter). A filter section shows 'Role: Business User', 'Level: Beginner', 'CRM: 50', and 'App Lifecycle: 50' selected. Below the filters is a rich text editor with a toolbar containing icons for undo, redo, bold, italic, link, unlink, code, list, and table. The content area contains two sections: 'Learning Objectives' with a list of skills (Respond to a post, Keep up-to-date by following people and records, Get people's attention using mentions, Understand who sees your Chatter content) and 'A Little Less Talk, a Little More Action' with a paragraph of introductory text.

And when you create quizzes, you can drag questions to reorder them and even collapse the questions, to make reordering easier.



## Create Your Own myTrailhead Subdomain in a Flash

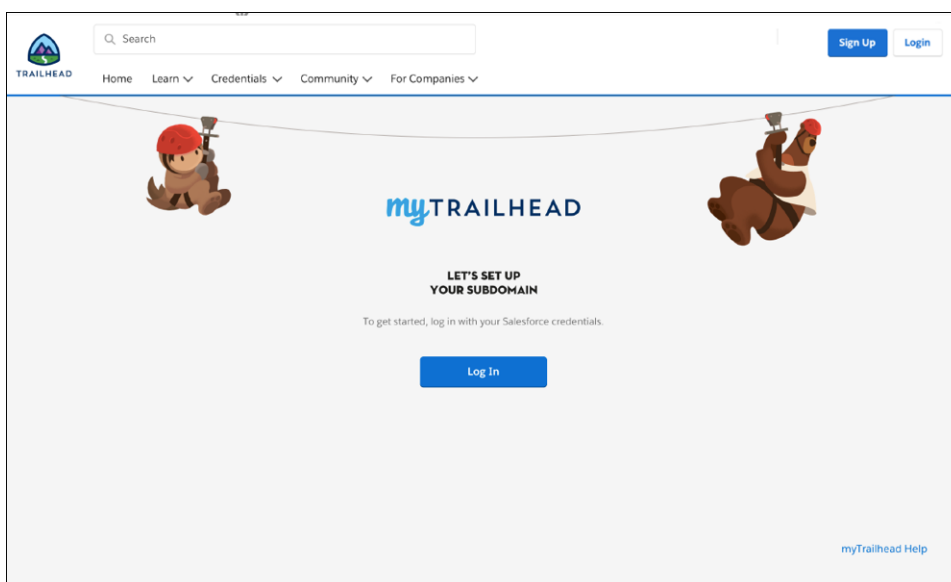
When your company signs up for myTrailhead, you can create your own subdomain and namespace using our quick new setup flow.

**Where:** myTrailhead is available to customers with Enterprise, Performance, or Unlimited editions for an extra cost.

**When:** These changes are available in January 2020.

**Who:** Users with the myTrailhead Content Access and myTrailhead Branding Management permissions can log in to their company's myTrailhead site and set up the myTrailhead subdomain.

**How:** As a myTrailhead customer, you get your own subdomain—your myTrailhead website. Within your subdomain, you have a namespace, where you gather your modules and trails into releases. In the new subdomain setup flow, we give you a link to the setup page, where you can log in with your Salesforce username and password.



Enter the names for your subdomain and namespace, and you're done!

SEE ALSO:

[Salesforce Help: How myTrailhead Uses Namespaces\(can be outdated or unavailable during release preview\)](#)

## Support for Internet Explorer (IE11) on myTrailhead Is Ending

As of March 31, 2020, IE11 is no longer supported for myTrailhead. The latest stable versions of Google Chrome, Mozilla Firefox, Microsoft Edge, and Apple Safari are still supported.

**Where:** myTrailhead is available to customers with Enterprise, Performance, or Unlimited editions for an extra cost.

## Customization: Lightning Flow Enhancements, Globalization Improvements, and Einstein Updates

Build flows and processes more efficiently with enhancements to Flow Builder, flow management, and Process Builder. More easily manage your translations, currency, and international dates and times. Build, configure, and manage predictions and recommendations with updates to Einstein Prediction Builder and Einstein Next Best Action.

IN THIS SECTION:

[Lightning Flow: Before-Save Updates, Generic Apex Actions, System Context, Opportunity Contact Roles, and Simplified Configuration](#)

Create record-triggered flows that make fast field updates. Developers can create Apex actions for any object. Run flows with system privileges, enforcing only the running user's record-level access. Automate processes with opportunity contact roles. Build flows more efficiently and easily. These changes apply to both Lightning Experience and Salesforce Classic.

[Globalization: Translation Workbench Improvements, Right-to-Left Language Support, and New and Updated Locale Formats](#)

Keep your translations up to date by exporting outdated translations along with untranslated values. Arabic, Hebrew, and Urdu flow right to left. Enable new and improved formats for international dates and times via a critical update, and prepare for changes to International Components for Unicode (ICU) and Oracle's Java Development Kit (JDK) locale formats in this release.

[Einstein Prediction Builder: Try Einstein Prediction Builder, Make Informed Predictions with Trusted AI Help, and Build Filter-Based Predictions](#)

Build up to 10 predictions and enable 1 of them at no additional cost. As you build predictions, refer to the Trusted AI sidebar tab for help with identifying sources of bias. When your prediction question doesn't conveniently map to a field, build a filter-based prediction instead. Add the Einstein Predictions component to your page layouts to display top predictors on individual records.

[Einstein Next Best Action: Analyze Recommendation Strategy Metrics, Create Recommendations from the Records of Any Salesforce Object, and Launch a Flow when Recommendations are Rejected](#)

Analyze metrics at both the strategy and the recommendation level. Discover how many served recommendations in an org were accepted and rejected. Declaratively create recommendations from the records of any Salesforce object. Serve recommendations from accounts, contacts, opportunities, and products. Launch a flow when a user rejects a recommendation and display a questionnaire or run an automated process.

[Lightning App Builder: Mobile Enhancements for All, Guidance for App Builder, and Increased Component Capacity in Page Regions](#)

Design better and more efficient Lightning pages for desktop and mobile with mobile-related enhancements to the Lightning App Builder UI, and with tips delivered via in-app guidance. Include up to 100 components in a single page region.

[External Data: Private Connect Pilot, Changed Encryption for External Credentials](#)

Use Private Connect to integrate third-party services with Salesforce without exposure to the public internet. Your external data credentials are now encrypted with an updated framework for added security.

[Permission Set Groups: Greater Flexibility in Granting Permissions \(Generally Available\)](#)

Permission set groups are an ideal way to consistently and reliably assign permissions to a group of users. Assign users a single permission set group instead of multiple permission sets. Permission set groups combine selected permission sets to provide all the permissions that users need for their job function. Remove individual permissions from a group with the muting permission set feature to ensure that permissions do not exceed user job functions. This change applies to Lightning Experience and Salesforce Classic.

[Sharing: Enhancements to External Organization-Wide Defaults](#)

To better secure your data, the External Sharing Model is enabled by default in all Salesforce orgs created in Spring '20 or later and can no longer be disabled. Plus, you can now set external access levels for the Lead and Campaign objects.

[AppExchange: Support for Trailblazer.me and Enhanced Salesforce Consultant Reviews](#)

Use your Trailblazer.me account to manage your installs, subscriptions, and settings on AppExchange. Learn more about a Salesforce consultant's past performance with verified project reviews and enhanced community feedback.

[General Setup: Custom Settings Enhancements and Improved Connections with Enhanced External Services](#)

Protect and control who has access to custom settings. Create better connections to outside services with Enhanced External Services.

## Lightning Flow: Before-Save Updates, Generic Apex Actions, System Context, Opportunity Contact Roles, and Simplified Configuration

Create record-triggered flows that make fast field updates. Developers can create Apex actions for any object. Run flows with system privileges, enforcing only the running user's record-level access. Automate processes with opportunity contact roles. Build flows more efficiently and easily. These changes apply to both Lightning Experience and Salesforce Classic.

### EDITIONS

Available in: **Essentials**,  
**Professional**, **Enterprise**,  
**Performance**, **Unlimited**,  
and **Developer** Editions

#### IN THIS SECTION:

[Flow Builder: Record-Triggered Flows for Before-Save Updates, Generic Apex Actions, System Context for Running Flows, and Simplified Configuration](#)

Use an autolaunched flow to make fast field updates on new or changed records. Developers can create Apex actions that work with any object you choose. Set autolaunched flows to bypass running-user permissions other than record-level access. Build flows more easily and efficiently.

[Lightning Flow Management: Cloud Flow Designer No Longer Available, Critical Updates and Improvements, and Desktop Flow Designer Retired](#)

Enjoy runtime improvements. Say goodbye to Cloud Flow Designer and Desktop Flow Designer.

[Process Builder: Opportunity Contact Roles and Platform Event Subscriptions](#)

Automate your business processes for opportunity contact roles. And you can see which processes are subscribed to a platform event.

## Flow Builder: Record-Triggered Flows for Before-Save Updates, Generic Apex Actions, System Context for Running Flows, and Simplified Configuration

Use an autolaunched flow to make fast field updates on new or changed records. Developers can create Apex actions that work with any object you choose. Set autolaunched flows to bypass running-user permissions other than record-level access. Build flows more easily and efficiently.

#### IN THIS SECTION:

[Update New and Changed Records 10 Times Faster by Using Before-Save Updates in Flows](#)

Creating or updating a record can now trigger an autolaunched flow to make additional updates to that record before it's saved to the database. Before-save updates in flows are much faster than other available record-triggered updates. For example, a before-save update in a flow is 10 times faster than an update in a record-change process that's built in Process Builder. Replace your record-change processes with flows to minimize how often the spinner appears when users save records.

[Configure Action and Create Records Elements Without Creating Variables](#)

When you add an action or Create Records element to a flow, we automatically store the output values. You no longer have to create and assign variables, but you can still opt to do so. Action and Create Records elements that were created before Spring '20 aren't affected by this change.

[Configure Get Records Elements Without Selecting Fields](#)

When you add a Get Records element to a flow, we automatically store the fields that you need. You no longer have to select each field manually, but you can still opt to do so. Get Records elements that were created before Spring '20 aren't affected by this change.

[Deactivate Your Flow Without Leaving Flow Builder](#)

Now you can activate your flow without ever leaving the Flow Builder. Previously, you had to use the flow detail page to deactivate your flow.

### [Build Invocable Actions That Work for Multiple Objects](#)

Now, developers can create reusable Apex actions that use the generic `sObject` and `List<sObject>` data types. Build one action that works for multiple objects, rather than one for each individual object. Developers can build a filter or sort action that works with any collection of records, from accounts and contacts to custom objects. Previously, developers couldn't use polymorphic Apex structures in invocable actions because generic data types weren't supported.

### [Run Flows Without Worrying About User Permissions with System Mode](#)

Normally, how a flow is launched determines whether the flow runs in the context of the user or the system. Now you can bypass the running user's permissions by setting your flow to run in system context with sharing. The flow still respects org-wide default settings, role hierarchies, sharing rules, manual sharing, teams, and territories, but it ignores object permissions, field-level access, or other permissions of the running user.

### [Select Related Record Values from Record Variables with One Click](#)

Use the arrow navigation to move up from one related record to another. Select a value up to 10 relationship levels beyond the original record variable.

### [Reference a Newly Created Screen Field Without Leaving the Screen Editor](#)

Now you can build screen fields and reference them to set component visibility, validate input, or provide help for another screen field at the same time. Previously, you had to exit then reopen the screen editor to reference a newly created screen field.

### [Work More Efficiently in Flow Builder with Keyboard Shortcuts](#)

You can now display a list of available keyboard shortcuts in Flow Builder. Also, new keyboard shortcuts let you switch the focus from one panel to another.

### [Locate Resources Quickly in the Manager Toolbox Using API Name, Label, or Description](#)

Now, search for resources using API name, label, or description. Previously, the search feature of the manager toolbox only supported API names.

### [Make It Easy for Admins to Find Your Actions by Categorizing Them](#)

Developers can help admins find custom invocable actions more easily by creating categories for them. After you add a `category` parameter to an action, your admins see the new category and its associated actions when building flows in Flow Builder.

### [Guide the Configuration of Your Invocable Actions with Custom Property Editors \(Pilot\)](#)

Now, developers can create rich design time experiences for admins using Lightning Web Components (LWCs). Previously, developers could not control the user interface that Flow Builder admins used to configure their actions in Flow Builder.

## Update New and Changed Records 10 Times Faster by Using Before-Save Updates in Flows

Creating or updating a record can now trigger an autolaunched flow to make additional updates to that record before it's saved to the database. Before-save updates in flows are much faster than other available record-triggered updates. For example, a before-save update in a flow is 10 times faster than an update in a record-change process that's built in Process Builder. Replace your record-change processes with flows to minimize how often the spinner appears when users save records.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To activate a flow that makes before-save updates, you need the View All Data permission.

**Why:** Perhaps you're familiar with Process Builder and using a record-change process to make additional updates to each record that triggers the process. Such a process can set the Region custom field automatically on each new case record. Before-save updates in flows accomplish that same goal, but much more quickly because each record doesn't get saved to the database again. Avoiding that extra save procedure means skipping another round of assignment rules, auto-response rules, workflow rules, and other customizations that take time to execute.

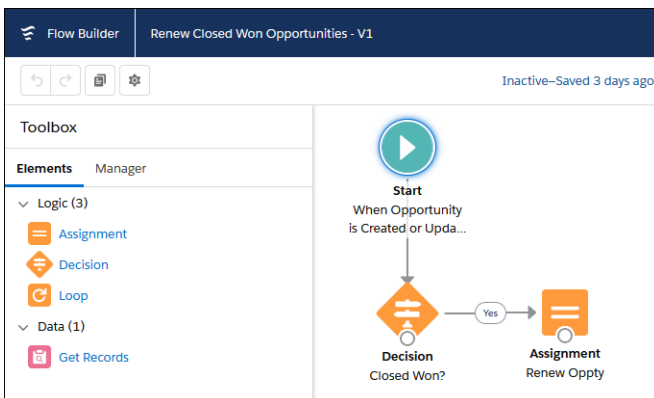
Perhaps you're familiar with Apex triggers. A flow that makes before-save updates is similar to a `before` trigger. The previously described record-change process is similar to an `after` trigger. In a save procedure, before-save updates in flows are executed immediately prior to Apex `before` triggers.

Because of their speed, we recommend that you use before-save updates in flows to update fields on new or changed records. You can even avoid the limit for maximum CPU time on the Salesforce servers by replacing Apex code and record-change processes with before-save updates in flows. However, sometimes you need to use a record-change process or an Apex `after` trigger to:

- Access field values that are set only after the record is saved, such as the Last Modified Date field or the ID of the new record.
- Create or update related records.
- Perform actions other than updating the record that launches the flow.

**How:** Create an autolaunched flow and open the Start element. For What Launches the Flow, select **New or updated records—flow makes fast field updates**.

For a flow that makes before-save updates, the Flow Builder toolbox offers only four elements: Assignment, Decision, Get Records, and Loop.



In the flow, the `$Record` global variable contains the record values. Use an Assignment element to update those values, and let Salesforce handle the rest. You don't even have to create any variables or add an Update Records element to your flow.

SEE ALSO:

[Salesforce Help: Flow Element: Assignment \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Flow Resource: Global Variables \(can be outdated or unavailable during release preview\)](#)

[Apex Developer Guide: Triggers and Order of Execution](#)

## Configure Action and Create Records Elements Without Creating Variables

When you add an action or Create Records element to a flow, we automatically store the output values. You no longer have to create and assign variables, but you can still opt to do so. Action and Create Records elements that were created before Spring '20 aren't affected by this change.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** When you define a field that supports variables, automatically stored outputs show up as available options just like other variables in your flow. Later in the flow, you can access values returned by an Action element by starting to type the API name of the element.

Update Records of This Object Type

\*Object  
Account

Filter Account Records

Condition Requirements  
Conditions are Met

Field Operator Value

AccountSource Equals Get

+ Add Condition

VARIABLES  
A Text from Get\_Account\_Source  
Text

To use the record Id from a Create Records element later in the flow, start typing the API name of the element.

\*Label \*API Name

Update Account Id Update\_Account\_Id

Description

Set Variable Values

Each variable is modified by the operator and value combination.

Variable Operator Value

{!newContact.AccountId} Equals Create

+ Add Assignment

VARIABLES  
A AccountId from Create\_Account  
Text

If you don't want to use automatically created variables, select **Manually assign variables (advanced)**.



**Set Field Values for the Account**

Field	Value
Name	{!accountName}

+ Add Field

Manually assign variables (advanced)

**Store Account ID in Variable**

Variable

Search variables... 🔍

### Configure Get Records Elements Without Selecting Fields

When you add a Get Records element to a flow, we automatically store the fields that you need. You no longer have to select each field manually, but you can still opt to do so. Get Records elements that were created before Spring '20 aren't affected by this change.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** When you create a Get Records element, automatically store all fields and let the flow do the work for you.

## Edit Get Records

Find Salesforce records and store their field values in flow variables.

\* Label \* API Name

Get Opportunity Get\_Opportunity

Description

---

### Get Records of This Object

\* Object


Opportunity

---

### Filter Opportunity Records

Condition Requirements


Get All Opportunity Records (No Conditions) ▼

 With no conditions, the flow retrieves **all** Opportunity records.

---

### Sort Opportunity Records

Sort Order

Not Sorted ▼  If you store only the first record, filter by a unique field, such as ID.

---

#### How Many Records to Store

Only the first record

All records

#### How to Store Record Data

Automatically store all fields

Choose fields and let Salesforce do the rest

Choose fields and assign variables (advanced)

To reference a field from the Get Records element later in the flow, start typing the API name of the element, then select the field.

Variable	Operator	Value
{!Get_Opportunity.}	Equals	{!\$Flow.CurrentDate}

SEE ALSO:

[IdeaExchange: Save-All-Fields Option in Fast Lookup in Flow](#)

[IdeaExchange: Read into sObject Variable Directly in the Flow](#)

[IdeaExchange: Flow Editor—Limit Selection of Object Fields to Those Actually Available](#)

[IdeaExchange: Include a "Select All" Option for sObject Fields in Flow](#)

## Deactivate Your Flow Without Leaving Flow Builder

Now you can activate your flow without ever leaving the Flow Builder. Previously, you had to use the flow detail page to deactivate your flow.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** Click the new Deactivate button (1) in the button bar. The open flow's activation status can be found to the left of the buttons (2).



## Build Invocable Actions That Work for Multiple Objects

Now, developers can create reusable Apex actions that use the generic sObject and List<sObject> data types. Build one action that works for multiple objects, rather than one for each individual object. Developers can build a filter or sort action that works with any collection of records, from accounts and contacts to custom objects. Previously, developers couldn't use polymorphic Apex structures in invocable actions because generic data types weren't supported.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**How:** Create a custom action, or edit an existing one. Use the `sObject` or `List<sObject>` data type in invocable methods and attributes.

```
public with sharing class GetFirstFromCollection {

    @InvocableMethod
    public static List <Results> execute (List<Requests> requestList) {

        List<SObject> inputCollection = requestList[0].inputCollection;

        SObject outputMember = inputCollection[0];

        //Create a Results object to hold the return values
        Results response = new Results();

        //Add the return values to the Results object
        response.outputMember = outputMember;

        //Wrap the Results object in a List container
        //(an extra step added to allow this interface to also support bulkification)
        List<Results> responseWrapper= new List<Results>();
        responseWrapper.add(response);
        return responseWrapper;
    }

    public class Requests {

        @InvocableVariable(required=true)
        public List<SObject> inputCollection;
    }

    public class Results {

        @InvocableVariable
        public SObject outputMember;
    }
}
```

Previously, the example class would have been tied to the Account or Contact or `myCustomObject__c` object. But now developers create one action, and the Flow Builder admin chooses the object each time they use that action.

### New Action

GetFirstFromCollection

Use values from earlier in the flow to set the inputs for the "GetFirstFromCollection" core action. To use its outputs later in the flow, store them in variables.

\* Label \* API Name

Return First Account

Return\_First\_Account

Description

#### Select Objects

Some of this action's parameters work with any object. Specify an object for each of these parameters. The object determines the type of record variable or record collection variable that works with the parameter.

\* Object for "inputCollection" (Input) ⓘ

Account

\* Object for "outputMember" (Output) ⓘ

Account

## SEE ALSO:

[Use Generic sObject Data Types in Invocable Methods and Invocable Variables](#)

[IdeaExchange: Support for sObject Collection Variables in Invocable Methods for Flows](#)

## Run Flows Without Worrying About User Permissions with System Mode

Normally, how a flow is launched determines whether the flow runs in the context of the user or the system. Now you can bypass the running user's permissions by setting your flow to run in system context with sharing. The flow still respects org-wide default settings, role hierarchies, sharing rules, manual sharing, teams, and territories, but it ignores object permissions, field-level access, or other permissions of the running user.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** When you're saving a flow, click **Show Advanced**. For How to Run the Flow, select *System Context with Sharing—Enforces Record-Level Access*.

\* Flow Label: Billing Details V2

\* Flow API Name: Billing\_Details\_V2

Description

Show Advanced

How to Run the Flow ⓘ

Select...

User or System Context--Depends on How Flow is Launched

System Context with Sharing--Enforces Record-Level Access

To select the same option for an existing flow version, click the  icon.


SEE ALSO:

[IdeaExchange: Flow: ability to choose if your Flow will run in System or As Running User](#)

## Select Related Record Values from Record Variables with One Click

Use the arrow navigation to move up from one related record to another. Select a value up to 10 relationship levels beyond the original record variable.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** Now, click  to move to a related record. Previously, selecting the value of a related record from a record variable was a manual process. If you wanted to select the parent account owner from a contact record variable called `myContact`, you'd have to explicitly enter  `{!myContact.Account.Parent.OwnerId}`.

\* Label: Assign Parent Account Owner

\* API Name: Assign\_Parent\_Account\_Owner

Description

Set Variable Values

Each variable is modified by the operator and value combination.

Variable	Operator	Value
{!ownerId}	Equals	{!myContact.Account}

+ Add Assignment

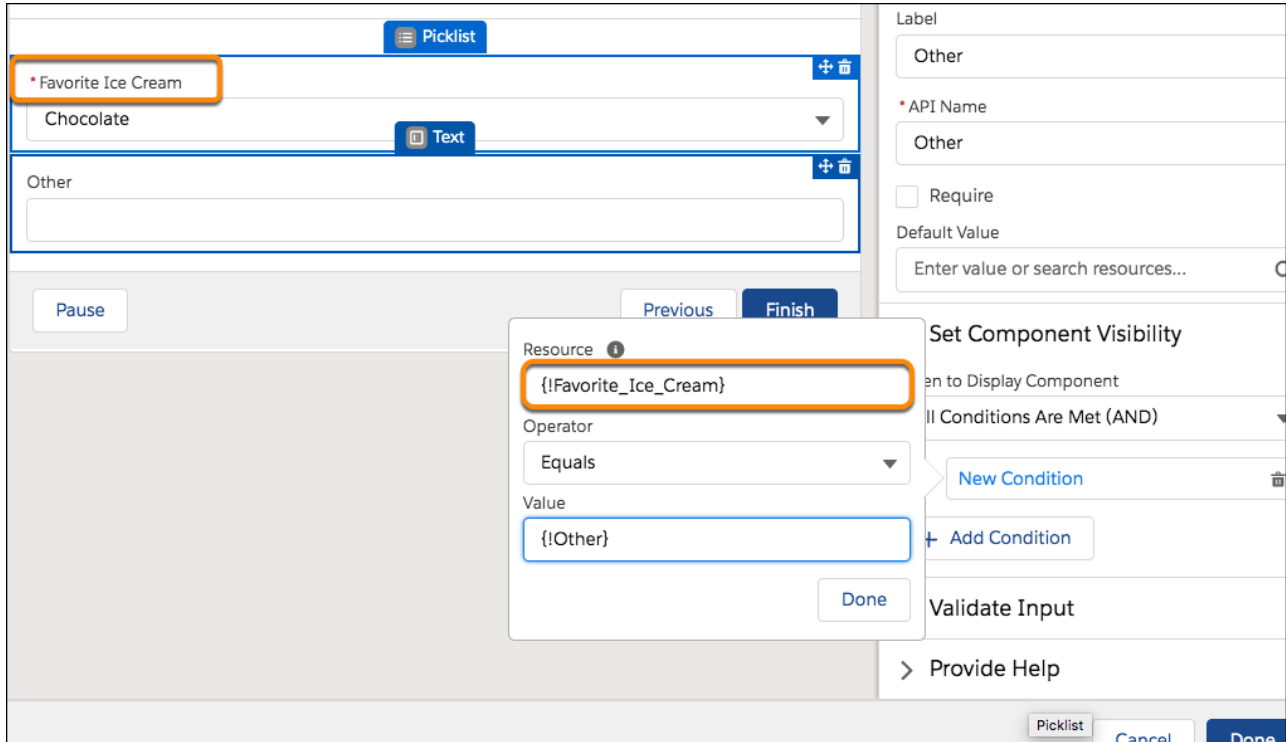
- Master Record ID >
- Owner >
- Owner ID >
- Parent Parent Account ID >

## Reference a Newly Created Screen Field Without Leaving the Screen Editor

Now you can build screen fields and reference them to set component visibility, validate input, or provide help for another screen field at the same time. Previously, you had to exit then reopen the screen editor to reference a newly created screen field.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** Suppose that you want to create a picklist screen field to ask users to select their favorite ice cream flavor. If they select *Other* from the picklist, a text screen field allows them to enter the flavor manually. Build both screen fields in a snap without ever having to leave the screen editor.



SEE ALSO:

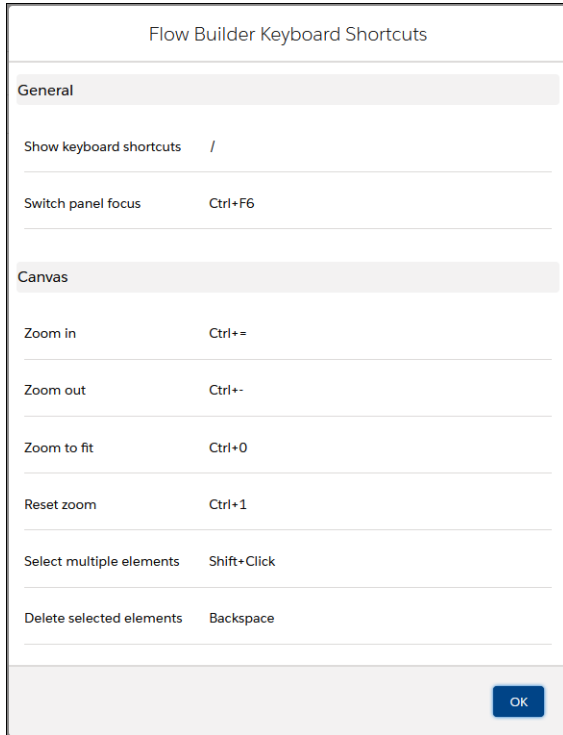
[IdeaExchange: Save While Inside Screen Element of Flow Builder](#)

## Work More Efficiently in Flow Builder with Keyboard Shortcuts

You can now display a list of available keyboard shortcuts in Flow Builder. Also, new keyboard shortcuts let you switch the focus from one panel to another.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** To view available keyboard shortcuts, click anywhere on the canvas and then press the forward slash key (/).



If you overshoot a panel and want to switch the panel focus backward, press Shift-F6.

SEE ALSO:

[Salesforce Help: Flow Builder \(can be outdated or unavailable during release preview\)](#)

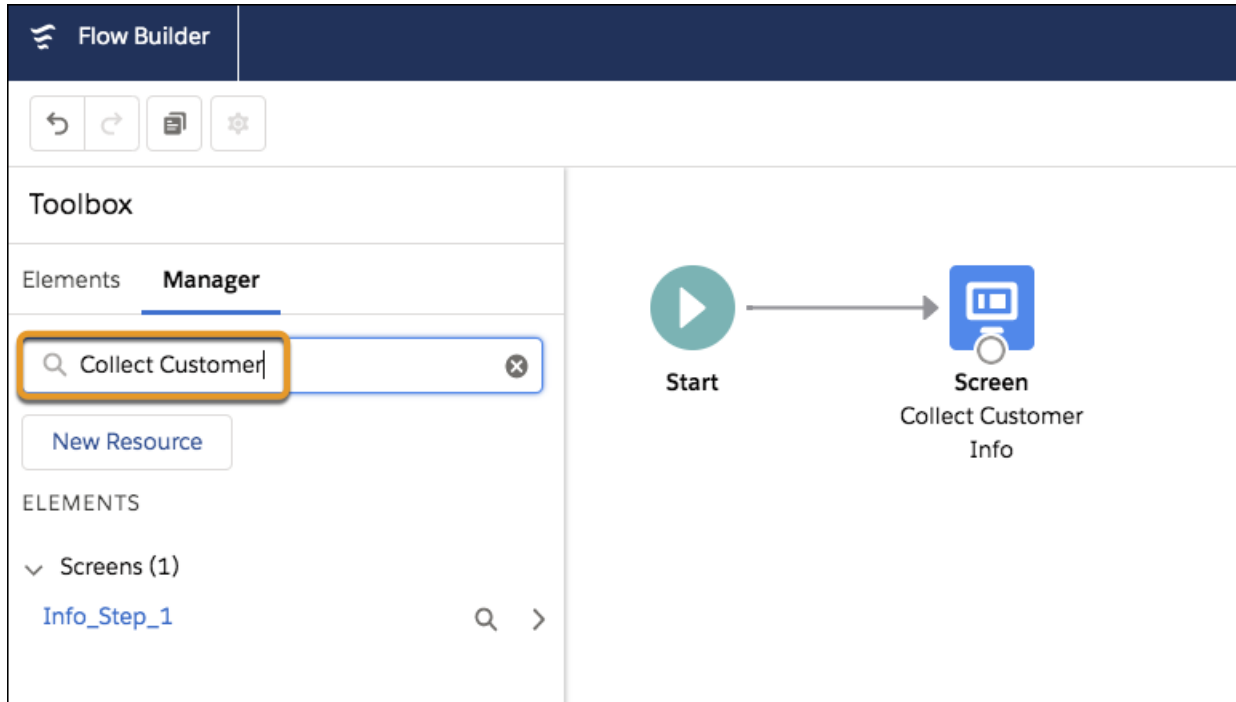
## Locate Resources Quickly in the Manager Toolbox Using API Name, Label, or Description

Now, search for resources using API name, label, or description. Previously, the search feature of the manager toolbox only supported API names.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** Type the text you want to search for in the Quick Find. The list filters elements and resources where the API name, label, or description to match the search text.





SEE ALSO:

[IdeaExchange: Flow Builder - Search by Labels](#)

## Make It Easy for Admins to Find Your Actions by Categorizing Them

Developers can help admins find custom invocable actions more easily by creating categories for them. After you add a `category` parameter to an action, your admins see the new category and its associated actions when building flows in Flow Builder.

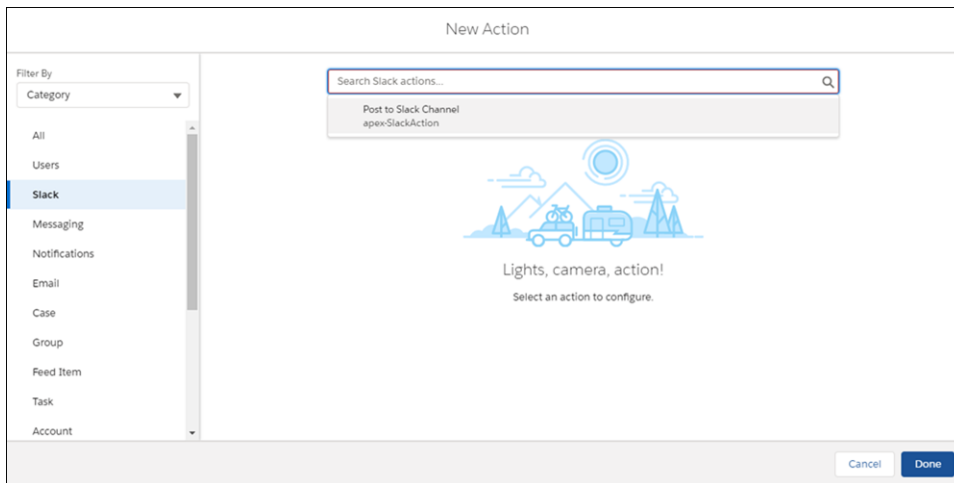
**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Now you can create categories and name them whatever you like. When you're using custom actions, categories make it faster and easier to browse to and find the right one. For most standard actions like Post to Chatter and Submit for Approval, Salesforce provides basic categories such as Approvals, Messaging, Email, and Opportunity. Custom actions without categories are found under the Uncategorized category.

**How:** Create a custom action, or edit an existing one. Add the new `category` parameter to the `InvocableMethod` annotation for the action. Add it where you also specify the `label` and `description` parameters.

```
public class SlackAction {
    @InvocableMethod(
        label='Post to Slack Channel'
        description='Enter the name of the Slack channel you wish to post to.'
        category='Slack')
    public static void postToSlackChannel(List<String> channelName) {
        // logic
    }
}
```

Then as your admins use Action flow elements to build flows, they can select the new category under Filter By and easily find its associated actions.



If you specify an existing category—for example, Users—Salesforce adds the action to that category.

SEE ALSO:

[REST API](#)

## Guide the Configuration of Your Invocable Actions with Custom Property Editors (Pilot)

Now, developers can create rich design time experiences for admins using Lightning Web Components (LWCs). Previously, developers could not control the user interface that Flow Builder admins used to configure their actions in Flow Builder.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.



**Note:** Access to create custom property editors is available in Spring '20 through a pilot program that requires agreement to specific terms and conditions. To participate in the program, contact Salesforce Support. Pilot programs are subject to change, and we can't guarantee acceptance. Feature isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features. You can provide feedback and suggestions for Custom Property Editors in the [Trailblazer Community](#).

SEE ALSO:

[External Link: Custom Property Editors Pilot Documentation](#)

## Lightning Flow Management: Cloud Flow Designer No Longer Available, Critical Updates and Improvements, and Desktop Flow Designer Retired

Enjoy runtime improvements. Say goodbye to Cloud Flow Designer and Desktop Flow Designer.

IN THIS SECTION:

[Cloud Flow Designer Is No Longer Available](#)

The better and faster Flow Builder replaces Cloud Flow Designer.

### [Hit Limits Less Often with More Efficient Record Update Processing](#)

Now, the engine automatically removes duplicate record updates. Build processes and flows without worrying about identical requests hitting the duplicate record limit. Previously, when a parent record was updated from multiple child records in a process or flow, redundant update requests sometimes occurred. This redundancy occasionally caused more than the maximum of 12 duplicated records to be updated in one batch. For example, if an update of *Account.Email* was performed for 13 contacts, a corresponding 13 updates would be generated, causing the duplicate record limit to be exceeded.

### [Enforce Data Access in Flow Formulas \(Critical Update\)](#)

This update enforces the running user's data access when a flow uses a formula resource or a formula field on a record variable to access a field on a record.

### [Make Flows Respect Access Modifiers for Legacy Apex Actions \(Critical Update\)](#)

With this critical update enabled, developers can trust that their legacy Apex actions are properly protected and available only to other components in their managed packages. This update makes a flow fail if it contains a public legacy Apex action.

### [Evaluate Criteria Based on Original Record Values in Process Builder \(Previously Released Critical Update\)](#)

This critical update ensures that a process with multiple criteria and a record update evaluates the *original* value of the field that began the process with a value of null. This critical update was first made available in Summer '19.

### [Enable Partial Save for Invocable Actions \(Critical Update, Enforced\)](#)

Enable Partial Save for Invocable Actions was a critical update in Winter '20 and is enforced in Spring '20, on April 9, 2020. This critical update improves the behaviors and effects of failed invocable actions. It only affects external REST API calls to invocable actions done in bulk. With this update, when invoking a set of actions in a single request, a single failed invocable action no longer causes the entire transaction to fail. Without this update, if a single invocable action fails, other invocable actions within the transaction are rolled back and the entire transaction fails.

### [Return Null Values in Process and Flow Formulas \(Critical Update, Enforced\)](#)

Check for Null Record Variables or Null Values of Lookup Relationship Fields in Process and Flow Formulas was a critical update in Spring '19 and is enforced in Spring '20, on February 18, 2020. This update enables process and flow formulas to return null values when the calculations involve a null record variable or null lookup relationship field.

### [Require User Access to Apex Classes Invoked by Flow \(Critical Update, Postponed\)](#)

This critical update, released in Summer '19, was scheduled for auto-activation in Winter '20, but has been postponed to Spring '21. The critical update was previously called "Improve Security by Requiring User Access to Apex Classes Invoked by Flow."

### [Generate Valid HTML Output from Formulas in Processes and Flows \(Critical Update, Retired\)](#)

This critical update was released and retired in Spring '20. This change affects your Salesforce org if you activated the critical update in the short time that it was available. And, if you modified any HTML in your formulas to prepare for this critical update, this retirement affects your org.

### [Save Successful Record Changes in a Batch from Failed Actions in Processes and Flows](#)

Processes and flows now save successful record changes from failed actions that support partial save. Previously, if one record in a batch failed to save from an action, the entire batch rolled back. Now, Salesforce rolls back only the records that fail to save.

### [Desktop Flow Designer Was Retired](#)

If your Salesforce org still contains flows that were built with the retired Desktop Flow Designer, we recommend that you delete them. Before you delete a flow, you can download each flow version from the flow version detail page. Then recreate the flow in Flow Builder.

## Cloud Flow Designer Is No Longer Available

The better and faster Flow Builder replaces Cloud Flow Designer.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Summer '19 Release Notes: Flow Builder Is Replacing Cloud Flow Designer](#)

[Salesforce Help: Flow Builder](#)

[Trailhead: Build Flows with Flow Builder](#)

## Hit Limits Less Often with More Efficient Record Update Processing

Now, the engine automatically removes duplicate record updates. Build processes and flows without worrying about identical requests hitting the duplicate record limit. Previously, when a parent record was updated from multiple child records in a process or flow, redundant update requests sometimes occurred. This redundancy occasionally caused more than the maximum of 12 duplicated records to be updated in one batch. For example, if an update of `Account.Email` was performed for 13 contacts, a corresponding 13 updates would be generated, causing the duplicate record limit to be exceeded.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Salesforce Help: Per-Transaction Flow Limits \(can be outdated or unavailable during release preview\)](#)

## Enforce Data Access in Flow Formulas (Critical Update)

This update enforces the running user's data access when a flow uses a formula resource or a formula field on a record variable to access a field on a record.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**When:** This critical update begins auto-activating on August 31, 2020.

**Why:** With this update enabled, flow formulas respect the running user's object permissions, field-level access, and record-level access such as sharing rules.

For example, consider an org that makes cases private unless the case owner shares the cases explicitly with other users.

Without this update, when a user who isn't the case owner runs a flow that accesses a field on a case via a formula, the flow interview ignores record-level security and accesses the field.

With this update enabled, the running user's record-level access is enforced, so that flow interview can't access the field.

**How:** We recommend that you test this update in a sandbox before enabling it in your production org.

1. From Setup, enter *Critical Updates* in the Quick Find box, then select **Critical Updates**.
2. For Enforce Data Access in Flow Formulas, click **Activate**.
3. Test all flow paths that use formulas to access fields on records that have object-level security, field-level security, or record-level security. For example, test flows that use formulas to access fields on records that aren't shared with the running user of the flow.

If you experience issues, contact Salesforce Customer Support.

SEE ALSO:

[Critical Updates and Security Alerts](#)


## Make Flows Respect Access Modifiers for Legacy Apex Actions (Critical Update)

With this critical update enabled, developers can trust that their legacy Apex actions are properly protected and available only to other components in their managed packages. This update makes a flow fail if it contains a public legacy Apex action.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** This update resolves an issue where flows don't respect the public access modifiers for legacy Apex actions. The issue affects only legacy Apex actions that reference Apex classes installed from managed packages.

Legacy Apex actions were formerly known as Apex plug-ins. When you define an Apex class that implements the `Process.Plugin` interface in your org, it's available in Flow Builder as a legacy Apex action.

 **Note:** For new Apex integrations, we recommend using the `InvocableMethod` annotation instead of the `Process.Plugin` interface. This update doesn't affect invocable Apex methods.

With this update enabled:

- Flows fail when they execute public legacy Apex actions.
- Public legacy Apex actions aren't available in Flow Builder.
- Global legacy Apex actions with public `describe` or `invoke` methods are unavailable to flows in a different namespace.

Without this update, you can add public legacy Apex actions to flows even though they're not supported. Also, global legacy Apex actions with public `describe` or `invoke` methods are available to flows in a different namespace.

**When:** This critical update begins auto-activating on August 15, 2020.

**How:** We recommend that you test this update in a sandbox or developer org before activating the update in production. If you must work in your production org, do so during off-peak hours. Test all paths that contain legacy Apex action elements and make sure your flows work correctly. If a legacy Apex action is important for a business process but isn't supported with this update, contact the package developer. The developer can consider making a legacy Apex action global, or rebuilding the functionality in a new Apex class.

To activate this update, from Setup, enter *Critical Updates* in the Quick Find box, and select **Critical Updates**. For Make Flows Respect Access Modifiers for Legacy Apex Actions, click **Activate**.

SEE ALSO:

[Critical Updates and Security Alerts](#)

## Evaluate Criteria Based on Original Record Values in Process Builder (Previously Released Critical Update)

This critical update ensures that a process with multiple criteria and a record update evaluates the *original* value of the field that began the process with a value of null. This critical update was first made available in Summer '19.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**When:** This critical update begins auto-activating on July 21, 2021.

**How:** From Setup, enter *Critical Updates* in the Quick Find box. Then select **Critical Updates**. For Evaluate Criteria Based on Original Record Values in Process Builder, click **Acknowledge**.

If you have a process with the **Do you want to execute the actions only when specified changes are made to the record?** option selected, or it uses the `ISCHANGED()` function in your criteria, this update could cause the process to behave differently.

SEE ALSO:

[Critical Updates and Security Alerts](#)

## Enable Partial Save for Invocable Actions (Critical Update, Enforced)

Enable Partial Save for Invocable Actions was a critical update in Winter '20 and is enforced in Spring '20, on April 9, 2020. This critical update improves the behaviors and effects of failed invocable actions. It only affects external REST API calls to invocable actions done in bulk. With this update, when invoking a set of actions in a single request, a single failed invocable action no longer causes the entire transaction to fail. Without this update, if a single invocable action fails, other invocable actions within the transaction are rolled back and the entire transaction fails.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Without this critical update, if one invocable action fails, other invocable actions in the same transaction are rolled back. With this critical update, Salesforce tries three times to execute the invocable actions that run successfully and rolls back only the invocable actions that fail to execute. This functionality is called "partial save."

Most invocable action types that are invoked via REST API are enabled with the partial save functionality. However, even with this critical update, the following action types don't support partial save functionality:

- Cancel Fulfillment Order
- Cancellation Orders
- Capture Funds
- Content Workspaces
- Create Fulfillment Order
- Create Invoice from Fulfillment Order
- Create Service Report
- External Services
- Generate Work Orders
- Invocable Apex
- Skills-based Routing
- Submit Digital Form Response

Partial save can cause an external callout to occur multiple times, and external callouts can't be rolled back. Repeated external callouts can occur only when a flow is launched from a process or invoked from REST API, and that flow makes multiple attempts to execute the action that's making the external callouts.

Because partial save can make multiple attempts to execute an action, the transaction can take longer than expected. This can cause your org to reach some limits sooner than expected.

**When:** This critical update begins auto-activating on April 9, 2020. Before that date, or before you activate this critical update in your production org, we recommend that you test it in a sandbox or Developer Edition org to make sure that your invocable actions work correctly. If you must work in your production org, do so during off-peak hours.

**How:** From Setup, enter *Critical Updates* in the Quick Find box, and select **Critical Updates**. For Enable Partial Save for Invocable Actions, click **Activate**.

Review any API integrations that use invocable actions to ensure they properly accommodate partial-save behavior.

SEE ALSO:

[Critical Updates and Security Alerts](#)

## Return Null Values in Process and Flow Formulas (Critical Update, Enforced)

Check for Null Record Variables or Null Values of Lookup Relationship Fields in Process and Flow Formulas was a critical update in Spring '19 and is enforced in Spring '20, on February 18, 2020. This update enables process and flow formulas to return null values when the calculations involve a null record variable or null lookup relationship field.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** In processes and flows, a formula can reference a record's field via a record variable or lookup relationship field. At run-time, when the record variable or lookup relationship field is null, the formula sometimes returns null. Otherwise, it returns an unhandled exception. With this update, the formula always returns a null value when the record variable or lookup relationship field is null. This update doesn't affect merge fields.

For example, when you update an account, a process starts and checks the criteria before it performs actions. The criteria includes a formula that references the parent account's name via the account's Parent Account field. The Parent Account field is a lookup relationship field: `[Account].Parent.Name`.

If the value of the lookup relationship field is null, the formula returns null. Without this update, the formula sometimes returns an unhandled exception instead of null.

**When:** This critical update begins auto-activating on February 18, 2020.

**How:** To test this critical update, we recommend working in a sandbox. From Setup, enter *Critical Updates* in the Quick Find box. Then select **Critical Updates**. Review the details for the Check for Null Record Variables or Null Values of Lookup Relationship Fields in Process and Flow Formulas critical update and then click **Activate**. Test all process and flow formulas that reference lookup relationship fields or record variable fields. Processes have formulas in criteria and in actions. Flows have formulas in resources and in validation of input components.

SEE ALSO:

[Critical Updates and Security Alerts](#)

## Require User Access to Apex Classes Invoked by Flow (Critical Update, Postponed)

This critical update, released in Summer '19, was scheduled for auto-activation in Winter '20, but has been postponed to Spring '21. The critical update was previously called "Improve Security by Requiring User Access to Apex Classes Invoked by Flow."

SEE ALSO:

[Critical Updates and Security Alerts](#)

[Summer '19 Release Notes: Improve Security by Requiring User Access to Apex Classes Invoked by Flow \(Critical Update\)](#)

## Generate Valid HTML Output from Formulas in Processes and Flows (Critical Update, Retired)

This critical update was released and retired in Spring '20. This change affects your Salesforce org if you activated the critical update in the short time that it was available. And, if you modified any HTML in your formulas to prepare for this critical update, this retirement affects your org.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**When:** This critical update was retired and no longer appears in the Critical Update Console in Spring '20 after February 5, 2020.

**Why:** The intention of the update was to make formula resources and fields on record variables in processes and flows generate correct HTML output at run time. However, enabling this critical update caused unexpected results when formula fields were used as values. For example, when you passed formula values as inputs to an action, like the email address of an Email action, the HTML output caused issues.

**How:** To return the behavior to how it was before you enabled the critical update, undo any changes you made in response to the update. For example, if you removed HTML formatting, then add it back.

Salesforce continues to assess strategies for generating valid HTML output from formulas in processes and flows.

SEE ALSO:

[Critical Updates and Security Alerts](#)

## Save Successful Record Changes in a Batch from Failed Actions in Processes and Flows

Processes and flows now save successful record changes from failed actions that support partial save. Previously, if one record in a batch failed to save from an action, the entire batch rolled back. Now, Salesforce rolls back only the records that fail to save.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** If an error occurs while executing an action from processes or flows, Salesforce attempts to save all successful record changes in a batch.

Salesforce handles errors in processes and flows differently depending on whether the associated action follows the "all or nothing" rule.

- If a record fails to save due to an action that follows the all or nothing rule, the entire transaction rolls back.
- If a record fails to save due to an action that uses partial save, we attempt the remaining actions in the bulk operation up to three times.

Here's a summary of how processes and flows save records in batches from actions.

Process Builder Action	How Are Records Saved
Apex	Depends on code
Create a Record	Partial save
Email Alerts	All or nothing
Flows (Create Records and Update Records elements only)	Partial save
Flow (other elements)	All or nothing
Post to Chatter	All or nothing
Processes	Partial save



Process Builder Action	How Are Records Saved
Quick Actions	All or nothing
Quip	All or nothing
Send Custom Notification	All or nothing
Submit for Approval	All or nothing
Update Records	Partial save

Flow Builder Action	How Are Records Saved
Apex Action	Depends on code
Email Alert	All or nothing
Post to Chatter	All or nothing
Quick Action	All or nothing
Send Custom Notification	All or nothing
Submit for Approval	All or nothing
Subflow	Partial save
Create Records	Partial save
Update Records	Partial save
Flow (other elements)	All or nothing

## Desktop Flow Designer Was Retired

If your Salesforce org still contains flows that were built with the retired Desktop Flow Designer, we recommend that you delete them. Before you delete a flow, you can download each flow version from the flow version detail page. Then recreate the flow in Flow Builder.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Salesforce Help: Flow Builder](#)

[Trailhead: Build Flows with Flow Builder](#)

## Process Builder: Opportunity Contact Roles and Platform Event Subscriptions

Automate your business processes for opportunity contact roles. And you can see which processes are subscribed to a platform event.

## IN THIS SECTION:

[Automate Opportunity Contact Role Creation and Updates with Lightning Flow](#)

Use Process Builder and Flow Builder to automate business processes that involve opportunity contact roles, so that your sales reps don't have to do the work manually. For example, create a process that adds an opportunity contact role to each new opportunity that has a related contact. Or use a process or autolaunched flow to notify the opportunity owner when a related opportunity contact role is updated.

[View Processes That Subscribe to a Platform Event](#)

From the Subscriptions related list of a platform event, you can now view processes that are subscribed to the platform event. Previously, you could view the processes only by using the Metadata API.

[Stop Automated Field Updates from Suppressing Email Notifications \(Critical Update, Enforced\)](#)

Stop Automated Field Updates from Suppressing Email Notifications was a critical update in Summer '17 and is enforced in Spring '20, on March 1, 2020. For various operations, such as assigning a task to someone, you can choose to notify the affected user by email. This update stops processes, workflow rules, and Apex triggers from suppressing these email notifications. This change applies to Lightning Experience and Salesforce Classic.

## Automate Opportunity Contact Role Creation and Updates with Lightning Flow

Use Process Builder and Flow Builder to automate business processes that involve opportunity contact roles, so that your sales reps don't have to do the work manually. For example, create a process that adds an opportunity contact role to each new opportunity that has a related contact. Or use a process or autolaunched flow to notify the opportunity owner when a related opportunity contact role is updated.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** Users with the Customize Application permission can customize opportunity contact roles.

**How:** In Process Builder or Flow Builder, reference the Opportunity Contact Role object as you would any other object.

The screenshot displays the Salesforce Process Builder interface for a process named "Oppty-add OCR based on contact lookup". The process flow is as follows:

- START** (Start node)
- Opportunity** (Object node)
- Has Related Contact?** (Decision diamond)
  - TRUE**: Triggers **IMMEDIATE ACTIONS** containing **Create OCR**.
  - FALSE**: Triggers **IMMEDIATE ACTIONS** containing **+ Add Criteria**.

The configuration panel for the **Create a Record** action is shown on the right:

- Action Name**: Create OCR
- Record Type**: Opportunity Contact Role (highlighted with an orange box)
- Set Field Values**:
 

Field *	Type *	Value *
Contact ID	Field Reference	[Opportunity].Cont...Q
Opportunity ID	Field Reference	[Opportunity].Id Q

## SEE ALSO:

[IdeaExchange: Process Builder - Allow Action to Create Opportunity Contact Role Record](#)

## View Processes That Subscribe to a Platform Event

From the Subscriptions related list of a platform event, you can now view processes that are subscribed to the platform event. Previously, you could view the processes only by using the Metadata API.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

**How:** From Setup, enter *Platform Event* in the Quick Find box, then select **Platform Events**.

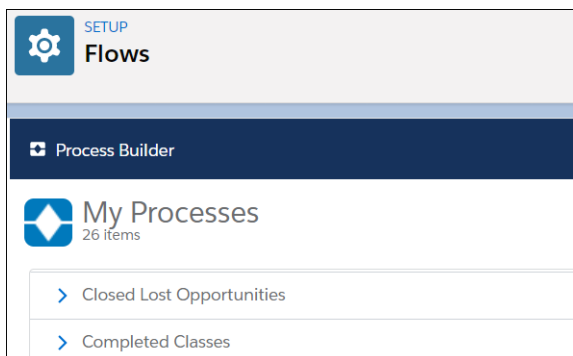
From the Subscriptions related list, you can click the process label to get more details, such as its version number and its API name.

Action	Subscriber	Latest Processed Id	Latest Published Id	State
	Closed Lost Opportunities	325	-1	Running

Why are you seeing flow version details? Similar to a flow, a running instance of a process is a flow interview. The information that you see on the Flow Version page is about the process. You can click the flow API name of the process to view the list of processes for your org.

Flow Version Detail	
Flow Label	Closed Lost Opportunities
Flow API Name	Closed_Lost_Opportunities
Description	Namespace Prefix

You can click the process to open it in Process Builder.



## Stop Automated Field Updates from Suppressing Email Notifications (Critical Update, Enforced)

Stop Automated Field Updates from Suppressing Email Notifications was a critical update in Summer '17 and is enforced in Spring '20, on March 1, 2020. For various operations, such as assigning a task to someone, you can choose to notify the affected user by email. This update stops processes, workflow rules, and Apex triggers from suppressing these email notifications. This change applies to Lightning Experience and Salesforce Classic.

### Example:

- You change a case's owner and choose to notify the new owner by email.
- You create a user and choose to welcome the user by email.
- You create a task and choose to notify the task owner by email.
- You create an assignment rule and choose to notify users when they've been assigned a case.

Prior to Summer '17, those emails didn't always go through. If the change triggered a process, workflow rule, or Apex trigger that updated the same record, Salesforce suppressed the email. When you activate this critical update, Salesforce no longer suppresses the notification emails.

Until now, the workaround has been to add your own email notifications, such as with an Email Alert in a process or workflow rule. If you used this workaround to make up for the missing emails, your users receive duplicate emails. Remove your workarounds so that your users receive only one notification.

**When:** This critical update begins auto-activating on March 1, 2020.

### Test This Critical Update

We recommend testing the critical update in a sandbox. If you must work in your production org, do so during off-peak hours.

1. Identify customizations that are sending the email notifications.
2. Remove the supplemental email notifications from the customization components.
3. Activate the **Stop Automated Field Updates from Suppressing Email Notifications** critical update.
4. Test your customizations to make sure that Salesforce doesn't send duplicate emails.

SEE ALSO:

[Critical Updates and Security Alerts](#)

## Globalization: Translation Workbench Improvements, Right-to-Left Language Support, and New and Updated Locale Formats

Keep your translations up to date by exporting outdated translations along with untranslated values. Arabic, Hebrew, and Urdu flow right to left. Enable new and improved formats for international dates and times via a critical update, and prepare for changes to International Components for Unicode (ICU) and Oracle's Java Development Kit (JDK) locale formats in this release.

IN THIS SECTION:

### [Keep Your Translations Up to Date](#)

In Translation Workbench, we updated the untranslated file type in the Export feature. In addition to text that is not yet translated, this export option now includes text changed since the last translation.

### [Get Things Right with Right-to-Left Layout and Languages \(Generally Available\)](#)

To make right-to-left (RTL) language users feel more at home, columns and sidebars flow from right to left, and text is aligned appropriately. This right-to-left layout is available for Arabic, Hebrew, and Urdu. Arabic and Hebrew are available as end-user languages in Lightning Experience, while Urdu is supported as a platform-only language. This feature, now generally available, includes some changes since the beta release.

### [Enable ICU Locale Formats \(Previously Released Critical Update\)](#)

To help you do business wherever you are, we're adopting the International Components for Unicode (ICU) formats for dates and times. These new formats replace Oracle's Java 8 Development Kit (JDK8) formats. ICU sets the international standard for these formats for all locales. The new formats provide a consistent experience across the Salesforce platform and improve integration with ICU-compliant applications across the globe. This critical update was first made available in Winter '20.

### [Prepare for Language and Locale Format Changes](#)

To provide you with up-to-date formats and new languages, we updated the language and locale formats. Whether you use the new International Components for Unicode (ICU) formats or Oracle's Java Development Kit (JDK) formats, we recommend that you evaluate how the format changes affect your Salesforce org. This release includes ICU 64.2, which uses Common Locale Data Repository (CLDR) version 35.1. For customers remaining on JDK, we adopted the minimal format updates required, allowing you to focus your efforts on adopting ICU.

[Use Advanced Currency Management in Lightning Experience](#)

You can manage dated exchange rates within opportunities without switching to Salesforce Classic. Advanced currency management is now available in Lightning Experience.

[Connect with Customers Who Speak and Read Persian](#)

We added Persian as a platform-only language.

[Other Translation Workbench Changes](#)

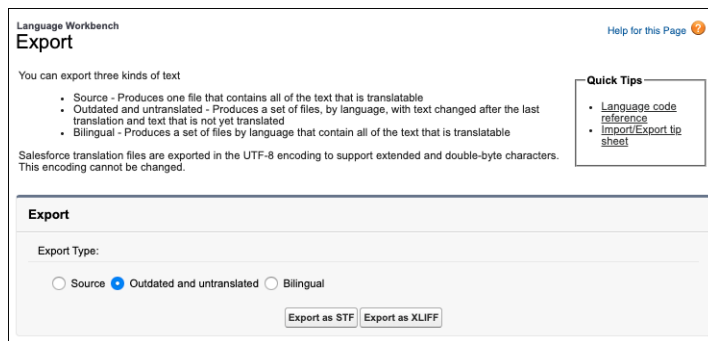
We renamed Translation Settings in Setup. The new page name is Translation Language Settings. On the Translate Setup page, the translation field now allows 32,000 characters or 96,000 bytes of data, up to the length of the translated object.

## Keep Your Translations Up to Date

In Translation Workbench, we updated the untranslated file type in the Export feature. In addition to text that is not yet translated, this export option now includes text changed since the last translation.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** If a translatable object's label changes, you must review and update the translations for that label. Now you can identify these changes along with any untranslated values through the **Outdated and untranslated** option in the Translation Workbench Export feature.



**How:** From Setup, enter `Export` in the Quick Find box. Select **Export** to access the Translation Workbench Export page. Select **Outdated and untranslated**. Based on the file type you want, click **Export as STF** or **Export as XLIFF**.

SEE ALSO:

[Salesforce Help: Translation Files \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Exporting Translation Files \(can be outdated or unavailable during release preview\)](#)

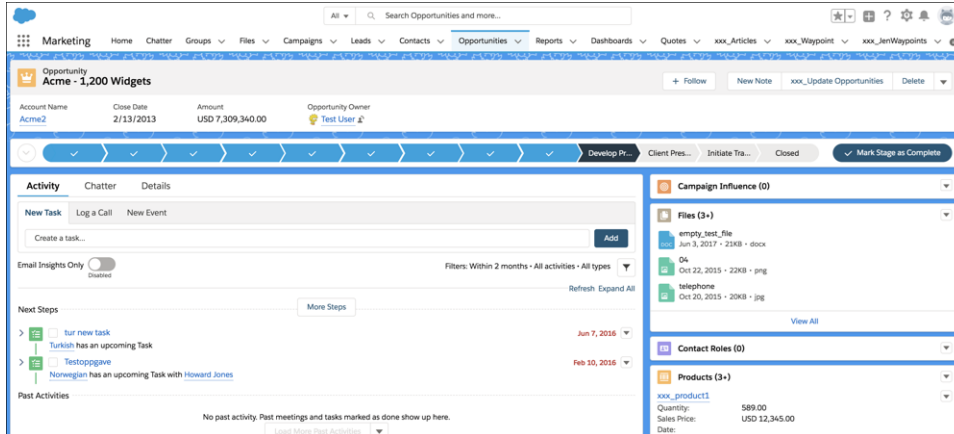
## Get Things Right with Right-to-Left Layout and Languages (Generally Available)

To make right-to-left (RTL) language users feel more at home, columns and sidebars flow from right to left, and text is aligned appropriately. This right-to-left layout is available for Arabic, Hebrew, and Urdu. Arabic and Hebrew are available as end-user languages in Lightning Experience, while Urdu is supported as a platform-only language. This feature, now generally available, includes some changes since the beta release.

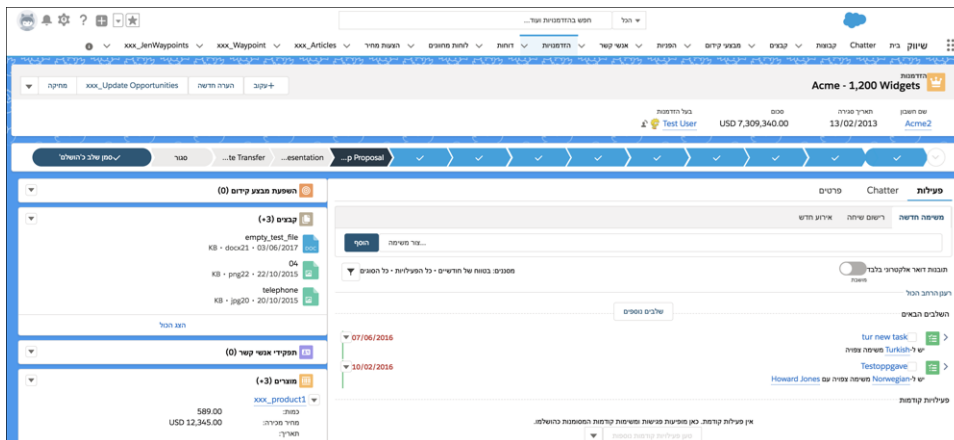
**Where:** This change applies to Lightning Experience in all editions except Database.com.

**Why:** We improved the layout for RTL languages, giving them a more natural look and feel.

For example, here's a left-to-right layout in English in Lightning Experience.



And here's the same view in Hebrew, right to left.



Here's what changed since the beta release:

- The RTL Language Layout is now the default layout for right-to-left languages.
- Lightning Reports and Dashboards fully support right-to-left language layouts except for the following limitation in report builder. The editing field for summary and row-level formulas is left to right, even though the formula editing menu is right to left.

Lightning Right-to-Left (RTL) Support is not available for Marketing Cloud, Commerce Cloud, Pardot, Salesforce CPQ and Billing, Communities Cloud, or Health Cloud. Lightning RTL Support for Hebrew is still in beta for Financial Services Cloud. Some features aren't included in Lightning Right-to-Left Support, and there are specific limitations for search. See [Salesforce Help](#) for a full list of the Right-to-Left Support limitations.

SEE ALSO:

[Salesforce Help: Right-to-Left \(RTL\) Language Support](#) (can be outdated or unavailable during release preview)

[Salesforce Help: Right-to-Left \(RTL\) Language Limitations for Search](#) (can be outdated or unavailable during release preview)

[Salesforce Help: Supported Languages](#) (can be outdated or unavailable during release preview)

## Enable ICU Locale Formats (Previously Released Critical Update)

To help you do business wherever you are, we're adopting the International Components for Unicode (ICU) formats for dates and times. These new formats replace Oracle's Java 8 Development Kit (JDK8) formats. ICU sets the international standard for these formats for all locales. The new formats provide a consistent experience across the Salesforce platform and improve integration with ICU-compliant applications across the globe. This critical update was first made available in Winter '20.


**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions, except Database.com.

**When:** This critical update is activated automatically on January 31, 2022. Orgs created in Winter '20 or later have ICU locale formats enabled by default.

**How:** Before activating this update in production, check with your package providers to make sure that all your installed packages are compatible with the ICU formats. Then evaluate the new locales' impact to your Salesforce org. Use this SOQL query to find the locales in use in your org and a user count for each locale:

```
SELECT toLabel(LocaleSidKey) LocaleName, LocaleSidKey, Count(id) UserCount FROM User where
IsActive=true GROUP BY LocaleSidKey
```

See the documentation for recommended areas of testing and details on the changes for each locale.

 **Note:** If your organization has fewer than 100,000 users, we display the query's results in the Update Details page of the critical update.

To activate this update, from Setup, enter *Critical Updates* in the Quick Find box, then select **Critical Updates**. For Enable ICU Locale Formats, click **Review**. Click **Activate**.

The English (Canada) locale (en\_CA) requires separate activation. Enter *User Interface* in the Quick Find box, then select **User Interface**. Select **Enable ICU formats for en\_CA locale** and click **Save**.

 **Note:** Activating the critical update displays the new locale formats in the UI. The ICU formats are available in API version 45.0 and later.

SEE ALSO:

[Salesforce Help: Go Global with New International Locale Formats \(can be outdated or unavailable during release preview\)](#)

[Winter '20 Release Note: Enable ICU Locale Formats \(Critical Update\)](#)

[Critical Updates and Security Alerts](#)

## Prepare for Language and Locale Format Changes

To provide you with up-to-date formats and new languages, we updated the language and locale formats. Whether you use the new International Components for Unicode (ICU) formats or Oracle's Java Development Kit (JDK) formats, we recommend that you evaluate how the format changes affect your Salesforce org. This release includes ICU 64.2, which uses Common Locale Data Repository (CLDR) version 35.1. For customers remaining on JDK, we adopted the minimal format updates required, allowing you to focus your efforts on adopting ICU.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions, except Database.com.

**How:** Review the format changes for the languages and locales in use within your org. Evaluate how the changes affect your organization. Then test your filters, code, and components as needed.

The default currency changed for the French (Mauritania) and Spanish (Venezuela) locales. We recommend that you notify users with these locales of the change.

SEE ALSO:

[Knowledge Article: JDK Language and Locale Format Changes in Spring '20 \(can be outdated or unavailable during release preview\)](#)

[Knowledge Article: ICU Language and Locale Format Changes in Spring '20 \(can be outdated or unavailable during release preview\)](#)

[Knowledge Article: Test Language and Locale Format Changes \(can be outdated or unavailable during release preview\)](#)

## Use Advanced Currency Management in Lightning Experience

You can manage dated exchange rates within opportunities without switching to Salesforce Classic. Advanced currency management is now available in Lightning Experience.

**Where:** This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer Editions.

SEE ALSO:

[Salesforce Help: About Advanced Currency Management \(can be outdated or unavailable during release preview\)](#)

## Connect with Customers Who Speak and Read Persian

We added Persian as a platform-only language.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

SEE ALSO:

[Salesforce Help: Supported Languages \(can be outdated or unavailable during release preview\)](#)

## Other Translation Workbench Changes

We renamed Translation Settings in Setup. The new page name is Translation Language Settings. On the Translate Setup page, the translation field now allows 32,000 characters or 96,000 bytes of data, up to the length of the translated object.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions.

## Einstein Prediction Builder: Try Einstein Prediction Builder, Make Informed Predictions with Trusted AI Help, and Build Filter-Based Predictions

Build up to 10 predictions and enable 1 of them at no additional cost. As you build predictions, refer to the Trusted AI sidebar tab for help with identifying sources of bias. When your prediction question doesn't conveniently map to a field, build a filter-based prediction instead. Add the Einstein Predictions component to your page layouts to display top predictors on individual records.

IN THIS SECTION:

[Predict the Future Using Filters in Einstein Prediction Builder](#)

When you build a prediction, you no longer need a field that answers your prediction question. As long as the records on the object that you base your prediction on have the data, you can use filters instead.



[Show Top Predictors on Records with Einstein Prediction Builder](#)

Now you and your users can gain insights on which predictors are most influential at the record level, not just for the entire model. You can show top predictors on records to see which field values have the biggest impact on a specific record's score.

[Try Einstein Prediction Builder At No Additional Cost](#)

Turn on Einstein Prediction Builder without spending a dime to see how your business can benefit from custom predictions. Decide later whether to upgrade.

[Make Informed Predictions with Trusted AI Help in Einstein Prediction Builder](#)

Learn as you build with the Trusted AI sidebar help. Trusted AI helps you identify and mitigate potential bias in your data, making your predictions less error prone.

## Predict the Future Using Filters in Einstein Prediction Builder

When you build a prediction, you no longer need a field that answers your prediction question. As long as the records on the object that you base your prediction on have the data, you can use filters instead.

**Where:** This change applies to Lightning Experience in Enterprise and Developer editions.

**Who:** This feature is available to admins with the Einstein Analytics Plus, Einstein Predictions, or EinsteinBuilderFree license.

**How:** Einstein Prediction Builder's guided setup has a few new questions. For example, you specify whether you already have a field that can answer your prediction question.

Use filters to set up your prediction instead of creating a custom field. Suppose that you want to predict whether a deal will close. That's a yes/no question, but the field that contains the data is a picklist. Select **No Field**, and use filters to provide examples of yes and no values. For example, select **Stage Equals Closed Won** to filter for examples of Yes.


**Which records should Einstein use as examples?**

To build a prediction, Einstein needs examples of Yes and No values. Remember that Yes examples aren't necessarily favorable outcomes. If you're predicting attrition, a Yes value could be a negative outcome. It's all about how you phrase your prediction question. For example, "Status = Quit" is an example of a Yes value for attrition.

"Yes" Examples    "No" Examples

**"Yes" Examples**  
Add conditions to show Einstein examples of Yes values.

\* Include Records That  
Meet All Conditions

* Field	* Operator	* Type	* Value	
Stage	Equals	Picklist	Closed Won	


[+ Add Condition](#)

Select **Stage Equals Closed Lost** to filter for examples of No.

"Yes" Examples    **"No" Examples**

**"No" Examples**  
Add conditions to show Einstein examples of No values.

\* Include Records That  
Meet All Conditions

* Field	* Operator	* Type	* Value	
Stage	Equals	Picklist	Closed Lost	

[+ Add Condition](#)

Records that you don't include in your example set are the records that Einstein provided predicted values for.

## Show Top Predictors on Records with Einstein Prediction Builder

Now you and your users can gain insights on which predictors are most influential at the record level, not just for the entire model. You can show top predictors on records to see which field values have the biggest impact on a specific record's score.

**Where:** This change applies to Lightning Experience in Enterprise and Developer editions.

**Who:** This feature is available to admins with the Einstein Analytics Plus or Einstein Predictions license. Additionally, admins need a permission set that includes the ViewInsightObject and CreateInsightObject permissions. For users to view the component, they need the same permissions as well as CRUD access on the AIRecordInsight and AllInsightReason objects.

**How:** When you build your prediction, on the page where you name the custom field that stores your prediction results, set Show Top Predictors on Records to **On**.

\* Field Name  
Likelihood\_of\_Lateness

**Choose how you want prediction results to display**

If you turn on Show Top Predictors on Records, be sure to also add the Einstein Predictions component to your record page layouts. Predictors, which represent fields, display in this component regardless of field-level security. If you have fields you don't want users to see, go back one step and exclude those fields from your prediction.

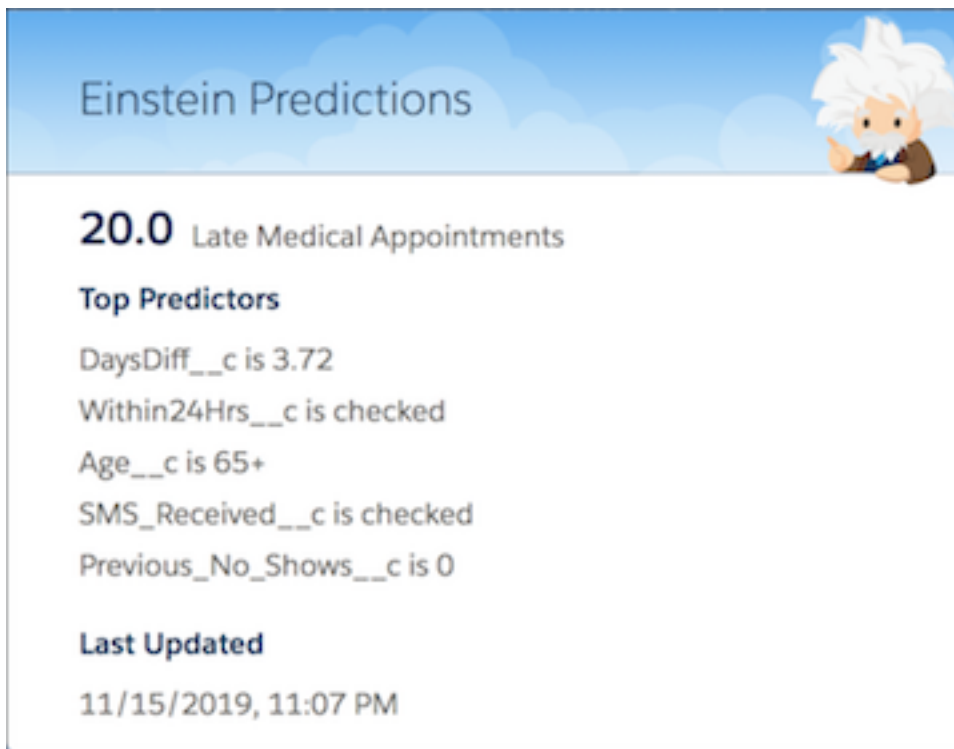
\* Show Top Predictors on Records ⓘ

Turn on or off... ▼

On

Off

Add the Einstein Predictions component to all the record page layouts where you want to show top predictors. When you view a record that has a prediction score, you can see the Einstein Predictions component on the record page with the top predictors that influence the score.



**Einstein Predictions**

**20.0** Late Medical Appointments

**Top Predictors**

DaysDiff\_\_c is 3.72

Within24Hrs\_\_c is checked


Age\_\_c is 65+

SMS\_Received\_\_c is checked

Previous\_No\_Shows\_\_c is 0

**Last Updated**

11/15/2019, 11:07 PM

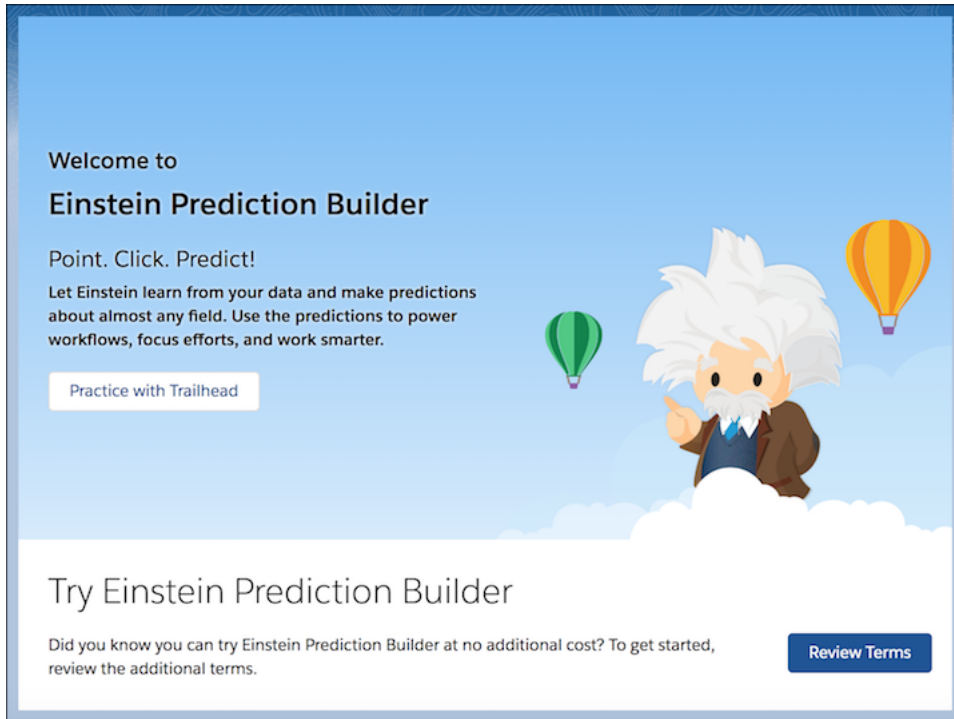
 **Note:** Showing top predictors on records works only for binary classification (yes/no) predictions. It's not available for numeric predictions.

## Try Einstein Prediction Builder At No Additional Cost

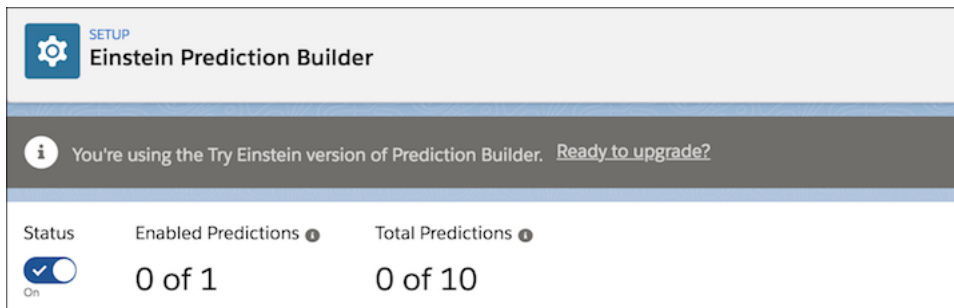
Turn on Einstein Prediction Builder without spending a dime to see how your business can benefit from custom predictions. Decide later whether to upgrade.

**Where:** This change applies to Lightning Experience in Enterprise and Unlimited editions. You can also [sign up for a Developer Edition org](#) with Einstein Prediction Builder included at no additional cost.

**How:** From Setup, look for Einstein Prediction Builder. Click **Get Started** to get to a page to review terms and conditions. If you agree, click another **Get Started** button to set up Einstein Prediction Builder.



The Try Einstein experience lets you build up to 10 total predictions and enable one of them. After you build your first prediction, the Predictions list view in Setup shows your total and enabled predictions, and how many you have left.



To [show top predictors on records](#), you can upgrade to the paid version.

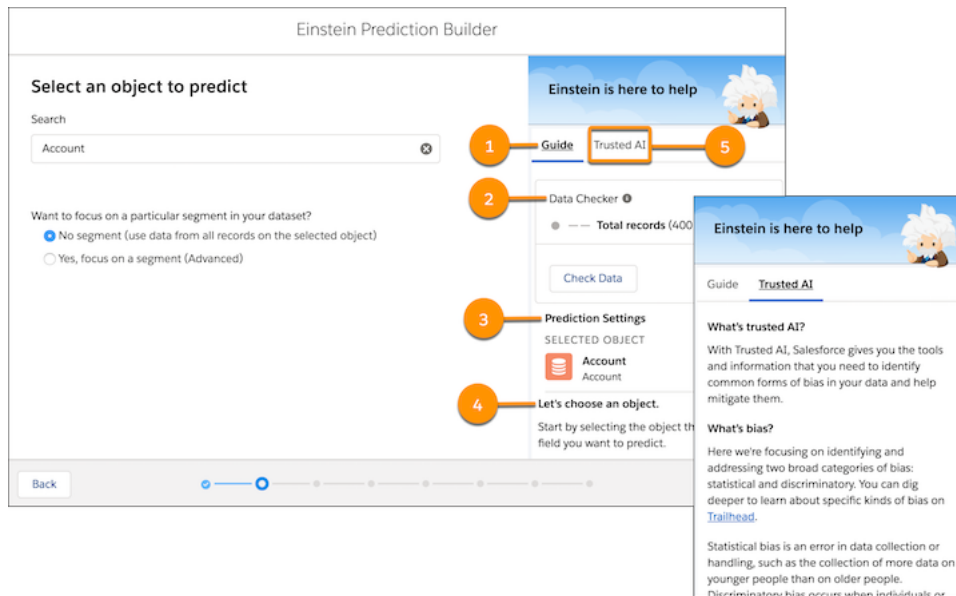
## Make Informed Predictions with Trusted AI Help in Einstein Prediction Builder

Learn as you build with the Trusted AI sidebar help. Trusted AI helps you identify and mitigate potential bias in your data, making your predictions less error prone.

**Where:** This change applies to Lightning Experience in Enterprise and Developer editions.

**Who:** This feature is available to admins with the Einstein Analytics Plus, Einstein Predictions, or EinsteinBuilderFree license.

**How:** Use the Guide tab (1) for the same sidebar content you already rely on: Data Checker (2), Prediction Settings (3), and Let's choose an object (4). Refer to the new Trusted AI tab (5) where it appears on key steps in the setup flow for advice as you go.



## Einstein Next Best Action: Analyze Recommendation Strategy Metrics, Create Recommendations from the Records of Any Salesforce Object, and Launch a Flow when Recommendations are Rejected

Analyze metrics at both the strategy and the recommendation level. Discover how many served recommendations in an org were accepted and rejected. Declaratively create recommendations from the records of any Salesforce object. Serve recommendations from accounts, contacts, opportunities, and products. Launch a flow when a user rejects a recommendation and display a questionnaire or run an automated process.

### IN THIS SECTION:

#### [Analyze Next Best Action Usage with Recommendation Strategy Metrics](#)

Now you can track the aggregate usage of Next Best Action in a Salesforce org. Analyze metrics at the strategy and the recommendation level. Compare the relative performance of two strategies. For a given calendar month, see the total number of recommendations an org's strategies served. Find out how many served recommendations agents accepted and rejected.

#### [Create Recommendations from the Records of Any Salesforce Object](#)

Declaratively create recommendations from the records of any Salesforce object, either standard or custom. Serve recommendations from accounts, contacts, opportunities, and products. Load and filter the records of any Salesforce object, and convert them into recommendations at the end of the strategy. Previously, when you created recommendations declaratively, you were limited to using only Recommendation objects. You could programmatically convert the records of other objects into recommendations, but you used Apex code with the Generate element.

#### [Launch Flows When Recommendations are Rejected](#)

Now you can launch a flow when a user rejects a recommendation, which gives you more flexibility. For example, a flow can run an automated process, write to another system, or create a reminder email when a recommendation is rejected. Previously, Next Best Action launched a flow only when a user accepted a recommendation.

[Changes to Platform Status Alert Events](#)

Access to platform status alert events is available for users with the Modify All Data, Manage Next Best Action Strategies, or Customize Application permission.

[Encrypt Recommendation Description Information](#)

To address HIPAA requirements, Next Best Action has made it possible to encrypt recommendation description information using Shield Platform Encryption.

## Analyze Next Best Action Usage with Recommendation Strategy Metrics

Now you can track the aggregate usage of Next Best Action in a Salesforce org. Analyze metrics at the strategy and the recommendation level. Compare the relative performance of two strategies. For a given calendar month, see the total number of recommendations an org's strategies served. Find out how many served recommendations agents accepted and rejected.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To view recommendation metrics data, users need the Modify All Data or Manage Next Best Action Strategies user permission.

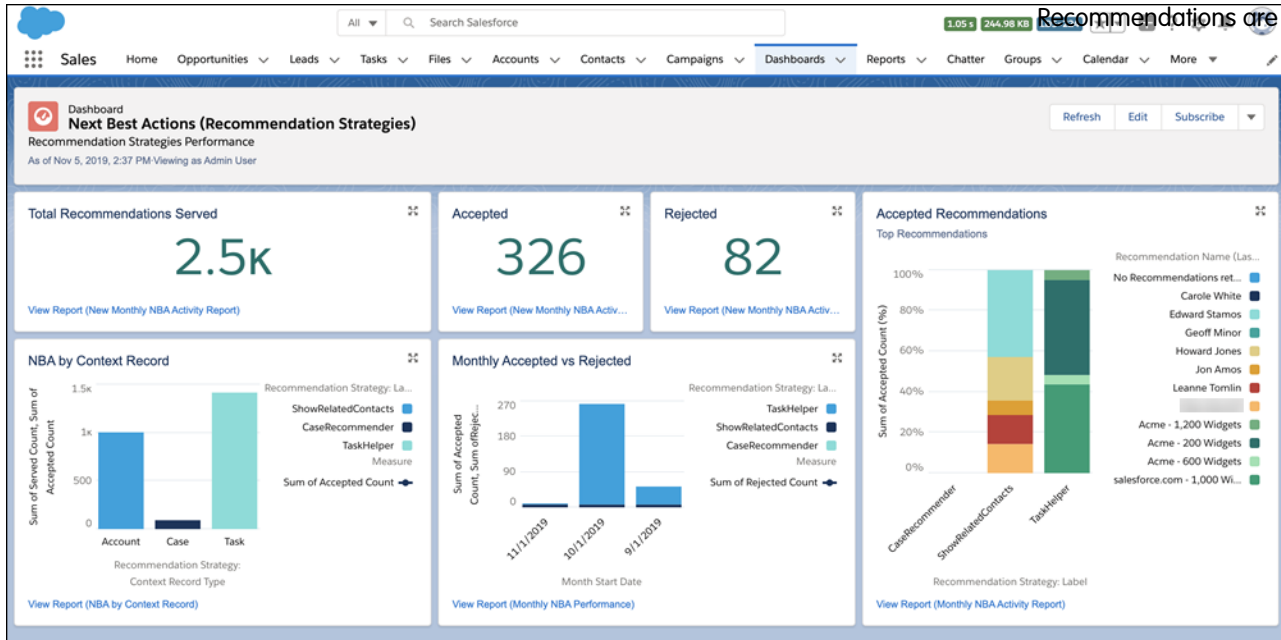
**Why:** Salesforce updates recommendation strategy metrics each time a strategy is executed or a recommendation is accepted or rejected. Analyze usage metrics to better understand how your strategies are performing. Use this knowledge to improve your strategies' logic and increase their effectiveness.

For example, run A/B tests on two different strategies and compare their relative performance. If your service agents accept more recommendations served from Strategy B, use metrics to discover why.

**How:** Create a custom report type using the new Recommendation Strategy Metrics primary object. Combine fields from the primary object (such as Recommendation Source ID and Accepted Count) and the related recommendation strategy (like Context Record Type and Description). Users can run reports and create dashboards from the custom report type.

 **Note:** Use the Recommendation Strategy Metrics primary object for strategy-level data that's aggregated for each calendar month. For recommendation-level details, use the Recommendation Reactions primary object instead.

To analyze a strategy's performance, group your strategy executions by recommendation source ID, and the number of times a recommendation was served, accepted, and rejected. To compare performance between two different strategies, group your strategy executions by recommendation source ID. Add useful metadata to your report, such as recommendation description and create date.



## Create Recommendations from the Records of Any Salesforce Object

Declaratively create recommendations from the records of any Salesforce object, either standard or custom. Serve recommendations from accounts, contacts, opportunities, and products. Load and filter the records of any Salesforce object, and convert them into recommendations at the end of the strategy. Previously, when you created recommendations declaratively, you were limited to using only Recommendation objects. You could programmatically convert the records of other objects into recommendations, but you used Apex code with the Generate element.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** You can use objects such as Account, Product, and Opportunity when building strategies for recommendations. For example, direct users to a set of products without recreating each product as a recommendation record by loading the product data directly into a strategy. Then dynamically map that data into recommendations. Previously, you had to create a recommendation for each product.

**How:** In Strategy Builder, drag a Load element on the canvas.

Load recommendations from the records of any object. Choose criteria for when to load a recommendation. Filter out certain records from a strategy. Sort the order of your records by choosing a value from the object to sort on. A strategy treats another object the same as it does a Recommendation object until the end, when it converts it into a recommendation.

At the end of the strategy, convert the filtered records into recommendations that are surfaced via the Next Best Action component and your own apps. To do this, add a Map element before the Output element. Use the Map element to map fields from the records to required fields on the Recommendation object. For example, map the product Title field to the recommendation Name field.

## Launch Flows When Recommendations are Rejected

Now you can launch a flow when a user rejects a recommendation, which gives you more flexibility. For example, a flow can run an automated process, write to another system, or create a reminder email when a recommendation is rejected. Previously, Next Best Action launched a flow only when a user accepted a recommendation.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Ask a service agent why they rejected a recommendation, or why a recommendation doesn't make sense. For example, at a telecommunications company, the admin configures the Next Best Action component to display recommendations to its customer service representatives (CSRs). When an agent accepts a recommendation for a customer who wants to purchase a discounted service, a flow is launched to calculate the discount on the purchase. After analyzing the reactions to the recommendation, the admin is confused about why the CSRs are rejecting it. To help get answers, the admin has Next Best Action launch a questionnaire flow every time the recommendation is rejected.

Or say that a company wants to stream accepted and rejected recommendation signals to a third-party machine-learning tool. The tool learns optimal recommendations based on this data, and the admin uses those results to create new and improved recommendations.

This feature is available for:

- The Einstein Next Best Action component used with Lightning record pages
- The Suggested Actions component used in Experience Builder



- The Actions and Recommendations component used with Lightning console apps

**How:** In Flow Builder, configure a flow that's associated to a recommendation. Create the Boolean `isRecommendationAccepted` input variable. Add the `isRecommendationAccepted` variable to a Decision element. Decide what the flow does when the recommendation is accepted and what it does when the recommendation is rejected.

The screenshot shows the 'Edit Decision' configuration window. At the top, there are fields for 'Label' (containing 'Recommendation Accepted or Not') and '\* API Name' (containing 'Recommendation\_Accepted\_or\_Not'). Below these is a 'Description' text area. The main section is 'Outcomes', with a sub-section 'OUTCOME DETAILS' for the 'Accepted' outcome. It shows 'Label' as 'Accepted' and '\* Outcome API Name' as 'Accepted'. Under 'When to Execute Outcome', it is set to 'All Conditions Are Met'. A condition is defined with 'Resource' as '{!isRecommendationAccepted}', 'Operator' as 'Equals', and 'Value' as '{!SGlobalConstant.True}'. There is an '+ Add Condition' button. At the bottom right are 'Cancel' and 'Done' buttons.

Add a flow action. When you add the Next Best Action component to a Lightning record page, select **Launch Flow on Rejection**.

Page > Einstein Next Best Action

Show users the best action or offer after creating recommendations and action strategies.  
[Learn more.](#)

Title  
Recommendations

Hide Einstein Header

\* Action Strategy ⓘ  
ApprovalRecommendation ×

Maximum Recommendations Displayed  
2 ×

Hide Empty Component ⓘ

Launch Recommendation Action In  
Dialog Window ×

Show Title

Show Image

Show Description

Show Reject Option

Launch Flow on Rejection

▼ Set Component Visibility

Filters  
[+ Add Filter](#)

## Changes to Platform Status Alert Events

Access to platform status alert events is available for users with the Modify All Data, Manage Next Best Action Strategies, or Customize Application permission.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## Encrypt Recommendation Description Information

To address HIPAA requirements, Next Best Action has made it possible to encrypt recommendation description information using Shield Platform Encryption.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** On the Encryption Policy page in Setup, click **Encrypt Fields**, and encrypt the Recommendation Description field.

SEE ALSO:

[Encrypt the Next Best Action Recommendation Description Field](#)

# Lightning App Builder: Mobile Enhancements for All, Guidance for App Builder, and Increased Component Capacity in Page Regions

Design better and more efficient Lightning pages for desktop and mobile with mobile-related enhancements to the Lightning App Builder UI, and with tips delivered via in-app guidance. Include up to 100 components in a single page region.

## IN THIS SECTION:

### [Design Record Pages, Choose Templates, and Configure Components with Mobile in Mind](#)

All admins can now take advantage of the Lightning App Builder features that we introduced in Winter '20 to go along with the new Salesforce mobile app. Configure record pages, page templates, and component visibility rules for use on a phone, and see new form factor support icons on page templates and on components in the palette.

### [Improve Your Lightning Pages with Guidance for App Builder](#)

Get suggestions to improve your Lightning pages just when you need them. Guidance for App Builder gives you feedback for enhancing performance and usability when you design a page, via tips in a docked prompt.

### [Add More Components to a Lightning Page Region](#)

We increased the number of components that you can put into a Lightning page region from 25 to 100. This increase also applies to the number of tabs that you can add to a Tabs component and the number of sections in an Accordion component.

### [Display Order Details with Order Management Components](#)

Salesforce Order Management provides the Order Product Summaries by Recipient and Order Summary Totals components for use on Order Summary record pages.

## Design Record Pages, Choose Templates, and Configure Components with Mobile in Mind

All admins can now take advantage of the Lightning App Builder features that we introduced in Winter '20 to go along with the new Salesforce mobile app. Configure record pages, page templates, and component visibility rules for use on a phone, and see new form factor support icons on page templates and on components in the palette.

**Where:** This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

### **Why:**

- Lightning record pages are no longer limited to Lightning Experience on desktop. You can see the same record pages on desktop and in the mobile app. Or you can address the needs of different users by assigning a custom record page for desktop users and another for mobile app users. See which of your pages are assigned to which form factor on the Lightning Record Pages screen in the Object Manager.
- In the Lightning page creation wizard, page templates have an icon and description text that indicate whether the template supports desktop, phone, or both.
- Each component in the palette has an icon representing the form factors that it supports. Before adding a component to a Lightning page, you can see right away whether the component appears when the page is rendered on a specific form factor. You can also use the palette settings menu to refresh the component list and show or hide the form factor icons.
- When editing a Lightning app, the Pages menu shows which record pages are assigned as the app default for each form factor.
- You can show or hide a standard or custom component on a record page based on the device it's viewed on.

**How:** Orgs that didn't opt in to the new Salesforce mobile app in Winter '20 now have these mobile-related enhancements available in the Lightning App Builder. They already are enabled if your org opted in to the new Salesforce mobile app in Winter '20.

SEE ALSO:

[Welcome to the New Salesforce Mobile App](#)

[Winter '20 Release Note: Customize Lightning Record Pages for the Phone Form Factor](#)

[Winter '20 Release Note: Select a Lightning Page Template Based on Form Factor](#)

[Winter '20 Release Note: View Supported Form Factors in the Component Palette](#)

[Winter '20 Release Note: View App Default Form Factor Assignments from the Pages Menu](#)

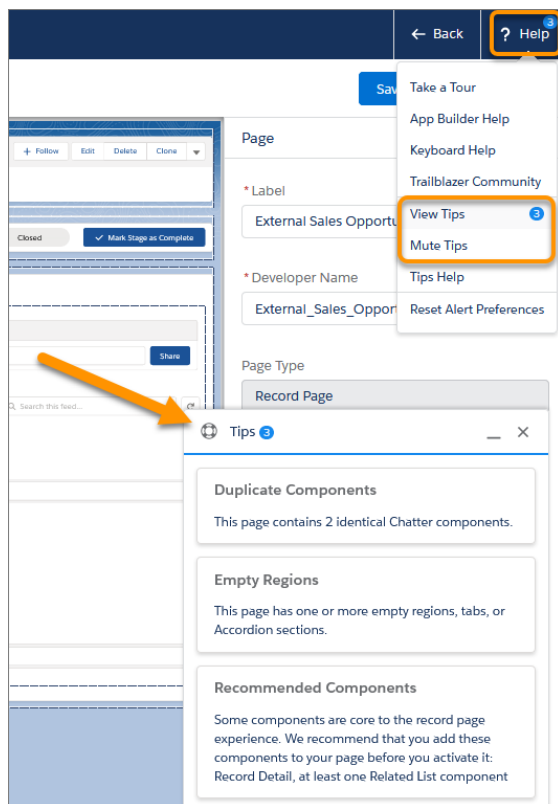
[Winter '20 Release Note: Set Record Page Component Visibility Rules Based on Device](#)

## Improve Your Lightning Pages with Guidance for App Builder

Get suggestions to improve your Lightning pages just when you need them. Guidance for App Builder gives you feedback for enhancing performance and usability when you design a page, via tips in a docked prompt.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** Tips are available for categories such as performance, usability, and structural issues. Some issues that the tips cover are also captured in the Salesforce Optimizer report. For example, if two components on a page are identical, you see a tip that tells you so. After you fix the issue, the tip disappears.



If there are tips available for your page, you see an indicator icon on the Help menu.

To hide the tips docked prompt while you design your page, go to the Help menu and select **Mute Tips**. You can reopen the tips prompt by selecting **View Tips**.

## Add More Components to a Lightning Page Region

We increased the number of components that you can put into a Lightning page region from 25 to 100. This increase also applies to the number of tabs that you can add to a Tabs component and the number of sections in an Accordion component.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## Display Order Details with Order Management Components

Salesforce Order Management provides the Order Product Summaries by Recipient and Order Summary Totals components for use on Order Summary record pages.

**Where:** This change applies to Lightning Experience in all Salesforce Order Management editions.

## External Data: Private Connect Pilot, Changed Encryption for External Credentials

Use Private Connect to integrate third-party services with Salesforce without exposure to the public internet. Your external data credentials are now encrypted with an updated framework for added security.

Available in: **Developer** Edition

Available for an extra cost in: **Enterprise, Performance,** and **Unlimited** Editions

### IN THIS SECTION:

#### [Integrate with Third-Party Services without Exposure to Public Internet \(Pilot\)](#)

When you want to integrate third-party services with Salesforce, it's essential to be able to communicate securely. With Private Connect, you can increase security on your HTTP/s traffic by setting up a fully managed secure connection between Salesforce data centers and Amazon Web Services (AWS). API calls that run through AWS PrivateLink don't traverse the internet, reducing exposure to outsider security threats.


#### [Changed Encryption Method for External Data Credentials](#)

Credentials stored within three external data entities—NamedCredential, ExternalDataUserAuth, and ExternalDataSource—are now encrypted under a framework that is consistent with other encryption frameworks on the platform. Salesforce encrypts your credentials using org-based keys instead of pod or instance-level keys, giving your third-party data an extra layer of security.

## Integrate with Third-Party Services without Exposure to Public Internet (Pilot)

When you want to integrate third-party services with Salesforce, it's essential to be able to communicate securely. With Private Connect, you can increase security on your HTTP/s traffic by setting up a fully managed secure connection between Salesforce data centers and Amazon Web Services (AWS). API calls that run through AWS PrivateLink don't traverse the internet, reducing exposure to outsider security threats.

**Where:** This change applies to Lightning Experience and Salesforce classic in all editions.

 **Note:** We provide Private Connect to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact your Account Executive. Pilot programs are subject to change, and we can't guarantee acceptance. Private Connect isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

**How:** To use Private Connect, your org must be enrolled in the Private Connect pilot. For information about joining the pilot, contact your Account Executive.

SEE ALSO:

[Trailblazer Community: Salesforce Private Connect for AWS \(needs Trailblazer Community account\)](#)

## Changed Encryption Method for External Data Credentials

Credentials stored within three external data entities—NamedCredential, ExternalDataUserAuth, and ExternalDataSource—are now encrypted under a framework that is consistent with other encryption frameworks on the platform. Salesforce encrypts your credentials using org-based keys instead of pod or instance-level keys, giving your third-party data an extra layer of security.

**Where:** This change applies to Lightning Experience and Salesforce classic in all editions.

**How:** Your secret keys are auto-created by the new encryption framework. Credentials encrypted using the previous encryption scheme are being migrated to the new framework. All new credentials will use the new framework.

SEE ALSO:

[Salesforce Help: Named Credentials \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Store Authentication Settings for External Systems \(can be outdated or unavailable during release preview\)](#)

## Permission Set Groups: Greater Flexibility in Granting Permissions (Generally Available)

Permission set groups are an ideal way to consistently and reliably assign permissions to a group of users. Assign users a single permission set group instead of multiple permission sets. Permission set groups combine selected permission sets to provide all the permissions that users need for their job function. Remove individual permissions from a group with the muting permission set feature to ensure that permissions do not exceed user job functions. This change applies to Lightning Experience and Salesforce Classic.

IN THIS SECTION:

[Group Permission Sets Based on User Job Function for Easier Assignment \(Generally Available\)](#)

Now you can assign users a single permission set group instead of multiple permission sets. Permission set groups combine selected permission sets to provide all the permissions that users need for their job. Similarly, remove individual permissions from a group with the permission muting feature to ensure that users do not get permissions that are not relevant to their job functions. A new user interface helps you create and manage permission set groups.

[Track Permission Set Edits with a New Confirmation Menu](#)

It just got easier to track bulk edits on permissions. We've improved readability and security so that multiple-selection permissions and any permission dependencies are summarized on a separate page. With the Permission Changes Confirmation page, you can easily identify and review all added and removed permissions before they become part of your permission ecosystem. Previewing the permission edits summary helps you better manage and maintain security control for your users and organization.

[Manage Permissions in Permission Set Groups with a Muting Permission Set \(Generally Available\)](#)

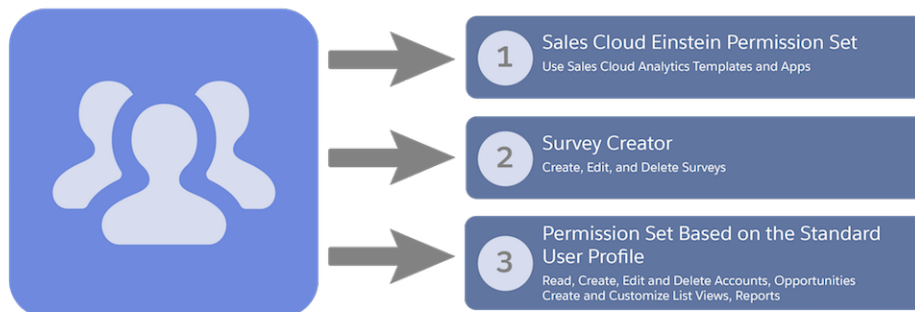
A muting permission set is a handy way to increase security and ensure that only components that are required by your organization and users are accessible and, conversely, those components that shouldn't be accessed are not available. When used along with permissions, a muting permission set gives you granular control over permissions and helps make sure you're complying with the principle of least privilege.

## Group Permission Sets Based on User Job Function for Easier Assignment (Generally Available)

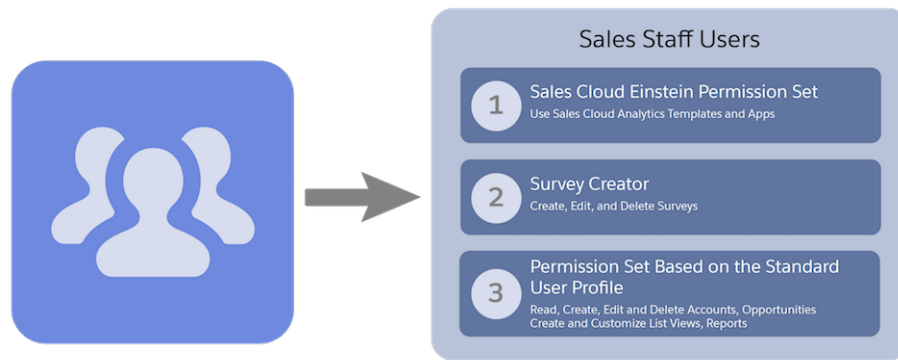
Now you can assign users a single permission set group instead of multiple permission sets. Permission set groups combine selected permission sets to provide all the permissions that users need for their job. Similarly, remove individual permissions from a group with the permission muting feature to ensure that users do not get permissions that are not relevant to their job functions. A new user interface helps you create and manage permission set groups.

**Where:** This change applies to Salesforce Classic (not available in all orgs), Lightning Experience, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Suppose that you have employees in your sales department who work with Sales Cloud Analytics templates and apps. They also create, edit, and delete surveys and read, create, edit, and delete accounts. You have three permission sets that contain the permissions needed: Sales Cloud Einstein, Survey Creator, and a permission set based on the Standard User Profile. You assign each permission set separately to your users.



You can combine the permission sets into one meaningful permission set group and then assign the permission set group to the sales employees. In this example, the permission set group Sales Staff Users contains the combined permissions of all the permission sets that you added to the group. Salesforce also aggregates and resolves permissions across all permission sets in the permission set group to ensure that inheritance and dependencies are maintained.



**How:** From Setup, choose **Permission Set Groups** to view your permission set groups and create groups.

The screenshot shows the 'Permission Set Group' detail page for 'All Sales Users'. The page includes a search bar, 'Delete', 'Edit Properties', and 'Manage Assignments' buttons. The 'Manage Assignments' button is highlighted with a red box and a red circle labeled '1'. Below the overview section, there are two sections for 'Permission Sets': 'Permission Sets in Group' (2) and 'Muting Permission Set in Group' (3). The 'Combined Permissions' section (4) is also visible, showing a list of permissions such as 'Assigned Apps', 'Assigned Connected Apps', 'Object Settings', 'App Permissions', and 'Apex Class Access'.

On the Permission Set Group detail page, assign the permission set group to users (1). Select the permission sets to include in the permission set group (2), and choose which permissions, if appropriate, to mute (3). View the combined permissions in a group (4).

## Track Permission Set Edits with a New Confirmation Menu

It just got easier to track bulk edits on permissions. We've improved readability and security so that multiple-selection permissions and any permission dependencies are summarized on a separate page. With the Permission Changes Confirmation page, you can easily identify and review all added and removed permissions before they become part of your permission ecosystem. Previewing the permission edits summary helps you better manage and maintain security control for your users and organization.

**Where:** This change applies to Salesforce Classic (not available in all orgs), Lightning Experience, Enterprise, Performance, Unlimited, and Developer editions.

**How:** From Setup, choose **Permission Sets**, modify permissions, and click save to review your choices on Permission Changes Confirmation page.



**Permission Changes Confirmation** ✕

**Do you want to save these permissions?**

**Make sure to review your permissions before you continue. These permissions can impact org security and user experience.**

**Enabled**

App Permissions	System Permissions	Object Permissions
Manage Call Centers Manage Business Hours Holidays Import Leads Import Solutions Manage Content Properties	View Setup and Configuration Manage Custom Permissions View Roles and Role Hierarchy Customize Application	Edit Solution Create Lead Read Solution Delete Solution Edit Lead Read Lead Create Solution

**Disabled**


App Permissions	System Permissions	Object Permissions
Delete Activated Contracts Edit Activated Orders Activate Orders Activate Contracts		

## Manage Permissions in Permission Set Groups with a Muting Permission Set (Generally Available)

A muting permission set is a handy way to increase security and ensure that only components that are required by your organization and users are accessible and, conversely, those components that shouldn't be accessed are not available. When used along with permissions, a muting permission set gives you granular control over permissions and helps make sure you're complying with the principle of least privilege.

**Where:** This change applies to Salesforce Classic (not available in all orgs), Lightning Experience. Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Suppose that your Sales Staff Users permission group contains three permission sets. And one of those three permission sets contains a Delete permission that you no longer want all group members to have. To complicate things, you also have a Managers permission set group that references the Sales Staff Users permission set. What can you do to implement this permission restriction? Instead of creating another permission set, you can use a muting permission set to constrain the Delete permission. The muting permission set contains the Delete permission that you want to disable. When you add the muting permission set to the Sales Staff Users group, those members no longer have the delete permission, but the Managers members do.

 **Note:** You can add only one muting permission set to a permission set group.



## Sharing: Enhancements to External Organization-Wide Defaults

To better secure your data, the External Sharing Model is enabled by default in all Salesforce orgs created in Spring '20 or later and can no longer be disabled. Plus, you can now set external access levels for the Lead and Campaign objects.

### IN THIS SECTION:

#### [External Org-Wide Defaults Are Enabled by Default in All New Orgs](#)

To better secure your data, the External Sharing Model is enabled by default in all Salesforce orgs created in Spring '20 or later. External org-wide defaults let you set more restrictive levels of access for external users, instead of giving internal and external users the same default access. In these newly created orgs, external access levels are initially set to Private for all objects.

#### [The External Sharing Model Can No Longer Be Disabled](#)

To better protect your Salesforce org's data, you can no longer disable the external sharing model after it's enabled in your org.

#### [Safeguard Your Data by Setting External Access Levels for the Lead and Campaign Objects \(Generally Available\)](#)

You can now set external access levels for the Lead object, which was previously in beta, and the Campaign object. Select more restrictive access for external users without changing the default internal access level. The objects available for external org-wide defaults vary depending on your Salesforce org's licenses and other settings.

#### [Changes to Sharing API Access](#)

Access to sharing rules and sharing sets through the Salesforce API is available for users with the View Setup and Configuration permission. Editing sharing rules and sharing sets through the API is available for users with the Manage Sharing permission.

## External Org-Wide Defaults Are Enabled by Default in All New Orgs

To better secure your data, the External Sharing Model is enabled by default in all Salesforce orgs created in Spring '20 or later. External org-wide defaults let you set more restrictive levels of access for external users, instead of giving internal and external users the same default access. In these newly created orgs, external access levels are initially set to Private for all objects.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** We recommend that you maintain a strict access level for external users, but you can edit your external org-wide defaults. From Setup, enter *Sharing Settings* in the Quick Find box, then select **Sharing Settings**. Under Organization-Wide Defaults, edit the default external access.

SEE ALSO:

[Salesforce Help: External Organization-Wide Defaults Overview \(can be outdated or unavailable during release preview\)](#)

## The External Sharing Model Can No Longer Be Disabled

To better protect your Salesforce org's data, you can no longer disable the external sharing model after it's enabled in your org.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** The external sharing model allows you to customize the access levels for internal and external users. We recommend setting org-wide defaults to Private for external users.

From Setup, enter *Sharing Settings* in the Quick Find box, then select **Sharing Settings**. Under Organization-Wide Defaults, edit the Default Internal and External Access as required by your business needs.

SEE ALSO:

[Salesforce Help: External Organization-Wide Defaults Overview \(can be outdated or unavailable during release preview\)](#)

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**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** To set external org-wide defaults, from Setup, enter *Sharing Settings* in the Quick Find box, then select **Sharing Settings**. Under Organization-Wide Defaults, edit the default external access.

SEE ALSO:

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**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

## AppExchange: Support for Trailblazer.me and Enhanced Salesforce Consultant Reviews

Use your Trailblazer.me account to manage your installs, subscriptions, and settings on AppExchange. Learn more about a Salesforce consultant's past performance with verified project reviews and enhanced community feedback.

### IN THIS SECTION:

#### [Manage AppExchange Installs and Settings with Ease Using Trailblazer.me](#)

AppExchange now supports Trailblazer.me, your reinvented resume and unified profile across the Salesforce ecosystem. With Trailblazer.me on AppExchange, you can view the installs and subscriptions that are associated with your connected accounts with a single login. You can also manage your AppExchange notifications from Trailblazer.me, which puts all your account settings in one place.

#### [Hire Confidently with Enhanced Salesforce Consultant Reviews on AppExchange](#)

AppExchange reviews for Salesforce consultants now tell you more about the work they delivered, such as the industry. You can also consider a new type of feedback when you hire a consultant: verified project reviews. Verified reviews are based on customer feedback provided directly to Salesforce about a consultant's project performance.

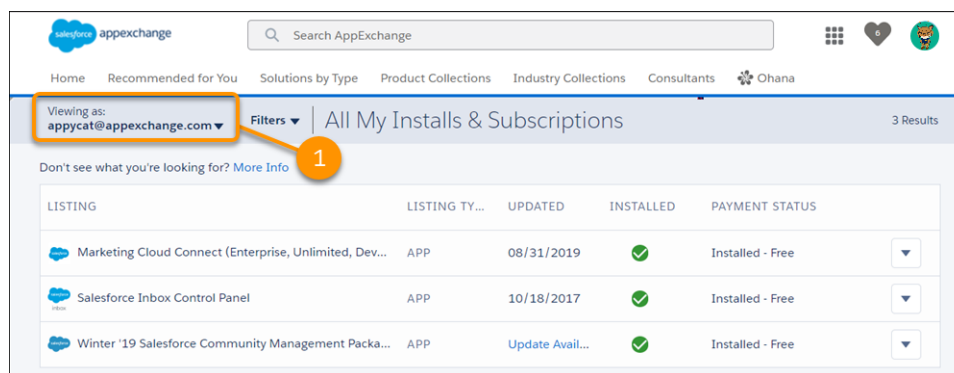
## Manage AppExchange Installs and Settings with Ease Using Trailblazer.me

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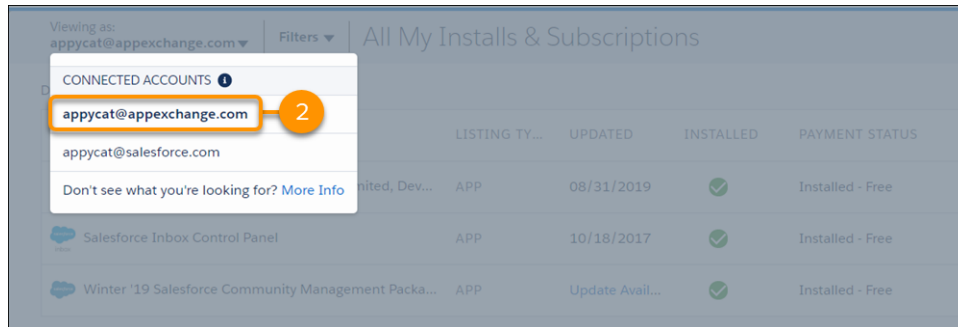
**Where:** Trailblazer.me is available to AppExchange, Events, IdeaExchange, Trailblazer Community, and Trailhead users. Partner Community doesn't use Trailblazer.me features, but Trailblazer.me shares some profile data with the Partner Community profile.

**When:** Trailblazer.me is generally available in January 2020.

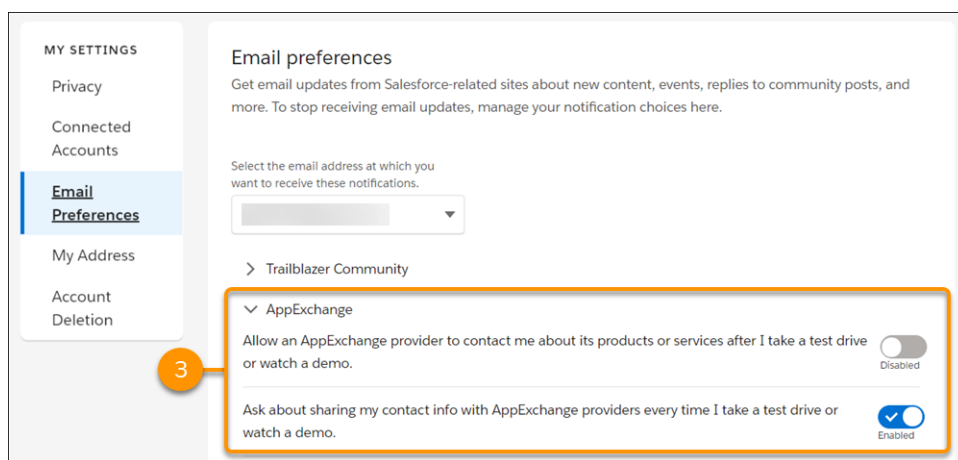
**Why:** Trailblazer.me is all about simplifying your Salesforce identity, and we're extending that idea to AppExchange.



The AppExchange account switcher (1) streamlines how you manage installs and subscriptions from multiple orgs, such as production environments and sandboxes. After you connect a Salesforce account to Trailblazer.me, the related org appears in the account switcher.



To view an account's installs and subscriptions, click the associated username (2). If an account is missing, check that it's connected to Trailblazer.me. Then verify that the account has been assigned the "Manage Billing" permission in the related org.



With Trailblazer.me, you now manage all your account settings from one place, including the notifications that you receive from AppExchange (3). To update your notification preferences, go to the Email Preferences page on your Trailblazer.me profile.

## Hire Confidently with Enhanced Salesforce Consultant Reviews on AppExchange

AppExchange reviews for Salesforce consultants now tell you more about the work they delivered, such as the industry. You can also consider a new type of feedback when you hire a consultant: verified project reviews. Verified reviews are based on customer feedback provided directly to Salesforce about a consultant's project performance.

**Where:** This change applies to the AppExchange website.

**Why:** When you shop for a product, you often want to hear about others' experiences before you make a purchase. That's where reviews come in, and they're equally important when you hire a Salesforce consultant. The new consultant review experience on AppExchange makes it easier than ever to add community feedback to your hiring process.

Share your experience

Help the Salesforce community by sharing your experience with this consultant.

Overall  
★★★★★

Review Title  
A five-star experience with Cloudy Consulting!

Comments  
What did you like about working with this consultant? What could have made the experience better? Would you recommend this consultant to others?

**1**

**Tell us a bit more about your project**

Product: Choose... Industry: Non-Profit

Project Length (Months): 6 Country: United States

Cancel Share

Reviews from AppExchange community members now provide more details about the work the consultant performed. For example, a community member can specify the products used in the implementation, the project length, and an industry (1). These details can help you identify the reviews that are most relevant to the project you're hiring for.

Overview Expertise **Reviews (69)**

69 reviews

★★★★★	78%
★★★★	19%
★★★	1%
★★	0%
★	1%

★★★★★ 4.8 Average Rating

Share your experiences with the community  
[Write a Review](#)

All Reviews 69 reviews Show: Project Reviews Rating: Any Review Sort by: Most Recent

**2**

Survey Response Project Review

★★★★☆ Oct 29, 2019 Salesforce Verified

We had a good, but not great experience with this consultant. We were happy with the provider's skill set and the speed of communication. The value we received was also top-notch. However, the timeline of the implementation was greatly underestimated. It took twice as long as promised to complete the project.

1 Likes · Comment · Report Abuse

Products: Service Cloud  
Industry: Public Sector  
Project Length: 8 months  
Country: United States

Verified project reviews complement feedback from individual members of the AppExchange community (2). Verified project reviews are based on customer satisfaction surveys administered directly by Salesforce. Here's how the process works. A consultant lets us know

that they finished a project. We ask the consultant's customer about the experience. Then, we share the customer's feedback on the Reviews tab of the consultant's AppExchange listing. These reviews are designated by the *Salesforce Verified* label.

## General Setup: Custom Settings Enhancements and Improved Connections with Enhanced External Services

Protect and control who has access to custom settings. Create better connections to outside services with Enhanced External Services.

### IN THIS SECTION:

#### [Require Customize Application Permission for Direct Read Access to Custom Settings \(Critical Update, Enforced\)](#)

Access for users without the Customize Application permission to read unprotected custom settings is revoked as part of this critical update. Using different APIs that are provided by Salesforce, users without the Customize Application permission could read unprotected custom settings. Following the "secure by default" approach, this access is revoked.

#### [Protect Custom Settings in Developer and Scratch Orgs](#)

The Visibility field is now only available in developer or scratch orgs, where managed packages can be created. When you create a custom setting, the package type and the Visibility field determine whether the custom setting is public or private. You can only create protected custom settings in a developer or scratch org that are then deployed in a managed package. In addition, the Visibility field must be set to protected.

#### [Control Who Gets Read Access to Custom Settings](#)

You can now control the access of custom settings at a granular level by granting direct Read access to specific custom settings through profiles and permission sets.

#### [Make More Connections the Enhanced External Services Way \(Generally Available\)](#)

Enhanced External Services is generally available and enabled by default. It's easy to use, and provides more ways to create and connect to outside services. Now, when you register a service, you get support for more complex OpenAPI 2.0 schema, nested object types, and send parameters as headers within the HTTP requests.

#### [Require Permission to View Record Names in Lookup Fields \(Critical Update\)](#)

To better protect your Salesforce org's data, we restrict who can view record names in lookup fields. Beginning in Winter '21, users must have read access to these records or the View All Lookup Record Names permission to view this data. This critical update also applies to system fields, such as Created By and Last Modified By.

#### [Secure Your Sandbox Data with Salesforce Data Mask](#)

Salesforce Data Mask is a powerful new data security resource for Salesforce admins and developers. Instead of manually securing data and access for sandbox orgs, admins can use Data Mask to automatically mask the data in a sandbox.

#### [Permission Changes for Administrator Tasks](#)

To access permissions or permission set groups, users must have the View Setup and Configuration permission or the equivalent permissions to manage permission sets or users, including Manage Session Permission Set Activations, Manage Users, and Assign Permission Sets.

#### [Changes to Managing User Preferences](#)

Access to UserPreference records of other users in the SOAP API is available for users with the View All Data or Manage Users permission, but all users can access their own UserPreference record.

## Require Customize Application Permission for Direct Read Access to Custom Settings (Critical Update, Enforced)

Access for users without the Customize Application permission to read unprotected custom settings is revoked as part of this critical update. Using different APIs that are provided by Salesforce, users without the Customize Application permission could read unprotected custom settings. Following the “secure by default” approach, this access is revoked.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Contact Manager, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**When:** This critical update is scheduled to be enforced on sandbox instances on January 2, 2020 in the Spring '20 release. It will not be rolled out to all instances on January 2, 2020. Sandbox instances are upgraded 4–6 weeks before a release goes into production. To find the exact activation date for your instance, refer to <https://status.salesforce.com>.

**How:** When this critical update is enforced on the instance, users without the Customize Application permission can no longer access custom settings. To minimize the impact on your users, admins with the Customize Application permission can grant read access to specific custom settings, or to all custom settings.

To grant a specific profile or permission set read access to custom settings.

1. Go to the profile or permission set that you want to grant access to.
2. Click the **Custom Setting Definitions** permission.
3. Click **Edit**, add the custom setting to the Enabled Custom Setting Definitions list, then click **Save**.

To grant profiles or permission sets read access to all custom settings.

1. Search for Profiles or Permission Sets from Setup, then click the name of the profile or permission set and click **Edit**.
2. In the Administrative Permissions section, check **View All Custom Settings**.
3. Click **Save**.

With the Restrict access to custom settings permission enabled, permissions are enforced as follows.

- Customize Application permission—Read and write access to all custom settings.
- Custom Setting Definitions—Read access to specific custom settings outside of System context. Users must be granted access through profiles and permission sets.
- View All Custom Settings permission—Read access to all custom settings outside of System context.
- View Setup and Configuration permission—Read access to custom settings in Setup. Users must be granted access to specific custom settings through profiles and permission sets, or be granted the View All Custom Settings permission.

Apex generally runs in system mode so the current user's permissions and field-level security aren't considered during code execution. The critical update doesn't affect the accessibility of custom settings from system mode. Calling Apex methods such as `isAccessible` indicate whether the running user has access outside of system mode. After activating this critical update, if the user isn't granted access to an object, calling `isAccessible` returns `false`. For example, if a user isn't granted access through a profile to Contact, `isAccessible` returns `false`.

While not recommended, you can disable this critical update by turning off the Schema Settings: “Restrict access to custom settings” permission. This Schema Settings permission corresponds to the security org-wide critical update.

1. Go to **Setup** and search for Schema Settings.
2. Turn off **Restrict access to custom settings**.



## Protect Custom Settings in Developer and Scratch Orgs

The Visibility field is now only available in developer or scratch orgs, where managed packages can be created. When you create a custom setting, the package type and the Visibility field determine whether the custom setting is public or private. You can only create protected custom settings in a developer or scratch org that are then deployed in a managed package. In addition, the Visibility field must be set to protected.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Contact Manager, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** When storing sensitive information, create protected custom settings in a developer or scratch org, set the Visibility field to protect, then deploy them in a managed package.

The screenshot shows the 'New Custom Setting Definition' page in Salesforce. A tip banner at the top suggests using custom metadata types for app configuration. The main form has fields for Label, Object Name, Setting Type (set to Hierarchy), and a Visibility dropdown menu. The dropdown is open, showing 'Protected' as the selected option, with other options being 'Protected' and 'Public'. There are 'Save' and 'Cancel' buttons at the top and bottom of the form.

- Custom settings that are set to Protected and deployed as a managed package are not accessible from subscribing organizations. However, the information is accessible from the Apex code that is part of the managed package.
- Custom settings that are set to Public, or contained in an unmanaged package, are visible through Enterprise WSDL files. Subscribing organizations can access and edit the values using Apex and SOAP API.

## Control Who Gets Read Access to Custom Settings

You can now control the access of custom settings at a granular level by granting direct Read access to specific custom settings through profiles and permission sets.

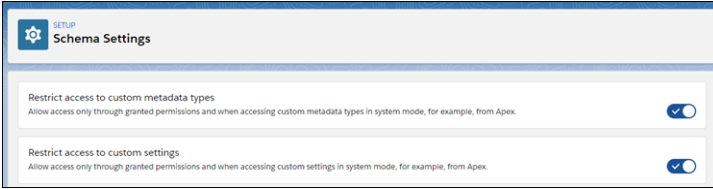
**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, and Unlimited editions.

**When:** This feature is a late-breaking addition to the Winter '20 release.

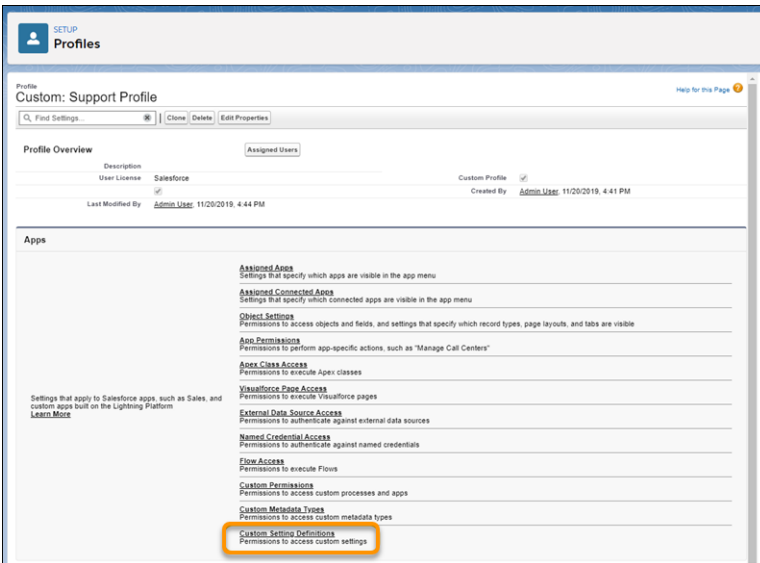
**Who:** Users with the Customize Application permission can grant read access to specific custom settings through profiles and permission sets.

**How:** To grant a Profile or Permission Set read access to specific custom settings, enable the Restrict access to custom settings org permission. Then enable access to specific custom settings.

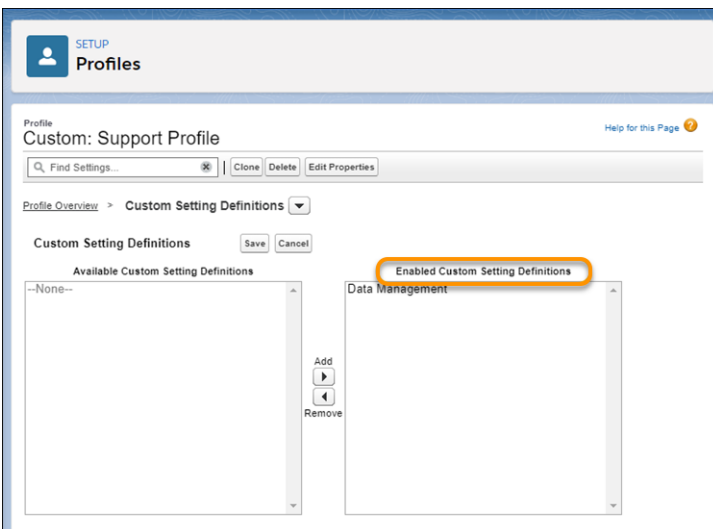
1. From Setup, search for Schema Settings and make sure that the Restrict access to custom settings org permission is enabled.



2. From the Setup up page for Profiles or Permission Sets, click **Custom Setting Definitions**.



3. Add the custom setting to the Enabled Custom Setting Definitions list.



With Restrict access to custom settings enabled, permissions are enforced as follows.

- Customize Application permission—Read and Write access to all custom settings.

- Custom Setting Definitions—Read access to specific custom settings outside of System context. Users must be granted access through profiles and permission sets.
- View All Custom Settings permission—Read access to all custom settings outside of System context.
- View Setup and Configuration permission—Read access to custom settings in Setup. Users must be granted access to specific custom settings through profiles and permission sets, or be granted the View All Custom Settings permission.

## Make More Connections the Enhanced External Services Way (Generally Available)

Enhanced External Services is generally available and enabled by default. It's easy to use, and provides more ways to create and connect to outside services. Now, when you register a service, you get support for more complex OpenAPI 2.0 schema, nested object types, and send parameters as headers within the HTTP requests.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

**How:** After turning on Enhanced External Services, register new external services the same way you did before. Actions generated by your schema are created as External Service Actions in Flow Builder.

Existing registrations are not automatically migrated to Enhanced External Services. For existing registrations to use the new features in Enhanced External Services, you must re-register the schema, update the flows that use the old Apex Action to the new Enhanced External Service Action and delete the old registration.

## Require Permission to View Record Names in Lookup Fields (Critical Update)

To better protect your Salesforce org's data, we restrict who can view record names in lookup fields. Beginning in Winter '21, users must have read access to these records or the View All Lookup Record Names permission to view this data. This critical update also applies to system fields, such as Created By and Last Modified By.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions.

**When:** This critical update is enforced with the rollout of the Winter '21 release.

**How:** Admins can enable the View All Lookup Record Name permission in custom profiles or permission sets. Only enable this permission for users who must see record names in all lookup and system fields, regardless of sharing settings.

We recommend that you test this update in a sandbox or Developer Edition org before enabling it in your production org.

To activate this critical update before Winter '21, from Setup, enter *Critical Updates* in the Quick Find box, then select **Critical Updates**. For Require Permission to View Record Names in Lookup Fields, click **Activate**.

SEE ALSO:

[Critical Updates and Security Alerts](#)

## Secure Your Sandbox Data with Salesforce Data Mask

Salesforce Data Mask is a powerful new data security resource for Salesforce admins and developers. Instead of manually securing data and access for sandbox orgs, admins can use Data Mask to automatically mask the data in a sandbox.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions.

**Why:** Data Mask uses platform-native obfuscation technology to mask sensitive data in any full or partial sandboxes. The masking process lets you mask some or all sensitive data with different levels of masking, depending on the sensitivity of the data. Once the data is masked, you can't unmask it. This irreversible process ensures that the data is not replicated in a readable or recognizable way into another environment.

**How:** Data Mask is a managed package that you install in a production org. You then run the masking process from any sandbox created from the production org.

## Permission Changes for Administrator Tasks

To access permissions or permission set groups, users must have the View Setup and Configuration permission or the equivalent permissions to manage permission sets or users, including Manage Session Permission Set Activations, Manage Users, and Assign Permission Sets.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, Developer, and Database.com editions.

## Changes to Managing User Preferences

Access to UserPreference records of other users in the SOAP API is available for users with the View All Data or Manage Users permission, but all users can access their own UserPreference record.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

# Security, Privacy, and Identity: More Identity Verification Options, My Domain Changes, Real-Time Event Monitoring Threat Detection (Beta), and Encryption for Platform Events

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Give your users more authentication options by allowing them to authenticate with their Apple ID, Face ID, or Touch ID. Or set stricter requirements by only allowing authentication by SMS. Restrict external user access to Salesforce APIs through connected apps. My Domain certificates and URL formats are changing. Use Real-Time Event Monitoring platform events to detect common threats to your org (Beta). And Encrypt all your platform events including Salesforce Event Monitoring streamed events.

### IN THIS SECTION:

#### [Authentication and Identity: Apple Sign-In, Identity Verification, and API Access Control](#)

Enable Apple sign-in for your orgs and communities, allowing users to authenticate with their Apple ID, Face ID, or Touch ID. Enhance identity verification security by storing domain verification files for external services and enabling verification methods that are more secure than email. Restrict external user access to Salesforce APIs through connected apps that are installed in your org or community. And apply the Request Signature Methods to single logout, have extra time to approve OAuth authentication requests, and troubleshoot bridged OAuth sessions.

#### [Domains: Custom Domains for Sandboxes \(Pilot\), Salesforce Edge, and Instanceless URLs](#)

Test your Salesforce Sites and Communities in a sandbox using custom domains (Pilot). Customers with a My Domain can accelerate domain requests with Salesforce Edge. Remove instance names from My Domain URLs through critical updates or sandbox refreshes.

#### [Salesforce Shield: Real-Time Event Monitoring Threat Detection \(Beta\), Event Monitoring Analytics App Improvements, and Platform Encryption for Platform Events](#)

Use Real-Time Event Monitoring platform events to detect common threats to your org (Beta). We improved the performance of the Event Monitoring Analytics app. The legacy transaction security policy framework will be retired in Summer '20. Shield Platform Encryption now supports Platform Events in addition to Change Data Capture Events.

[Data Protection and Privacy: Party Consent, Communication Subscription, and Contact Point Objects](#)

Store data related to your customers' general consent preferences and the communications that they subscribe to. You can also associate multiple email addresses or phone numbers to individuals or person accounts, and manage their preferred time and consent to be contacted.

[Edit Data Classification for Custom Fields in Managed Packages](#)

Now your users can customize data classification settings for custom fields in the managed packages they install.

[Other Security Changes: Guest User Record Assignment, External URL Whitelist, and Setup Enhancements](#)

Set up a default owner for any records created by guest users in Salesforce Sites. Whitelist external URLs that users are allowed to navigate to directly. Plus, we made improvements to Session Security Level Policies and the Setup Audit Trail.

## Authentication and Identity: Apple Sign-In, Identity Verification, and API Access Control

Enable Apple sign-in for your orgs and communities, allowing users to authenticate with their Apple ID, Face ID, or Touch ID. Enhance identity verification security by storing domain verification files for external services and enabling verification methods that are more secure than email. Restrict external user access to Salesforce APIs through connected apps that are installed in your org or community. And apply the Request Signature Methods to single logout, have extra time to approve OAuth authentication requests, and troubleshoot bridged OAuth sessions.

### IN THIS SECTION:

[Let Users Log In to Salesforce with Their Apple ID](#)

Using the new Apple authentication provider, your customers can log in to a Salesforce org or community with their Apple ID.

[Verify Your Domain Name for External Services](#)

Some external services require you to prove control over your domain name. You can now verify your domain name from the Domains Setup page.

[Prevent Identity Verification by Email](#)

All new Salesforce orgs are now set up so that identity verification by email occurs only if the user has no other identity verification methods registered. Possible identity verification methods include Salesforce Authenticator, SMS, time-based one-time password (TOTP), physical key (U2F), and email. The new setting, Prevent identity verification by email when other methods are registered, appears on Identity Verification and Session Settings Setup pages. To increase security in your existing orgs, Salesforce recommends that you enable this setting.

[Limit API Access for External Users](#)

To enhance security, you can restrict community and portal (external) user access to Salesforce APIs through connected apps that are installed in your org. Previously, you weren't able to restrict only external user access to Salesforce APIs.

[Apply the Request Signature Method to Your Single Logout Settings](#)

For single sign-on, the Request Signature Method (RSM) applies a hashing algorithm—either RSA-SHA1 or RSA-SHA256—for encrypted requests. You can now apply the selected single sign-on RSM to your single logout (SLO) settings.

[The OAuth Approval Page Timeout Has Increased](#)

You now have two hours to approve access to connected apps on the OAuth Approval page. Previously, the page timed out after 15 minutes.

### [Discover the Session Status for Content, Visualforce, and Lightning Pages](#)

If a Salesforce content, Visualforce, or Lightning page doesn't load, you can use a new `child_session` parameter in the Salesforce OpenID Connect token introspection endpoint to discover its session status. For example, a page with a status of inactive (an expired session) or missing (a non-existent session) no longer has an authorized session, so the user must log back in to the Salesforce org.

### [Allow Users to Connect Orgs as a Data Source to Cross-Cloud Applications](#)

As a Salesforce admin, you can grant designated admins permission to connect Salesforce orgs as data sources to cross-cloud Salesforce applications, such as Customer 360 Data Manager. Connecting an org as a data source lets you connect customer data across your enterprise to create a single view of your customer. For example, service agents can view a customer's order history in Service Console without swiveling their chairs to Commerce Cloud.

### [Use an Updated API Version for Social Sign-On](#)

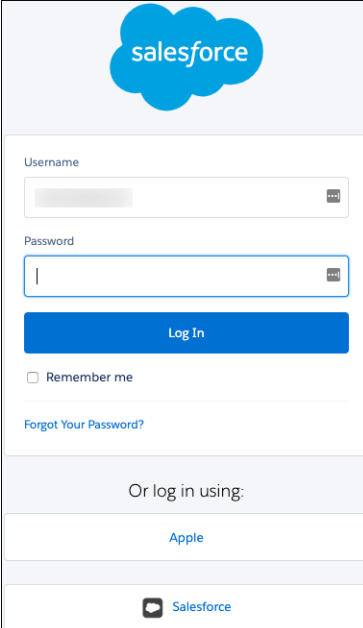
The Salesforce default authentication provider for Facebook Social Sign-On now uses Facebook's Graph API v. 5.0. With the updated Facebook API, access tokens expire if you don't log in to the app for 90 days. Also, the `link` and `locale` fields are deprecated. This update doesn't change the user login experience.

## Let Users Log In to Salesforce with Their Apple ID


Using the new Apple authentication provider, your customers can log in to a Salesforce org or community with their Apple ID.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**How:** To let users log in with their Apple ID, create an Apple authentication provider from the Salesforce Auth. Providers Setup page. After configuring the authentication provider and adding the Apple sign-in button to your Salesforce and Communities login pages, users can log in with their Apple credentials.



The screenshot shows the Salesforce login interface. At the top is the Salesforce logo. Below it are two input fields: 'Username' and 'Password'. A blue 'Log In' button is positioned below the password field. Underneath the button is a checkbox labeled 'Remember me' and a link for 'Forgot Your Password?'. A section titled 'Or log in using:' contains a blue 'Apple' button. At the bottom of the page is a small icon and the text 'Salesforce'.

 **Note:** You can only create an Apple authentication provider from the Setup page, not the API.

SEE ALSO:

[Salesforce Help: Configure an Apple Auth. Provider \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: External Authentication Providers \(can be outdated or unavailable during release preview\)](#)

## Verify Your Domain Name for External Services

Some external services require you to prove control over your domain name. You can now verify your domain name from the Domains Setup page.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**Why:** External services use various methods to prove domain ownership. Some external services, such as Sign In with Apple, provide you with a verification file that you download to your computer. Store the file on your domain at a location specified by the external service. If the service can locate the file, your domain is verified.

**How:** You verify your My Domain or community domain from the Domains Setup page. Next to the domain, select **Verify**, and then choose the verification file that you downloaded from the external service. Salesforce then stores the file at the location specified by the external service.

SEE ALSO:

[Salesforce Help: Verify a Domain with an External Service \(can be outdated or unavailable during release preview\)](#)

## Prevent Identity Verification by Email

All new Salesforce orgs are now set up so that identity verification by email occurs only if the user has no other identity verification methods registered. Possible identity verification methods include Salesforce Authenticator, SMS, time-based one-time password (TOTP), physical key (U2F), and email. The new setting, Prevent identity verification by email when other methods are registered, appears on Identity Verification and Session Settings Setup pages. To increase security in your existing orgs, Salesforce recommends that you enable this setting.

**Where:** This feature applies to all editions of Salesforce Classic and Lightning Experience. It also applies to all Lightning and Salesforce Tabs + Visualforce communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions. SMS verification messaging is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce app. The Identity Verification Credits add-on license is available for purchase for all editions.

**Who:** Customers who have an Identity Verification Credits license and use device activation by text message can enable identity verification by text message. If you don't know your org's limit of SMS messages for identity verification, contact your Salesforce account rep. On external users' profiles, the option **Enable Device Activation** allows external users to verify their identity by text message.

**How:** From Setup, in the Quick Find box, enter *Identity Verification*, and then select **Prevent identity verification by email when other methods are registered**.

SEE ALSO:

[Salesforce Help: Configure When Users Are Prompted to Verify Identity \(can be outdated or unavailable during release preview\)](#)

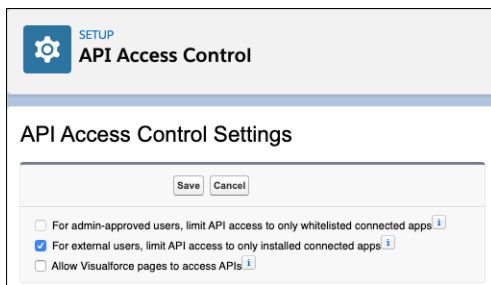
## Limit API Access for External Users

To enhance security, you can restrict community and portal (external) user access to Salesforce APIs through connected apps that are installed in your org. Previously, you weren't able to restrict only external user access to Salesforce APIs.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** This feature applies to external users only.

**How:** Contact Salesforce Customer Support to enable API Access Control for your org. Then enable `For external users, limit API access to only installed connected apps`. Install a connected app on the Connected Apps OAuth Usage page.



SEE ALSO:

[Salesforce Help: Manage API Access \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Manage OAuth Access Policies for a Connected App \(can be outdated or unavailable during release preview\)](#)

## Apply the Request Signature Method to Your Single Logout Settings

For single sign-on, the Request Signature Method (RSM) applies a hashing algorithm—either RSA-SHA1 or RSA-SHA256—for encrypted requests. You can now apply the selected single sign-on RSM to your single logout (SLO) settings.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions for Federated Authentication, and in Professional, Enterprise, Performance, Unlimited, Developer, and Database.com editions for Delegated Authentication.

**How:** Select `Use Selected Request Signature Method for Single Logout` to apply the selected Request Signature Method during SLO. If you don't select this option, the default RSM (RSA-SHA1) is applied.



Name	MyIdP	API Name	MyIdP
SAML Version	2.0		
Issuer	https://myidp-developer.com	Entity ID	https://mydomain-developer.com
Identity Provider Certificate	CN=ds, OU=ds, O=ds, L=ds, ST=sd, C=ds Expiration: 25 Oct 2019 21:23:45 GMT		
Request Signing Certificate	SelfSignedCert_15Oct2018_230535		
Request Signature Method	RSA-SHA256		
Assertion Decryption Certificate	Assertion not encrypted		
SAML Identity Type	Username		
SAML Identity Location	Subject		
Service Provider Initiated Request Binding	HTTP POST		
Identity Provider Login URL			
Custom Logout URL			
Custom Error URL			
Single Logout Enabled	<input checked="" type="checkbox"/>		
Use Selected Request Signature Method for Single Logout	<input checked="" type="checkbox"/>		
Identity Provider Single Logout URL	https://myidp-developer-edition.my.salesforce.com/slo-logout		
Single Logout Request Binding	HTTP POST		

SEE ALSO:

[Salesforce Help: Configure SAML Settings for Single Logout When Salesforce Is the Service Provider \(can be outdated or unavailable during release preview\)](#)

## The OAuth Approval Page Timeout Has Increased

You now have two hours to approve access to connected apps on the OAuth Approval page. Previously, the page timed out after 15 minutes.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions.

Allow Access?

Customer Order Status is asking to:

- Access your basic information
- Allow access to your unique identifier
- Provide access to your data via the Web

Do you want to allow access for help.desk@mycompany.com? (Not you?)

To revoke access at any time, go to your personal settings.

## Discover the Session Status for Content, Visualforce, and Lightning Pages

If a Salesforce content, Visualforce, or Lightning page doesn't load, you can use a new `child_session` parameter in the Salesforce OpenID Connect token introspection endpoint to discover its session status. For example, a page with a status of inactive (an expired session) or missing (a non-existent session) no longer has an authorized session, so the user must log back in to the Salesforce org.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions.

**Why:** OAuth supports the extension of access tokens as a bridge to other authorization frameworks. In Salesforce, this extension is implemented when users access Salesforce content, Visualforce, and Lightning pages after successfully logging in to a Salesforce org. These pages launch as child sessions, using the org's authenticated session as a bridge. However, if the child sessions don't have a current access token from the org's session, they fail to launch.

**How:** Include the new `child_sessions` parameter in POST requests to the Salesforce OpenID Connect token introspection endpoint. You can only include this parameter for introspection of active org sessions. It doesn't work with introspection of refresh tokens.

SEE ALSO:

[Salesforce Help: OpenID Connect Dynamic Client Registration for External API Gateways \(can be outdated or unavailable during release preview\)](#)

## Allow Users to Connect Orgs as a Data Source to Cross-Cloud Applications

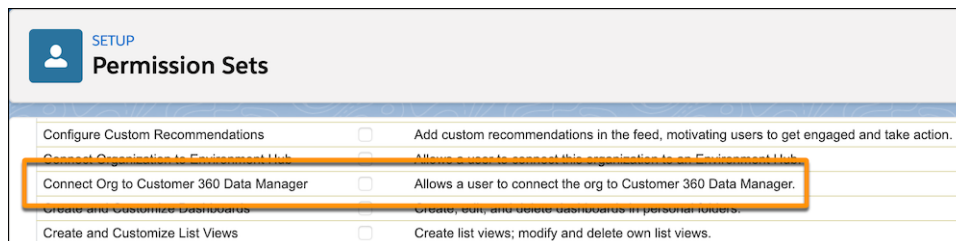
As a Salesforce admin, you can grant designated admins permission to connect Salesforce orgs as data sources to cross-cloud Salesforce applications, such as Customer 360 Data Manager. Connecting an org as a data source lets you connect customer data across your enterprise to create a single view of your customer. For example, service agents can view a customer's order history in Service Console without swiveling their chairs to Commerce Cloud.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions.

**When:** This user permission was added in the Winter '20 release.

**Who:** The Connect Org to Customer 360 Data Manager permission is automatically enabled for Salesforce admins.

**How:** In your org, create a permission set that grants the Connect Org to Customer 360 Data Manager permission. Assign the permission set to the designated admin who is creating the connection. The admin is required to log in to the org to create the connection.



SEE ALSO:

[Salesforce Help: Connect Data Sources \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Connect an Org as a Data Source \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Permission Sets \(can be outdated or unavailable during release preview\)](#)

## Use an Updated API Version for Social Sign-On

The Salesforce default authentication provider for Facebook Social Sign-On now uses Facebook's Graph API v. 5.0. With the updated Facebook API, access tokens expire if you don't log in to the app for 90 days. Also, the `link` and `local` fields are deprecated. This update doesn't change the user login experience.

**Where:** This change applies to both Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer Editions.

**How:** The global authentication provider for Facebook gives your users the option to log in to your org using their Facebook account. If you create your own authentication provider to enable social sign-on from Facebook, you control the version of the Facebook API that you want to use.

## Domains: Custom Domains for Sandboxes (Pilot), Salesforce Edge, and Instanceless URLs

Test your Salesforce Sites and Communities in a sandbox using custom domains (Pilot). Customers with a My Domain can accelerate domain requests with Salesforce Edge. Remove instance names from My Domain URLs through critical updates or sandbox refreshes.

### IN THIS SECTION:

#### [Use Custom Domains for Sandboxes \(Pilot\)](#)

Develop and test your Salesforce Sites and communities within your sandboxes using custom domains. This feature allows you to test new custom domains in a sandbox before deploying them to Salesforce production.

#### [Route My Domains Through Salesforce Edge \(Previously Released Critical Update\)](#)

We're accelerating domain requests for My Domains. With this update, you keep the same My Domain address, but requests go through Salesforce Edge. Salesforce Edge uses machine-learning technology to improve connectivity and performance. You can acknowledge this update to let Salesforce move your org's My Domain to the new service before the July 2020 auto-activation date. This critical update was first made available in Winter '20.

#### [Stabilize the Hostname for My Domain URLs in Sandboxes \(Previously Released Critical Update\)](#)

We're removing instance names from MyDomain URLs for sandboxes. The instance name identifies where your Salesforce sandbox org is hosted. Removing the instance name makes the URL cleaner and easier for users to remember. For example, `MyDomain--SandboxName.my.salesforce.com` replaces `MyDomain--SandboxName.cs5.my.salesforce.com`. This critical update was first made available in Summer '18.

#### [Stabilize URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files \(Previously Released Critical Update\)](#)

We're removing the instance names from Visualforce, Experience Builder, Site.com Studio, and content file URLs. An instance name identifies where your Salesforce org is hosted. Instanceless domains are cleaner and easier for users to remember. This critical update applies to orgs that have a deployed My Domain. After this update, a URL that includes the instance name, such as a bookmark, automatically redirects to the new hostname. This critical update was first made available in Spring '18.


#### [Get Stabilized My Domain URLs in New and Refreshed Sandboxes](#)

As part of our effort to stabilize domains by removing instance names from their URLs, the My Domain URL format is changing for sandboxes. When you create or refresh a sandbox with a deployed My Domain, the sandbox name within the hostname becomes lowercase. Also, the "Stabilize the Hostname for My Domain URLs in Sandboxes" and "Remove Instance Names From URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files" critical updates are automatically activated. These critical updates remove the instance name from the sandbox URLs.

## Use Custom Domains for Sandboxes (Pilot)

Develop and test your Salesforce Sites and communities within your sandboxes using custom domains. This feature allows you to test new custom domains in a sandbox before deploying them to Salesforce production.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

 **Note:** We provide Custom Domains for Sandboxes to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Custom Domains for Sandboxes isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability

within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features. You can provide feedback and suggestions for Custom Domains for sandboxes in the [Custom Domains for Sandboxes Pilot](#) group in the Trailblazer Community.

**How:** From Setup in production, in the Quick Find box, enter *Domains*, and then select **Domains**. Click **Add** to add a domain or **Edit** to edit an existing domain. On the Domain screen, select an HTTPS option other than the Salesforce CDN. Select your sandbox in the new Associated Org field and click **Save**.

To finish adding your custom domain, activate the domain and log in to the sandbox to finish updating the sandbox Sites and communities domains.

SEE ALSO:

[Salesforce Help: Test Your Custom Domains in a Sandbox \(Pilot\) \(can be outdated or unavailable during release preview\)](#)

## Route My Domains Through Salesforce Edge (Previously Released Critical Update)

We're accelerating domain requests for My Domains. With this update, you keep the same My Domain address, but requests go through Salesforce Edge. Salesforce Edge uses machine-learning technology to improve connectivity and performance. You can acknowledge this update to let Salesforce move your org's My Domain to the new service before the July 2020 auto-activation date. This critical update was first made available in Winter '20.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Database.com editions.

**When:** You can acknowledge this update in Winter '20. Otherwise, we auto-activate it on July 13, 2020.

**Who:** Only customers with a My Domain or Custom Domain can be moved to Salesforce Edge. Salesforce Government Cloud orgs are currently excluded from the move to Salesforce Edge.

**How:** To acknowledge this critical update, from Setup, enter *Critical Updates* in the Quick Find box, and select **Critical Updates**. Next to Route My Domains Through Salesforce Edge, click **Acknowledge**.

SEE ALSO:

[Winter '20 Release Notes: Route My Domains Through Salesforce Edge \(Critical Update\) \(can be outdated or unavailable during release preview\)](#)

[Critical Updates and Security Alerts](#)

## Stabilize the Hostname for My Domain URLs in Sandboxes (Previously Released Critical Update)

We're removing instance names from MyDomain URLs for sandboxes. The instance name identifies where your Salesforce sandbox org is hosted. Removing the instance name makes the URL cleaner and easier for users to remember. For example, `MyDomain--SandboxName.my.salesforce.com` replaces `MyDomain--SandboxName.cs5.my.salesforce.com`. This critical update was first made available in Summer '18.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Database.com editions.

**When:** This critical update is activated automatically in production orgs on July 11, 2020 and in sandbox orgs when they are created or refreshed.

**How:** We recommend that you test this update in a sandbox to ensure that the new URL works with firewalls and proxy servers in the network path between your users and Salesforce.

To activate this critical update, from Setup, enter *Critical Updates* in the Quick Find Box, and select **Critical Updates**. For Stabilize the Hostname for My Domain URLs in Sandboxes, click **Activate**.

If you use service provider (SP) initiated SAML to log into your sandbox, work with your identity provider (IdP) to use the sandbox's stabilized My Domain hostname.

If you have existing sandbox orgs, activate the critical update in those sandbox orgs. Activating this critical update in a production org applies the update to new and refreshed sandbox orgs.

SEE ALSO:

[Summer '18 Release Notes: Stabilize the Hostname for My Domain URLs in Sandboxes \(Critical Update\) \(can be outdated or unavailable during release preview\)](#)

[Critical Updates and Security Alerts](#)

## Stabilize URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files (Previously Released Critical Update)

We're removing the instance names from Visualforce, Experience Builder, Site.com Studio, and content file URLs. An instance name identifies where your Salesforce org is hosted. Instanceless domains are cleaner and easier for users to remember. This critical update applies to orgs that have a deployed My Domain. After this update, a URL that includes the instance name, such as a bookmark, automatically redirects to the new hostname. This critical update was first made available in Spring '18.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Contact Manager, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**When:** The critical update is activated automatically in production orgs on July 11, 2020 and in sandbox orgs when they are created or refreshed.

**Why:** When we remove the instance name from your URLs, your hostnames change. For example:


- `mydomain--c.visualforce.com` replaces `mydomain--c.na1.visual.force.com`
- `mydomain--c.documentforce.com` replaces `mydomain--c.na1.content.force.com`

All `*.content.force.com` URLs are replaced with `*.documentforce.com`.

**How:** We recommend that you test this update in a sandbox to ensure that the new URLs work with firewalls and proxy servers in the network path between your users and Salesforce. Firewalls and proxy servers that filter by hostname must also trust the following:

- `*.visualforce.com`
- `*.documentforce.com`
- `*.salesforce-communities.com`

To activate this critical update, from Setup, enter *Critical Updates* in the Quick Find Box and select **Critical Updates**. For Remove Instance Names from URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files, click **Activate**.

 **Note:** This update can log out users who are accessing Visualforce, Experience Builder, Site.com Studio, and content file URLs. To minimize disruption, consider activating this critical update during off-peak hours.

SEE ALSO:

[Spring '18 Release Notes: Remove Instance Names from URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files \(Critical Update\) \(can be outdated or unavailable during release preview\)](#)

[Critical Updates and Security Alerts](#)

## Get Stabilized My Domain URLs in New and Refreshed Sandboxes

As part of our effort to stabilize domains by removing instance names from their URLs, the My Domain URL format is changing for sandboxes. When you create or refresh a sandbox with a deployed My Domain, the sandbox name within the hostname becomes lowercase. Also, the “Stabilize the Hostname for My Domain URLs in Sandboxes” and “Remove Instance Names From URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files” critical updates are automatically activated. These critical updates remove the instance name from the sandbox URLs.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Contact Manager, Group, Professional, Enterprise, Performance, Unlimited, Developer, and Database.com editions.

**Who:** Customers with a deployed My Domain in their sandbox’s source org.

**Why:** Removing the instance name makes a URL cleaner and easier for users to remember. When you create or refresh a sandbox, the URL hostname format changes. For example:

- `mydomain--sandboxname.my.salesforce.com` replaces `mydomain--SandboxName.cs5.my.salesforce.com`
- `mydomain--c.visualforce.com` replaces `mydomain--c.cs5.visual.force.com`
- `mydomain--c.documentforce.com` replaces `mydomain--c.cs5.content.force.com`

All `*.content.force.com` URLs are replaced with `*.documentforce.com`.

**How:** We recommend that you test the new URLs after creating or refreshing your sandbox. Ensure that they work with firewalls and proxy servers in the network path between your users and Salesforce.

If you use service provider (SP) initiated SAML to log into your sandbox, work with your identity provider (IdP) to use the sandbox’s stabilized My Domain hostname.

Firewalls and proxy servers that filter by hostname must also trust the following:

- `*.visualforce.com`
- `*.documentforce.com`
- `*.salesforce-communities.com`

SEE ALSO:

[Stabilize the Hostname for My Domain URLs in Sandboxes \(Previously Released Critical Update\)](#)

[Stabilize URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files \(Previously Released Critical Update\)](#)

## Salesforce Shield: Real-Time Event Monitoring Threat Detection (Beta), Event Monitoring Analytics App Improvements, and Platform Encryption for Platform Events

Use Real-Time Event Monitoring platform events to detect common threats to your org (Beta). We improved the performance of the Event Monitoring Analytics app. The legacy transaction security policy framework will be retired in Summer '20. Shield Platform Encryption now supports Platform Events in addition to Change Data Capture Events.

IN THIS SECTION:

[Shield Platform Encryption: Encryption for Platform Events](#)

Shield Platform Encryption now supports Platform Events, adding an extra layer of protection for events that involve sensitive information. Remove the Manage Encryption Keys permission from system admin profile with a critical update.

[Event Monitoring: New Threat Detection Real-Time Events \(Beta\), Legacy Transaction Security Retiring, Event Monitoring Analytics App Improvements](#)

Detect threats to your org, such as report execution anomalies and credential stuffing, with three new Real-Time Event Monitoring events. We are retiring the legacy transaction security framework in the Summer '20 release, so migrate your existing policies to the enhanced framework. Also, we improved the performance of the Event Monitoring Analytics app.

## Shield Platform Encryption: Encryption for Platform Events

Shield Platform Encryption now supports Platform Events, adding an extra layer of protection for events that involve sensitive information. Remove the Manage Encryption Keys permission from system admin profile with a critical update.

### IN THIS SECTION:

#### [Encrypt Platform Events](#)

Rest easy knowing that sensitive data captured by your platform events have an extra layer of protection thanks to Shield Platform Encryption. In addition to Change Data Capture events, now you can encrypt all of your platform events including Real-Time Event Monitoring streamed events. When you enable Shield Platform Encryption for platform events, event messages are encrypted at rest in the event bus with a dedicated Event Bus key. Events stay encrypted for their duration in the event bus.

#### [Remove the Manage Encryption Keys Permission from the System Admin Profile \(Previously Released Critical Update\)](#)

Admins must actively assign the ability to perform key management roles. The Manage Encryption Keys permission is revoked for the standard admin profile when you activate this Critical Update. Custom profiles that include the Manage Encryption Keys permission are not affected. Any user who has the permission through a custom profile or permission still has the permission. This critical update was first made available in Spring '16 and applies only to customers who enabled Shield Platform Encryption before the Spring '16 release.

#### [Encrypt the Next Best Action Recommendation Description Field](#)

To address HIPAA requirements, Next Best Action has made it possible to encrypt recommendation description information using Shield Platform Encryption. When you use probabilistic encryption, you can't use encrypted fields like Recommendation Description when you specify conditions to load recommendations. When you use deterministic encryption, you can use encrypted fields in load conditions only with the equals or not equals operator.

## Encrypt Platform Events

Rest easy knowing that sensitive data captured by your platform events have an extra layer of protection thanks to Shield Platform Encryption. In addition to Change Data Capture events, now you can encrypt all of your platform events including Real-Time Event Monitoring streamed events. When you enable Shield Platform Encryption for platform events, event messages are encrypted at rest in the event bus with a dedicated Event Bus key. Events stay encrypted for their duration in the event bus.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions that have both Financial Services Cloud and Shield Platform Encryption enabled.

**How:** To enable encryption and delivery of platform events, first create an event bus tenant secret on the Key Management page in Setup. Then enable encryption of platform events on the Encryption Policy page.

### SEE ALSO:

[Encrypt Platform Event Messages in the Event Bus](#)

[Salesforce Help: Encrypt Event Bus Data \(can be outdated or unavailable during release preview\)](#)

## Remove the Manage Encryption Keys Permission from the System Admin Profile (Previously Released Critical Update)

Admins must actively assign the ability to perform key management roles. The Manage Encryption Keys permission is revoked for the standard admin profile when you activate this Critical Update. Custom profiles that include the Manage Encryption Keys permission are not affected. Any user who has the permission through a custom profile or permission still has the permission. This critical update was first made available in Spring '16 and applies only to customers who enabled Shield Platform Encryption before the Spring '16 release.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**When:** This critical update is automatically activated in Spring '29.

**Who:** This critical update applies to customers who enabled Shield Platform Encryption before the Spring '16 release. Customers who enabled Shield Platform Encryption after the Spring '16 release are unaffected by this critical update.

SEE ALSO:

[Critical Updates and Security Alerts](#)

## Encrypt the Next Best Action Recommendation Description Field

To address HIPAA requirements, Next Best Action has made it possible to encrypt recommendation description information using Shield Platform Encryption. When you use probabilistic encryption, you can't use encrypted fields like Recommendation Description when you specify conditions to load recommendations. When you use deterministic encryption, you can use encrypted fields in load conditions only with the equals or not equals operator.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** On the Encryption Policy page in Setup, click **Encrypt Fields**, and encrypt the Recommendation Description field.

## Event Monitoring: New Threat Detection Real-Time Events (Beta), Legacy Transaction Security Retiring, Event Monitoring Analytics App Improvements

Detect threats to your org, such as report execution anomalies and credential stuffing, with three new Real-Time Event Monitoring events. We are retiring the legacy transaction security framework in the Summer '20 release, so migrate your existing policies to the enhanced framework. Also, we improved the performance of the Event Monitoring Analytics app.

IN THIS SECTION:

[Detect Threats to Your Org \(Beta\)](#)

Track threats to your org's security with three new Real-Time Event Monitoring events. Salesforce generates these events, aided by machine learning algorithms, to identify anomalies in your users' behavior and unauthorized access to your org

[Determine If an Apex Request Is Counted as a Long-Running Request in the EventLogFile](#)

Use the IS\_LONG\_RUNNING\_REQUEST field of the Apex Execution event type to determine if a request is counted against your org's concurrent long-running Apex request limit. Use this field instead of checking all requests that run for more than 5 seconds.

[Migrate Legacy Policies to the Enhanced Transaction Security Framework \(Previously Released Critical Update\)](#)


With Salesforce's enhanced transaction security policy framework, you can create transaction security policies that execute actions on any standard or custom object. Now that the new framework is generally available, we no longer allow users to create legacy transaction security policies. We're retiring the legacy framework in the Summer '20 release. To prepare for this retirement and take advantage of the new features, migrate your legacy transaction security policies to the new framework as soon as possible. This critical update was first made available in Winter '20.



## Detect Threats to Your Org (Beta)

Track threats to your org's security with three new Real-Time Event Monitoring events. Salesforce generates these events, aided by machine learning algorithms, to identify anomalies in your users' behavior and unauthorized access to your org.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions where Event Monitoring is enabled.

 **Note:** As a beta feature, the threat detection event objects are previews and not part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for this feature in the [Salesforce Official: Shield group in the Trailblazer Community](#). For information on enabling this feature in your org, contact Salesforce.

**Who:** Event Monitoring is available to customers who already purchased Salesforce Shield or Event Monitoring add-on subscriptions.

**Why:** Use these new Real-Time Event Monitoring platform events to detect common threats to your org:

- ReportAnomalyEvent (Beta): Tracks anomalies in how users run or export reports.
- SessionHijackingEvent (Beta): Tracks when unauthorized users try to hijack Salesforce sessions.
- CredentialStuffingEvent (Beta): Tracks when a user successfully logs into Salesforce during an identified credential stuffing attack, or when large-scale automated login requests occur using stolen user credentials.

**How:** New customers enable the beta by contacting Salesforce.

SEE ALSO:

[Salesforce Help: Threat Detection \(Beta\) \(can be outdated or unavailable during release preview\)](#)

[Platform Events Developer Guide: Real-Time Event Monitoring Objects](#)

## Determine If an Apex Request Is Counted as a Long-Running Request in the EventLogFile

Use the IS\_LONG\_RUNNING\_REQUEST field of the Apex Execution event type to determine if a request is counted against your org's concurrent long-running Apex request limit. Use this field instead of checking all requests that run for more than 5 seconds.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**Who:** Available to customers who purchased a Salesforce Shield or Salesforce Event Monitoring add-on subscription and use the EventLogFile to monitor events.

SEE ALSO:

[Object Reference for Salesforce and Lightning Platform: Apex Execution Event Type](#)

## Migrate Legacy Policies to the Enhanced Transaction Security Framework (Previously Released Critical Update)

With Salesforce's enhanced transaction security policy framework, you can create transaction security policies that execute actions on any standard or custom object. Now that the new framework is generally available, we no longer allow users to create legacy transaction security policies. We're retiring the legacy framework in the Summer '20 release. To prepare for this retirement and take advantage of the new features, migrate your legacy transaction security policies to the new framework as soon as possible. This critical update was first made available in Winter '20.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions where Event Monitoring is enabled.

**When:** After we retire the legacy framework in the Summer '20 release, the legacy policies will be permanently disabled and you won't be able to update them. Your legacy policies continue to work correctly until the Summer '20 release.

**Who:** Event Monitoring is available to customers who purchased Salesforce Shield or Event Monitoring add-on subscriptions.

**How:** To determine if your security policies are using the legacy framework, check their associated Apex classes. Legacy policies implement the `TxnSecurity.PolicyCondition` interface.

To migrate a legacy policy, create one in the new enhanced framework that mimics the old behavior. Although a legacy policy can't run in the new framework, it's still visible, so you can examine its logic to reproduce it in the new policy.

If you like using a point-and-click tool, Condition Builder provides most of the functionality to create a policy in the new framework. If you prefer to code or require more functionality than Condition Builder provides, implement the Apex class with the new `TxnSecurity.EventCondition` interface.

We welcome feedback about the migration and any issues that you encounter so that we can improve the transition for all Event Monitoring customers. You can provide feedback and suggestions for this feature in the [Salesforce Official: Shield group in the Trailblazer Community](#).

#### SEE ALSO:

[Critical Updates and Security Alerts](#)

[Salesforce Help: Migrate Legacy Policies to the Enhanced Transaction Security Framework \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Enhanced Transaction Security Policy Enforcement \(can be outdated or unavailable during release preview\)](#)

## Data Protection and Privacy: Party Consent, Communication Subscription, and Contact Point Objects

Store data related to your customers' general consent preferences and the communications that they subscribe to. You can also associate multiple email addresses or phone numbers to individuals or person accounts, and manage their preferred time and consent to be contacted.

#### IN THIS SECTION:

[Keep Track of Customer Consent Preferences](#)

Use the Party Consent object to store information related to your customers' general consent preferences, such as whether they agree to have their data collected or shared. Indicate when and how you captured consent as well. You can associate multiple party consent records to an individual or person account record.

[Manage Your Customers' Communication Subscriptions](#)

Keep track of data related to the communications your customers subscribe to, such as newsletters or appointment reminders. Store when and how your customers consented to be contacted and information on their preferred timing. You can also record the channels, such as email addresses and phone numbers, through which you can reach them.

### [Store Multiple Contact Points and Customer Consent Information](#)

To help you better reach your customers, you can now specify multiple email addresses or phone numbers for an individual or person account. Previously, our data model only allowed for one phone number or email to be associated to a single customer. Now, using contact point email and contact point phone, you can also add details such as the best time to reach out to a contact or how they prefer to be contacted. Plus, you can reference these records from a contact point consent record to store your customer's consent to being contacted this way.

## Keep Track of Customer Consent Preferences

Use the Party Consent object to store information related to your customers' general consent preferences, such as whether they agree to have their data collected or shared. Indicate when and how you captured consent as well. You can associate multiple party consent records to an individual or person account record.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

SEE ALSO:

[Salesforce Help: Fields in Party Consent Records \(can be outdated or unavailable during release preview\)](#)

## Manage Your Customers' Communication Subscriptions

Keep track of data related to the communications your customers subscribe to, such as newsletters or appointment reminders. Store when and how your customers consented to be contacted and information on their preferred timing. You can also record the channels, such as email addresses and phone numbers, through which you can reach them.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

SEE ALSO:

[Salesforce Help: Communication Subscription Objects \(can be outdated or unavailable during release preview\)](#)

## Store Multiple Contact Points and Customer Consent Information

To help you better reach your customers, you can now specify multiple email addresses or phone numbers for an individual or person account. Previously, our data model only allowed for one phone number or email to be associated to a single customer. Now, using contact point email and contact point phone, you can also add details such as the best time to reach out to a contact or how they prefer to be contacted. Plus, you can reference these records from a contact point consent record to store your customer's consent to being contacted this way.

**Where:** This change applies to Salesforce Classic and Lightning Experience in all editions.

**How:** Contact point phone and contact point email are displayed on the Individual object's layout by default. You must add them to the Account object's layout in Object Manager.

SEE ALSO:

[Salesforce Help: Fields in Contact Point Email and Contact Point Phone Records \(can be outdated or unavailable during release preview\)](#)

## Edit Data Classification for Custom Fields in Managed Packages

Now your users can customize data classification settings for custom fields in the managed packages they install.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

**Who:** To edit or view data classification fields, you must have the Customize Application or Modify Data Classification permission.

**How:** Update your packages to support these changes.

In the Object Manager, find the object that you want to edit, and select **Fields & Relationships** from the sidebar. Select the field where you want to set up data classification, and click **Edit**. Select the value for each Data Classification metadata field from the picklists, and save your changes.

## Other Security Changes: Guest User Record Assignment, External URL Whitelist, and Setup Enhancements

Set up a default owner for any records created by guest users in Salesforce Sites. Whitelist external URLs that users are allowed to navigate to directly. Plus, we made improvements to Session Security Level Policies and the Setup Audit Trail.

### IN THIS SECTION:

#### [Automatically Assign Records Created by Guest Users in Salesforce Sites to a Default Owner](#)

To increase the security of your Salesforce data, set up your org so that guest users are no longer automatically the owner of records they create in Salesforce Sites. When a guest user creates a record in a Salesforce Site, the record is assigned to a default active user, who becomes the owner.

#### [Allow Redirects to External URLs Without a Warning Message](#)

Whitelist URLs outside the Salesforce domain that your users can navigate to directly when the Warn users before they are redirected outside of Salesforce setting is enabled. For URLs that you don't whitelist, users see a warning message before they get redirected.

#### [Changes to Session-Security-Level Policies](#)

To better secure sensitive operations in the Users Setup page, you can require users to have a high-assurance session level before accessing the page. Also, we removed the View Event Log Files setting from the Session Security Level Policies section.

#### [Monitor More Changes in the Setup Audit Trail](#)

To help you track the recent setup changes that you and other admins make to your Salesforce org, we added new events to the Setup Audit Trail.

#### [Changes to Named Credentials](#)

Access to named credentials through the Salesforce API is available for users with the View Setup and Configuration permission.

## Automatically Assign Records Created by Guest Users in Salesforce Sites to a Default Owner

To increase the security of your Salesforce data, set up your org so that guest users are no longer automatically the owner of records they create in Salesforce Sites. When a guest user creates a record in a Salesforce Site, the record is assigned to a default active user, who becomes the owner.

**Where:** This change applies to orgs with active Salesforce Sites in Essentials, Unlimited, Performance, and Developer editions.

**Why:** To follow Salesforce security best practices, designate an internal org user to be the owner of records created by guest users. While we strongly encourage you to assign a default owner, changing record ownership can affect your guest users' ability to access records. Test all changes in a sandbox environment to see the effects on data sharing and visibility before you change your implementation in production.

**How:** From Setup, in the Quick Find box, enter *Sites*, and then select **Sites**. Select **Reassign new records created by guest users to the default owner**. Click **Save**.

If no default owner is chosen in the org, Salesforce automatically assigns the Salesforce Site owner as the owner of records created by guest users.

SEE ALSO:

[Salesforce Help: Best Practices and Considerations When Working with the Site User Record \(can be outdated or unavailable during release preview\)](#)

## Allow Redirects to External URLs Without a Warning Message

Whitelist URLs outside the Salesforce domain that your users can navigate to directly when the Warn users before they are redirected outside of Salesforce setting is enabled. For URLs that you don't whitelist, users see a warning message before they get redirected.

**Where:** This change applies to Salesforce Classic in all editions.

**How:** From Setup, in the Quick Find box, enter *Whitelisted URLs for Redirects*, and then select **Whitelisted URLs for Redirects**. Click **New URL**.

SEE ALSO:

[Salesforce Help: Manage Redirects to External URLs \(can be outdated or unavailable during release preview\)](#)

## Changes to Session-Security-Level Policies

To better secure sensitive operations in the Users Setup page, you can require users to have a high-assurance session level before accessing the page. Also, we removed the View Event Log Files setting from the Session Security Level Policies section.

**Where:** This change applies to Salesforce Classic and Lightning Experience in all editions.

**How:** From Setup, in the Quick Find box, enter *Identity Verification*, and then select **Identity Verification**. In the Session Security Level Policies section, for Manage Users, select **Raise session to high assurance**. Click **Save**.

**Session Security Level Policies**

Require a high assurance level of security for sensitive operations, or block users altogether. If users already have a high assurance session after logging in, they aren't prompted to verify their identity again in the same session, even if you require high assurance for these operations. If you want to see the session levels that users are granted at login, see Session Security Levels in [Session Settings](#).

These settings only apply to users who have user permissions assigned to access these operations.

Reports and Dashboards ⓘ	Raise session to high assurance
Manage Auth. Providers ⓘ	None
Manage Certificates ⓘ	Raise session to high assurance
Manage Connected Apps ⓘ	Raise session to high assurance
Manage Data Export ⓘ	Raise session to high assurance
Manage IP Addresses ⓘ	Block
Manage Login Access Policies ⓘ	Block
Manage Password Policies ⓘ	Block
Manage Permission Sets and Profiles ⓘ	Raise session to high assurance
Manage Roles ⓘ	None
Manage Sharing ⓘ	Raise session to high assurance
Manage Two-Factor Authentication in API ⓘ	Block
Manage Two-Factor Authentication in User Interface ⓘ	Raise session to high assurance
<b>Manage Users ⓘ</b>	<b>Raise session to high assurance</b>
Unlock Users and Reset Passwords ⓘ	Raise session to high assurance
View Health Check ⓘ	Raise session to high assurance

[Save](#)

## SEE ALSO:

[Salesforce Help: Require High-Assurance Session Security for Sensitive Operations](#) (can be outdated or unavailable during release preview)

## Monitor More Changes in the Setup Audit Trail

To help you track the recent setup changes that you and other admins make to your Salesforce org, we added new events to the Setup Audit Trail.

**Where:** This change applies to the Setup Audit Trail, available in Lightning Experience and Salesforce Classic in Contact Manager, Essentials, Group, Professional, Enterprise, Performance, Unlimited, Developer, and Database.com editions.

**Why:** Track changes to:

- Email Deliverability—Your access to send email in Salesforce, set through the Access level field on the Deliverability Setup page.
- Connected Apps—Your connected app's PIN length and inactivity timeout, set in the Mobile Integration section of your connected app's settings. Access these settings from the Manage Connected Apps Setup page.
- Notifications—Your notification delivery settings for custom notification types, set from the Custom Notifications Setup page, and for standard notification types, set from the Notification Delivery Settings Setup page. You can track changes to mobile, desktop, and connected app delivery settings.

**How:** To view the audit history, from Setup, in the Quick Find box, enter *View Setup Audit Trail*, and then select **View Setup Audit Trail**.

SEE ALSO:

[Salesforce Help: Monitor Setup Changes \(can be outdated or unavailable during release preview\)](#)

[IdeaExchange: Email Deliverability Changes Not Tracked in Audit Log](#)

## Changes to Named Credentials

Access to named credentials through the Salesforce API is available for users with the View Setup and Configuration permission.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions.

## Deployment: Faster Availability of Uploaded Change Sets and New Change Set Components

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Uploaded change sets are available for deployment sooner. New change set components are available.

IN THIS SECTION:

[Deploy Customizations Sooner After Uploading a Change Set](#)

It used to take a while before freshly uploaded change sets were available for deployment. Now, uploaded change sets are available for deployment sooner.

[New and Changed Components for Change Sets](#)

The components available for a change set vary by edition. These components are now available for change sets.

## Deploy Customizations Sooner After Uploading a Change Set

It used to take a while before freshly uploaded change sets were available for deployment. Now, uploaded change sets are available for deployment sooner.

## New and Changed Components for Change Sets

The components available for a change set vary by edition. These components are now available for change sets.

### **Email Service**

Represents an email service.

### **Lightning Community Template**

Represents a template used to create and export customized communities and to distribute custom components for others to use.

### **Lightning Community Theme**

Represents layouts and styles (colors, fonts, and images) to customize the appearance and structure of pages in a community. Community themes are pre-built (Customer Service, Partner Central, Customer Account Portal, and Build Your Own) or can be customized.

### **Lightning Message Channel**

Represents a secure channel to communicate across UI technologies (Lightning Web Components, Aura Components, and Visualforce).

**Managed Content Type**

Represents the definition of custom content types for use with Salesforce CMS. Custom content types are displayed as forms with defined fields.

**Whitelisted URL for Redirects**

Represents a whitelisted URL that users can navigate to without being shown a warning message.

## Development: Create Your Own Salesforce App

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Whether you're using Lightning components, Visualforce, Apex, or our APIs with your favorite programming language, these enhancements help you develop amazing applications, integrations, and packages for resale to other organizations.

**IN THIS SECTION:**

[Lightning Components: Simplified Reactivity, Style Lightning Web Components with Custom Aura Design Tokens, Source Tracking for Lightning Web Components in Scratch Orgs](#)

All fields in a Lightning web component are now reactive. Use a custom Aura design token in Lightning web components. Track changes for Lightning web components in a scratch org when you use Salesforce command-line interface (CLI). We improved controls for Content Security Policy (CSP) and we have several critical updates.

[Einstein Platform Services: Image Recognition and Natural Language Processing](#)

Not a data scientist or machine-learning expert, but still want to integrate AI into your apps? Use the Einstein Platform Services APIs to AI-enable your apps with image recognition and natural language processing. Using the Einstein Vision APIs, you can leverage pre-trained classifiers or train custom classifiers to solve an array of image recognition use cases. With the Einstein Language APIs, you can harness the power of natural language processing to analyze text and infer the sentiment or intent behind the text. Make your apps smarter and look like a genius at the same time.

[Einstein Platform: Prediction Insight Details](#)

Are you interested in expanding the way you use Einstein AI features, like Prediction Builder, in your org? Einstein Platform is the Salesforce layer that Prediction Builder and many other Einstein features use to run powerful AI jobs. Use new Einstein Platform APIs to access prediction insights and apply the power of Einstein features in your own AI solutions.

[Visualforce: Introducing Lightning Message Service \(Beta\), Type Checking for Remote Methods with ID Parameters](#)

Communicate across Visualforce, Aura, and Lightning Web Components with Lightning Message Service. Visualforce now checks that strings are properly formatted as valid Apex IDs in its JavaScript remoting tool.

**Apex**

Apex security features `WITH SECURITY_ENFORCED` and `Security.stripInaccessible` are now generally available. The new `System.Finalizer` interface (pilot) allows you to attach actions to queueable, asynchronous jobs. A critical update enables strict enforcement of Apex type visibility rules with the `Type.newInstance` method. The `getDescribe` method in the Schema namespace has a parameter that determines whether to front-load child relationships. Use the `toString` method to obtain the string representation of a Map, List, or Set class in the System namespace.

**API**

In API version 48.0, find related object documentation more easily, get a symbol table without non-global implementation details in managed packages, and use more API calls.

[Custom Metadata Types](#)

To better secure your data, we added new settings and enabled restrictions that allow you to protect potentially sensitive information.



[Salesforce CLI: Autocompletion, Enhanced DX Templates, Progress Bar, Code Coverage](#)

The Salesforce command-line interface (CLI) continues to evolve with more features and commands that support the Salesforce development models. Use it to create environments for development and testing, synchronize source code, run tests, and control the full application life cycle.

[Scratch Orgs: New Features](#)

A scratch org is a dedicated and configurable Salesforce environment that you can quickly spin up for many different purposes. It can be your own personal development environment, or you can create a headless scratch org for automated tests. You can create scratch orgs if you turned on Dev Hub in your production org or a Developer Edition org, or have a Dev Hub trial org. We continually add support for new features.

[Sandboxes: Enhanced Sandbox Cloning and Data Security](#)

More cloning options and increased data security are now available for sandboxes.

[AppExchange Partners: AppExchange App Analytics for Lightning Apps and Pages](#)

Learn how subscribers use your Lightning apps and pages by exploring AppExchange App Analytics data.

[Packaging: Faster Package Creation, New Skip Validation Option, and Changes to Flows and External Sharing Settings](#)

Now it takes less time to create or install package versions. You can skip validation when creating new package versions. And we made changes to flows in unlocked packages, and changes to the default external sharing settings that may affect your packages.

[Change Data Capture: More Object Support and Event Enrichment \(Pilot\)](#)

Receive change notifications for more objects, and enrich your event messages with fields (pilot).

[Platform Events: Encryption Support](#)

Enable the encryption of platform event messages in the event bus. Also, use a new REST API limit for accurate CometD event delivery usage.

[New and Changed Items for Developers](#)

Here is where you can find new and changed objects, calls, classes, components, commands, and more that help you customize Salesforce features.

## Lightning Components: Simplified Reactivity, Style Lightning Web Components with Custom Aura Design Tokens, Source Tracking for Lightning Web Components in Scratch Orgs

All fields in a Lightning web component are now reactive. Use a custom Aura design token in Lightning web components. Track changes for Lightning web components in a scratch org when you use Salesforce command-line interface (CLI). We improved controls for Content Security Policy (CSP) and we have several critical updates.



**Note:** Looking for [new and changed Lightning web components, Aura components, and Aura component interfaces](#)? We consolidated the lists of new and changed items at the end of the Development section.

### IN THIS SECTION:

#### [The @track Decorator Is No Longer Required for Lightning Web Components](#)

No more guessing about whether to use `@track` to make a field reactive. All fields in a Lightning web component class are reactive. If a field's value changes, and the field is used in a template or in a getter of a property that's used in a template, the component rerenders and displays the new value.

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When Lightning Data Service provisions a stream of data, there's no guarantee that the data is strictly equal (JavaScript's `===` operator), even when a wire adapter's configuration object is equivalent.

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A Lightning web component's CSS file can use a custom Aura token created in your org or installed from an unmanaged package. Tokens make it easy to ensure that your design is consistent, and even easier to update it as your design evolves.

### [Smarter Source Tracking for Lightning Web Components in Scratch Orgs](#)

Salesforce command-line interface (CLI) now tracks changes to Lightning web components in a scratch org. The CLI output lists any changes, and alerts you to any conflicts between your local project and a scratch org.

### [Lightning Base Components: Open Source](#)

Base components for the Lightning Web Components framework are now open source. Explore the source code and customize base components for your own apps.

### [Aura Components in the ui Namespace Are Deprecated](#)

We plan to end support for the deprecated components on May 1, 2021.

### [Aura's JavaScript API Reference Documentation Moved to the Developer Guide](#)

We retired the legacy Aura reference doc app, which housed the JavaScript API documentation. Find this information in the Reference section of the Lightning Aura Components Developer Guide instead. All the other information from the Aura reference doc app is already available in the Component Library, your hub for Lightning components documentation.

### [Manage Resource Loading for CSP Trusted Sites](#)

Control which resources a Lightning component can load from a Content Security Policy (CSP) Trusted Site. For example, you can allow the Lightning component to load images, style sheets, and fonts, but not audio or video from the site.

### [Use Components in Lightning Communities with Lightning Locker Disabled](#)

To enable components installed from a managed package to run in a community that has Lightning Locker disabled, in the component's configuration file, use the `lightningCommunity__RelaxedCSP` tag.

### [Navigate Users to a Record's Create Page with Default Field Values](#)

Use the new `lightning/pageReferenceUtils` module or `lightning:pageReferenceUtils` Aura component to build navigation links in your components that prepopulate a record's create page with default field values. Prepopulated values can accelerate data entry, improve data consistency, and otherwise make the process of creating a record easier.

### [Lightning Locker Sanitizes insertHTML Content](#)

Lightning Locker now sanitizes HTML that's inserted using `document.execCommand(insertHTML)` to remove potentially malicious executable script content.

### [Communicate Across Salesforce UI Technologies with Lightning Message Service \(Beta\)](#)

Use the Lightning Message Service API to communicate across the DOM, between Aura components, Visualforce pages, and Lightning web components. Lightning Message Service also enables communication between a component in a main Lightning page with one in a pop-out utility bar. If you're switching from Salesforce Classic to Lightning Experience, you can now build Lightning web components that can communicate with existing Visualforce pages or Aura components.

### [Increase Productivity with Local Development for Lightning Web Components \(Beta\)](#)

Lightning Web Components now offers Local Development so that you can build component modules and view your changes live without publishing your components to an org. Our new Salesforce CLI plugin `lwc-dev-server` configures and runs a Lightning Web Components-enabled server on your computer. You can access the local development server from the command line and the Lightning Web Components Extension for VS Code.

### [DOM API Changes May Require UI Test Updates](#)

The content and structure of HTML, CSS, and the DOM in Lightning Experience can change at any time and can't be considered a stable API. Automated UI tests that use tools like Selenium WebDriver to reach into component internals require your ongoing maintenance. We're here to help you adapt your automated UI tests for this release.

### [Update Attribute Values for Snapshots Created by Jest Tests](#)

When you create snapshots with Jest for testing Lightning web components, Lightning Web Components inserts placeholder values for some element attributes. This replacement may result in test failures because the attribute values change. Solve this problem with the `--updateSnapshot` command option.

### [Freeze JavaScript Prototypes Session Setting Removed](#)

The Freeze JavaScript Prototypes setting is removed from Session Settings. This experimental setting was introduced in Winter '19 and was disabled by default. When enabled by some customers, this setting caused issues in production orgs. We're exploring other ways to prevent modification of global JavaScript prototypes.

### [Install Linting in Salesforce DX Projects with Ease](#)

A Salesforce DX project's `package.json` file now includes the ESLint dependencies for Lightning Web Components. To install linting, run `npm install` in your project.

### [Critical Updates: Profile-Based Access for @AuraEnabled Apex Classes, and More](#)

We have several critical updates.

### [Security Alerts: Restricted Access to @AuraEnabled Apex Methods Based on User Profile](#)

We added a few security alerts.

SEE ALSO:

[Lightning Web Components Developer Guide](#)

[Lightning Aura Components Developer Guide](#)

## The `@track` Decorator Is No Longer Required for Lightning Web Components

No more guessing about whether to use `@track` to make a field reactive. All fields in a Lightning web component class are reactive. If a field's value changes, and the field is used in a template or in a getter of a property that's used in a template, the component rerenders and displays the new value.

**Where:** This change applies to Lightning web components in Lightning Experience and all versions of the Salesforce app.

**Why:** It was difficult for developers to know which fields to decorate with `@track`. When a field's value changed, developers couldn't easily predict when the component would re-render and display the new value.

**How:** The framework observes changes to a field's value, re-renders the component, and displays the new value. All expressions in the component are also evaluated. In fact, since all fields are reactive, we no longer need to use the term "reactive field."

Before Spring '20, to make a field reactive, you had to decorate it with `@track`. You see this approach used in older code samples, and it's still supported.

```
@track firstName = '';
```

Now, use the `@track` decorator only in one use case, which we explain later.

Let's look at some sample code. This component has two input fields: First Name and Last Name. When you enter a name in either field, the component converts it to uppercase and displays it.

```
<!-- helloExpressions.html -->
```

```

<template>
  <lightning-input
    name="firstName"
    label="First Name"
    onchange={handleChange}
  ></lightning-input>
  <lightning-input
    name="lastName"
    label="Last Name"
    onchange={handleChange}
  ></lightning-input>
  <p>
    Uppercased Full Name: {uppercasedFullName}
  </p>
</template>

```

The component's class defines the `firstName` and `lastName` fields. Like all fields as of Spring '20, they're reactive. Because they're used in the getter of a property that's used in the template (`uppercasedFullName`), the component rerenders when their values change.

```

// helloExpressions.js

import { LightningElement } from 'lwc';

export default class HelloExpressions extends LightningElement {
  firstName = '';
  lastName = '';

  handleChange(event) {
    const field = event.target.name;
    if (field === 'firstName') {
      this.firstName = event.target.value;
    } else if (field === 'lastName') {
      this.lastName = event.target.value;
    }
  }

  get uppercasedFullName() {
    return `${this.firstName} ${this.lastName}`.trim().toUpperCase();
  }
}

```

Before Spring '20, to make the component rerender when a user entered a first or last name, you had to decorate the fields with `@track`.

```

@track firstName = '';
@track lastName = '';

```

### Observe an Object's Properties or an Array's Elements

There is still one use case for `@track`. When a field contains an object or an array, there's a limit to the depth of changes that are tracked. To tell the framework to observe changes to the properties of an object or to the elements of an array, decorate the field with `@track`.

Without using `@track`, the framework observes changes that assign a new value to a field. If the new value is not `===` to the previous value, the component rerenders.

To understand, let's declare the `fullName` field, which contains an object with two properties, `firstName` and `lastName`.

```
fullName = { firstName : '', lastName : '' };
```

The framework observes changes that assign a new value to `fullName`. This code assigns a new value to the `fullName` field, so the component rerenders.

```
// Component rerenders.
this.fullName = { firstName : 'John', lastName : 'Doe' };
```

However, if we assign a new value to one of the object's properties, the component doesn't rerender because the properties aren't observed.

```
// Component doesn't rerender.
this.fullName.firstName = 'John';
```

The framework observes changes that assign a new value to the `fullName` field. This code doesn't do that, instead it assigns a new value to the `firstName` property of the `fullName` object.

To tell the framework to observe changes to the object's properties, decorate the `fullName` field with `@track`. Now if we change either property, the component rerenders.

```
// Component rerenders.
@track fullName = { firstName : '', lastName : '' };
this.fullName.firstName = 'John';
```



**Tip:** The `helloExpressions` code sample is from the [lwc-recipes GitHub repo](#). You can also experiment with similar code in playgrounds in the [open-source LWC Developer Guide](#).

## Wire Adapters Not Guaranteed to Emit Objects with Strict Equality

When Lightning Data Service provisions a stream of data, there's no guarantee that the data is strictly equal (JavaScript's `===` operator), even when a wire adapter's configuration object is equivalent.

**Where:** This change applies to Lightning web components in Lightning Experience and all versions of the Salesforce app.

**How:** Previously, specifying equivalent configuration values for wire adapters could result in the wire adapters provisioning strictly equal values, as denoted by JavaScript's `===` operator. The data that's provisioned is no longer guaranteed to be strictly equal. Lightning Data Service may generate a unique value to provision per wire adapter.

## Style Lightning Web Components with Custom Aura Design Tokens

A Lightning web component's CSS file can use a custom Aura token created in your org or installed from an unmanaged package. Tokens make it easy to ensure that your design is consistent, and even easier to update it as your design evolves.

**Where:** This change applies to Lightning web components in Lightning Experience and all versions of the Salesforce app.

**Why:** Capture the essential values of your visual design into custom Aura tokens. Define a token value once and reuse it in your Lightning component's CSS.

**How:** Create a custom Aura token in the Developer Console by creating a Lightning Tokens bundle. For example, this tokens bundle has a custom Aura token called `myBackgroundColor`.

```
<aura:tokens>
  <aura:token name="myBackgroundColor" value="#f4f6f9"/>
</aura:tokens>
```

Custom Aura tokens aren't new, but now you can use them in a Lightning web component's CSS file by using the standard `var()` CSS function. Prepend `--c-` to the custom Aura token.

```
// myLightningWebComponent.css
color: var(--c-myBackgroundColor);
```

SEE ALSO:

[Lightning Aura Components Developer Guide: Styling with Design Tokens](#)

## Smarter Source Tracking for Lightning Web Components in Scratch Orgs

Salesforce command-line interface (CLI) now tracks changes to Lightning web components in a scratch org. The CLI output lists any changes, and alerts you to any conflicts between your local project and a scratch org.

**Where:** This change applies to Lightning web components in scratch orgs.

**When:** This change is available in Salesforce CLI with `salesforcedx v48`, which releases on February 15, 2020. A pre-release version of `salesforcedx v48` is available on December 5, 2019.

**Why:** Until now, CLI commands tracked source changes for Lightning web components in a local project, but didn't track changes to Lightning web components in a scratch org.

**How:** We enhanced these CLI commands to support source tracking for Lightning web components in a scratch org and to report any conflicts.

**`sfdx force:source:pull`**

Pulls changed source from a scratch org to your project.

**`sfdx force:source:push`**

Pushes changed source from your project to a scratch org.

**`sfdx force:source:status`**

Tracks changes between your project and a scratch org.

SEE ALSO:

[Salesforce DX Developer Guide: Scratch Orgs](#)

## Lightning Base Components: Open Source

Base components for the Lightning Web Components framework are now open source. Explore the source code and customize base components for your own apps.

**Why:** You can use the base components source code to build custom components that meet your own requirements. The [Base Components Recipes GitHub repository](#) provides you read access to a subset of the components shown in the [Component Library](#). Components that are currently not available in open source contain internal dependencies and cannot be open sourced at this time. However, it is our long term goal to open source all base components.

**How:** We transpiled the base components from the `lightning` namespace to the `c` namespace. This gives you the freedom to use and change the `c` namespace base components however you like in your own projects. A `c` component can also contain components in the `lightning` namespace. To develop on-platform components using base components, see the [Salesforce Lightning Web Components Developer Guide](#). The off-platform usage for base components is currently experimental and isn't generally available yet.

## Aura Components in the `ui` Namespace Are Deprecated


We plan to end support for the deprecated components on May 1, 2021.

**Where:** This change applies to orgs with Lightning components in Lightning Experience, Salesforce Classic, and all versions of the Salesforce app.

**When:** Salesforce plans to end support for Aura components in the `ui` namespace on May 1, 2021. You can continue to use these components beyond May 1, 2021, but we won't accept support cases for them after that date.

**Why:** Retiring our legacy components enables us to focus on components that match the latest web standards in performance, accessibility, user experience, and internationalization.

**How:** Replace the deprecated components with their counterparts in the `lightning` namespace. These components are faster, more efficient, and they implement Lightning Design System styling out-of-the-box.

 **Note:** Components in the `lightning` namespace are available in two versions—as Aura components and Lightning web components. We recommend using Lightning web components whenever possible. Lightning web components are custom HTML elements built using HTML and modern JavaScript. Lightning web components and Aura components can coexist and interoperate on a page. To admins and end users, they both appear as Lightning components. See the [Lightning Web Components Developer Guide](#) for more information.

The deprecated Aura components and their recommended alternatives are listed as follows.

**`ui:actionMenuItem`**

Use `lightning:menuItem` with `lightning:buttonMenu` instead.

**`ui:button`**

Use `lightning:button`, `lightning:buttonIcon`, or `lightning:buttonIconStateful`. For button groups, use `lightning:buttonGroup`.

**`ui:checkboxMenuItem`**

Use `lightning:menuItem` with `lightning:buttonMenu` instead.

**`ui:inputCheckbox`**

Use `lightning:input` with `checkbox`, `toggle`, or `checkbox-button` type instead. For checkbox groups, use `lightning:checkboxGroup`.

**`ui:inputCurrency`**

Use `lightning:input` with `number` type and `currency` formatter instead.

**`ui:inputDate`**

Use `lightning:input` with `date` type instead.

**`ui:inputDateTime`**

Use `lightning:input` with `datetime` type instead.

**`ui:inputDefaultError`**

Use `lightning:input` with built-in field validation instead.

**`ui:inputEmail`**

Use `lightning:input` with `email` type instead.

**`ui:inputNumber`**

Use `lightning:input` with `number` type instead.

**`ui:inputPhone`**

Use `lightning:input` with `phone` type instead.

**`ui:inputRadio`**

Use `lightning:input` with `radio` type instead. For radio groups, use `lightning:radioGroup`.

**ui:inputRichText**

Use `lightning:inputRichText` instead.

**ui:inputSecret**

Use `lightning:input` with `password` type instead.

**ui:inputSelect**

Use `lightning:select` or `lightning:combobox` instead.

**ui:inputSelectOption**

Use `lightning:select` or `lightning:combobox` instead.

**ui:inputText**

Use `lightning:input` with `text` type instead.

**ui:inputTextArea**

Use `lightning:textarea` instead.

**ui:inputURL**

Use `lightning:input` with `url` type instead.

**ui:menu**

Use `lightning:buttonMenu` instead.

**ui:menuItem**

Use `lightning:menuItem` with `lightning:buttonMenu` instead.

**ui:menuItemSeparator**

Use `lightning:menuDivider` with `lightning:buttonMenu` instead.

**ui:menuList**

Use `lightning:buttonMenu` instead.

**ui:menuTrigger**

Use `lightning:buttonMenu` instead.

**ui:menuTriggerLink**

Use `lightning:buttonMenu` instead.

**ui:message**

Use `lightning:notificationsLibrary` instead.

**ui:outputCheckbox**

Use `lightning:input` with `checkbox` type and set `readonly` to `true`.

**ui:outputCurrency**

Use `lightning:formattedNumber` with `style` set to `currency`.

**ui:outputDate**

Use `lightning:formattedDateTime` instead.

**ui:outputDateTime**

Use `lightning:formattedDateTime` or `lightning:formattedTime` instead.

**ui:outputEmail**

Use `lightning:formattedEmail` instead.

**ui:outputNumber**

Use `lightning:formattedNumber` instead.

**ui:outputPhone**

Use `lightning:formattedPhone` instead.



**ui:outputRichText**

Use `lightning:formattedRichText` instead.

**ui:outputText**

Use `lightning:formattedText` instead.

**ui:outputTextArea**

Use `lightning:formattedText` instead.

**ui:outputURL**

Use `lightning:formattedUrl` instead.

**ui:radioMenuItem**

Use `lightning:menuItem` with `lightning:buttonMenu` instead.

**ui:spinner**

Use `lightning:spinner` instead.

## Aura's JavaScript API Reference Documentation Moved to the Developer Guide

We retired the legacy Aura reference doc app, which housed the JavaScript API documentation. Find this information in the Reference section of the Lightning Aura Components Developer Guide instead. All the other information from the Aura reference doc app is already available in the Component Library, your hub for Lightning components documentation.

**Where:** This change applies to Aura components in Lightning Experience, Salesforce Classic, and all versions of the Salesforce app.

SEE ALSO:

[Lightning Aura Components Developer Guide: Reference](#)

## Manage Resource Loading for CSP Trusted Sites

Control which resources a Lightning component can load from a Content Security Policy (CSP) Trusted Site. For example, you can allow the Lightning component to load images, style sheets, and fonts, but not audio or video from the site.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the mobile app in all editions.

**How:** From Setup, enter *CSP Trusted Sites* in the Quick Find box, then select **CSP Trusted Sites**. Click **Edit** for the Trusted Site you want to modify, then select the directives for which to whitelist the site.

SEE ALSO:

[Lightning Aura Components Developer Guide: Create CSP Trusted Sites to Access Third-Party APIs](#)

## Use Components in Lightning Communities with Lightning Locker Disabled

To enable components installed from a managed package to run in a community that has Lightning Locker disabled, in the component's configuration file, use the `lightningCommunity__RelaxedCSP` tag.

**Where:** This change applies to Lightning web components installed from a managed package that run in Lightning communities.

**Why:** When Lightning Locker is disabled in a community, only components with the `lightningCommunity__RelaxedCSP` capability are rendered at runtime and available in design time.

**How:** Add `lightningCommunity__RelaxedCSP` in the new `<capabilities>` tag of your Lightning web component's configuration file.

```
<capabilities>
  <capability>lightningCommunity__RelaxedCSP</capability>
</capabilities>
```

SEE ALSO:

[Switch Lightning Locker On and Off in the UI](#)

[Lightning Communities Developer Guide: Lightning Locker in Communities](#)

[Lightning Web Components Developer Guide: Configuration File Tags](#)

## Navigate Users to a Record's Create Page with Default Field Values

Use the new `lightning/pageReferenceUtils` module or `lightning:pageReferenceUtils` Aura component to build navigation links in your components that prepopulate a record's create page with default field values. Prepopulated values can accelerate data entry, improve data consistency, and otherwise make the process of creating a record easier.

**Where:** This change applies to Lightning Experience in all editions. This change doesn't apply to Lightning Out, Lightning communities, or the Salesforce mobile app.

**How:** This component provides utilities for encoding and decoding default field values. Pass this string into the new `pageReference.state.defaultFieldValues` attribute on `standard__objectPage` page reference types. Using

this component alongside the existing `lightning:navigation` component, you can launch a record's create page with prepopulated field values.

We recommend using `lightning/pageReferenceUtils` and `lightning/navigation` to navigate to a record's create page instead of `force:createRecord`.

SEE ALSO:

[Navigate to a Record's Create Page with Default Field Values](#)

## Lightning Locker Sanitizes `insertHTML` Content

Lightning Locker now sanitizes HTML that's inserted using `document.execCommand(insertHTML)` to remove potentially malicious executable script content.


**Where:** This change applies to Lightning Experience, Lightning Communities, and all versions of the mobile app in all editions.

## Communicate Across Salesforce UI Technologies with Lightning Message Service (Beta)

Use the Lightning Message Service API to communicate across the DOM, between Aura components, Visualforce pages, and Lightning web components. Lightning Message Service also enables communication between a component in a main Lightning page with one in a pop-out utility bar. If you're switching from Salesforce Classic to Lightning Experience, you can now build Lightning web components that can communicate with existing Visualforce pages or Aura components.

A Lightning web component uses a Lightning Message Channel to access the Lightning Message Service API. Reference Lightning Message Channel with the scoped module `@salesforce/messageChannel`. In Visualforce, use the global variable `$MessageChannel`. In Aura, use `lightning:messageChannel` in your component.

**Where:** This feature is available in Lightning Experience. To create a Lightning message channel, use Enterprise, Performance, Unlimited, and Developer editions.

 **Note:** As a beta feature, Lightning Message Service is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. Lightning Message Service is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Lightning Message Service in the Lightning Platform group in the [Trailblazer Community](#).

**Why:** In Lightning Experience, you often have multiple components on a page. Previously, if you wanted a Visualforce page to communicate with a Lightning web component in Lightning Experience, you needed to implement a custom publish-subscribe solution. Now, you can use the Lightning Message Service API to handle that communication.

**How:** Assuming you created a message channel called `SampleMessageChannel__c` using the Metadata API, here's how to subscribe a Visualforce page to a message channel on which a Lightning web component publishes.

Create a Lightning web component called `publisherComponent` that publishes on `SampleMessageChannel__c`, which is the API name of the message channel. The component imports methods to publish on a message channel from the `lightning/messageService` module. This module accesses the Lightning Message Service API. Next, import the message channel from `@salesforce/messageChannel/SampleMessageChannel__c` and assign it to the identifier `SAMPLEMC`.

The `handleClick()` method holds the data to be published on the message channel. Here, the data is a `recordId` with the value "some string" and `recordData`, whose value is the key-value pair value: "some data". Publish the data by calling the `publish()` method imported from the `lightning/messageService` module.

```
// publisherComponent.js
import { LightningElement, wire } from 'lwc';
import { publish, MessageContext } from 'lightning/messageService';
import SAMPLEMC from "@salesforce/messageChannel/SampleMessageChannel__c";

export default class PublisherComponent extends LightningElement {
  @wire(MessageContext)
  messageContext;

  handleClick() {
    const message = {
      recordId: "some string",
      recordData: {
        value: "some data"
      }
    };
    publish(this.messageContext, SAMPLEMC, message);
  }
}
```

In your component's HTML template file, include a **Publish** button that calls the `handleClick()` method. Clicking the button publishes the record data to `SampleMessageChannel__c`. The subscribing Visualforce page then receives that data.

```
<-- publisherComponent.html -->
<template>
  <lightning-card title="MyLwcPublisher" icon-name="custom:custom14">
    <div class="slds-m-around_medium">
      <p>MessageChannel: SampleMessageChannel</p>
      <br>
      <lightning-button label="Publish" onclick={handleClick}></lightning-button>
    </div>
  </lightning-card>
</template>
```

Here's how to subscribe and unsubscribe a Visualforce page from a message channel `SampleMessageChannel__c` on which a Lightning web component publishes.

```
<apex:page>
  <div>
    <p>Subscribe to SampleMessageChannel</p>
    <button onclick="subscribeMC()">Subscribe</button>
    <p>Unsubscribe from SampleMessageChannel</p>
    <button onclick="unsubscribeMC()">Unsubscribe</button>
    <br/>
    <br/>
    <p>Received message:</p>
    <textarea id="MCMessageTextArea" rows="10"
style="disabled:true;resize:none;width:100%;"/>
  </div>
  <script>
    // Load the MessageChannel token in a variable
```


```

var SAMPLEMC = "{!$MessageChannel.SampleMessageChannel__c}";
var subscriptionToMC;
// Display message in the textarea field
function onMCPublished(message) {
    var textArea = document.querySelector("#MCMessageTextArea");
    textArea.innerHTML = message ? JSON.stringify(message, null, '\t') : 'no message
payload';
}

function subscribeMC() {
    if (!subscriptionToMC) {
        subscriptionToMC = sforce.one.subscribe(SAMPLEMC, onMCPublished, {scope:
"APPLICATION"});
    }
}

function unsubscribeMC() {
    if (subscriptionToMC) {
        sforce.one.unsubscribe(subscriptionToMC);
        subscriptionToMC = null;
    }
}
</script>
</apex:page>

```

 **Important:** If you worked with Lightning Message Service in developer preview, note the following breaking change in the beta release. The Lightning Message Service API's `subscribe()` method now includes a `scope` parameter. By setting the scope to application, the subscribing component can receive messages on a message channel from anywhere in the application. Application is the only available value. Here are the updated method signatures for `subscribe()`.

#### Visualforce

```
subscribe(channelName, listenerMethod, {scope: "APPLICATION"})
```

#### Aura

```
<lightning:messageChannel onMessage="{!c.listenerMethod}" scope="APPLICATION"/>
```

#### Lightning Web Components

```
subscribe(messageContext, channelName, listenerMethod, {scope: APPLICATION_SCOPE})
```

See the developer guides for more information.

#### SEE ALSO:

[Lightning Web Components Developer Guide \(can be outdated or unavailable during release preview\)](#)

[Lightning Aura Components Developer Guide \(can be outdated or unavailable during release preview\)](#)


[Visualforce Developer Guide \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Using Pop-Out Utilities](#)

## Increase Productivity with Local Development for Lightning Web Components (Beta)

Lightning Web Components now offers Local Development so that you can build component modules and view your changes live without publishing your components to an org. Our new Salesforce CLI plugin `lwc-dev-server` configures and runs a Lightning Web Components-enabled server on your computer. You can access the local development server from the command line and the Lightning Web Components Extension for VS Code.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Enterprise, Performance, Unlimited, and Developer editions.

 **Note:** Local Development is in beta and has been released early so we can collect your feedback. It may contain significant problems, undergo major changes, or be discontinued. If you encounter any problems, or want to request an enhancement, open a [GitHub issue](#). The use of this feature is governed by the [Salesforce.com Program Agreement](#).

**How:** To install the local development server, make sure that you have the Salesforce CLI installed, a Developer Hub-enabled org, and the most recent stable version of Chrome, Firefox, Safari, or Edge web browser.

### Install the Local Development Server

1. Open a new terminal window and run the following command to install the local development server.

```
sfdx plugins:install @salesforce/lwc-dev-server
```

2. Check for updates to the local development server.

```
sfdx plugins:update
```

3. Navigate to your SFDX project, or clone one that has Lightning web components. In this example, we use `lwc-recipes`.

```
git clone git@github.com:trailheadapps/lwc-recipes.git
```

4. If you're not in the `lwc-recipes` root directory already, `cd` into it.

```
cd lwc-recipes
```


5. Add the `.localdevserver` folder in your SFDX project to your `.gitignore` file. This folder contains the local development configuration. Don't modify files inside this folder.
6. Authorize a Developer Hub (Dev Hub) by following the steps in [Enable Dev Hub In Your Org](#) in the *Salesforce DX Developer Guide*. A Dev Hub is the main Salesforce org that you and your team use to create and manage your scratch orgs, which are temporary environments for developing on the Salesforce platform. You need a Dev Hub to create a scratch org in a later step.
7. Following the instructions in the *Salesforce DX Developer Guide*, log in using your Dev Hub credentials. Running the following command opens a login window in your browser.

```
sfdx force:auth:web:login -d -a myhuborg
```

8. In local development, requests to Lightning Data Service and Apex go to scratch orgs, similar to how they go to your production org. To create a scratch org, run this command from the command line.

```
sfdx force:org:create -s -f config/project-scratch-def.json -a "LWC"
```

"LWC" is an alias for the scratch org that you can use in other Salesforce CLI commands.

 **Note:** Don't connect to a production Salesforce org with the local development server. Local development uses data in real time. If you authenticate to a production org, then you will modify or overwrite data in production.

To create a scratch org, specify a scratch org definition file. This example uses the scratch org definition file, `project-scratch-def.json` that is included in `lwc-recipes`. For other projects, create your own. For more information, see the instructions for [Create Scratch Orgs](#) in the *Salesforce DX Developer Guide*.

9. Push your code to your scratch org.

```
sfdx force:source:push
```

10. Start the server.

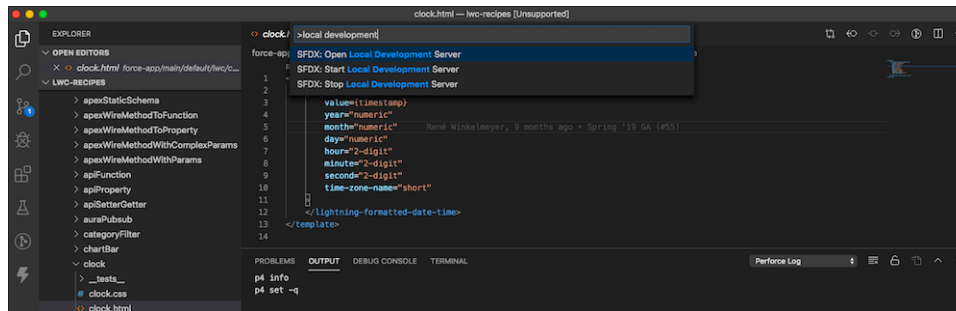
```
sfdx force:lightning:lwc:start
```

11. View the server at <http://localhost:3333/>.

For more information on local development commands, view the local development documentation by running `sfdx force:lightning:lwc:commandName --help`.

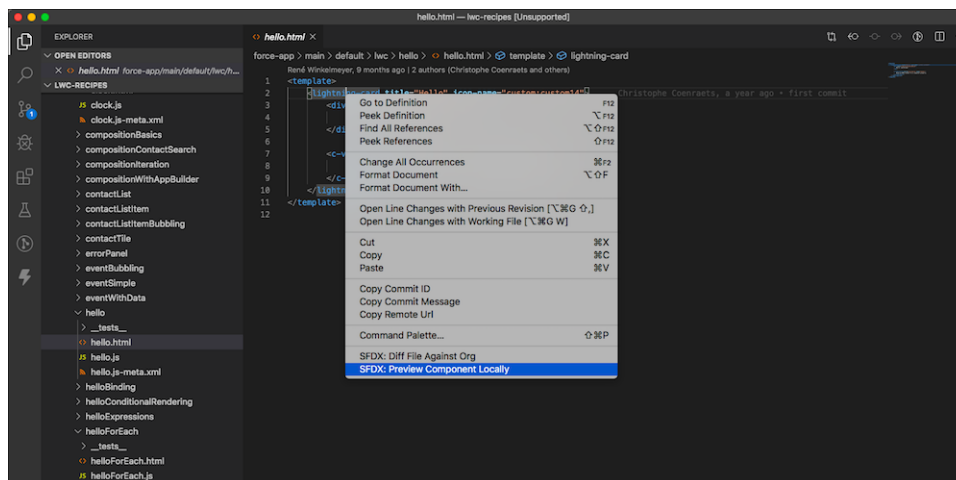
## Access the Local Development Server from VS Code

You can access the local development server's SFDX commands from VS Code's command palette by pressing **command + shift + p**. By typing in "local development," all three commands are visible.

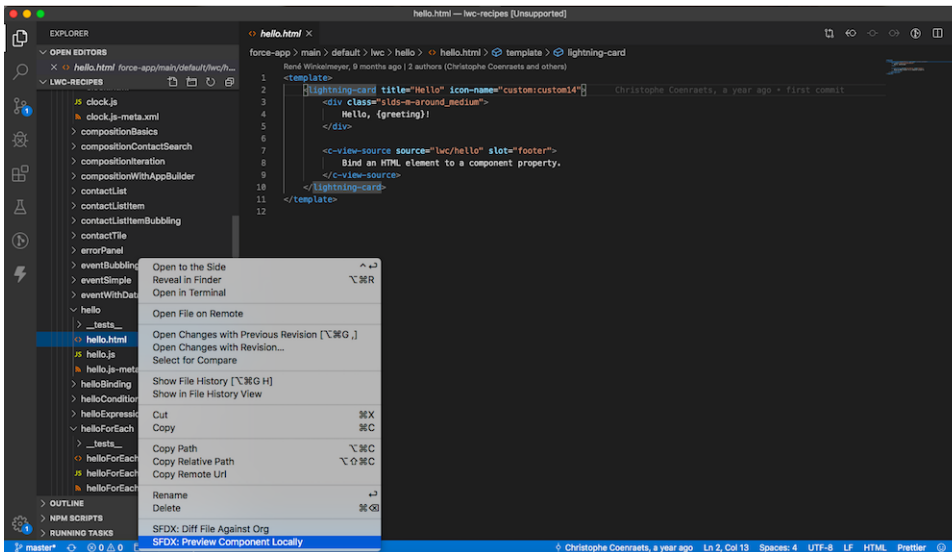


To preview Lightning web components, right-click any line of code in the component's HTML, CSS, or JavaScript files. You can also right-click any of the HTML, CSS, or JavaScript filenames or the component folder.

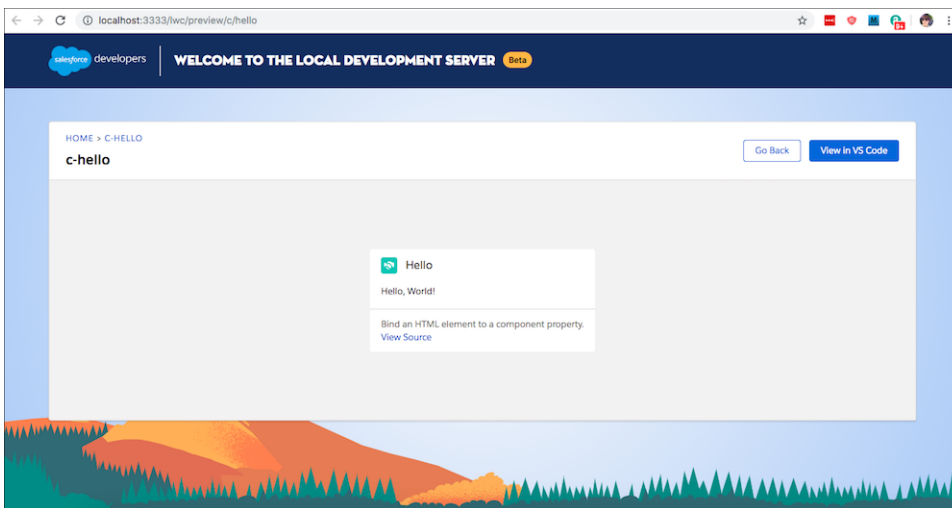
Preview `c-hello` from the HTML code.



Preview `c-hello` from the HTML file.



Here's a preview of the component on the local development server.



SEE ALSO:

[Salesforce Extensions for Visual Studio Code: Local Development \(Beta\)](#)

[Lightning Web Components Developer Guide: Develop Locally](#)

[Salesforce DX Setup Guide: Install the Salesforce CLI](#)



## DOM API Changes May Require UI Test Updates

The content and structure of HTML, CSS, and the DOM in Lightning Experience can change at any time and can't be considered a stable API. Automated UI tests that use tools like Selenium WebDriver to reach into component internals require your ongoing maintenance. We're here to help you adapt your automated UI tests for this release.

**Why:** We're calling out the fragility of these tests due to changes as Lightning Experience continues to evolve with modern web standards. We understand the value that you gain from automated UI testing, and the maintenance burden these changes put on you. Salesforce has never guaranteed backward-compatible HTML, CSS, or DOM.

**How:** If your UI tests from the previous release have issues, see [this knowledge article](#), which includes steps and a custom tool to help you fix them.

## Update Attribute Values for Snapshots Created by Jest Tests

When you create snapshots with Jest for testing Lightning web components, Lightning Web Components inserts placeholder values for some element attributes. This replacement may result in test failures because the attribute values change. Solve this problem with the `--updateSnapshot` command option.

**Why:** We're making it easier to avoid test failures when snapshot testing your UI with Jest. The rendered values of a UI element's attributes can change depending on the ordering of tests or component refactoring by other components or by Lightning Web Components. This refactoring includes changes to attributes such as `id`, `for`, `href`, the set of ARIA attributes that reference id values, and more.

**How:** Lightning Web Components replaces these values with stable placeholders. For example, an attribute id value, which formerly appeared as a transformed value, now appears as a placeholder such as `id="[shadow:guid]"`. Jest can automatically update snapshots to replace the placeholders if you pass the `--updateSnapshot` or `-u` option to the test command, so you don't have to keep editing the values.

```
jest --updateSnapshot -t="ColorPicker"
```

For more information, see [Jest CLI Options](#).

## Freeze JavaScript Prototypes Session Setting Removed

The Freeze JavaScript Prototypes setting is removed from Session Settings. This experimental setting was introduced in Winter '19 and was disabled by default. When enabled by some customers, this setting caused issues in production orgs. We're exploring other ways to prevent modification of global JavaScript prototypes.

**Where:** This change applies to orgs with Lightning components in Lightning Experience, Salesforce Classic, and all versions of the mobile app.

## Install Linting in Salesforce DX Projects with Ease

A Salesforce DX project's `package.json` file now includes the ESLint dependencies for Lightning Web Components. To install linting, run `npm install` in your project.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Enterprise, Performance, Unlimited, and Developer editions.

**How:**

### Install Linting in a New Project

1. Create a Salesforce DX project using the `sfdx force:project:create` command or using the **SFDX: Create Project** Visual Studio Code command.

The project contains a `package.json` file with `eslint-config-lwc` and `eslint` included in `devDependencies`. The `eslint-config-lwc` includes a dependency on `eslint-plugin-lwc` in its own `package.json` file. When you install `eslint-config-lwc`, `eslint-plugin-lwc` installs as well.

2. To install the linting packages and all the dependencies in `package.json`, run `npm install` on your project directory.

## Install Linting in an Existing Project

1. Verify that your project has a `package.json` file with these configurations. If it doesn't, run `npm install eslint @salesforce/eslint-config-lwc --save-dev` in your project directory.

```
"scripts": {
  "lint": "npm run lint:lwc",
  "lint:lwc": "eslint force-app/main/default/lwc"
}

"devDependencies": {
  "@salesforce/eslint-config-lwc": "0.4.0",
  "eslint": "^5.16.0"
}
```

2. If your project doesn't have a `package.json` file, copy this [package.json template](#), and add it to your project directory. Run `npm install`.
3. Verify that your project has this [.eslintignore](#) file. This file specifies which files not to lint. If your project doesn't have it, add it to your project directory.
4. Verify that your project has this [.eslintrc.json](#) file. This file specifies your linting configuration level. If your project doesn't have it, add it to your `/force-app/main/default/lwc` directory.

### SEE ALSO:

[Salesforce Extensions for Visual Studio Code: Linting](#)

[Lightning Web Components Developer Guide: Set Up Editor, Linter, Org](#)

## Critical Updates: Profile-Based Access for @AuraEnabled Apex Classes, and More

We have several critical updates.

### IN THIS SECTION:

#### [API Only Users Can Access Only Salesforce APIs \(Critical Update, Enforced\)](#)

API Only Users Can Access Only Salesforce APIs was a critical update in Spring '19 and is enforced in Spring '20. If a user has the API Only User permission, they can access Salesforce only via APIs, regardless of their other permissions. This restriction already applies to other Salesforce features, but this critical update enforces the restriction in Lightning Out.

#### [Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile \(Critical Update, Postponed\)](#)

This critical update is postponed to Winter '21. It was scheduled for auto-activation in Spring '20. This critical update gives you more control over which guest, portal, or community users can access Apex classes containing `@AuraEnabled` methods. Add guest user profile access to any `@AuraEnabled` Apex class used by a community or portal. When this critical update is activated, a guest, portal, or community user can access an `@AuraEnabled` Apex method only when the user's profile or an assigned permission set allows access to the Apex class.

[Use with sharing for @AuraEnabled Apex Controllers with Implicit Sharing \(Critical Update, Postponed\)](#)

This critical update is postponed to Spring '21. It was scheduled for auto-activation in Spring '20. This critical update changes the behavior of `@AuraEnabled` Apex controllers that don't specify `with sharing` or `without sharing` to default to `with sharing`. This critical update applies only to orgs created after Spring '18 or orgs that activated the retired "Use without sharing for @AuraEnabled Apex Controllers with Implicit Sharing" critical update that had the opposite effect and set the default to `without sharing`. Orgs created before Spring '18 already default to `with sharing`. Those orgs don't see the critical update unless they enabled the now retired `without sharing` critical update.

[Disable Access to Non-global Apex Controller Methods in Managed Packages \(Critical Update, Postponed\)](#)

This critical update is postponed to Summer '21. Released in Summer '17, it was scheduled for auto-activation in Winter '20. The critical update corrects access controls on Apex controller methods in managed packages. When this update is enabled, only methods marked with the `global` access modifier are accessible by Aura components from outside the package namespace. These access controls prevent you from using unsupported API methods that the package author didn't intend for global access.

[Enable Dependency Access Checks In Lightning Components \(Critical Update, Postponed\)](#)

This critical update is postponed to Winter '21. It was scheduled for auto-activation in Summer '20. This critical update improves Lightning component access checks by checking the access level of all component dependencies. A dependency is any resource used within a top-level component. For example, a component can use or extend another component in its markup or implement an interface.

[Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile \(Critical Update, Postponed\)](#)

This critical update is postponed to Winter '21. It was scheduled for auto-activation in Summer '20. This critical update gives you more control over which authenticated users can access Apex classes containing `@AuraEnabled` methods. When this critical update is activated, an authenticated user can access an `@AuraEnabled` Apex method only when the user's profile or an assigned permission set allows access to the Apex class.

[Enforce Access Modifiers on Apex Properties in Lightning Component Markup \(Critical Update, Postponed\)](#)

This critical update is postponed to Summer '21. It was scheduled for auto-activation in Summer '20. This critical update makes Lightning components consistent with the use of Apex properties in other contexts. For example, a markup expression can no longer access an Apex property with a private Apex getter. This critical update was first made available in Winter '20.

[Prevent Creation of Function Expressions in Dynamically Created Aura Components \(Previously Released Critical Update\)](#)

To improve security and stability, this critical update prevents attribute values passed to `$.createComponent()` or `$.createComponents()` from being interpreted as Aura function expressions. This critical update was first made available in Summer '19.

## API Only Users Can Access Only Salesforce APIs (Critical Update, Enforced)

API Only Users Can Access Only Salesforce APIs was a critical update in Spring '19 and is enforced in Spring '20. If a user has the API Only User permission, they can access Salesforce only via APIs, regardless of their other permissions. This restriction already applies to other Salesforce features, but this critical update enforces the restriction in Lightning Out.

**Where:** This change applies only to Lightning Out.

**When:** This critical update will be automatically activated when your sandbox or production org is upgraded to Spring '20. Since auto-activation doesn't happen on one specific date for all orgs, you can ignore the Auto-Activation Date listed on the Critical Updates page in Setup.

**Who:** This change affects users with the API Only User permission.

SEE ALSO:

[Critical Updates and Security Alerts](#)

[Lightning Aura Components Developer Guide: Add Aura Components to Any App with Lightning Out \(Beta\)](#)

## Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile (Critical Update, Postponed)

This critical update is postponed to Winter '21. It was scheduled for auto-activation in Spring '20. This critical update gives you more control over which guest, portal, or community users can access Apex classes containing @AuraEnabled methods. Add guest user profile access to any @AuraEnabled Apex class used by a community or portal. When this critical update is activated, a guest, portal, or community user can access an @AuraEnabled Apex method only when the user's profile or an assigned permission set allows access to the Apex class.

**Where:** This change applies to Aura components, Lightning web components, and flows in Lightning communities, portals, and Salesforce Sites.

**When:** This critical update is enforced when a sandbox or production org is upgraded to Winter '21. Enforcement starts on August 9, 2020 and takes effect when your instance is upgraded to Winter '21. To find the exact activation date for your instance, refer to <https://status.salesforce.com>.

**Why:** When this critical update is activated, a guest, portal, or community user can access an @AuraEnabled Apex method only when the user's profile or a permission set allows access to the Apex class. This critical update enforces user profile and permission set restrictions for Apex classes used by Aura and Lightning web components.

 **Note:** To enable access to a public Apex controller that's part of a managed package, a subscriber org must use a permission set. You can't enable access to a public Apex controller from a managed package using a user profile.

**How:** To test this critical update, we recommend working in a sandbox to complete testing before the initial enforcement date of August 9, 2020, which is the Auto-Activation Date in the UI. After August 9, you can no longer activate or deactivate the critical update and you can test behavior only in a sandbox that's already been upgraded to Winter '21. If you don't activate the critical update before May 7, it will be automatically activated when your instance is upgraded to Winter '21.

1. From Setup, enter *Critical Updates* in the Quick Find box.
2. Select **Critical Updates**.
3. Review the details for the "Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile" critical update.
4. Click **Activate**.
5. Test that custom Aura components, Lightning web components, and flows that you've developed are working correctly for guest, portal, and community users.

### SEE ALSO:

[Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile \(Critical Update, Postponed\)](#)

[Apex Developer Guide: Class Security](#)

[Salesforce Help: Configure the Guest User Profile](#)

[Critical Updates and Security Alerts](#)

## Use with sharing for @AuraEnabled Apex Controllers with Implicit Sharing (Critical Update, Postponed)

This critical update is postponed to Spring '21. It was scheduled for auto-activation in Spring '20. This critical update changes the behavior of @AuraEnabled Apex controllers that don't specify `with sharing` or `without sharing` to default to `with sharing`. This critical update applies only to orgs created after Spring '18 or orgs that activated the retired "Use without sharing for @AuraEnabled Apex Controllers with Implicit Sharing" critical update that had the opposite effect and set the default to `without sharing`. Orgs created before Spring '18 already default to `with sharing`. Those orgs don't see the critical update unless they enabled the now retired `without sharing` critical update.

**Where:** This change applies to Aura and Lightning web components in Lightning Experience, Salesforce Classic, Lightning communities, and all versions of the Salesforce app.

**When:** This critical update is enforced when a sandbox or production org is upgraded to Spring '21. Enforcement starts on November 29, 2020 and takes effect when your instance is upgraded to Spring '21. To find the exact activation date for your instance, refer to <https://status.salesforce.com>.

**Why:** An @AuraEnabled Apex class that doesn't explicitly set `with sharing` or `without sharing` uses a default or implicit value of `with sharing`. The purpose of the retired "Use without sharing for @AuraEnabled Apex Controllers with Implicit Sharing" critical update was to make Apex controllers for Aura components default to `without sharing`. This behavior made Apex controllers consistent in Aura components and Visualforce pages.

After further consideration, we decided to ensure that Lightning components are secure by default. So we created this new critical update that defaults to `with sharing` for @AuraEnabled Apex classes used by Aura components or Lightning web components.

Apex classes generally run in system mode. Consequently, the current user's credentials aren't used to execute Apex logic, and the user's permissions and field-level security aren't automatically applied.

You can choose whether an Apex class enforces sharing rules by using the `with sharing` or `without sharing` keywords. Enforcing sharing rules by using the `with sharing` keyword doesn't enforce the user's permissions and field-level security. You must manually enforce CRUD permissions and field-level security separately in your Apex classes.

**How:** The best way to prepare for this critical update is to ensure that all your @AuraEnabled Apex code explicitly controls sharing behavior using the `with sharing` or `without sharing` keywords. If all your @AuraEnabled code explicitly sets sharing behavior, this critical update has no effect.

To test this critical update, we recommend working in a sandbox to complete testing before the initial enforcement date of November 29, 2020, which is the Auto-Activation Date in the UI. After November 29, you can no longer activate or deactivate the critical update and you can test behavior only in a sandbox that's already been upgraded to Spring '21. If you don't activate the critical update before November 29, it will be automatically activated when your instance is upgraded to Spring '21.

1. From Setup, enter *Critical Updates* in the Quick Find box.
2. Select **Critical Updates**.
3. Review the details for the "Use with sharing for @AuraEnabled Apex Controllers with Implicit Sharing" critical update.
4. Click **Activate**.
5. Test the behavior of components that use Apex classes that don't include the `with sharing` or `without sharing` keywords.

SEE ALSO:

[Apex Developer Guide: Enforcing Sharing Rules](#)

[Winter '20 Release Notes: Use without sharing for @AuraEnabled Apex Controllers with Implicit Sharing \(Critical Update, Retired\)](#)

## Disable Access to Non-`global` Apex Controller Methods in Managed Packages (Critical Update, Postponed)

This critical update is postponed to Summer '21. Released in Summer '17, it was scheduled for auto-activation in Winter '20. The critical update corrects access controls on Apex controller methods in managed packages. When this update is enabled, only methods marked with the `global` access modifier are accessible by Aura components from outside the package namespace. These access controls prevent you from using unsupported API methods that the package author didn't intend for global access.


**Where:** This change applies to orgs with Aura components in Lightning Experience, Salesforce Classic, and all versions of the Salesforce app.

**When:** This critical update is enforced when a sandbox or production org is upgraded to Summer '21. Enforcement starts on April 4, 2021 and takes effect when your instance is upgraded to Summer '21. To find the exact activation date for your instance, refer to <https://status.salesforce.com>.

**Why:** When added to a managed package, only Apex controller methods marked `global` are accessible by Aura components outside of that managed package's namespace. Methods marked `public` in their Apex definitions are accessible only to Aura components included in the package's namespace. When this critical update is enabled, these rules are enforced.

Prior to this update, Aura components outside of the package namespace could access non-`global` methods (Apex controller methods not marked with the `global` access modifier).

When this update is enabled, if your code incorrectly depends on non-`global` Apex methods in a managed package, server actions that call those methods fail. Update your code to use only the supported API methods provided by the package as `global` methods.

 **Note:** An Aura component outside the package can access a public Apex method installed from a non-namespaced unlocked package. The Aura component can be installed from another package or created in the org. For accessing Apex methods, a non-namespaced unlocked package is treated the same as an unmanaged package.

**How:** To test this critical update, we recommend working in a sandbox to complete testing before the initial enforcement date of April 4, 2021, which is the Auto-Activation Date in the UI. After April 4, you can no longer activate or deactivate the critical update and you can test behavior only in a sandbox that's already been upgraded to Summer '21. If you don't activate the critical update before April 4, it will be automatically activated when your instance is upgraded to Summer '21.

1. From Setup, enter *Critical Updates* in the Quick Find box.
2. Select **Critical Updates**.
3. Review the details for the "Disable Access to Non-`global` Controller Methods in Managed Packages" critical update.
4. Click **Activate**.
5. Test that your custom Aura components are working correctly.

SEE ALSO:

[Critical Updates and Security Alerts](#)

## Enable Dependency Access Checks In Lightning Components (Critical Update, Postponed)

This critical update is postponed to Winter '21. It was scheduled for auto-activation in Summer '20. This critical update improves Lightning component access checks by checking the access level of all component dependencies. A dependency is any resource used within a top-level component. For example, a component can use or extend another component in its markup or implement an interface.

**Where:** This change applies to Aura components and Lightning web components in Lightning Experience, Salesforce Classic, Lightning communities, and all versions of the Salesforce app.

**When:** This critical update is enforced when a sandbox or production org is upgraded to Winter '21. Enforcement starts on August 9, 2020 and takes effect when your instance is upgraded to Winter '21. To find the exact activation date for your instance, refer to <https://status.salesforce.com>.

**Why:** Aura enables you to control access to your applications, attributes, components, events, interfaces, and methods via the `access` system attribute. The `access` system attribute indicates whether the resource can be used outside of its own namespace. An Aura or Lightning web component can also require a permission to access the component.

When the critical update is activated, the framework checks the access allowed for the top-level component and each component dependency, including any permissions needed to access each component. When the critical update isn't activated, the framework checks access for the top-level component only.

**How:** To test this critical update, we recommend working in a sandbox to complete testing before the initial enforcement date of August 9, 2020, which is the Auto-Activation Date in the UI. After August 9, you can no longer activate or deactivate the critical update and you can test behavior only in a sandbox that's already been upgraded to Winter '21. If you don't activate the critical update before August 9, it will be automatically activated when your instance is upgraded to Winter '21.

1. From Setup, enter *Critical Updates* in the Quick Find box.
2. Select **Critical Updates**.
3. Review the details for the "Enable Dependency Access Checks in Lightning Components" critical update.
4. Click **Activate**.
5. If you have installed any packages that contain a Lightning component, upgrade to the latest version.
6. Test that your custom Lightning components are working correctly.

SEE ALSO:

[Lightning Aura Components Developer Guide: Controlling Access](#)


## Restrict Access to `@AuraEnabled` Apex Methods for Authenticated Users Based on User Profile (Critical Update, Postponed)

This critical update is postponed to Winter '21. It was scheduled for auto-activation in Summer '20. This critical update gives you more control over which authenticated users can access Apex classes containing `@AuraEnabled` methods. When this critical update is activated, an authenticated user can access an `@AuraEnabled` Apex method only when the user's profile or an assigned permission set allows access to the Apex class.

**Where:** This change applies to Aura components, Lightning web components, and flows in Lightning Experience, Salesforce Classic, Lightning communities, and all versions of the Salesforce app.

**When:** This critical update is enforced when a sandbox or production org is upgraded to Winter '21. Enforcement starts on August 9, 2020 and takes effect when your instance is upgraded to Winter '21. To find the exact activation date for your instance, refer to <https://status.salesforce.com>.

**Why:** This critical update enforces user profile and permission set restrictions for Apex classes used by Aura and Lightning web components.

 **Note:** To enable access to a `public` Apex controller that's part of a managed package, a subscriber org must use a permission set. You can't enable access to a `public` Apex controller from a managed package using a user profile.

**How:** To test this critical update, we recommend working in a sandbox to complete testing before the initial enforcement date of August 9, 2020, which is the Auto-Activation Date in the UI. After August 9, you can no longer activate or deactivate the critical update and you can test behavior only in a sandbox that's already been upgraded to Winter '21. If you don't activate the critical update before August 9, it will be automatically activated when your instance is upgraded to Winter '21.

1. From Setup, enter *Critical Updates* in the Quick Find box.

2. Select **Critical Updates**.
3. Review the details for the “Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile” critical update.
4. Click **Activate**.
5. Test that custom Aura components, Lightning web components, and flows that you’ve developed are working correctly for authenticated users.

## SEE ALSO:

[Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile \(Critical Update, Postponed\)](#)

[Apex Developer Guide: Class Security](#)

[Critical Updates and Security Alerts](#)

## Enforce Access Modifiers on Apex Properties in Lightning Component Markup (Critical Update, Postponed)

This critical update is postponed to Summer '21. It was scheduled for auto-activation in Summer '20. This critical update makes Lightning components consistent with the use of Apex properties in other contexts. For example, a markup expression can no longer access an Apex property with a private Apex getter. This critical update was first made available in Winter '20.

**Where:** This change applies to Aura and Lightning web components in Lightning Experience, Salesforce Classic, Lightning communities, and all versions of the Salesforce app.

**When:** This critical update is enforced when a sandbox or production org is upgraded to Summer '21. Enforcement starts on April 4, 2021 and takes effect when your instance is upgraded to Summer '21. To find the exact activation date for your instance, refer to <https://status.salesforce.com>.

**Why:** Let’s look at an example for an Apex class with a private getter for a `counter` class property.

```
public class EnforcePrivateGetter {
    @AuraEnabled

    public Integer counter { private get; set; }

    @AuraEnabled
    public static EnforcePrivateGetter GetRepro2()
    {
        EnforcePrivateGetter result = new EnforcePrivateGetter();
        result.counter = 2;
        return result;
    }
}
```

With the critical update enabled, this Aura component can’t access the `private` getter with the `{!v.apexObject.counter}` expression. The same restriction applies for a Lightning web component.

```
<aura:component controller="EnforcePrivateGetter" access="global">
    <aura:handler name="init" value="{!this}" action="{!c.doInit}"/>

    <aura:attribute type="EnforcePrivateGetter" name="apexObject" />

    counter = {!v.apexObject.counter} <br></br>
</aura:component>
```



Here's the JavaScript controller.

```
({
  doInit : function(cmp, ev) {
    var action = cmp.get("c.GetRepro2");

    action.setCallback(this, function(response) {
      var state = response.getState();
      if (state === "SUCCESS") {
        cmp.set('v.apexObject', response.getReturnValue());
      }
      else if (state === "ERROR") {
        console.log('Error : ' + JSON.stringify(errors));
      }
    });
    $A.enqueueAction(action);
  }
})
```

With the critical update enabled, the fix is to remove the `private` access modifier on the getter and change the class variable definition to:

```
public Integer counter { get; set; }
```

To make an Apex property readable outside the Apex class, the property can't have a `private` or `protected` access modifier.

**How:** To test this critical update, we recommend working in a sandbox to complete testing before the initial enforcement date of April 4, 2021, which is the Auto-Activation Date in the UI. After April 4, you can no longer activate or deactivate the critical update and you can test behavior only in a sandbox that's already been upgraded to Summer '21. If you don't activate the critical update before April 4, it will be automatically activated when your instance is upgraded to Summer '21.

1. From Setup, enter *Critical Updates* in the Quick Find box.
2. Select **Critical Updates**.
3. Review the details for the "Enforce Access Modifiers on Apex Properties in Lightning Component Markup" critical update.
4. Click **Activate**.
5. Test the behavior of components that use Apex classes with `private` or `protected` access modifiers on getters.

SEE ALSO:

[Critical Updates and Security Alerts](#)

## Prevent Creation of Function Expressions in Dynamically Created Aura Components (Previously Released Critical Update)

To improve security and stability, this critical update prevents attribute values passed to `$A.createComponent()` or `$A.createComponents()` from being interpreted as Aura function expressions. This critical update was first made available in Summer '19.

**Where:** This change applies to orgs with Lightning components in Lightning Experience, Salesforce Classic, and all versions of the Salesforce app.

**When:** Salesforce will automatically activate this critical update on the auto-activation date listed on the Critical Updates page in Setup.

**Why:** When the critical update is activated, using the key-value pair `{ "exprType": "FUNCTION" }` in an object passed as an attribute value to `$.createComponent()` or `$.createComponents()` throws an error instead of triggering unpredictable behavior.

**How:** To test this critical update, we recommend working in a sandbox.

1. From Setup, enter *Critical Updates* in the Quick Find box.
2. Select **Critical Updates**.
3. Review the details for the "Prevent Creation of Function Expressions When Using `$.createComponent()` or `$.createComponents()` in Aura Components" critical update.
4. Click **Activate**.
5. Test that custom Aura components that you've developed are working correctly.

SEE ALSO:

[Lightning Aura Components Developer Guide: Dynamically Creating Components Critical Updates and Security Alerts](#)

## Security Alerts: Restricted Access to `@AuraEnabled` Apex Methods Based on User Profile

We added a few security alerts.

IN THIS SECTION:

[Restrict Access to `@AuraEnabled` Apex Methods for Guest and Portal Users Based on User Profile \(Security Alert\)](#)

This security alert is related to a critical update that gives you more control over which guest, portal, and community users can access Apex classes with `@AuraEnabled` methods in Aura and Lightning web components.

[Restrict Access to `@AuraEnabled` Apex Methods for Authenticated Users Based on User Profile \(Security Alert\)](#)

This security alert is related to a critical update that gives you more control over which authenticated users can access Apex classes with `@AuraEnabled` methods in Aura and Lightning web components.

### Restrict Access to `@AuraEnabled` Apex Methods for Guest and Portal Users Based on User Profile (Security Alert)

This security alert is related to a critical update that gives you more control over which guest, portal, and community users can access Apex classes with `@AuraEnabled` methods in Aura and Lightning web components.

**Where:** This change applies to Aura and Lightning web components in Lightning communities, portals, and Salesforce Sites.

**Why:** When the associated critical update is activated, a guest, portal, or community user can access an `@AuraEnabled` Apex method only when the user's profile allows access to the Apex class. The critical update enforces user profile restrictions for Apex classes used by Aura and Lightning web components.

**How:** To view the security alert and see recommendations for your org, enter *Security Alerts* in the Quick Find box in Setup and select **Security Alerts**.

SEE ALSO:

[Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile \(Critical Update, Postponed\)](#)  
[Critical Updates and Security Alerts](#)

## Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile (Security Alert)

This security alert is related to a critical update that gives you more control over which authenticated users can access Apex classes with @AuraEnabled methods in Aura and Lightning web components.

**Where:** This change applies to Aura and Lightning web components in Lightning Experience, Salesforce Classic, Lightning communities, and all versions of the Salesforce app.

**Why:** When the associated critical update is activated, an authenticated user can access an @AuraEnabled Apex method only when the user's profile allows access to the Apex class. This critical update enforces user profile restrictions for Apex classes used by Aura and Lightning web components.

**How:** To view the security alert and see recommendations for your org, enter *Security Alerts* in the Quick Find box in Setup and select **Security Alerts**.

SEE ALSO:

[Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile \(Critical Update, Postponed\)](#)  
[Critical Updates and Security Alerts](#)

## Einstein Platform Services: Image Recognition and Natural Language Processing

Not a data scientist or machine-learning expert, but still want to integrate AI into your apps? Use the Einstein Platform Services APIs to AI-enable your apps with image recognition and natural language processing. Using the Einstein Vision APIs, you can leverage pre-trained classifiers or train custom classifiers to solve an array of image recognition use cases. With the Einstein Language APIs, you can harness the power of natural language processing to analyze text and infer the sentiment or intent behind the text. Make your apps smarter and look like a genius at the same time.

IN THIS SECTION:

[Einstein Vision: More Detailed Error Messages](#)

Calls to the Einstein Object Detection training APIs now return more descriptive error messages.

[Einstein Language: New Model Metrics](#)

Calls to the Einstein Language APIs that return model metrics information now contain the `macroF1` field, the `precision` array, and the `recall` array.

### Einstein Vision: More Detailed Error Messages

Calls to the Einstein Object Detection training APIs now return more descriptive error messages.

## IN THIS SECTION:

[Get More Detailed Error Messages for Einstein Object Detection Training API Calls](#)

When you train an object detection dataset and the training process encounters an error, the API now returns more descriptive error messages. In most cases, the error message specifies the issue that caused the error and how to fix it.

## SEE ALSO:

[Einstein Platform Services Developer Guide: Introduction to Salesforce Einstein Vision](#)

[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\), Resolve Cases Faster with Article Recommendations, and Predict the Future Using Filters](#)

## Get More Detailed Error Messages for Einstein Object Detection Training API Calls

When you train an object detection dataset and the training process encounters an error, the API now returns more descriptive error messages. In most cases, the error message specifies the issue that caused the error and how to fix it.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Group, Professional, Enterprise, Performance, Unlimited, Developer, and Contact Manager editions.

**How:** The improved errors are returned for these API endpoints when the dataset type is `image-detection`.

- Train a dataset—POST `/v2/vision/train`
- Retrain a dataset—POST `/v2/vision/retrain`

## SEE ALSO:

[Einstein Platform Services Developer Guide: Train a Dataset](#)

[Einstein Platform Services Developer Guide: Retrain a Dataset](#)

## Einstein Language: New Model Metrics

Calls to the Einstein Language APIs that return model metrics information now contain the `macroF1` field, the `precision` array, and the `recall` array.

## IN THIS SECTION:

[Better Understand Your Model with New Elements in Language API Model Metrics Response](#)

New elements returned in the model metrics let you better understand your model's performance. The response JSON for an Einstein Language API call that returns model metrics information contains three new elements: the `macroF1` field, the `precision` array, and the `recall` array.

## SEE ALSO:

[Einstein Platform Services Developer Guide: Introduction to Salesforce Einstein Language](#)

[Salesforce Einstein: Talk to Salesforce with Einstein Voice Assistant \(Beta\), Resolve Cases Faster with Article Recommendations, and Predict the Future Using Filters](#)

## Better Understand Your Model with New Elements in Language API Model Metrics Response

New elements returned in the model metrics let you better understand your model's performance. The response JSON for an Einstein Language API call that returns model metrics information contains three new elements: the `macroF1` field, the `precision` array, and the `recall` array.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Group, Professional, Enterprise, Performance, Unlimited, Developer, and Contact Manager editions.

**When:** This change applies to all language models created after September 30, 2019. If you want to see these changes for models created before that date, retrain the dataset and create a new model.

**How:** The new field and arrays appear in the response for these calls when the model type is `text-intent` or `text-sentiment`.

- Get model metrics—GET `/v2/language/models/<MODEL_ID>`
- Get model learning curve—GET `/v2/language/models/<MODEL_ID>/lc`

The call to return the model metrics looks similar to this JSON. The confusion matrix and precision recall curve data is removed for brevity.

```
{
  "id": "XTRMEB5KGSS2IL2JMSJSOWG108",
  "metricsData": {
    "f1": [
      0.8333333333333333,
      0.4,
      0.9333333333333332
    ],
    "labels": [
      "hourly-forecast",
      "five-day-forecast",
      "current-weather"
    ],
    "recall": [
      1,
      0.3333333333333333,
      0.875
    ],
    "macroF1": 0.7222222222222223,
    "testLoss": 0.44152334332466125,
    "precision": [
      0.7142857142857143,
      0.5,
      1
    ],
    "threshold": {
      "current-weather": 0.41057,
      "hourly-forecast": 0.98462,
      "five-day-forecast": 0.9775
    },
    "testAccuracy": 0.8125,
    "trainingLoss": 0.2154673933982849,
    "confusionMatrix": [],
    "trainingAccuracy": 0.9122806787490844,
    "precisionRecallCurve": {}
  },
  "createdAt": "2019-11-19T22:27:57.000+0000",
}
```

```
"language": "en_US",  
"algorithm": "intent",  
"object": "metrics"  
}
```

**SEE ALSO:**

[Einstein Platform Services Developer Guide: Get Model Metrics](#)

[Einstein Platform Services Developer Guide: Get Model Learning Curve](#)

## Einstein Platform: Prediction Insight Details

Are you interested in expanding the way you use Einstein AI features, like Prediction Builder, in your org? Einstein Platform is the Salesforce layer that Prediction Builder and many other Einstein features use to run powerful AI jobs. Use new Einstein Platform APIs to access prediction insights and apply the power of Einstein features in your own AI solutions.

**IN THIS SECTION:**

[Run Einstein Predictions in a Sandbox Org](#)

Build and run predictions in a sandbox org to experiment with different settings.

### Run Einstein Predictions in a Sandbox Org

Build and run predictions in a sandbox org to experiment with different settings.

**Where:** This change applies to Lightning Experience in Enterprise and Developer editions.

**Who:** This feature is available to admins with the Einstein Analytics Plus or Einstein Predictions license.

**How:** Build new predictions in the sandbox org for testing before running the predictions in production.

## Visualforce: Introducing Lightning Message Service (Beta), Type Checking for Remote Methods with ID Parameters

Communicate across Visualforce, Aura, and Lightning Web Components with Lightning Message Service. Visualforce now checks that strings are properly formatted as valid Apex IDs in its JavaScript remoting tool.

For more information on features affected by these enhancements, refer to the [Visualforce Developer Guide](#).

**IN THIS SECTION:**

[Communicate Across Salesforce UI Technologies with the Lightning Message Service API \(Beta\)](#)

Use the Lightning Message Service API to communicate across the DOM, between Aura components, Visualforce pages, and Lightning web components. If you're switching from Salesforce Classic to Lightning Experience, you can now build Lightning web components that can communicate with existing Visualforce pages or Aura components. For more information, see the [Lightning Components](#) section of the release notes.

[Prevent Security Vulnerabilities with Type Checking for Remote Methods with ID Parameters](#)

To mitigate against SOQL injection vulnerabilities, Visualforce now checks that strings are properly formatted as valid Apex IDs in its JavaScript remoting tool. It throws a `RemoteObjectException` error when there is an invalid string.

### [Remove Instance Names from URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files \(Previously Released Critical Update\)](#)

As announced in the Spring '18 release, we're removing the instance names from Visualforce, Experience Builder, Site.com Studio, and content file URLs.

### [Permission Changes for Visualforce Access Metrics](#)

Users must have the Customize Application permission to access metrics for Visualforce pages through the SOAP API.

## Communicate Across Salesforce UI Technologies with the Lightning Message Service API (Beta)

Use the Lightning Message Service API to communicate across the DOM, between Aura components, Visualforce pages, and Lightning web components. If you're switching from Salesforce Classic to Lightning Experience, you can now build Lightning web components that can communicate with existing Visualforce pages or Aura components. For more information, see the [Lightning Components](#) section of the release notes.

## Prevent Security Vulnerabilities with Type Checking for Remote Methods with ID Parameters

To mitigate against SOQL injection vulnerabilities, Visualforce now checks that strings are properly formatted as valid Apex IDs in its JavaScript remoting tool. It throws a `RemoteObjectException` error when there is an invalid string.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Contact Manager, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** JavaScript remoting is a tool that front-end developers can use to make an AJAX request from a Visualforce page directly to an Apex controller. When a string object is passed through a remoting call to a `@RemoteAction`, the expected parameter type is `Id`. In this change, Visualforce checks that the ID follows the correct format to prevent security vulnerabilities. The JavaScript console logs any errors and exceptions. To view this update, your Apex Controller class must be API version 48.0 or later.

SEE ALSO:

[Visualforce Developer Guide: JavaScript Remoting for Apex Controllers](#)

## Remove Instance Names from URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files (Previously Released Critical Update)

As announced in the Spring '18 release, we're removing the instance names from Visualforce, Experience Builder, Site.com Studio, and content file URLs.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Contact Manager, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Stabilize URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files \(Previously Released Critical Update\)](#)

[Critical Updates and Security Alerts](#)

[Critical Updates and Security Alerts](#)

## Permission Changes for Visualforce Access Metrics

Users must have the Customize Application permission to access metrics for Visualforce pages through the SOAP API.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions.

## Apex

Apex security features `WITH SECURITY_ENFORCED` and `Security.stripInaccessible` are now generally available. The new `System.Finalizer` interface (pilot) allows you to attach actions to queueable, asynchronous jobs. A critical update enables strict enforcement of Apex type visibility rules with the `Type.newInstance` method. The `getDescribe` method in the Schema namespace has a parameter that determines whether to front-load child relationships. Use the `toString` method to obtain the string representation of a Map, List, or Set class in the System namespace.

For more information on these enhancements, refer to the [Apex Developer Guide](#).

### IN THIS SECTION:

#### [Enable Field- and Object-Level Permissions Checking Using WITH SECURITY\\_ENFORCED in SOQL Queries \(Generally Available\)](#)

SOQL queries using `WITH SECURITY_ENFORCED` is now generally available. Use the `WITH SECURITY_ENFORCED` clause to enable field and object level security permissions checking for SOQL SELECT queries in Apex code, including subqueries and cross-object relationships. The `WITH SECURITY_ENFORCED` clause is available only in Apex.

#### [Enforce Field- and Object-Level Security in Apex \(Generally Available\)](#)

The `Security.stripInaccessible` method for field- and object-level data protection is now generally available. Use the `stripInaccessible` method to strip fields that the current user can't access from query and subquery results. Use the method to remove inaccessible fields from sObjects before a DML operation to avoid exceptions. Also, use the `stripInaccessible` method to sanitize sObjects that have been deserialized from an untrusted source.

#### [Attach Actions to Asynchronous Apex Jobs Using Transaction Finalizers \(Pilot\)](#)

With Spring '20, we introduce a way to attach actions to queueable, asynchronous jobs using a new `System.Finalizer` interface. A specific use case is to design recovery action when a queueable job fails.

#### [Restrict Reflective Access to Non-Global Constructors in Packages \(Critical Update\)](#)

When this critical update is enabled, regardless of API version, you can initiate only Apex classes that have a no-arguments constructor that is visible to the code running `Type.newInstance`.

#### [Enable Improved Caching of Org Schema \(Critical Update\)](#)

Improved caching of org schema resolves known issues with version-specific object and field handling.

#### [Use Generic sObject Data Types in Invocable Methods and Invocable Variables](#)

Methods annotated with `@InvocableMethod` and variables annotated with `@InvocableVariable` now support the generic sObject and List<sObject> data types.

#### [Use Event Monitoring Logs to Track CPU Time Consumed by Apex Triggers](#)

Use the Apex Trigger Events field `CPU_TIME` to track app CPU time for triggers. In prior releases, this field existed in the schema but was not populated.

### SEE ALSO:

[Apex: New and Changed Items](#)



## Enable Field- and Object-Level Permissions Checking Using **WITH SECURITY\_ENFORCED** in SOQL Queries (Generally Available)

SOQL queries using `WITH SECURITY_ENFORCED` is now generally available. Use the `WITH SECURITY_ENFORCED` clause to enable field and object level security permissions checking for SOQL SELECT queries in Apex code, including subqueries and cross-object relationships. The `WITH SECURITY_ENFORCED` clause is available only in Apex.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**How:** We don't recommend using `WITH SECURITY_ENFORCED` in Apex classes or triggers with an API version earlier than 45.0. There is a new restriction while querying polymorphic lookup fields using `WITH SECURITY_ENFORCED`. Polymorphic lookup fields are relationship fields that can point to more than one entity.

- Traversing a polymorphic field's relationship is not supported in queries using `WITH SECURITY_ENFORCED`. For example, you cannot use `WITH SECURITY_ENFORCED` in this query, which returns the Id and Owner names for User and Calendar entities: `SELECT Id, What.Name FROM Event WHERE What.Type IN ('User', 'Calendar')`.
- Using `TYPEOF` expressions with an `ELSE` clause is not supported in queries using `WITH SECURITY_ENFORCED`. `TYPEOF` is used in a SELECT query to specify the fields to be returned for a given type of a polymorphic relationship. For example, you cannot use `WITH SECURITY_ENFORCED` in this query. The query specifies certain fields to be returned for Account and Opportunity objects, and Name and Email fields to be returned for all other objects.

```
SELECT
TYPE OF What
  WHEN Account THEN Phone
  WHEN Opportunity THEN Amount
  ELSE Name, Email
END
FROM Event
```

- The `Owner`, `CreatedBy`, and `LastModifiedBy` polymorphic lookup fields are exempt from this restriction, and do allow polymorphic relationship traversal.
- For AppExchange Security Review, you must use API version 48.0 or later when using `WITH SECURITY_ENFORCED`. You cannot use API versions where the feature was in beta or pilot.

## Enforce Field- and Object-Level Security in Apex (Generally Available)

The `Security.stripInaccessible` method for field- and object-level data protection is now generally available. Use the `stripInaccessible` method to strip fields that the current user can't access from query and subquery results. Use the method to remove inaccessible fields from `sObjects` before a DML operation to avoid exceptions. Also, use the `stripInaccessible` method to sanitize `sObjects` that have been deserialized from an untrusted source.


**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**How:** The `stripInaccessible` method checks the source records for fields that don't meet the field- and object-level security check for the current user and creates a return list of `sObjects`. The return list is identical to the source records, except that fields inaccessible to the current user are removed.

## Attach Actions to Asynchronous Apex Jobs Using Transaction Finalizers (Pilot)

With Spring '20, we introduce a way to attach actions to queueable, asynchronous jobs using a new `System.Finalizer` interface. A specific use case is to design recovery action when a queueable job fails.

**Where:** This change applies to Lightning Experience and Salesforce Classic only in scratch orgs that have enabled the feature during org creation. Because finalizers are currently in pilot and are available only in scratch orgs, do not attempt to package finalizers.

 **Note:** The TransactionFinalizers feature is available as a pilot program only in scratch orgs that have enabled the feature during org creation. The functionality of this feature is subject to change, and is not available for production organizations while in pilot. Pilot programs are subject to change. This feature isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features. You can provide feedback and suggestions for this feature in the [TransactionFinalizers](#) group in the [IdeaExchange](#).

**Why:** Currently, there is no direct way for you to specify actions to be taken when asynchronous jobs succeed or fail. You can only poll the status of `asyncapexjob` using a SOQL query, and re-enqueue the job if it fails. With transaction finalizers, you can attach a post-action sequence to an asynchronous job and take relevant actions based on the job execution result.

**How:** First, implement a class that implements the `System.Finalizer` interface. Then, attach a finalizer within a queueable job's execute method by invoking the `System.attachFinalizer` method with an argument of the instantiated class that implements the finalizer interface. Only one finalizer can be attached to any queueable job. You can enqueue a single asynchronous Apex job (queueable, future, or batch) in your finalizer. You can also make callouts in the finalizer.

An `execute (FinalizerContext ctx)` method is called for every enqueued job with a finalizer attached. Within the execute method, you can define the actions to be taken at the end of the queueable job. The `System.Finalizer` class is created and injected by the Apex runtime engine as an argument to the execute method. You must not create or derive an instance of this class. The `System.FinalizerParentJobResult` enum represents the result of the parent asynchronous Apex queueable job to which the finalizer is attached. The enum takes these values: `SUCCESS`, `UNHANDLED_EXCEPTION`.

This example implements the Finalizer interface to identify how far a queueable job proceeds before an unforeseen, uncatchable error occurs, and also obtains details of the error.

```
public class AccountUpdateLoggingFinalizer implements Finalizer {
    // Used to maintain progress
    List<String> acctNames;

    public AccountUpdateLoggingFinalizer() {
        acctNames = new List<String>();
    }

    public void execute(FinalizerContext ctx) {
        Id parentQueueableJobId = ctx.getAsyncApexJobId();
        System.Debug('Executing Finalizer that was attached to Queueable Job ID: ' +
parentQueueableJobId);
        if (ctx.getAsyncApexJobResult() == FinalizerParentJobResult.SUCCESS) {
            // Queueable executed successfully
            System.Debug('Parent Queueable (Job ID: ' + parentQueueableJobId + '): completed
successfully!');
        } else {
            // Queueable failed
            // Log some additional information.
            System.Debug('Parent Queueable (Job ID: ' + parentQueueableJobId + '): FAILED!');

            System.Debug('Parent Queueable Exception: ' +
ctx.getAsyncApexJobException().getMessage());

            // Show the accounts that were processed before Queueable Job encountered the
exception
            System.Debug('Parent Queueable processed following accounts:');
        }
    }
}
```

```

        for (String acctName : acctNames) {
            System.Debug(acctName);
        }
    }
}

public void reportProgress(Account acct) {
    acctNames.add(acct.Name);
}
}

```

```

public class FollowupActionQueueable implements Queueable {
    public void execute(QueueableContext ctx) {
        System.Debug('FollowupActionQueueable is executing');
    }
}

```

```

public class AccountUpdateQueueable implements Queueable {

    public void execute(QueueableContext ctx) {

        // Create a transaction finalizer
        AccountUpdateLoggingFinalizer finalizer = new AccountUpdateLoggingFinalizer();

        // Attach the transaction finalizer to this queueable
        System.attachFinalizer(finalizer);

        // Do some (partial) work
        Account acct = new Account();
        acct.Name = '1st Account';
        insert(acct);

        // Send some status update to the finalizer
        finalizer.reportProgress(acct);

        // do some work that results in an unforeseen, uncatchable exception
        someWork();

        // Attempt to do some more work
        Account acct2 = new Account();
        acct2.Name = '2nd Account';
        insert(acct2);

        // Report more progress
        finalizer.reportProgress(acct2);
    }

    private void someWork() {
        // regular implementation that could result in an un-catchable
        // exception e.g. System.LimitException due to CPU usage over limits

        // for demonstration, try to enqueue 2 jobs so this method results in
        // System.LimitException because more than one job cannot be enqueued
        // from a Queueable
    }
}

```

```

    System.enqueueJob(new FollowupActionQueueable());
    System.enqueueJob(new FollowupActionQueueable());
}
}

```

## Restrict Reflective Access to Non-Global Constructors in Packages (Critical Update)

When this critical update is enabled, regardless of API version, you can initiate only Apex classes that have a no-arguments constructor that is visible to the code running `Type.newInstance`.


**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**When:** This update is automatically enforced on August 18, 2020.

**How:** This critical update enables strict enforcement of Apex type visibility rules for the `Type.newInstance` method. It also removes the legacy compatibility behavior supporting these rules in API version 28.0 and earlier. Apex classes contained in second-generation packages can instantiate public classes from other packages in the same namespace only if they are annotated `@NamespaceAccessible`.

Also, regardless of API version, construction of abstract classes or interfaces is no longer allowed even when the type is visible and can be referenced using `Type.forName`. Such instantiation fails with this message: "`ApexType` does not have a no-arg constructor" where `ApexType` is the type you want to create using the `Type.newInstance` method.

To enable this feature programmatically with the Metadata API, see [ApexSettings](#) in the *Metadata API Developer Guide*.


 **Note:** Global classes are unchanged and remain available across all namespaces.

## Enable Improved Caching of Org Schema (Critical Update)

Improved caching of org schema resolves known issues with version-specific object and field handling.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**Why:** This critical update fixes known bugs by improving internal systems that define and cache org schema, including standard objects, custom objects, and their fields. The documented behavior of your org's schema remains unchanged. The update fixes bugs where the documentation doesn't match the known behavior. This update also resolves rare, intermittent cases where undocumented object types are visible in Apex describe result methods or where version-specific schema details are improperly reused.

 **Note:** This update was briefly available in Summer '19 and described in the release notes, but was removed prior to customer release. This is the first release this update has been available for activation.

## Use Generic sObject Data Types in Invocable Methods and Invocable Variables

Methods annotated with `@InvocableMethod` and variables annotated with `@InvocableVariable` now support the generic `sObject` and `List<sObject>` data types.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Build Invocable Actions That Work for Multiple Objects](#)

## Use Event Monitoring Logs to Track CPU Time Consumed by Apex Triggers

Use the Apex Trigger Events field `CPU_TIME` to track app CPU time for triggers. In prior releases, this field existed in the schema but was not populated.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**How:** For more information on Apex Trigger Events, see [Apex Trigger Event Type](#) in the *Object Reference for Salesforce and Lightning Platform*.

## API

In API version 48.0, find related object documentation more easily, get a symbol table without non-global implementation details in managed packages, and use more API calls.

### IN THIS SECTION:

#### [Find Related Object Documentation More Easily](#)

We removed redundant object documentation and grouped related objects together, so it's easier to find what you want.

#### [Untangle Your Dependencies with MetadataComponentDependency Queries in Production and Sandbox Orgs \(Beta\)](#)

Many orgs are cluttered with different metadata components that are no longer in use, such as custom objects and fields. The Dependency API feature, which uses the Tooling API MetadataComponentDependency object, can be used to view the dependency relationships between metadata components in your org. This information helps you determine whether components are safe to delete. Finding dependencies among components also helps you break up your metadata into packages. Working with a set of packages rather than with one monolithic org makes it easier to manage change, use a version control system, or use a continuous integration system.

#### [Improved Symbol Table Generation](#)

The symbol table no longer includes non-global implementation details for managed packages. This change ensures that the symbol table doesn't expose extra information that shouldn't be available in a managed package.

#### [Use More API Calls](#)

The default daily API request allocation has been raised from 15,000 to 100,000.

#### [No Maximum Daily Cap for API Calls](#)

The maximum daily cap of 1,000,000 API requests has been removed.

#### [View Monthly API Calls with a New Usage-Based Entitlement](#)

Your org can now exceed its API daily request limit without being blocked (subject to system health). A hard cap is in place to safeguard platform resources. A new usage-based entitlement shows the total number of API requests aggregated over 30 days.

## Find Related Object Documentation More Easily

We removed redundant object documentation and grouped related objects together, so it's easier to find what you want.

**Why:** Let's say you're working with the WorkType object and trying to find all the related object documentation. Previously, the table of contents in the *Object Reference for Salesforce and Lightning Platform* developer guide included all the parent and associated objects.

WorkType	.....
WorkTypeGroup	.....
WorkTypeGroupHistory	.....
WorkTypeGroupMember	.....
WorkTypeGroupMemberHistory	.....
WorkTypeGroupShare	.....
WorkTypeHistory	.....
WorkTypeOwnerSharingRule	...
WorkTypeShare	.....

It's difficult to understand at a glance which objects are parent objects and which are associated objects. In addition, many associated objects have the same supported calls and fields. For example, the documentation for the `WorkTypeHistory`, `WorkTypeGroupHistory`, and `WorkTypeGroupMemberHistory` objects is identical, so documenting each object separately is redundant. To solve these issues, we created an Associated Objects chapter in the developer guide with a single topic for each type of associated object: Feed, History, `OwnerSharingRule`, and Share.

<b>Chapter 4: Associated Objects (Feed, History, <code>OwnerSharingRule</code>, and Share Objects)</b> .....
<code>StandardObjectNameFeed</code> .....
<code>StandardObjectNameHistory</code> .....
<code>StandardObjectNameOwnerSharingRule</code> .....
<code>StandardObjectNameShare</code> .....

Each associated object topic includes the object's supported calls and fields. Then we removed the redundant object documentation. Now the table of contents for the `WorkType` object shows only the parent objects.

<code>WorkType</code> .....
<code>WorkTypeGroup</code> .....
<code>WorkTypeGroupMember</code> ..

Documentation for parent objects has a new Associated Objects section with a convenient list of links. For example, the `WorkType` object has this list.

Associated Objects
This object has the following associated objects. Unless noted, they are available in the same API version as this object.
<a href="#">WorkTypeFeed</a> Feed tracking is available for the object.
<a href="#">WorkTypeHistory</a> History is available for tracked fields of the object.
<a href="#">WorkTypeOwnerSharingRule</a> Sharing rules are available for the object.
<a href="#">WorkTypeShare</a> Sharing is available for the object.

SEE ALSO:


[Object Reference for Salesforce and Lightning Platform](#)

[SOAP API Developer Guide](#)

## Untangle Your Dependencies with `MetadataComponentDependency` Queries in Production and Sandbox Orgs (Beta)

Many orgs are cluttered with different metadata components that are no longer in use, such as custom objects and fields. The Dependency API feature, which uses the Tooling API `MetadataComponentDependency` object, can be used to view the dependency relationships between metadata components in your org. This information helps you determine whether components are safe to delete. Finding dependencies among components also helps you break up your metadata into packages. Working with a set of packages rather than with one monolithic org makes it easier to manage change, use a version control system, or use a continuous integration system.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Professional, Enterprise, Performance, Unlimited, and Developer editions. Available in sandbox and production (Prod) orgs.

 **Note:** As a Beta feature, MetadataComponentDependency (Dependency API) is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions based on the generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported. Salesforce has no liability for any harm or damage arising out of the use of this feature. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions in the [Dependency API/Field Usage \(Beta\)](#) Trailblazer Community group page.

**How:** Use SOQL queries to get the relationships between the metadata components in your org. The query results include one row for each relationship. You can get up to 2,000 records per query. Keep your queries specific enough to return accurate results within this record count.

```
{
  "size" : 132,
  "totalSize" : 132,
  "done" : true,
  "queryLocator" : null,
  "entityTypeName" : "MetadataComponentDependency",
  "records" : [ {
    "attributes" : {
      "type" : "MetadataComponentDependency",
      "url" :
"/services/data/v47.0/tooling/subjects/MetadataComponentDependency/00000000000000AAA"
    },
    "RefMetadataComponentId" : "00XXXXXXXXXXXXXXXXXX",
    "RefMetadataComponentName" : "acctTime",
    "MetadataComponentName" : "acctTimeReport",
    "MetadataComponentType" : "Report"
  }, {
    "attributes" : {
      "type" : "MetadataComponentDependency",
      "url" :
"/services/data/v47.0/tooling/subjects/MetadataComponentDependency/00000000000000AAA"
    },
    "RefMetadataComponentId" : "00XXXXXXXXXXXXXXXXXX",
    "RefMetadataComponentName" : "acctTime",
    "MetadataComponentName" : "formulaTime",
    "MetadataComponentType" : "CustomField"
  }, ...
}
```

The following queries are not supported.

- SOQL ORDER BY clause
- SOQL SELECT clause—count () function
- SOQL queryMore ()
- SOQL WHERE clause—Any type of filter with MetadataComponentName
- SOQL WHERE clause—Any type of filter with RefMetadataComponentName
- SOQL WHERE clause—Contains operators *other* than =, !=, AND, or OR
- SOQL WHERE clause—Filter by (RefMetadataComponentType = 'StandardEntity')

- SOQL `WHERE` clause—Use of the `LIKE` operator with either the `MetadataComponentType` field or `RefMetadataComponentType` field
- SOQL `OFFSET` clause

For more information, see [MetadataComponentDependency](#).

## Improved Symbol Table Generation

The symbol table no longer includes non-global implementation details for managed packages. This change ensures that the symbol table doesn't expose extra information that shouldn't be available in a managed package.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**Why:** With the improved process, the symbol table in managed packages includes only those implementation details for which the modifier is explicitly set to `global`. All the other details are hidden.

Here's some info about what's included and what's not in the symbol table:

- `Parameters`: Not included because they don't inherit the modifier of constructors or methods.
- `References`: No longer includes misidentified internal references. The symbol table generation now correctly identifies whether a reference is internal or external.
- `Local Variables`: Not included because they can't be set to `global`. Local variables are hidden even if the parent implementation is global.

## Use More API Calls

The default daily API request allocation has been raised from 15,000 to 100,000.

**Where:** This change applies to the Enterprise Edition, Professional Edition with API access enabled, Unlimited Edition, and Performance Edition.

**Why:** This change provides paid orgs with additional API calls by default in order to better support integrations with Salesforce.

## No Maximum Daily Cap for API Calls

The maximum daily cap of 1,000,000 API requests has been removed.

**Where:** This change applies to the Enterprise Edition and to the Professional Edition with API access enabled.

**Why:** This change allows you to make more API calls without exceeding your allocation.

## View Monthly API Calls with a New Usage-Based Entitlement

Your org can now exceed its API daily request limit without being blocked (subject to system health). A hard cap is in place to safeguard platform resources. A new usage-based entitlement shows the total number of API requests aggregated over 30 days.

**Where:** This change applies to Enterprise Edition, Performance Edition, Unlimited Edition, and Professional Edition with API access enabled.

**When:** This entitlement will be rolled out gradually over the next few months.

**Why:** By seeing a monthly view of your org's API calls, you can manage your API request consumption more effectively. And because requests that exceed the daily limit are allowed to proceed, your org won't be blocked by unexpected spikes in workload.

**How:** To view your usage of this entitlement:

1. From Setup, enter *Company Information* in the Quick Find box, then select **Company Information**.



2. At the bottom of the Company Information page, view the API Request Limit per Month information in the Usage-Based Entitlements list.

## Custom Metadata Types

To better secure your data, we added new settings and enabled restrictions that allow you to protect potentially sensitive information.

### IN THIS SECTION:

#### [Require Customize Application Permission for Direct Read Access to Custom Metadata Types \(Critical Update, Enforced\)](#)

Access for users without the Customize Application permission to read unprotected custom metadata types is revoked as part of this critical update. Using different APIs that are provided by Salesforce, users without the Customize Application permission could read unprotected custom metadata types. Following the “secure by default” approach, this access is revoked.

#### [Protect Custom Metadata Types in Developer and Scratch Orgs](#)

The Visibility field is now only available in developer or scratch orgs, where managed packages can be created. When you create a custom metadata type, the package type and the Visibility field determine whether the custom metadata type is public or private. You can only create protected custom metadata types in a developer or scratch org that are then deployed in a managed package. In addition, the Visibility field must be set to package protected.

### SEE ALSO:

[Salesforce Help: Custom Metadata Types](#)

## Require Customize Application Permission for Direct Read Access to Custom Metadata Types (Critical Update, Enforced)


Access for users without the Customize Application permission to read unprotected custom metadata types is revoked as part of this critical update. Using different APIs that are provided by Salesforce, users without the Customize Application permission could read unprotected custom metadata types. Following the “secure by default” approach, this access is revoked.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, Developer, and Database.com editions. Professional Edition orgs can create, edit, and delete custom metadata records only from types in installed packages. This change also affects Visualforce pages and Lightning components that directly reference custom metadata types.

**When:** This critical update is scheduled to be enforced on sandbox instances on January 2, 2020 in the Spring '20 release. It will not be rolled out to all instances on January 2, 2020. Sandbox instances are upgraded 4–6 weeks before a release goes into production. To find the exact activation date for your instance, refer to <https://status.salesforce.com>.

**How:** When this critical update is enforced on the instance, users without the Customize Application permission can no longer access custom metadata types. To minimize the impact on your users, admins with the Customize Application permission can grant read access through profile or permission sets.

1. Go to the profile or permission set that you want to grant access to.
2. Under Enabled Custom Metadata Type Access, click **Edit**.
3. Add the custom metadata type to the list of enabled custom metadata types.

 **Note:** This change doesn't affect accessibility of custom metadata types from Apex or system mode contexts. Custom metadata types retrieved using your custom Apex code continue to work after this update.

While not recommended, you can disable this critical update by turning off the Schema Settings: “Restrict access to custom metadata types” permission. This Schema Settings permission corresponds to the security org-wide critical update.

1. Go to **Setup** and search for Schema Settings.
2. Turn off **Restrict access to custom metadata types**.

## Protect Custom Metadata Types in Developer and Scratch Orgs

The Visibility field is now only available in developer or scratch orgs, where managed packages can be created. When you create a custom metadata type, the package type and the Visibility field determine whether the custom metadata type is public or private. You can only create protected custom metadata types in a developer or scratch org that are then deployed in a managed package. In addition, the Visibility field must be set to package protected.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Contact Manager, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** When storing sensitive information, create protected custom metadata types in a developer or scratch org, set the Visibility field to package protected, then deploy them in a managed package.

The screenshot shows the 'New Custom Metadata Type' configuration page in Salesforce. The 'Visibility' section is highlighted with an orange box. It contains three radio button options:

- All Apex code and APIs can use the type, and it's visible in Setup.
- Only Apex code in the same namespace can see the type. The name of the type and the record are visible if they're referenced in a formula.
- Only Apex code in the same managed package can see the type. The name of the type and the record are visible if they're referenced in a formula.

Visibility Options	API Equivalent
All Apex code and APIs can use the type, and it's visible in Setup.	Public—Anyone can see it.
Only Apex code in the same namespace can see the type. The name of the type and the record are visible if they are referenced in a formula.	Protected—Code that's in the same namespace as the custom metadata types can read the records. Code that's in a namespace that doesn't contain the type or the protected record can't read the protected records.
Only Apex code in the same managed package can see the type. The name of the type and the record are visible if they are referenced in a formula.	PackageProtected—Only code in the same managed package can read the records. Code that's in the package that doesn't contain the type or the protected record can't read the protected records.

SEE ALSO:

[Salesforce Help: Component Behavior in Packages](#)

# Salesforce CLI: Autocompletion, Enhanced DX Templates, Progress Bar, Code Coverage

The Salesforce command-line interface (CLI) continues to evolve with more features and commands that support the Salesforce development models. Use it to create environments for development and testing, synchronize source code, run tests, and control the full application life cycle.

We release changes to Salesforce CLI regularly. Read the weekly release notes to learn about recent updates for [v48 of the core CLI plug-ins](#). For more information about all CLI commands, see [Salesforce CLI Command Reference](#).

## IN THIS SECTION:

### [Save Time and Reduce Errors with Autocomplete](#)

With the new autocomplete feature installed, you can type a CLI command and then press Tab to autocomplete a partially typed command, or press Tab to see all available commands, parameters, and file names.

### [View Progress When Deploying Metadata](#)

If you run `force:source:deploy`, `force:source:push` or `force:mdapi:deploy` you see a progress bar that highlights the progress of the deployment.

### [Eliminate the Guesswork with Enhanced Standard DX Templates](#)

We added SOQL and Apexfiles to the standard template for a DX project when you run `sfdx force:project:create`. We also added a new analytics template: to access, run `force:project:create --template analytics`.

### [Get Improved Code Coverage Results for Your Apex Tests](#)

We improved the `force:apex:test:run` and `force:apex:test:report` commands to provide more accurate code coverage results. Previously, running these commands with the `codecoverage` flag returned results across multiple test runs. Now, the results show only the classes that a test execution entered during the run. And, the coverage calculations factor only these classes.

## SEE ALSO:

[Discover New and Changed CLI Commands](#)

## Save Time and Reduce Errors with Autocomplete

With the new autocomplete feature installed, you can type a CLI command and then press Tab to autocomplete a partially typed command, or press Tab to see all available commands, parameters, and file names.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

**How:** To install this feature:

1. Run `sfdx plugins:install @oclif/plugin-autocomplete`.
2. Run `sfdx autocomplete`, then follow the instructions.

## View Progress When Deploying Metadata

If you run `force:source:deploy`, `force:source:push` or `force:mdapi:deploy` you see a progress bar that highlights the progress of the deployment.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

**How:** This feature is enabled by default. You can disable the progress bar using either method:

- To set globally: `SFDX_USE_PROGRESS_BAR=false`.
- To set for a single command: `SFDX_USE_PROGRESS_BAR=false sfdx force:source:deploy`.

## Eliminate the Guesswork with Enhanced Standard DX Templates

We added SOQL and Apexfiles to the standard template for a DX project when you run `sfdx force:project:create`. We also added a new analytics template: to access, run `force:project:create --template analytics`.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

**How:** Learn more about templates in the [Salesforce DX Developer Guide](#).

## Get Improved Code Coverage Results for Your Apex Tests

We improved the `force:apex:test:run` and `force:apex:test:report` commands to provide more accurate code coverage results. Previously, running these commands with the `codecoverage` flag returned results across multiple test runs. Now, the results show only the classes that a test execution entered during the run. And, the coverage calculations factor only these classes.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

**How:** The code coverage results are now scoped to the tests in a given test run. For example, if you run `TestClassA` and `TestClassB`, and `TestClassA` executes code only in `ClassA` and `TestClassB` executes only `ClassB`. The code coverage result for the first run includes only `ClassA`, and the second run includes only `ClassB`.

To enable this new behavior, set the environment variable `SFDX_IMPROVED_CODE_COVERAGE` to `true`. When you run the `force:apex:test:run` and `force:apex:test:report` CLI commands after enabling the new behavior, you'll notice changes in your code coverage numbers. The new numbers reflect a more accurate code coverage result.

## Scratch Orgs: New Features

A scratch org is a dedicated and configurable Salesforce environment that you can quickly spin up for many different purposes. It can be your own personal development environment, or you can create a headless scratch org for automated tests. You can create scratch orgs if you turned on Dev Hub in your production org or a Developer Edition org, or have a Dev Hub trial org. We continually add support for new features.

For more information, see [Scratch Orgs](#) in the [Salesforce DX Developer Guide](#).

### IN THIS SECTION:

[Create Scratch Orgs with More Features](#)

We're providing more configurable features for scratch orgs.

## Create Scratch Orgs with More Features

We're providing more configurable features for scratch orgs.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Developer, Enterprise, Group, and Professional editions.

**How:** Add the features to your scratch org definition file.

- `BigObjectsBulkAPI`
- `CalloutSizeMB:<value>`
- `ChangeDataCapture`

- CMSMaxContType
- CMSMaxNodesPerContType
- CMSUnlimitedUse
- ConAppPluginExecuteAsUser
- ConcStreamingClients:<value>
- ConnectedAppToolingAPI
- ConsolePersistenceInterval:<value>
- DataMaskUser
- DensityValue
- DeviceTrackingEnabled
- DisableManageldConfAPI
- DurableClassicStreamingAPI
- DurableGenericStreamingAPI
- DynamicClientCreationLimit
- EinsteinArticleRecommendations
- EmbeddedLoginForE
- EmpPublishRateLimit:<value>
- EnableManageldConfUI
- EnablePRM
- ExperienceBundle
- FinancialServicesCommunityUser:<value>
- GenericStreaming
- GenStreamingEventsPerDay:<value>
- HoursBetweenCoverageJob:<value>
- IdentityProvisioningFeatures
- IgnoreQueryParamWhitelist
- IndustriesManufacturingCmty
- IndustriesMfgAccountForecast
- LegacyLiveAgentRouting
- ListCustomSettingCreation
- MaxAudTypeCriterionPerAud
- MaxFavoritesAllowed:<value>
- MaxNoOfLexThemesAllowed:<value>
- MaxStreamingTopics:<value>
- MaxUserNavItemsAllowed:<value>
- MaxUserStreamingChannels:<value>
- MedVisDescriptorLimit:<value>
- MobileExtMaxFileSizeMB:<value>
- MobileSecurity
- MultiLevelMasterDetail

- MutualAuthentication
- NumPlatformEvents:<value>
- OutboundMessageHTTPSession
- PardotScFeaturesCampaignInfluence
- PlatformConnect
- PlatformEventsPerDay
- RefreshOnInvalidSession
- S1ClientComponentCacheSize
- SalesCloudEinstein
- SalesforceIdentityForCommunities
- SAML20SingleLogout
- SCIMProtocol
- SecurityEventEnabled
- SessionIdInLogEnabled
- SingleSignOn
- StreamingAPI
- StreamingEventsPerDay
- SubPerStreamingChannel
- SubPerStreamingTopic
- SustainabilityCloud
- TransactionFinalizers
- WorkThanksPref

## Renamed Scratch Org Features

These scratch org features were renamed in Spring '20. If your scratch org definition file specifies one of these features, update the file with the new feature name. Scratch org creation fails if the definition file includes the old feature name.

- AddHistoryFieldsPerEntity is now AdditionalFieldHistory
- RetainFieldHistory is now FieldAuditTrail

## Deprecated Scratch Org Features

These scratch org features were deprecated in Spring '20. If your scratch org definition file specifies one of these features, delete the feature from the file. Scratch org creation fails if the definition file specifies a deprecated feature.

- ChatterAnswersUser
- CustomerSelfService
- DecisionStudio
- EinsteinAssistant
- ExternalAccountHierarchy
- MobileUser
- OfflineUser
- SiteDotCom (Replace with Communities)

- SiteForceContributor (Replace with Communities)
- SurveyCreatorUser (Enabled by default in Enterprise and Developer edition scratch orgs)

## Sandboxes: Enhanced Sandbox Cloning and Data Security

More cloning options and increased data security are now available for sandboxes.

### IN THIS SECTION:

#### [Clone a Sandbox with a Version Different from Production](#)

You can now clone a sandbox that's on a different major Salesforce release version than your production org. Previously, a sandbox that was on a different version from the production org due to a release transition couldn't be cloned, and the clone link in the UI was disabled. Now you can clone preview sandboxes for development, testing, and training.

#### [Secure Your Sandbox Data with Salesforce Data Mask](#)

Salesforce Data Mask is a powerful new data security resource for Salesforce admins and developers. Instead of manually securing data and access for sandbox orgs, admins can use Data Mask to automatically mask the data in a sandbox.

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You can now clone a sandbox that's on a different major Salesforce release version than your production org. Previously, a sandbox that was on a different version from the production org due to a release transition couldn't be cloned, and the clone link in the UI was disabled. Now you can clone preview sandboxes for development, testing, and training.

## Secure Your Sandbox Data with Salesforce Data Mask

Salesforce Data Mask is a powerful new data security resource for Salesforce admins and developers. Instead of manually securing data and access for sandbox orgs, admins can use Data Mask to automatically mask the data in a sandbox.

### **Where:**

This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions.

### **Why:**

Data Mask uses platform-native obfuscation technology to mask sensitive data in any full or partial sandboxes. The masking process lets you mask some or all sensitive data with different levels of masking, depending on the sensitivity of the data. Once the data is masked, you can't unmask it. This irreversible process ensures that the data is not replicated in a readable or recognizable way into another environment.

### **How:**

Data Mask is a managed package that you install in a production org. You then run the masking process from any sandbox created from the production org.

## AppExchange Partners: AppExchange App Analytics for Lightning Apps and Pages

Learn how subscribers use your Lightning apps and pages by exploring AppExchange App Analytics data.

## IN THIS SECTION:

[Analyze Lightning Page Usage and Company Information with AppExchange App Analytics](#)

AppExchange App Analytics help you gain insight into how subscribers are using your managed packages. The available usage data for your managed package now includes Lightning apps and pages, and company information of subscribers who download your app.

## Analyze Lightning Page Usage and Company Information with AppExchange App Analytics

AppExchange App Analytics help you gain insight into how subscribers are using your managed packages. The available usage data for your managed package now includes Lightning apps and pages, and company information of subscribers who download your app.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Developer Edition.

**How:** To activate AppExchange App Analytics, log a case in the [Salesforce Partner Community](#). AppExchange App Analytics is available only for managed packages that have passed security review.

## Packaging: Faster Package Creation, New Skip Validation Option, and Changes to Flows and External Sharing Settings

Now it takes less time to create or install package versions. You can skip validation when creating new package versions. And we made changes to flows in unlocked packages, and changes to the default external sharing settings that may affect your packages.

## IN THIS SECTION:

[Skip Validation to Quickly Iterate Package Development](#)

Iterate package development more efficiently by skipping validation of dependencies, package ancestors, and metadata during package version creation. You can use the skip validation parameter with second-generation managed packages and unlocked packages. Skipping validation reduces the time it takes to create a new package version, but package versions created without validation can't be promoted to the released state.

[Create and Install Package Versions Faster](#)

The wait time is now much less when you create a new package version immediately after creating a new package. Also, the time between when a package version is created and when it's available to install is also much less. After promoting a package version to released, you can now install it in a production org without delay. In most scenarios, you don't need the `publishwait` CLI parameter.

[Update Managed Packages for External Sharing Model Changes](#)

Ensure that your managed packages are up-to-date for changes to the external sharing model. The external sharing model is automatically enabled in Salesforce orgs created in Spring '20 or after. Also, external access levels are initially set to Private for all objects in these orgs. These changes don't affect existing customers.

[View More Packaging Details in List and Report Salesforce CLI Commands](#)

We expanded the `package:version:list` and `package:version:report` commands to show information on code coverage, package ancestor, and whether validation was skipped.

[Determine How Many Components Display in Package Manager](#)

Adjust how many components show in your packages in the Package Manager page in Setup. By default, packages with less than 10,000 components display all components. And packages with over 10,000 components are paginated by default.



### [Update Flows in Unlocked Packages](#)

Ensure that your unlocked packages that contain flows work with the changes we made to how API names are handled, and how to delete flows.

## Skip Validation to Quickly Iterate Package Development

Iterate package development more efficiently by skipping validation of dependencies, package ancestors, and metadata during package version creation. You can use the skip validation parameter with second-generation managed packages and unlocked packages. Skipping validation reduces the time it takes to create a new package version, but package versions created without validation can't be promoted to the released state.

**Where:** This change applies to package versions created using Salesforce CLI or Tooling API.

**Who:** Users need the System Administrator profile or the Create and Update Second-Generation Packages permission.

**How:** In Salesforce CLI run: `sfdx force:package:version:create --skipvalidation`. In Tooling API, use the `skipValidation` field on the `Package2VersionCreate` object.



**Note:** You can't specify both skip validation and code coverage, because code coverage is calculated during validation.

## Create and Install Package Versions Faster

The wait time is now much less when you create a new package version immediately after creating a new package. Also, the time between when a package version is created and when it's available to install is also much less. After promoting a package version to released, you can now install it in a production org without delay. In most scenarios, you don't need the `publishwait` CLI parameter.

**Where:** This change applies to managed and unlocked package versions created using Salesforce CLI or Tooling API.

**Who:** Users need the System Administrator profile or the Create and Update Second-Generation Packages permission.

**Why:** If you have a continuous integration (CI) process, validation during package version creation may duplicate your CI steps and increase the time it takes for end-to-end CI.

If you aren't integrating with a CI process, it's a best practice to create package versions without skipping validation to catch errors that you might otherwise miss.

## Update Managed Packages for External Sharing Model Changes

Ensure that your managed packages are up-to-date for changes to the external sharing model. The external sharing model is automatically enabled in Salesforce orgs created in Spring '20 or after. Also, external access levels are initially set to Private for all objects in these orgs. These changes don't affect existing customers.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions. Dev Hub is available in Developer, Enterprise, Performance, and Unlimited editions.

**Why:** Packages that depend on an object's external access level being anything other than Private don't always work as expected in orgs created in Spring '20 or after.

**How:** Update your packages to support these changes by modifying org-wide defaults.

SEE ALSO:

[External Org-Wide Defaults Are Enabled by Default in All New Orgs](#)

## View More Packaging Details in List and Report Salesforce CLI Commands

We expanded the `package:version:list` and `package:version:report` commands to show information on code coverage, package ancestor, and whether validation was skipped.

**Where:** This change applies to package versions created using Salesforce CLI or Tooling API.


**Why:** Find out quickly if the package version passed code coverage, and which package version is the ancestor.

Output from `package:version:report` CLI command.

```
Released                false
Validation Skipped     false
Ancestor               04txx0000004MnmAAE
Ancestor Version       0.1.0.2
Code Coverage          17%
Code Coverage Met      false
```

Output from `package:version:list` CLI command. Use `--verbose` to view code coverage information.

```
Released  Validation Skipped  Ancestor  Ancestor Version  Branch
-----  -
true     false
true     false             04txx0000004M10AAU  0.7.0.1
```

 **Note:** Ancestor information is available for package versions created in Spring '20 or after.

## Determine How Many Components Display in Package Manager

Adjust how many components show in your packages in the Package Manager page in Setup. By default, packages with less than 10,000 components display all components. And packages with over 10,000 components are paginated by default.

**Where:** This change applies to managed and unlocked packages in Lightning Experience and Salesforce Classic. Dev Hub is available in Developer, Enterprise, Performance, and Unlimited editions.

**How:** From Setup, enter *Package Manager* in Quick Find box. Select your package, and then adjust the pagination using the dropdown menu located below the list of components.

## Update Flows in Unlocked Packages

Ensure that your unlocked packages that contain flows work with the changes we made to how API names are handled, and how to delete flows.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions. Dev Hub is available in Developer, Enterprise, Performance, and Unlimited editions.

**Why:**

- A flow installed from an unlocked package with the same API name overrides the existing flow in the target org.
- Delete flows from an unlocked package manually—you can't delete them by removing them from the unlocked package.

SEE ALSO:

[Help: Packaging Considerations for Flows](#)

[Help: Considerations for Installed Flows](#)

## Change Data Capture: More Object Support and Event Enrichment (Pilot)

Receive change notifications for more objects, and enrich your event messages with fields (pilot).

### IN THIS SECTION:

#### [Expanded Object Support for Change Data Capture](#)

You can now receive event notifications of record changes for many more objects.

#### [Enrich Change Event Messages with Fields That Are Always Included \(Pilot\)](#)

Change event messages include values for new and changed fields, but sometimes unchanged field values are needed for processing or replicating data. For example, a replication app needs an external ID field to match the record in an external system. You can now select which fields to always include in change event messages when non-empty.

#### [Change Events Are No Longer Blocked When Encryption Is Not Enabled](#)

In an org with Shield Platform Encryption, if you don't enable encryption of change events, event messages are stored in the event bus in clear text for up to three days. Previously, change events were blocked and not delivered until you enabled event encryption.

## Expanded Object Support for Change Data Capture

You can now receive event notifications of record changes for many more objects.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**How:** These are the new objects that now support Change Data Capture.

- ActionCadence
- ActionCadenceStep
- ActionCadenceStepTracker
- ActionCadenceTracker
- AssignedResource
- CallTemplate
- ContactPointConsent
- ContactPointEmail
- ContactPointPhone
- EmailMessage
- EmailTemplate
- Location
- Macro
- MacroInstruction
- MaintenanceAsset
- MaintenancePlan
- OpportunitySplit
- PartyConsent
- Pricebook2
- ProductConsumed
- ProductItem

- ProductRequest
- ProductRequestLineItem
- ProductTransfer
- QuickText
- Recommendation
- ResourceAbsence
- ReturnOrder
- ReturnOrderLineItem
- ServiceAppointment
- ServiceCrew
- ServiceCrewMember
- ServiceResource
- ServiceTerritory
- ServiceTerritoryMember
- Shipment
- SocialPost
- TimeSheet
- TimeSheetEntry
- VoiceCall
- VoiceCallRecording
- WorkOrder
- WorkOrderLineItem
- WorkType


Select the objects that you want to get notifications for on the Change Data Capture page in Setup. For a full list of enabled objects for Change Data Capture, see [Change Event Object Support](#) in the *Change Data Capture Developer Guide*.

 **Note:** Not all objects may be available in your org. Some objects require specific feature settings and permissions to be enabled.

## Enrich Change Event Messages with Fields That Are Always Included (Pilot)

Change event messages include values for new and changed fields, but sometimes unchanged field values are needed for processing or replicating data. For example, a replication app needs an external ID field to match the record in an external system. You can now select which fields to always include in change event messages when non-empty.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

 **Note:** We provide Change Data Capture Enrichment to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Change Data Capture Enrichment isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features. You can provide feedback and suggestions for Change Data Capture Enrichment in the [Trailblazer Community](#).

**How:** To select fields for change event enrichment, use the PlatformEventChannelMember object in Tooling API or Metadata API.

## Change Events Are No Longer Blocked When Encryption Is Not Enabled

In an org with Shield Platform Encryption, if you don't enable encryption of change events, event messages are stored in the event bus in clear text for up to three days. Previously, change events were blocked and not delivered until you enabled event encryption.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**How:** To enable encryption of change events, first create an event bus tenant secret on the Key Management page in Setup. Then enable encryption of change events on the Encryption Policy page.



**Warning:** You must create an event bus tenant secret before enabling encryption. From Setup, the encryption setting is available only after you create an event bus tenant secret. In Metadata API, if you enable encryption using PlatformEncryptionSettings without having the tenant secret, change events are blocked.

## Platform Events: Encryption Support

Enable the encryption of platform event messages in the event bus. Also, use a new REST API limit for accurate CometD event delivery usage.

### IN THIS SECTION:

#### [Encrypt Platform Event Messages in the Event Bus](#)

For added security, you can now enable encryption of platform event messages at rest while they're stored in the event bus in a Shield Encryption org.

#### [Get Your Platform Event Entitlement Based on Your Contract Start Date](#)

If you have a high-volume platform event add-on license, use the new `MonthlyPlatformEventsUsageEntitlement` value in the `limits` REST API resource. This new value returns CometD client delivery usage, which is correctly based on your contract start date instead of the first of the month.

## Encrypt Platform Event Messages in the Event Bus

For added security, you can now enable encryption of platform event messages at rest while they're stored in the event bus in a Shield Encryption org.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**How:** To enable encryption of platform events, first create an event bus tenant secret on the Key Management page in Setup. Then enable encryption of platform events on the Encryption Policy page.

When you enable encryption of platform events in a Shield Encryption org, event messages are encrypted using the key that is based on the event bus tenant secret type. The encrypted event messages are stored in the event bus for up to 3 days (or 1 day for standard-volume events). The encryption applies to all custom and standard platform events, including Real-Time Event Monitoring streamed events.

Before delivering a platform event message to a subscribed client, the event payload is decrypted using the encryption key. The platform event message is sent over a secure channel using HTTPS and TLS, which ensures that the data is protected and encrypted while in transit.

### SEE ALSO:

[Encrypt Platform Events](#)

## Get Your Platform Event Entitlement Based on Your Contract Start Date

If you have a high-volume platform event add-on license, use the new `MonthlyPlatformEventsUsageEntitlement` value in the `limits` REST API resource. This new value returns CometD client delivery usage, which is correctly based on your contract start date instead of the first of the month.

**Where:** This change applies to Enterprise, Performance, Unlimited, and Developer editions.

**Why:** `MonthlyPlatformEventsUsageEntitlement` is more accurate than `MonthlyPlatformEvents` in previous API versions, which is based on the first of the month instead of the contract start date.

`MonthlyPlatformEventsUsageEntitlement` replaces `MonthlyPlatformEvents` in API version 48.0 and later.

**How:** Make a GET request to `/services/data/v48.0/limits`.

## New and Changed Items for Developers

Here is where you can find new and changed objects, calls, classes, components, commands, and more that help you customize Salesforce features.

### IN THIS SECTION:

#### [Lightning Components: New and Changed Items](#)

Build UI easily with these new and changed resources.

#### [Apex: New and Changed Items](#)

These classes, enums, and interfaces are new or have changes.

#### [ConnectApi \(Chatter in Apex\): New and Changed Classes and Enums](#)

Create custom experiences in Salesforce using Chatter in Apex. Get, create, update, and delete personalization audiences and targets.

#### [API: New and Changed Items](#)

Access more data objects, metadata types, REST resources, and more in API version 48.0.

#### [Salesforce CLI: New and Changed Commands](#)

Use Salesforce CLI to create environments for development and testing, synchronize source code, run tests, and control your application lifecycle. Read the weekly release notes to learn about recent updates to [v48 of the Salesforce CLI](#).

## Lightning Components: New and Changed Items

Build UI easily with these new and changed resources.

### IN THIS SECTION:

#### [New and Changed Lightning Web Components](#)

Build UI more efficiently with these new and changed components.

#### [New and Changed Modules for Lightning Web Components](#)

Modules enable you to do more with Lightning web components.

#### [New and Changed Aura Components](#)

Build UI more efficiently with these new and changed components.

## New and Changed Lightning Web Components

Build UI more efficiently with these new and changed components.

### New Components

The following component is new and requires API version 48.0 and later.

#### **lightning-progress-ring**

Displays a circular progress bar to indicate the progress of an operation.

### Changed Lightning Web Components

The following components have changed.

#### **lightning-button-menu**

The following attribute on the `lightning-menu-subheader` child component has changed.

- `label`—The text is now bold and no longer transformed to all caps.

#### **lightning-datatable**

Primitive cell elements are no longer used, which improves the overall performance of this component. The generated markup of a component can change, so don't depend on it for custom styling and functional hooks.

The `text` type now supports the `linkify` attribute. To enable link conversions in text:

```
var columns = [
  {
    label: 'Comments', fieldName: 'comments', type: 'text',
    typeAttributes: { linkify: true }
  },
  // other column data
]
```

The following custom event has changed.

- `resize`—The `isUserTriggered` parameter is new. This boolean specifies whether a user action with a mouse or keyboard caused the column resize.

The following attribute is new.

- `wrap-text-max-lines`—This value specifies the number of lines after which the content will be cut off and hidden. It must be at least 1 or more. The text in the last line is truncated and shown with an ellipsis.

The following property for the `columns` attribute is new.

- `wrapText`—Specifies whether text in a column is wrapped when the table renders. Wrapped text expands a row to reveal its full content. Use with `wrapTextMaxLines` to display a number of lines and hide the rest.

The following property for custom template definition is new.

- `standardCellLayout`—Specifies whether custom cells use the standard layout. The default layout for custom cells is the bare layout.

#### **lightning-input**

The following custom event is new.

- `commit`—Dispatched with the following user actions.
  - Change the input value and press Enter or move focus away from the input, for all input types.
  - Press Up or Down arrow keys in `number` input types.

- Click the X button in `search` input types to clear the search.

The input type `number` has changed.

- As you enter numbers, the component now uses your Salesforce locale for formatting. Previously, the component used the region setting of the mobile device or desktop OS for number entry formatting. The Salesforce locale was used for number display when the field lost focus. Now the experience is more consistent.
- You can include the number separators (commas or periods) for your Salesforce locale when entering numbers.
- Arabic, Hindu, and Persian numbers are supported.
- With validation errors, the invalid input is preserved in the input field to let you correct the input instead of reentering.
- Buttons for changing the number value are removed. In addition, if you scroll using the mouse in the input field, the number no longer changes. You can use Up and Down arrow keys to increase and decrease the number.
- Very long number input is no longer rounded off automatically. However, if you use the Up and Down arrow keys to change the number, rounding still occurs.
- Percent formatting no longer displays extra decimal digits. For example, a value of 0.50 displays as 50% instead of 50.00%.
- The `change` event is dispatched each time the `value` of the input changes, and that now includes when the value is set to an empty string. The input component sets the value to an empty string when the number input becomes invalid. You can now reset the field in your `onchange` handler when the input is invalid.

The input types `date` and `datetime` have changed.

- As you enter or select a date and time, the component now uses your Salesforce locale for formatting. Previously, the component used the region setting of the mobile device or desktop OS for data and time entry formatting. The Salesforce locale was used for date and time display when the field lost focus. Now the experience is more consistent.
- Arabic, Hindu, and Persian numbers are supported.
- When your Salesforce locale is Thai, the Buddhist calendar system and Buddhist year are shown.

### **lightning-input-field**

The changes to `lightning-input` for fields of type `number`, `date`, and `datetime` also apply to `lightning-input-field`.

The following attribute has changed.

- `readonly`—The form now displays a read-only field as read-only instead of disabled. If you use inline edit on the form, the display of the read-only field remains unchanged.

### **lightning-map**

The following attribute is new.

- `selected-marker-value`—Provides the value of the currently selected marker. Returns `undefined` if you don't pass a `value` to `map-markers`

The following event handler is new.

- `onmarkerselect`—The `markerselect` event is dispatched when you select a marker. Select a marker by clicking it on the map or on the list of locations.

### **lightning-menu-item**

The following attribute is new.

- `download`—Specifies the name of a file to download when clicking a link in the menu item. The name is used when the file is saved in the download location and is not necessarily the name of the original file. Use `download` with the `href` attribute.

### **lightning-output-field**

Email addresses are no longer displayed with an email icon to be consistent with the email addresses displayed on record detail pages.



**lightning-pill**

The following attribute has changed.

- `has-error`—The  (warning) icon has been replaced by the  (error) icon.

**lightning-progress-indicator**

The following attribute has changed.

- `has-error`—The  (warning) icon has been replaced by the  (error) icon.

**lightning-record-form**

If a field is read-only, the form now displays the field as read-only instead of disabled. If you use inline edit on the form, the display of the read-only field remains unchanged.

**lightning-tree**

The `items` array has changed. To expand or collapse a branch, get the tree items and modify the `expanded` property.

```
// expand the first branch
this.template.querySelector('lightning-tree').items[0].expanded = true;

// collapse the first branch
this.template.querySelector('lightning-tree').items[0].expanded = false;
```

**lightning-tree-grid**

Primitive cell elements are no longer used, which improves the overall performance of this component. The generated markup of a component can change, so don't depend on it for custom styling and functional hooks.

The `text` type now supports the `linkify` attribute. To enable link conversions in text:

```
var columns = [
  {
    label: 'Comments', fieldName: 'comments', type: 'text',
    typeAttributes: { linkify: true }
  },
  // other column data
]
```

The following attribute has changed.

- `label`—The text is now bold and no longer transformed to all caps.

**lightning-vertical-navigation-section**

The following attribute has changed.

- `label`—The text is now bold and no longer transformed to all caps.

SEE ALSO:

[Component Library](#)

**New and Changed Modules for Lightning Web Components**

Modules enable you to do more with Lightning web components.

**New Modules**

The following modules are now available.

**lightning/pageReferenceUtils**

Provides utilities for encoding and decoding default field values. To generate a URL for or navigate to a record's create page with prepopulated field values, pass this string into the `pageReference.state.defaultFieldValues` attribute on standard\_\_objectPage page reference types. You decode the string only when using override actions. We recommend using `lightning/pageReferenceUtils` with `lightning/navigation` to navigate to a record's create page instead of using `force:createRecord`. For more information, see [Navigate Users to a Record with Default Field Values](#) on page 490.

**lightningsnapin/minimized**

Enables customization of the user interface for the minimized state. Your custom component should specify the `lightningSnapin_Minimized` target in the `js-meta.xml` configuration file. For more information, see [Customize Chat with Lightning Web Components](#) on page 223.

**@salesforce/messageChannel (Beta)**

A string indicating the name of the Lightning message channel, used together with the `lightning/messageService` module. A Lightning web component uses a Lightning message channel to access the Lightning Message Service API. Use the Lightning Message Service API to communicate across the DOM, between Aura components, Visualforce pages, and Lightning web components.

```
// Syntax
import channelName from '@salesforce/messageChannel/channelReference';
```

```
// Syntax for resources in a managed package
import channelName from '@salesforce/messageChannel/namespace__channelReference';
```

```
// Example
import SAMPLEMC from '@salesforce/messageChannel/SampleMessageChannel__c';
```

- **channelName**—An imported symbol that identifies the message channel.
- **channelReference**—The API name of the message channel.
- **namespace**—If the message channel is in a managed package, this value is the namespace of the managed package. If the message channel is not in a managed package, omit the namespace.

For more information, see [Communicate Across Salesforce UI Technologies with Lightning Message Service \(Beta\)](#).

**lightning/messageService (Beta)**

Provides access to Lightning Message Service API methods and resources. To subscribe to or unsubscribe from a message channel, import the following.

```
// Subscribe/unsubscribe example
import { subscribe, unsubscribe, APPLICATION_SCOPE, MessageContext } from
'lightning/messageService';
```

To publish on a message channel, import the `publish()` method and `MessageContext`.

```
// Publish example
import { publish, MessageContext } from 'lightning/messageService';
```

For more information, see [Communicate Across Salesforce UI Technologies with Lightning Message Service \(Beta\)](#).

**lightningsnapin/basePrechat**

Enables customization of the user interface for the prechat form. Your custom component should specify the `lightningSnapin_PreChat` target in the `js-meta.xml` configuration file. For more information, see [Customize Chat with Lightning Web Components](#) on page 223.

## Changed Modules

The following modules have changed.

### **lightning/uiListApi (Beta)**

This module now returns records containing the fields specified by:

- The list view metadata, returned by `displayColumns`
- The `fields` and `optionalFields` parameters, assuming the user has access to them
- The object's system fields, if the object has them, such as `CreatedDate`, `Id`, `LastModifiedById`, `LastModifiedDate`, and `SystemModstamp`

Previously, the records returned by `lightning/uiListApi` contain all of the above and also additional fields not requested by the `@wire` definition nor defined by the list view. If your component requires specific field values that are not returned by `lightning/uiListApi`, use the `fields` or `optionalFields` parameter to include those fields.

## New and Changed Aura Components

Build UI more efficiently with these new and changed components.

### New Aura Components

The following components are new and require API version 48.0 and later.

#### **lightning:pageReferenceUtils**

This component provides utilities for encoding and decoding default field values. To generate a URL for or navigate to a record's create page, pass the encoded string into the new `pageReference.state.defaultFieldValues` attribute on `standard__objectPage` page reference types. You decode the string only when using override actions. We recommend using `lightning:pageReferenceUtils` with `lightning:navigation` to navigate to a record's create page instead of using `force:createRecord`. For more information, see [Navigate Users to a Record with Default Field Values](#) on page 490.

#### **lightning:progressRing**

Displays a circular progress bar to indicate the progress of an operation.

#### **lightning:messageChannel (Beta)**

Provides access to the Lightning Message Service API. Use Lightning Message Service to publish and subscribe to messages across the DOM and between Aura components, Visualforce pages, and Lightning web components. For more information, see [Communicate Across Salesforce UI Technologies with Lightning Message Service \(Beta\)](#).

## Changed Aura Components

The following components have changed.

#### **forceCommunity:navigationMenuBase**

The following attribute is new.

- `navigationLinkId`—The ID or developer name of the `NavigationLinkSet` type to be rendered in the component. `NavigationLinkSet` represents the navigation menu in a community.

#### **lightning:breadcrumb**

The following attribute has changed.

- `label`—The text label is no longer transformed to all caps.

#### **lightning:buttonMenu**

The following attribute on the `lightning:menuSubheader` child component has changed.

- `label`—The text is now bold and no longer transformed to all caps.

### **lightning:card**

The following attribute has changed.

- `title`—This attribute is no longer required.

### **lightning:datatable**

Primitive cell elements are no longer used, which improves the overall performance of this component. The generated markup of a component can change, so don't depend on it for custom styling and functional hooks.

The `text` type now supports the `linkify` attribute. To enable link conversions in text:

```
var columns = [
  {
    label: 'Comments', fieldName: 'comments', type: 'text',
    typeAttributes: { linkify: true }
  },
  // other column data
]
```

The following attribute has changed.

- `onresize`—The `isUserTriggered` parameter is new. This boolean specifies whether a user action with a mouse or keyboard caused the column resize.

The following attribute is new.

- `wrapTextMaxLines`—This value specifies the number of lines after which the content is cut off and hidden. It must be at least 1 or more. The text in the last line is truncated and shown with an ellipsis.

The following property for the `columns` attribute is new.

- `wrapText`—Specifies whether text in a column is wrapped when the table renders. Wrapped text expands a row to reveal its full content. Use with `wrapTextMaxLines` to display a number of lines and hide the rest.

### **lightning:input**

The following custom event is new.

- `commit`—Dispatched with the following user actions.
  - Change the input value and press Enter or move focus away from the input, for all input types.
  - Press Up or Down arrow keys in `number` input types.
  - Click the X button in `search` input types to clear the search.

The input type `number` has changed.

- As you enter numbers, the component now uses your Salesforce locale for formatting. Previously, the component used the region setting of the mobile device or desktop OS for number entry formatting. The Salesforce locale was used for number display when the field lost focus. Now the experience is more consistent.
- You can include the number separators (commas or periods) for your Salesforce locale when entering numbers.
- Arabic, Hindu, and Persian numbers are supported.
- With validation errors, the invalid input is preserved in the input field to let you correct the input instead of reentering.
- Buttons for changing the number value are removed. In addition, if you scroll using the mouse in the input field, the number no longer changes. You can use Up and Down arrow keys to increase and decrease the number.
- Very long number input is no longer rounded off automatically. However, if you use the Up and Down arrow keys to change the number, rounding still occurs.
- Percent formatting no longer displays extra decimal digits. For example, a value of 0.50 displays as 50% instead of 50.00%.

- The `change` event is dispatched each time the `value` of the input changes, and that now includes when the value is set to an empty string. The input component sets the value to an empty string when the number input becomes invalid. You can now reset the field in your `onchange` handler when the input is invalid.

The input types `date` and `datetime` have changed.

- As you enter or select a date and time, the component now uses your Salesforce locale for formatting. Previously, the component used the region setting of the mobile device or desktop OS for data and time entry formatting. The Salesforce locale was used for date and time display when the field lost focus. Now the experience is more consistent.
- Arabic, Hindu, and Persian numbers are supported.
- When your Salesforce locale is Thai, the Buddhist calendar system and Buddhist year are shown.

### **lightning:inputField**

The changes to `lightning:input` for fields of type `number`, `date`, and `datetime` also apply to `lightning:inputField`.

The following attribute has changed.

- `readonly`—The form now displays a read-only field as read-only instead of disabled. If you use inline edit on the form, the display of the read-only field remains unchanged.

### **lightning:map**

The following attribute is new.

- `selectedMarkerValue`—Provides the value of the currently selected marker. Returns `undefined` if you don't pass a value to `mapMarkers`.

The following event handler is new.

- `onmarkerselect`—The `markerselect` event is dispatched when you select a marker. Select a marker by clicking it on the map or on the list of locations.

### **lightning:menuItem**

The following attribute is new.


- `download`—Specifies the name of a file to download when clicking a link in the menu item. The name is used when the file is saved in the download location and is not necessarily the name of the original file. Use `download` with the `href` attribute.

### **lightning:outputField**

Email addresses are no longer displayed with an email icon to be consistent with the email addresses displayed on record detail pages.



### **lightning:pill**

The following attribute has changed.

- `hasError`—The  (warning) icon has been replaced by the  (error) icon.

### **lightning:progressIndicator**

The following attribute has changed.

- `hasError`—The  (warning) icon has been replaced by the  (error) icon.

### **lightning:recordForm**

If a field is read-only, the form now displays the field as read-only instead of disabled. If you use inline edit on the form, the display of the read-only field remains unchanged.

### **lightning:treeGrid**

Primitive cell elements are no longer used, which improves the overall performance of this component. The generated markup of a component can change, so don't depend on it for custom styling and functional hooks.

The `text` type now supports the `linkify` attribute. To enable link conversions in text:

```
var columns = [
  {
    label: 'Comments', fieldName: 'comments', type: 'text',
    typeAttributes: { linkify: true }
  },
  // other column data
]
```

The following property for the `columns` attribute has changed.

- `label`—The text is now bold and no longer transformed to all caps.

#### **lightning:verticalNavigationSection**

The following attribute has changed.

- `label`—The text is now bold and no longer transformed to all caps.

SEE ALSO:

[Component Library](#)

## Apex: New and Changed Items

These classes, enums, and interfaces are new or have changes.

For more information, refer to the [Apex Developer Guide](#).

IN THIS SECTION:

[Auth Namespace](#)

The Auth namespace has these new or changed classes, methods, interfaces, enums, or exceptions.

[Reports Namespace](#)

The Reports namespace has these new or changed classes, methods, interfaces, enums, or exceptions.

[Schema Namespace](#)

The Schema namespace has these new or changed classes, methods, interfaces, enums, or exceptions.

[System Namespace](#)

The System namespace has these new or changed classes, methods, interfaces, enums, or exceptions.

SEE ALSO:

[Apex: New Features](#)

### Auth Namespace

The Auth namespace has these new or changed classes, methods, interfaces, enums, or exceptions.

### New or Changed Methods in Existing Classes

#### **Get the single sign-on URL for a community subdomain**

Use the new `getAuthProviderSsoDomainUrl` (`communityUrl`, `startUrl`, `developerName`) method in the `Auth.AuthConfiguration` class.

## Reports Namespace

The Reports namespace has these new or changed classes, methods, interfaces, enums, or exceptions.

### New or Changed Methods in Existing Classes

#### Obtain the report filter type

Use the new `getFilterType (reports.ReportFilterType)` method in the `reports.ReportFilter` class.

#### Set the report filter type

Use the new `setFilterType (reports.ReportFilterType)` method in the `reports.ReportFilter` class.

#### Obtain the string representation of the report filter type

Use the new `toString ()` method in the `reports.ReportFilter` class.

### New Enums

#### Specify the type of report filter used by the `getFilterType (reports.ReportFilterType)` and `setFilterType (reports.ReportFilterType)` methods

Use the `ReportFilterType` enum.

## Schema Namespace

The Schema namespace has these new or changed classes, methods, interfaces, enums, or exceptions.

### New or Changed Methods in Existing Classes

#### Obtain the describe sObject result for a field, determining whether to load child relationships or not based on the parameter value.

Use the new `getDescribe (options)` method in the `Schema.SObjectType` class.

## System Namespace

The System namespace has these new or changed classes, methods, interfaces, enums, or exceptions.

### New or Changed Methods in Existing Classes

#### Specify a redirect code to control page URL redirects

Use the new `setRedirectCode (redirectCode)` method in the `PageReference` class to specify a `redirectCode` of 301, 302, 303, 307, or 308. The new `getRedirectCode ()` method returns the `PageReference redirectCode`.

#### Obtain the string representation of the List collection type

Use the new `toString ()` method in the `System.List` class.

#### Obtain the string representation of the Map collection type

Use the new `toString ()` method in the `System.Map` class.

#### Obtain the string representation of the Set type

Use the new `toString ()` method in the `System.Set` class.

#### Obtain the string representation of a Cookie's SameSite attribute

Use the new `getSameSite ()` method in the `System.Cookie` class.

## ConnectApi (Chatter in Apex): New and Changed Classes and Enums

Create custom experiences in Salesforce using Chatter in Apex. Get, create, update, and delete personalization audiences and targets.

Many Chatter REST API resource actions are exposed as static methods on Apex classes in the `ConnectApi` namespace. These methods use other `ConnectApi` classes to input and return information. The `ConnectApi` namespace is referred to as *Chatter in Apex*.

In Apex, you can access some Chatter data using SOQL queries and objects. However, it's simpler to expose Chatter data in `ConnectApi` classes, and data is localized and structured for display. For example, instead of making several calls to access and assemble a feed, you can do it with a single call.



**Note:** To integrate mobile apps, intranet sites, and third-party web applications with Chatter and Communities, use [Chatter REST API](#).

### IN THIS SECTION:

#### [New Chatter in Apex Classes](#)

These classes are new.

#### [New Chatter in Apex Input Classes](#)

These input classes are new.

#### [New and Changed Chatter in Apex Output Classes](#)

These output classes are new or have changes.

#### [New and Changed Chatter in Apex Enums](#)

These enums are new or have changes.

## New Chatter in Apex Classes

These classes are new.

## Managed Content

These new methods are in the `ConnectApi.ManagedContent` class.



**Note:** As a beta feature, this API is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature.

### Get all managed content versions for a channel

- `getAllContent(channelId, pageParam, pageSize, language, managedContentType, includeMetadata, startDate, endDate)`

### Get all managed content versions for a channel using a list of managed content IDs

- `getContentByIds(channelId, managedContentIds, pageParam, pageSize, language, managedContentType, includeMetadata, startDate, endDate)`

### Get managed content delivery channels for the context user

- `getAllDeliveryChannels(pageParam, pageSize)`



## Order Management

New methods for working with Salesforce Order Management are in the `ConnectApi.FulfillmentOrder`, `ConnectApi.OrderPaymentSummary`, `ConnectApi.OrderSummary`, and `ConnectApi.OrderSummaryCreation` classes.

These new methods are in the `ConnectApi.FulfillmentOrder` class.

### Cancel FulfillmentOrderLineItems from a FulfillmentOrder

- `cancelFulfillmentOrderLineItems (fulfillmentOrderId, cancelFulfillmentOrderLineItemsInput)`

### Create FulfillmentOrders

- `createFulfillmentOrders (fulfillmentOrderInput)`

### Create an invoice for a FulfillmentOrder

- `createInvoice (fulfillmentOrderId, invoiceInput)`

This new method is in the `ConnectApi.OrderPaymentSummary` class.

### Create an OrderPaymentSummary

- `createOrderPaymentSummary (orderPaymentSummaryInput)`

These new methods are in the `ConnectApi.OrderSummary` class.

### Create a Credit Memo for change orders on an OrderSummary

- `createCreditMemo (orderSummaryId, creditMemoInput)`

### Asynchronously ensure funds for an invoice

- `ensureFundsAsync (orderSummaryId, ensureFundsInput)`

### Asynchronously ensure refunds for a credit memo

- `ensureRefundsAsync (orderSummaryId, ensureRefundsInput)`

### Preview the expected change order for a proposed cancel action

- `previewCancel (orderSummaryId, changeInput)`

### Preview the expected change order for a proposed return action

- `previewReturn (orderSummaryId, changeInput)`

### Submit a cancel action

- `submitCancel (orderSummaryId, changeInput)`

### Submit a return action

- `submitReturn (orderSummaryId, changeInput)`

This new method is in the `ConnectApi.OrderSummaryCreation` class.

### Create an OrderSummary

- `createOrderSummary (orderSummaryInput)`

## Personalization

These new methods are in the `Personalization` class.

**Get audiences**

- `getAudience(communityId, audienceId, includeAudienceCriteria)`
- `getAudienceBatch(communityId, audienceIds)`
- `getAudiences(communityId, ipAddress, domain, userId, publishStatus, includeAudienceCriteria, targetTypes)`

**Create audiences**

- `createAudience(communityId, audience)`

**Update audiences**

- `updateAudience(communityId, audienceId, audience)`

**Delete audiences**

- `deleteAudience(communityId, audienceId)`

**Get targets**

- `getTarget(communityId, targetId)`
- `getTargets(communityId, ipAddress, domain, userId, publishStatus, recordId, targetTypes, includeAudience, includeAllMatchingTargetsWithinGroup, groupNames)`

**Create targets**

- `createTargets(communityId, target)`

**Update targets**

- `updateTargets(communityId, target)`

**Delete targets**

- `deleteTarget(communityId, targetId)`

**New Chatter in Apex Input Classes**

These input classes are new.

**Order Management****ConnectApi.ChangeInputRepresentation**

This new input class has this property.

- `changeItems`—List of changes to OrderItemSummaries.

**ConnectApi.ChangeItemInputRepresentation**

This new input class has these properties.

- `orderItemSummaryId`—ID of the OrderItemSummary.
- `quantity`—Quantity to change. Use a positive value. For example, a value of 2 means “cancel or return 2 units.”
- `reason`—Reason for the change. The value must match one of the picklist values on the Reason field of the OrderItemSummaryChange object.
- `shippingReductionFlag`—Specifies whether to prorate the shipping charge.

**ConnectApi.CreateCreditMemoInputRepresentation**

This new input class has this property.

- `changeOrderIds`—List of IDs of the change orders.

**ConnectApi.CreateOrderPaymentSummaryInputRepresentation**

This new input class has these properties.

- `orderSummaryId`—ID of the OrderSummary.
- `paymentAuthorizationId`—ID of the payment authorization.
- `paymentIds`—List of IDs of the payments.

**ConnectApi.EnsureFundsAsyncInputRepresentation**

This new input class has this property.

- `invoiceId`—ID of the invoice.

**ConnectApi.EnsureRefundsAsyncInputRepresentation**

This new input class has this property.

- `creditMemoId`—ID of the credit memo.

**ConnectApi.FulfillmentGroupInputRepresentation**

This new input class has these properties.

- `fulfilledFromLocationId`—ID of the fulfillment location.
- `fulfillmentType`—Fulfillment type. One of the Type field values defined for FulfillmentOrders.
- `orderItemSummaries`—List of OrderItemSummaries.

**ConnectApi.FulfillmentOrderInputRepresentation**

This new input class has these properties.

- `fulfillmentGroups`—List of fulfillment groups that specify the OrderItemSummaries and fulfillment locations.
- `orderDeliveryGroupSummaryId`—ID of the OrderDeliveryGroupSummary.
- `orderSummaryId`—ID of the OrderSummary.

**ConnectApi.FulfillmentOrderInvoiceInputRepresentation**

This new input class does not have any properties.

**ConnectApi.FulfillmentOrderLineItemInputRepresentation**

This new input class has these properties.

- `fulfillmentOrderLineItemId`—ID of the FulfillmentOrderLineItem.
- `quantity`—Quantity to cancel.

**ConnectApi.FulfillmentOrderLineItemsToCancelInputRepresentation**

This new input class has this property.

- `fulfillmentOrderLineItemsToCancel`—List of FulfillmentOrderLineItems and quantities.

**ConnectApi.OrderItemSummaryInputRepresentation**

This new input class has these properties.

- `orderItemSummaryId`—ID of the OrderItemSummary.
- `quantity`—Quantity to include.

**ConnectApi.OrderSummaryInputRepresentation**

This new input class has this property.

- `orderId`—ID of the original order.

## Personalization

### **ConnectApi.AudienceCriterionInput**

This new input class has these properties.

- `criterion`—List of mappings of audience criteria fields and values.
- `criterionNumber`—Number associated with the audience criterion in a formula. For example, (1 AND 2) OR 3. If unspecified, criteria are assigned numbers in the order that they're added.
- `criterionOperator`—Operator used in the personalization audience criterion. Values are:
  - `Contains`
  - `Equal`
  - `GreaterThan`
  - `GreaterThanOrEqual`
  - `Includes`
  - `LessThan`
  - `LessThanOrEqual`
  - `NotEqual`
  - `NotIncludes`
  - `StartsWith`
- `criterionType`—Type of personalization audience criterion. Values are:
  - `Default`—Audience has no criteria.
  - `Domain`—Audience criterion is based on domain.
  - `FieldBased`—Audience criterion is based on object fields.
  - `GeoLocation`—Audience criterion is based on location.
  - `Permission`—Audience criterion is based on standard or custom permissions.
  - `Profile`—Audience criterion is based on profile.

### **ConnectApi.AudienceCriterionValueInput**

This new input class has these properties.

- `city`—City of a user.
- `country`—Country of a user.
- `domainId`—Domain ID of a user.
- `entityField`—Field of an object.
- `entityType`—Type of object.
- `fieldValue`—Value of a field.
- `isEnabled`—Specifies whether the permission is enabled (`true`) or not (`false`) for a user.
- `permission`—Valid API name of a standard user or custom permission.
- `profileId`—Profile ID of a user.
- `subdivision`—Subdivision of a user.

### **ConnectApi.AudienceInput**

This new input class has these properties.

- `criteria`—List of audience criteria to update or add.

- `customFormula`—Custom formula for the audience criteria. For example, (1 AND 2) OR 3.
- `formulaFilterType`—Formula filter type for the personalization audience. Values are:
  - `AllCriteriaMatch`—All audience criteria are true (AND operation).
  - `AnyCriterionMatches`—Any audience criterion is true (OR operation).
  - `CustomLogicMatches`—Audience criteria match the custom formula (for example, (1 AND 2) OR 3).
- `name`—Name of the audience.

#### **ConnectApi.TargetInput**

This new input class has these properties.

- `audienceId`—ID of the audience to assign to the target.
- `groupName`—Group name of the target. Groups bundle related target and audience pairs.
- `priority`—Priority of the target. Within a group, priority determines which target is returned if the user matches more than one audience.
- `publishStatus`—Publish status of the target. Values are:
  - `Draft`
  - `Live`
- `targetType`—Type of target, indicating the nature of the data being targeted.
- `targetValue`—Value of the target.

#### **ConnectApi.TargetCollectionInput**

This new input class has this property.

- `targets`—List of targets to create.

#### **ConnectApi.TargetCollectionUpdateInput**

This new input class has this property.

- `targets`—List of targets to update.

#### **ConnectApi.TargetUpdateInput**

This new input class has these properties.

- `audienceId`—ID of the audience to assign to the target.
- `priority`—Priority of the target. Within a group, priority determines which target is returned if the user matches more than one audience.
- `targetId`—ID of the target to update.

## New and Changed Chatter in Apex Output Classes

These output classes are new or have changes.

### Managed Content

#### **ConnectApi.ManagedContentChannel (Beta)**

This new output class has these properties.

- `channelId`—ID of the managed content channel.
- `channelName`—Name of the managed content channel.
- `channelType`—Type of managed content channel. Values are:

- CloudToCloud
- Community
- ConnectedApp
- `isChannelSearchable`—Specifies whether the text contents of the channel are searchable (`true`) or not (`false`).

#### **ConnectApi.ManagedContentChannelCollection (Beta)**

This new output class has these properties.

- `channels`—List of managed content channels.
- `currentPageUrl`—Chatter REST API URL identifying the current page.
- `nextPageUrl`—Chatter REST API URL identifying the next page, or `null` if there isn't a next page.
- `previousPageUrl`—Chatter REST API URL identifying the previous page, or `null` if there isn't a previous page.
- `totalChannels`—Total number of managed content channels.

#### **ConnectApi.ManagedContentDateAndTimeNodeValue**

This new output class is a subclass of `ConnectApi.ManagedContentNodeValue`. It has these properties.

- `dateTimeValue`—UTC date and time value of the managed content node.
- `timeZone`—Time zone in which the date and time is authored.

#### **ConnectApi.ManagedContentDateNodeValue**

This new output class is a subclass of `ConnectApi.ManagedContentNodeValue`. It has this property.

- `value`—Date value of the managed content node.

#### **ConnectApi.ManagedContentMediaNodeValue**

This output class has these new properties.

- `fileName`—File name of the managed content node.
- `resourceUrl`—Resource URL of the asset file.
- `unauthenticatedUrl`—Unauthenticated URL of the asset file or `null` if the asset file isn't visible to external users.

#### **ConnectApi.ManagedContentVersion**

This output class has these new properties.

- `contentUrlName`—Content URL name of the managed content version.
- `language`—Language of the managed content version.

## Order Management

#### **ConnectApi.BaseOutputRepresentation**

This new output class has these properties.

- `errors`—Any errors that were returned.
- `success`—Indicates whether the transaction was successful.

#### **ConnectApi.ChangeItemOutputRepresentation**

This new output class has these properties.

- `grandTotalAmount`—Change to the `GrandTotalAmount` field.
- `totalAdjustedDeliveryAmount`—Change to the `TotalAdjustedDeliveryAmount` field.
- `totalAdjustedDeliveryTaxAmount`—Change to the `TotalAdjustedDeliveryTaxAmount` field.
- `totalAdjustedProductAmount`—Change to the `TotalAdjustedProductAmount` field.
- `totalAdjustedProductTaxAmount`—Change to the `TotalAdjustedProductTaxAmount` field.

- `totalAdjustmentDistributedAmount`—Change to the `TotalAdjustmentDistributedAmount` field.
- `totalAdjustmentDistributedTaxAmount`—Change to the `TotalAdjustmentDistributedTaxAmount` field.
- `totalAmount`—Change to the `TotalAmount` field.
- `totalExcessFundsAmount`—The amount of excess funds available on the `OrderPaymentSummaries` related to the `OrderSummary`.
- `totalRefundableAmount`—The total amount available to be refunded. It is the sum of the `totalExcessFundsAmount` field and the portion of the `grandTotalAmount` field that applies to post-fulfillment changes.
- `totalTaxAmount`—Change to the `TotalTaxAmount` field.

#### **`ConnectApi.CreateCreditMemoOutputRepresentation`**

This new output class is a subclass of `ConnectApi.BaseOutputRepresentation` and has this property.

- `creditMemoId`—ID of the created Credit Memo.

#### **`ConnectApi.CreateOrderPaymentSummaryOutputRepresentation`**

This new output class is a subclass of `ConnectApi.BaseOutputRepresentation` and has this property.

- `orderPaymentSummaryId`—ID of the Order Payment Summary.

#### **`ConnectApi.EnsureFundsAsyncOutputRepresentation`**

This new output class is a subclass of `ConnectApi.BaseOutputRepresentation` and has this property.

- `backgroundOperationId`—ID of the background operation.

#### **`ConnectApi.EnsureRefundsAsyncOutputRepresentation`**

This new output class is a subclass of `ConnectApi.BaseOutputRepresentation` and has this property.

- `backgroundOperationId`—ID of the background operation.

#### **`ConnectApi.ErrorResponse`**

This new output class has these properties.

- `errorCode`—Error code.
- `message`—More error detail, if available.

#### **`ConnectApi.FulfillmentOrderCancelLineItemsOutputRepresentation`**

This new output class is a subclass of `ConnectApi.BaseOutputRepresentation` and does not have any properties. It only wraps the base output.

#### **`ConnectApi.FulfillmentOrderInvoiceOutputRepresentation`**

This new output class is a subclass of `ConnectApi.BaseOutputRepresentation` and has this property.

- `invoiceId`—ID of the created invoice.

#### **`ConnectApi.FulfillmentOrderOutputRepresentation`**

This new output class is a subclass of `ConnectApi.BaseOutputRepresentation` and has this property.

- `fulfillmentOrderIds`—A list of IDs of created Fulfillment Orders.

#### **`ConnectApi.OrderSummaryOutputRepresentation`**

This new output class is a subclass of `ConnectApi.BaseOutputRepresentation` and has this property.

- `orderSummaryId`—ID of the Order Summary.

#### **`ConnectApi.PreviewCancelOutputRepresentation`**

This new output class is a subclass of `ConnectApi.BaseOutputRepresentation` and has these properties.

- `changeBalances`—Expected change order financial values for the cancel action.
- `orderSummaryId`—ID of the OrderSummary.

**ConnectApi.PreviewReturnOutputRepresentation**

This new output class is a subclass of `ConnectApi.BaseOutputRepresentation` and has these properties.

- `changeBalances`—Expected change order financial values for the return action.
- `orderSummaryId`—ID of the `OrderSummary`.

**ConnectApi.SubmitCancelOutputRepresentation**

This new output class is a subclass of `ConnectApi.BaseOutputRepresentation` and has these properties.

- `changeBalances`—Financial values from the created change order.
- `changeOrderId`—ID of the created change order.

**ConnectApi.SubmitReturnOutputRepresentation**

This new output class is a subclass of `ConnectApi.BaseOutputRepresentation` and has these properties.

- `changeBalances`—Financial values from the created change order.
- `changeOrderId`—ID of the created change order.

**Personalization****ConnectApi.Audience**

This new output class has these properties.

- `criteria`—Criteria details for the audience.
- `customFormula`—Custom formula for the audience criteria. For example, (1 AND 2) OR 3.
- `formulaFilterType`—Formula filter type for the personalization audience. Values are:
  - `AllCriteriaMatch`—All audience criteria are true (AND operation).
  - `AnyCriterionMatches`—Any audience criterion is true (OR operation).
  - `CustomLogicMatches`—Audience criteria match the custom formula (for example, (1 AND 2) OR 3).
- `id`—ID of the audience.
- `name`—Name of the audience.
- `targets`—Target assignments for the audience.
- `url`—URL to this audience.

**ConnectApi.AudienceCollection**

This new output class has this property.

- `audiences`—Collection of audiences.

**ConnectApi.AudienceCriteriaDetail**

This new output class has these properties.

- `criterion`—List of mappings of audience criteria fields and values.
- `criterionNumber`—Number associated with the audience criterion in a formula. For example, (1 AND 2) OR 3. If unspecified, criteria are assigned numbers in the order that they're added.
- `criterionOperator`—Operator used in the personalization audience criterion. Values are:
  - `Contains`
  - `Equal`
  - `GreaterThan`
  - `GreaterThanOrEqual`



- Includes
- LessThan
- LessThanOrEqualTo
- NotEqual
- NotIncludes
- StartsWith
- `criterionType`—Type of personalization audience criterion. Values are:
  - `Default`—Audience has no criteria.
  - `Domain`—Audience criterion is based on domain.
  - `FieldBased`—Audience criterion is based on object fields.
  - `GeoLocation`—Audience criterion is based on location.
  - `Permission`—Audience criterion is based on standard or custom permissions.
  - `Profile`—Audience criterion is based on profile.

**ConnectApi.AudienceCriterionDetails**

This new output class has this property.

- `value`—Mapping of an audience criterion value and field.

**ConnectApi.AudienceTarget**

This new output class has these properties.

- `audienceName`—Name of the audience assigned to the target.
- `id`—ID of the audience assigned to the target.
- `url`—URL to the audience assigned to the target.

**ConnectApi.AudienceTargetAssignment**

This new output class has these properties.

- `groupName`—Group name of the target. Groups bundle related target and audience pairs.
- `id`—ID of the target.
- `isMatch`—Specifies whether the target matches the current context (`true`) or doesn't (`false`).
- `priority`—Priority of the target. Within a group, priority determines which target is returned if the user matches more than one audience.
- `publishStatus`—Publish status of the target. Values are:
  - `Draft`
  - `Live`
- `targetType`—Type of target, indicating the nature of the data being targeted.
- `targetValue`—Value of the target.
- `url`—URL to the target.

**ConnectApi.Scope**

This new output class has these properties.

- `name`—Name of the scope for the target.
- `value`—Value of the scope for the target.

**ConnectApi.Target**

This new output class has these properties.

- `audience`—Audience assigned to the target.
- `groupName`—Group name of the target. Groups bundle related target and audience pairs.
- `id`—ID of the target.
- `priority`—Priority of the target. Within a group, priority determines which target is returned if the user matches more than one audience.
- `publishStatus`—Publish status of the target. Values are:
  - `Draft`
  - `Live`
- `scope`—List of scopes for the target.
- `targetType`—Type of target, indicating the nature of the data being targeted.
- `targetValue`—Value of the target.
- `url`—URL to the target.

**ConnectApi.TargetCollection**

This new output class has this property.

- `targets`—List of personalization targets.

## New and Changed Chatter in Apex Enums

These enums are new or have changes.

For information about these enums, see [ConnectApi Enums](#) in the *Apex Developer Guide*.

**ConnectApi.AudienceCriteriaOperator**

This new enum has these values.

- `Contains`
- `Equal`
- `GreaterThan`
- `GreaterThanOrEqual`
- `Includes`
- `LessThan`
- `LessThanOrEqual`
- `NotEqual`
- `NotIncludes`
- `StartsWith`

**ConnectApi.AudienceCriteriaType**

This new enum has these values.

- `Default`—Audience has no criteria.
- `Domain`—Audience criterion is based on domain.
- `FieldBased`—Audience criterion is based on object fields.
- `GeoLocation`—Audience criterion is based on location.

- **Permission**—Audience criterion is based on standard or custom permissions.
- **Profile**—Audience criterion is based on profile.

#### **ConnectApi.FormulaFilterType**

This new enum has these values.

- **AllCriteriaMatch**—All audience criteria are true (AND operation).
- **AnyCriterionMatches**—Any audience criterion is true (OR operation).
- **CustomLogicMatches**—Audience criteria match the custom formula (for example, (1 AND 2) OR 3).

#### **ConnectApi.ManagedContentChannelType**

This new enum has these values.

- **CloudToCloud**
- **Community**
- **ConnectedApp**

#### **ConnectApi.ManagedContentNodeType**

This enum has these new values.

- **Date**
- **DateTime**
- **Url**

#### **ConnectApi.PublishStatus**

This new enum has these values.

- **Draft**
- **Live**

## API: New and Changed Items

Access more data objects, metadata types, REST resources, and more in API version 48.0.

### IN THIS SECTION:

#### [New and Changed Objects](#)

Access more data through these new and changed standard objects.

#### [New and Changed Standard Platform Events](#)

Receive real-time notifications from Salesforce by subscribing to the channels of these new and changed standard platform events.

#### [SOQL](#)

Salesforce Object Query Language (SOQL) includes changes to limits and calls

#### [SOSL](#)

Salesforce Object Search Language (SOSL) includes changes to limits.

#### [REST API](#)

REST API includes new, changed, and deprecated resources.

#### [Chatter REST API](#)

Integrate mobile apps, intranet sites, and third-party web applications with Salesforce using Chatter REST API. Personalization is generally available, and you can now get audience information for a batch of audiences. Search managed content in a community or channel. Increase view counts on knowledge articles.

[Reports and Dashboards REST API](#)

Reports and Dashboards REST API enhancements include new properties that describe subscription email attachments and report field to sObject relationships.

[User Interface API](#)

Work with new objects, access the record type ID for every record in a response, and get the case status in a picklist.

[Tooling API](#)

Tooling API includes new and changed objects.

[Metadata API](#)

Metadata API includes new and changed types and fields.

## New and Changed Objects

Access more data through these new and changed standard objects.

### Salesforce Overall

#### Query deleted records through DeleteEvent

Use the new DeleteEvent object to query and filter on records in your org's Recycle Bin. DeleteEvent works with all standard objects that support the Recycle Bin and all custom objects.

#### In-App Guidance includes translation, videos, and profile filtering

Use the new PromptLocalization and PromptVersionLocalization objects to organize translated prompt labels.

Change the default global delay time between prompts with the `PromptDelayTime` field on the LightningOnboardingConfig object. Or, ignore the global delay between prompts for a specific prompt with the `shouldIgnoreGlobalDelay` field in the PromptVersion object. To show prompts to specific profiles, use the `userProfileAccess` field on the PromptVersion object. Add videos with the `videoLink` field of the PromptVersion object.

There were also some smaller changes made to the PromptVersion object:

- The `Group` property is no longer supported for the `ActionButtonLink` field.
- The `Update` property is no longer supported for the `ParentId` field.
- The `PublishedByUserId` field was changed to a reference type.

The `undelete` call is no longer supported for the PromptAction object.

Users no longer need the View Setup and Configuration permission to see prompts that are only visible with specific permissions.

#### Identify the functions supported in a formula.

Use the new FormulaFunctionAllowedType object to identify the functions supported in a specified formula type.

Use the FormulaFunctionAllowedType object instead of the FormulaFunction object fields `IsAllowedInEntityContext`, `IsAllowedInFlowContext`, and `IsAllowedInVisualForceContext`. These fields are removed in API version 48.0 and later.

#### Specify multiple emails to an individual or personal account

Use the new ContactPointEmail object.

#### Get info on changes to values in the fields to a contact point's email

Use the new ContactPointEmailHistory object.

#### Get info on rules for sharing a ContactPointEmail object with users other than the owner

Use the new ContactPointEmailOwnerSharingRule object.

**Get info on the list of access levels to a contact point's email**

Use the new `ContactPointEmailShare` object.

**Specify multiple phone numbers to an individual or personal account**

Use the new `ContactPointPhone` object.

**Get info on changes to values in the fields to a contact point's phone number**

Use the new `ContactPointPhoneHistory` object.

**Get info on rules for sharing a `ContactPointPhone` object with users other than the owner**

Use the new `ContactPointPhoneOwnerSharingRule` object.

**Get info on the list of access levels to a contact point's phone number**

Use the new `ContactPointPhoneShare` object.

**Support end user use of Einstein Voice Assistant**

`AssistantText`, `AssistantResolvedContextItem`, and `AssistantTextRange` objects are for internal use only.

## Sales

**Learn about one of your sales cadences, including its name, ID, description, and state.**

Use the new `ActionCadence` object.

**Learn which steps belong to a sales cadence, and how the steps are connected to each other.**

Use the new `ActionCadenceStep` object.

**Learn about a branch step, including its logic and what the next step is.**

Use the new `ActionCadenceRule` object.

**Learn what the logical operator is for a branch step.**

Use the new `ActionCadenceRuleCondition` object.

**Learn about an active sales cadence, including the state, current step, assigned prospect, and reason for completion.**

Use the new `ActionCadenceTracker` object.

**Learn about the currently active step in your sales cadence.**

Use the new `ActionCadenceStepTracker` object to find information such as the step's state, completion reason, type, and assigned prospect.

**Learn whether a sales cadence automated email step is in the send queue.**

Use the new `Queued` value for the `State` field on the `ActionCadenceStepTracker` object.

**Learn which sales cadence a lead is assigned to.**

Use the new `ActionCadenceId` field on the `Lead` object.

**Learn which user is the target assignee of a prospect in a sales cadence.**

Use the new `ActionCadenceAssigneeId` field on the `Lead` object.

**Learn when the first call was placed to a lead.**

Use the new `FirstCallDateTime` field on the `Lead` object.

**Learn when the first email was sent to a lead.**

Use the new `FirstEmailDateTime` field on the `Lead` object.

**Create and distribute object calendars**

Use the new `CalendarView` object to view, create, and distribute object calendars for your users.

**Get info on call scripts that users read when making calls**

Use the new `CallTemplate` object.

**See when enhanced notes were last modified**

Use the new `ContentModifiedDate` field on the `ContentNote` object.

**Assign tasks to a queue**

Use the new Group ID value for the existing `OwnerId` field on the `Task` object. The queue's Group ID is also available as a read-only value on the `OpenActivity`, `ActivityHistory`, and `LookedUpFromActivity` objects.

**Get info on the list of work items in the My Feed tab for High Velocity Sales users**

Use the new `UserWorkList` object.

**Get info on individual work items in the My Feed tab for High Velocity Sales users**

Use the new `UserWorkListItem` object.

**Store information about the legal entities that an organization comprises**

Use the new `LegalEntity` object.

**See when the first call was placed to a contact.**

Use the new `FirstCallDateTime` field on the `Contact` object.

**See when the first email was sent to a contact.**

Use the new `FirstEmailDateTime` field on the `Contact` object.

**Salesforce Einstein****Five New Fields in the AllInsightReason Object**

- `FeatureType`
- `FeatureValue`
- `FieldName`
- `FieldValue`
- `Operator`

See the [Object Reference for Salesforce and Lightning Platform](#) for additional details.

**BEHAVIOR CHANGE: Pardot and High Velocity Sales no longer have access to Sales Cloud Einstein objects**

If you use Pardot or High Velocity Sales but don't use Sales Cloud Einstein, you no longer have access to the following Sales Cloud Einstein objects: `AccountInsight`, `ContactSuggestionInsight`, `OpportunityInsights`, `OpportunityContactRoleSuggestionInsight`, `SalesAIScoreCycle`, `SalesAIScoreModelFactor`. If you have stored metadata or APEX code that expects access to Sales Cloud Einstein objects, you could see a regression.

**REMOVED: Fields were removed from the OpportunityContactRoleSuggestionInsight object**

The `ContactTitle`, `Email`, `FirstName`, `LastName`, and `Phone` fields are no longer available on the `OpportunityContactRoleSuggestionInsight` object.

**Salesforce Surveys****Associate Financial Services Cloud object records with survey invitations and responses**

Use the new `BusinessMilestone`, `Claim`, `ClaimParticipant`, `InsurancePolicy`, `InsurancePolicyParticipant`, `PersonalLifeEvent`, and `Producer` picklist values on the `SubjectEntityType` field in the `SurveySubject` object.

**Service****Automatically minimize the Omni-Channel widget when agents accept work**

Use the new `DoesMinimizeWidgetOnAccept` field on the existing `ServiceChannel` object.

**Represent a secondary routing priority field-value mapping**

Use the new `ServiceChannelFieldPriority` object. Introduced in API version 47.0, this type has been added to the *Omni-Channel Developer Guide*.

**Specify the field used for secondary routing priority**

Use the new `SecRoutingPriorityField` field on the existing `ServiceChannel` object. Introduced in API version 47.0, this type has been added to the *Omni-Channel Developer Guide*.

**Indicate the secondary routing priority so that work is routed by secondary priority and shown in the correct order in the Omni-Channel widget**

Use the new `SecondaryRoutingPriority` field on the existing `AgentWork` object. Introduced in API version 47.0, this type has been added to the *Omni-Channel Developer Guide*.

**Log Messaging conversation entry end times**

Use the new `EntryEndTime` field on the existing `ConversationEntry` object.

**Configure the consent framework for your Messaging channels**

Use the new `MsgChannelLanguageKeyword` object.

**Add new consent requirements to your Messaging channels**

Use the new `ConsentType`, `DoubleOptInPrompt`, `IsRequireDoubleOptIn`, and `OptInPrompt` fields on the existing `MessagingChannel` object. The `OptInResponse` and `OptOutResponse` fields are available until API version 48.0.

**Ensure that your Messaging users have consented to receiving messages**

Use the new `IsFullyOptedIn`, `IsoCountryCode`, and `MessagingConsentStatus` fields on the existing `MessagingEndUser` object.

**Log Messaging sessions that weren't assigned to an agent or bot**

Use the new supported value `System` in the existing `AgentType` field on the `MessagingSession` object.

**Prevent cross-site scripting (XSS) and other code injection attacks when accessing third-party APIs.**

Use the `CspTrustedSite` object.

## Field Service (Lightning)

**Record the status of the digital tracking of an asset**

Use picklist options `On`, `Off`, `Warning`, and `Error` for the `DigitalAssetStatus` of the `Asset` object.

## Chatter

**Edit subject data for direct message conversations**

Use the `DirectMessage` object. Introduced in API version 38.0, this object has been added to the Object Reference for Salesforce and Lightning Platform.

## Event Monitoring

**Determine if an Apex request is counted as long-running in the EventLogFile**

Use the new `IS_LONG_RUNNING_REQUEST` field of the Apex Execution event type.

**Distinguish Bulk API and Bulk API 2.0 calls in Apex Execution event types in the EventLogFile**

Events for Apex calls to Bulk API and Bulk API 2.0 are now designated with quiddity "B" instead of "R" (synchronous uncategorized). For details on the `QUIDDITY` field, see [EventLogFile](#) and [Apex Execution Event Type](#) in the *Object Reference*.

## Field Service Lightning

### **REMOVED: Feature to create work type-based scheduling limits retired**

These objects are no longer available: `WorkCapacityLimit`, `WorkCapacityUsage`, and `ServiceAppointmentCapacityUsage`.

## Lightning Flow

### **Get information about the context that a flow runs in**

Use the new `runInMode` field on the `FlowVersionView` object.

## Security, Privacy, and Identity

### **Apply the selected Request Signature Method (RSM) during single logout**

Use the new `OptionsUseConfigRequestMethod` field on the `SamlSsoConfig` object.

### **View the context under which a Setup change was made**

Use the new `CreatedByContext` field on the `SetupAuditTrail` object.

### **Select Apple as a third-party authentication provider**

Select the new `Apple` value in the existing `ProviderType` field on the `AuthProvider` object. After selecting Apple as a third-party authentication provider, specify values for the new `AppleTeam` and `EcKey` fields on the `AuthProvider` object.

### **Manage a customer's preferences for a specific communication**

Use the new `CommSubscription` object.

### **Specify the engagement channels through which you can reach a customer for a communication subscription**

Use the new `CommSubscriptionChannelType` object.

### **Get info on the feed activity of a communication subscription channel type record**

Use the new `CommSubscriptionChannelTypeFeed` object.

### **Get info on the changes to values in the fields of a communication subscription channel type record**

Use the new `CommSubscriptionChannelTypeHistory` object.

### **Get info on rules for sharing a communication subscription channel type object with users other than the owner**

Use the new `CommSubscriptionChannelTypeOwnerSharingRule` object.

### **Get info on the list of access levels to a communication subscription channel type record**

Use the new `CommSubscriptionChannelTypeShare` object.

### **Store your customer's consent to a communication subscription**

Use the new `CommSubscriptionConsent` object.

### **Get info on the feed activity of a communication subscription consent record**

Use the new `CommSubscriptionConsentFeed` object.

### **Get info on the changes to values in the fields of a communication subscription consent record**

Use the new `CommSubscriptionConsentHistory` object.

### **Get info on rules for sharing a communication subscription consent object with users other than the owner**

Use the new `CommSubscriptionConsentOwnerSharingRule` object.

### **Get info on the list of access levels to a communication subscription consent record**

Use the new `CommSubscriptionConsentShare` object.

### **Get info on the feed activity of a communication subscription record**

Use the new `CommSubscriptionFeed` object.



**Get info on the changes to values in the fields of a communication subscription record**

Use the new CommSubscriptionHistory object.

**Get info on rules for sharing a communication subscription object with users other than the owner**

Use the new CommSubscriptionOwnerSharingRule object.

**Get info on the list of access levels to a communication subscription record**

Use the new CommSubscriptionShare object.

**Store your customer's timing preferences for receiving a communication subscription**

Use the new CommSubscriptionTiming object.

**Get info on the feed activity of a communication subscription timing record**

Use the new CommSubscriptionTimingFeed object.

**Get info on the changes to values in the fields of a communication subscription timing record**

Use the new CommSubscriptionTimingHistory object.

**Store a customer's consent to be contacted via a contact point**

Use the new ContactPointConsent object.

**Get info on the changes to values in the fields of a contact point consent record**

Use the new ContactPointConsentHistory object.

**Get info on rules for sharing a contact point consent object with users other than the owner**

Use the new ContactPointConsentOwnerSharingRule object.

**Get info on the list of access levels to a contact point consent record**

Use the new ContactPointConsentShare object.

**Indicate a channel on which a customer can be reached for communication**

Use the new EngagementChannelType object.

**Get info on the feed activity of an engagement channel type record**

Use the new EngagementChannelTypeFeed object.

**Get info on the changes to values in the fields of an engagement channel type record**

Use the new EngagementChannelTypeHistory object.

**Get info on rules for sharing an engagement channel type object with users other than the owner**

Use the new EngagementChannelTypeOwnerSharingRule object.

**Get info on the list of access levels to an engagement channel type record**

Use the new EngagementChannelTypeShare object.

**Manage privacy consent settings for an Individual**

Use the new PartyConsent object.

**Get info on the feed activity of a party consent record**

Use the new PartyConsentFeed object.

**Get info on the changes to values in the fields of a party consent record**

Use the new PartyConsentHistory object.

**Get info on rules for sharing a party consent object with users other than the owner**

Use the new PartyConsentOwnerSharingRule object.

**Get info on the list of access levels to a party consent record**

Use the new PartyConsentShare object.

**Whitelist trusted URLs that users can navigate to without being shown a warning message**

Use the new RedirectWhitelistUrl object.

## Commerce Orders

### **Get information on adjustments that were applied to the order**

Use the new OrderAdjustmentGroup object.

### **Organize order items that share a payment method and delivery address**

Use the new OrderDeliveryGroup object.

### **Get information on the customizations that a buyer requested for their order**

Use the new OrderDeliveryMethod object.

### **Get information on an adjustment made to the order item**

Use the new OrderItemAdjustmentLineItem object.

### **Get information on tax applied to an order item**

Use the new OrderItemTaxLineItem object.

## Commerce Payments

### **Get information on customer card payment methods**

Use the new CardPaymentMethod object.

### **Get information on customer payments**

Use the new Payment object.

### **Get information on payment events where users captured or reversed a payment against a reserve of funds**

Use the new PaymentAuthorization object to store information on reversed or captured payments.

### **Set up connections to an external payment gateway**

Use the new PaymentGateway object.

### **Get information on communications made between the Salesforce payments platform and an external payment gateway**

Use the new PaymentGatewayLog object.

### **Define the connection to a payment gateway adapter APEX class**

Use the new PaymentGatewayProvider object to set up your payment gateway connections.

### **Organize payment transactions that have been processed against an order or contract**

Use the new PaymentGroup object.

### **Get information on payments allocated to or unallocated from an invoice**

Use the new PaymentLineInvoice object.

### **Store credit card details for a customer and pass them to the payment gateway during payment processing**

Use the new PaymentMethod object.

### **Get information on refunds made against a payment**

Use the new Refund object.

### **Get information on refund lines applied to payments**

Use the new RefundLinePayment object.

## Order Management

### **Trigger actions when the `status` field on a FulfillmentOrder object changes**

Use the new FOStatusChangedEvent object.

### **Manage and track the order fulfillment workflow**

Use the new FulfillmentOrder object.

**Get information about adjustments made to fulfillment order items**

Use the new `FulfillmentOrderItemAdjustment` object.

**Get information about tax on fulfillment order items**

Use the new `FulfillmentOrderItemTax` object.

**Get information about items in fulfillment orders**

Use the new `FulfillmentOrderLineItem` object.

**Get information about adjustments made to order summaries**

Use the new `OrderAdjustmentGroupSummary` object.

**Get information about order item summaries that share a delivery method and recipient**

Use the new `OrderDeliveryGroupSummary` object.

**Get information about adjustments made to order item summaries**

Use the new `OrderItemAdjustmentLineSummary` object.

**Get information about products in order summaries**

Use the new `OrderItemSummary` object.

**Get information about changes requested or made on order item summaries**

Use the new `OrderItemSummaryChange` object.

**Get information about tax on order item summaries**

Use the new `OrderItemTaxLineItemSummary` object.

**Get information about payments associated with order summaries**

Use the new `OrderPaymentSummary` object.

**Manage and track the order summary workflow**

Use the new `OrderSummary` object.

**Trigger actions when OrderSummary objects are created**

Use the new `OrderSummaryCreatedEvent` object.

**Trigger actions when the `Status` field on an OrderSummary object changes**

Use the new `OrderSumStatusChangedEvent` object.

**Get information on a sales channel**

Use the new `SalesChannel` object.

## Site

**Specify an owner for records created by Site.com guest users**

Use the `GuestRecordDefaultOwnerId` field to specify an active user in your Salesforce org as the owner of records created by guest and unauthenticated users of your Site.com site.

## Analytics

**Query and create auto install requests for Analytics applications**

Use the `waveAutoInstallRequest` object. Introduced in API version 43.0, this object has been added to the *Object Reference*.

## New and Changed Standard Platform Events

Receive real-time notifications from Salesforce by subscribing to the channels of these new and changed standard platform events.

## Salesforce Order Management

### Start a process, resume a flow, or be notified when a fulfillment order's status changes

Subscribe to the new `FOSStatusChangedEvent`. This event is part of Salesforce Order Management.

### Start a process, resume a flow, or be notified when an order summary is created

Subscribe to the new `OrderSummaryCreatedEvent`. This event is part of Salesforce Order Management.

### Start a process, resume a flow, or be notified when an order summary's status changes

Subscribe to the new `OrderSumStatusChangedEvent`. This event is part of Salesforce Order Management.

## Customization

### Get more details in notifications about screen flow runtime errors

Use these new fields of the `FlowExecutionErrorEvent` event object: `ContextObject`, `ContextRecordId`, `FlowVersionNumber`, and `InterviewStartedById`.

BEHAVIOR CHANGE: These existing fields of the `FlowExecutionErrorEvent` event object now always contain values: `EventType`, `FlowApiName`, `InterviewGuid`, and `InterviewStartDate`. Previously, the fields were nullable.

## Security and Identity

### Track anomalies in how users run or export reports

Use the new `ReportAnomalyEvent` (Beta) event and `ReportAnomalyEventStore` (Beta) object. These objects are part of Real-Time Event Monitoring.

### Track when unauthorized users try to hijack Salesforce sessions

Use the new `SessionHijackingEvent` (Beta) event and `SessionHijackingEventStore` (Beta) object. These objects are part of Real-Time Event Monitoring.

### Track when unauthorized users try to access Salesforce through large-scale automated login requests using stolen user credentials

Use the new `CredentialStuffingEvent` (Beta) event and `CredentialStuffingEventStore` (Beta) object. These objects are part of Real-Time Event Monitoring.

### SUPPORT CHANGE: The `SessionLevel` field of the `LightningUriEvent` and `LightningUriEventStream` event objects is now supported

The `SessionLevel` field was reserved for future use in Winter '20. The `LightningUriEvent` and `LightningUriEventStream` event objects are part of Real-Time Event Monitoring.

## SOQL

Salesforce Object Query Language (SOQL) includes changes to limits and calls

## Changed Limits

### Use longer SOQL queries

The maximum length of SOQL statements has been increased from 20,000 to 100,000.

### Use more relationships in queries

The maximum number of child-to-parent relationships in a query has been increased from 35 to 55.

## Changed Calls

### Select items based on visibility

Use the new `RecordVisibilityContext` clause to filter `WITH` queries.

## SOSL

Salesforce Object Search Language (SOSL) includes changes to limits.

## Changed Limits

### Use longer SOSL queries

The maximum length of SOSL statements has been increased from 20,000 to 100,000.

## REST API

REST API includes new, changed, and deprecated resources.

## Customization

### Custom Invocable Actions

The describe response body has one new property, `category`, which specifies the category of a custom invocable action. This change affects Apex actions.

## Development

### BEHAVIOR CHANGE: Get your platform event entitlement based on your contract start date

If you have a high-volume platform event add-on license, use the new `MonthlyPlatformEventsUsageEntitlement` value in the `limits` REST API resource. This new value returns the CometD client delivery usage based on your contract start date. This value is more accurate than the `MonthlyPlatformEvents` value in previous API versions, which was based on the first of the month. `MonthlyPlatformEventsUsageEntitlement` replaces `MonthlyPlatformEvents` in API version 48.0 and later.

Make a GET request to `/services/data/v48.0/limits` to obtain the `MonthlyPlatformEventsUsageEntitlement` value.

## Lightning Scheduler

### Get appointment slots for multi-resource scheduling specifying a primary resource

Use `primaryResourceId` to specify the primary resource in multi-resource scheduling.

### BEHAVIOUR CHANGE: Get appointment slots with skill matching for single- and multi-resource scheduling

Make a GET request to `/services/data/v48.0/scheduling/getAppointmentSlots` to obtain these values.

## Salesforce Surveys

### Get the translation of a survey field in a particular language

Use `/services/data/v $XX.X$ /localizedvalue/record/developerName/language` to get the translated value of a survey field for the language you specify in the call.

### Add or change the translation for a survey field

Use `/services/data/v $XX.X$ /localizedvalue/record/` to post the translated value of a survey field or update its translated value.

**Delete the translation of a survey field**

Use `/services/data/v $XX.X$ /localizedvalue/record/developerName/language` to delete the translated value of a particular flow field for the language you specify.

**Get the translated values of multiple survey fields**

Use `/services/data/v $XX.X$ /localizedvalue/records/get` to get the translated values of multiple flow fields for one or more languages.

**Add or update the translated value of multiple survey fields**

Use `/services/data/v $XX.X$ /localizedvalue/records/upsert` to post the translated values of multiple flow fields or update the translated values in one or more languages.

**Delete the translated values of multiple survey fields**

Use `/services/data/v $XX.X$ /localizedvalue/records/delete` to delete the translated values of multiple flow fields for one or more languages.

**Search****Search for Dynamic Fields in Autocomplete and Instant Results**

Use `dynamicFields` to return additional dynamic fields. For example, if `dynamicFields=secondaryField` then each suggested record in the results contains an extra field besides `Id` and `Name` (or `Title`) based on the next eligible field in the search layout.

**New, Changed, and Deprecated Calls**

These calls are new, changed, or deprecated in API version 48.0.

## Changed Calls

**Improve the performance of Composite requests**

Use the new `collateSubrequests` field when creating Composite requests (`v $XX.X$ /composite`). When this field is set to `true`, the API collates and bulkifies unrelated subrequests to increase processing speed. (If you need to control the order of execution of the subrequests, set this to `false`, which is the default.)

**Chatter REST API**

Integrate mobile apps, intranet sites, and third-party web applications with Salesforce using Chatter REST API. Personalization is generally available, and you can now get audience information for a batch of audiences. Search managed content in a community or channel. Increase view counts on knowledge articles.

 **Note:** To create custom Chatter and communities experiences in Salesforce, use [ConnectApi \(Chatter in Apex\): New and Changed Classes and Enums](#).

## IN THIS SECTION:

[New and Changed Chatter REST API Resources](#)

These resources are new and changed.

[New and Changed Chatter REST API Request Bodies](#)

These request bodies are new or have changes.

[New and Changed Chatter REST API Response Bodies](#)

These response bodies are new or have changes.

## New and Changed Chatter REST API Resources

These resources are new and changed.

### Commerce Payments

 **Note:** To access Commerce Payments resources, you need the following permissions.

- Salesforce Order Management License.
- PaymentsAPIUser user permission. This permission is available with the Salesforce Order Management License. Your Salesforce admin assigns it to your user profile.
- PaymentsAPIAccess org permission. Users should request this permission by logging a ticket with Salesforce Tier 3 Support.

#### Payment Authorization, Capture

Make a POST request to `/commerce/payments/authorizations/authorizationId/capture` with the new Capture Input request body.

#### Payment, Create Refund

Make a POST request to `/commerce/payments/payments/paymentId/refund` with the new Referenced Refund Input request body.

### Files

#### Retiring support for Adobe Flash renditions

In Summer '20, the `/connect/files/fileId/rendition` resource stops creating Adobe Flash renditions by default. In Winter '21, the resource no longer returns Adobe Flash renditions. Start using the `/connect/files/fileId/previews/previewFormat` resource to get an SVG rendition.

### Knowledge

#### Increase the view count of a knowledge article by one

Make a PATCH request to `/connect/knowledge/article/view-stat` with the new Knowledge Article View Stat Input request body or with the `articleOrVersionId` request parameter.

### Lightning Scheduler

#### Create service appointments

Make a POST request to `/connect/scheduling/service-appointments` to create a service appointment for an account, asset, lead, opportunity, work order, or work order line item. This method also assigns a service resource to the appointment and creates a lead record for guest users.

#### Get service territories using `WorkType`

Make a GET request to `/connect/scheduling/service-territories` to get service territories using `WorkType` or `WorkTypeGroup`.

### Managed Content


#### Search managed content in a community

Make a GET request to `/connect/communities/communityId/managed-content/delivery/contents/search` with the `queryTerm` request parameter.

**Search managed content in a channel**

Make a GET request to `/connect/cms/delivery/channels/channelId/contents/search` with the `queryTerm` request parameter.

**Get managed content delivery channels for the context user (beta)**

 **Note:** As a beta feature, this API is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature.

Make a GET request to `/connect/cms/delivery/channels`.

**Get published managed content versions for a channel (beta)**

Make a GET request to `/connect/cms/delivery/channels/channelId/contents/query`. Set the required `managedContentType` parameter to the developer name of the content version.

## Order Management

 **Note:** To access Order Management resources, you need a Salesforce Order Management license.

**Cancel an item from a FulfillmentOrder**

Make a POST request to `/commerce/fulfillment/fulfillment-orders/fulfillmentOrderId/actions/cancel-item` with the new Fulfillment Order Line Items to Cancel Input request body.

**Create a credit memo for an OrderSummary**

Make a POST request to `/commerce/order-management/order-summaries/orderSummaryId/actions/create-credit-memo` with the new Create Credit Memo Input request body.

**Create FulfillmentOrders**

Make a POST request to `/commerce/fulfillment/fulfillment-orders` with the new Fulfillment Order Input request body.

**Create an invoice for a FulfillmentOrder**

Make a POST request to `/commerce/fulfillment/fulfillment-orders/fulfillmentOrderId/actions/create-invoice` with the new Fulfillment Order Invoice Input request body.

**Create an OrderPaymentSummary for an OrderSummary**

Make a POST request to `/commerce/order-management/order-payment-summaries` with the new Create Order Payment Summary Input request body.

**Create an OrderSummary**

Make a POST request to `/commerce/order-management/order-summaries` with the new Order Summary Input request body.

**Ensure funds or capture payment for an invoice**

Make a POST request to `/commerce/order-management/order-summaries/orderSummaryId/async-actions/ensure-funds-async` with the new Ensure Funds Async Input request body.



**Ensure refunds for a credit memo**

Make a POST request to

`/commerce/order-management/order-summaries/orderSummaryId/async-actions/ensure-refunds-async` with the new Ensure Refunds Async Input request body.

**Preview the expected results of a cancel products action on an OrderSummary**

Make a POST request to

`/commerce/order-management/order-summaries/orderSummaryId/actions/preview-cancel` with the new Change Input request body.

**Preview the expected results of a return products action on an OrderSummary**

Make a POST request to

`/commerce/order-management/order-summaries/orderSummaryId/actions/preview-return` with the new Change Input request body.

**Cancel products from an OrderSummary**

Make a POST request to

`/commerce/order-management/order-summaries/orderSummaryId/actions/submit-cancel` with the new Change Input request body.

**Return products from an OrderSummary**

Make a POST request to

`/commerce/order-management/order-summaries/orderSummaryId/actions/submit-return` with the new Change Input request body.

Personalization (Generally Available)

**Get audience information for a comma-separated list of audience IDs**

Make a GET request to

`/connect/communities/communityId/personalization/audiences/batch/audienceIds`.

**New and Changed Chatter REST API Request Bodies**

These request bodies are new or have changes.

Commerce Payments

**Capture Input**

This new request body has these properties.

- `accountId`—ID of the account that must be linked to this capture request.
- `additionalData`—Allows users to enter additional data, if needed for a payment request. The `additionalData` object consists of entries, each of which includes a key and value. Supports up to five key-value pairs. Each key and each value can contain up to 255 characters.
- `amount`—Amount that must be captured from the previous authorization.
- `comments`—Comments for payment capture.
- `effectiveDate`—The date that the payment becomes effective.
- `email`—Email of the client that initiated the request.
- `idempotencyKey`—Idempotency key used for the payment request. Can be provided in the payload or the header, but not in both places at once.
- `ipAddress`—IP address of the client from which the request is made.

- `macAddress`—MAC address of the client from which the request is made.
- `paymentGroup`—Payment group details associated with the payment request.
- `phone`—Phone of the client that initiated the request.

### Payment Group Input

This new request body has these properties.

- `createPaymentGroup`—Flag to indicate if Payment Group needs to be created.
- `currencyIsoCode`—Must match the payment's `currencyIsoCode`. In single currency orgs, must also match the org's default currency.
- `Id`—If ID has a value, the payment capture is using an active PaymentGroup. If ID is null and other parameters have values, the payment capture creates a new payment group. If a payment group ID exists, `currencyIsoCode` and `sourceObjectId` parameters must be null, and `createPaymentGroup` can be absent or false.
- `sourceObjectId`—Order object ID for linking an order to a payment group.

### Referenced Refund Input

This new request body has these properties.

- `accountId`—Reference to Account.
- `amount`—Refund amount.
- `comments`—Comments for refund.
- `effectiveDate`—Date that the refund amount becomes effective against the target payment or payment line.
- `email`—Email of the client who initiated the request.
- `idempotencyKey`—Idempotency key used for the payment request. Can be provided in the payload or the header, but not in both places at once.
- `ipAddress`—IP address of the client who initiated the request.
- `macAddress`—MAC address of the client who initiated the request.
- `paymentGroup`—Payment group associated with the refund.
- `phone`—Phone number of the client who initiated the request.

## Knowledge

### Knowledge Article View Stat Input

This new request body has this property.

- `articleOrVersionId`—ID of the knowledge article or knowledge article version to increase the view count by one.

## Lightning Scheduler

### Assigned Resource Input

This new request body has these properties.

- `extendedFields`—Custom fields.
- `isPrimaryResource`—Indicates whether the assigned resource is the primary resource. For multi-resource appointments, only one resource can be a primary resource.
- `isRequiredResource`—Indicates whether the assigned resource is a required resource.
- `serviceResourceId`—Resource who is assigned to the service appointment.

### Extended Fields Input

This new request body has these properties.

- `name`—Name of the custom field.
- `value`—Value of the custom field.

### Lead Input

This new request body has these properties.

- `company`—Lead's company.
- `email`—Lead's email address.
- `extendedFields`—Custom fields.
- `firstName`—Lead's first name.
- `lastName`—Lead's last name.
- `phone`—Lead's phone number.

### Service Appointment Input

This new request body has these properties.

- `additionalInformation`—Additional information about the service appointment.
- `appointmentType`—Represents the type of appointment.
- `city`—City where the appointment is completed.
- `comments`—Comments about the appointment.
- `contactId`—Contact associated with the parent record.
- `country`—Country where the appointment is completed.
- `description`—Description of the appointment.
- `extendedFields`—Custom fields.
- `parentRecordId`—Parent record associated with the appointment.
- `postalCode`—Postal code where the appointment is completed.
- `schedEndTime`—Time at which the appointment is scheduled to end.
- `schedStartTime`—Time at which the appointment is scheduled to start.
- `serviceTerritoryId`—Service territory associated with the appointment.
- `state`—State where the service appointment is completed.
- `street`—Street number and name where the service appointment is completed.
- `subject`—Short phrase describing the appointment.
- `workTypeId`—Work type associated with the service appointment. If specified, it is added to the service appointment record.

### Service Appointments Input

This new request body has these properties.

- `assignedResources`—Service resource who is assigned to a service appointment.
- `lead`—Prospect or lead.
- `schedulingPolicyId`—The ID of the `AppointmentSchedulingPolicy` object. If no scheduling policy is passed in the request body, the default configurations are used. The only scheduling policy configuration that is used in determining time slots is the enforcement of account visiting hours,
- `serviceAppointment`—Appointment to complete a service work for a customer.

## Order Management

### Change Input

This new request body has the following property.

- `changeItems`—List of changes to `OrderItemSummaries`.

### Change Item Input

This new request body has the following properties.

- `orderItemSummaryId`—ID of the `OrderItemSummary`.
- `quantity`—Quantity to change. Use a positive value. For example, a value of 2 means “cancel or return 2 units.”
- `reason`—Reason for the change. The value must match one of the picklist values on the `Reason` field of the `OrderItemSummaryChange` object.
- `shippingReductionFlag`—Specifies whether to prorate the shipping charge.

### Create Credit Memo Input

This new request body has the following property.

- `changeOrderIds`—List of IDs of the change orders.

### Create Order Payment Summary Input

This new request body has the following properties.

- `orderSummaryId`—ID of the `OrderSummary`.
- `paymentAuthorizationId`—ID of the payment authorization.
- `paymentIds`—List of IDs of the payments.

### Ensure Funds Async Input

This new request body has the following property.

- `invoiceId`—ID of the invoice.

### Ensure Refunds Async Input

This new request body has the following property.

- `creditMemoId`—ID of the credit memo.

### Fulfillment Group Input

This new request body has the following properties.

- `fulfilledFromLocationId`—ID of the fulfillment location.
- `fulfillmentType`—Fulfillment type. One of the `Type` field values defined for `FulfillmentOrders`.
- `orderItemSummaries`—List of `OrderItemSummaries`.

### Fulfillment Order Input

This new request body has the following properties.

- `fulfillmentGroups`—List of fulfillment groups that specify the `OrderItemSummaries` and fulfillment locations.
- `orderDeliveryGroupSummaryId`—ID of the `OrderDeliveryGroupSummary`.
- `orderSummaryId`—ID of the `OrderSummary`.

### Fulfillment Order Invoice Input

This new request body has no properties.

### Fulfillment Order Line Item Input

This new request body has the following properties.

- `fulfillmentOrderLineItemId`—ID of the `FulfillmentOrderLineItem`.

- `quantity`—Quantity to cancel.

#### Fulfillment Order Line Items To Cancel Input

This new request body has the following property.

- `fulfillmentOrderLineItemsToCancel`—List of `FulfillmentOrderLineItems` and quantities.

#### Order Item Summary Input

This new request body has the following properties.

- `orderItemSummaryId`—ID of the `OrderItemSummary`.
- `quantity`—Quantity to include.

#### Order Summary Input

This new request body has the following property.

- `orderId`—ID of the original order.

Personalization (Generally Available)

#### Audience Criterion Input

This request body has this change.

- `criterion`—The type of this property changed to Audience Criteria Value Input.

#### Audience Criterion Value Input

This new request body has these properties.

- `city`—City of a user.
- `country`—Country of a user.
- `domainId`—Domain ID of a user.
- `entityField`—Field of an object.
- `entityType`—Type of object.
- `fieldValue`—Value of a field.
- `isEnabled`—Specifies whether the permission is enabled (`true`) or not (`false`) for a user.
- `permission`—Valid API name of a standard user or custom permission.
- `profileId`—Profile ID of a user.
- `subdivision`—Subdivision of a user.

## New and Changed Chatter REST API Response Bodies

These response bodies are new or have changes.

Commerce Payments

#### Capture Output

This new response body has these properties.

- `error`—Error response representation for capture.
- `gatewayResponse`—Gateway log response containing details about gateway logs created during the processing of the capture request.
- `payment`—Payment response object for the capture request. Contains the information related to a payment object created during request processing.

- `paymentGatewayLogs`—Payment gateway log response containing details of the `PaymentGatewayLog` entity records created during the processing of the capture request.
- `paymentGroup`—Contains details related to the payment group record.

### Gateway Log Output

This new response body has these properties.

- `createdDate`—Date indicating when the gateway log was created.
- `gatewayResultCode`—The gateway sends result codes to show the status of a transaction as it is passed to the financial institution and then returned to the client.
- `id`—ID of the gateway log record.
- `interactionStatus`—Gateway interaction status. Current supported values are `SUCCESS`, `FAILED`, or `TIMEOUT`.

### Payment Group Output

This new response body has these properties.

- `currencyIsoCode`—Three-letter ISO 4217 currency code associated with the payment group record.
- `id`—ID of the payment group record.
- `sourceObjectId`—Source object ID of the Payment group record. Supports only `OrderId`.

### Payment Output

This new response body has these properties.

- `accountId`—ID of the account related the payment record.
- `amount`—Total amount of the payment transaction performed in the payment request.
- `currencyIsoCode`—Three-letter ISO 4217 currency code associated with the payment output.
- `effectiveDate`—Date that the payment becomes effective.
- `id`—ID of the payment record.
- `paymentNumber`—Number of the payment record created as a result of the request processing.
- `requestDate`—Date when the payment transaction occurred.
- `status`—Status of the payment new payment entity record.

### Referenced Refund Service Output

This new response body has these properties.

- `error`—Error response representation for refund.
- `gatewayResponse`—Gateway response received for the refund request processed.
- `paymentGatewayLogs`—Gateway log collection representation for refund.
- `paymentGroup`—Payment group associated with refund.
- `paymentRefund`—Refund response representation.

### Refund Gateway Response Output

This new response body has these properties.

- `gatewayAvsCode`—Code sent by gateways that use an address verification system.
- `gatewayDate`—The date and time that of the gateway communication that lead to the creation of this gateway log.
- `gatewayMessage`—Information or error messages sent from the gateway.
- `gatewayReferenceDetails`—Gateway reference details.
- `gatewayReferenceNumber`—Unique transaction ID created by the payment gateway.
- `gatewayResultCode`—Gateway-specific result code. Must be mapped to a Salesforce-specific result code.

- `gatewayResultCodeDescription`—Description of the gateway's result code.
- `salesforceResultCode`—Salesforce-specific result code that can map to one or more gateway result codes.

### Refund Output

This new response body has these properties.

- `accountId`—ID of the account related to the refund record.
- `amount`—Total amount of the refund transaction performed in the payment request.
- `currencyIsoCode`—Three-letter ISO 4217 currency code associated with the refund service output.
- `effectiveDate`—Date that the refund becomes effective.
- `id`—ID of the Refund record.
- `refundNumber`—Number of the refund record that was created as a result of the request processing.
- `requestDate`—Date when the refund occurred.
- `status`—Indicates the results of processing the refund transaction in the gateway.

## Lightning Scheduler

### Service Appointment Output

This new response body has this property.

- `result`—Result of the POST method.

### Service Appointment Result

This new response body has these properties.

- `assignedResourceIds`—IDs of the assigned resources
- `parentRecordId`—ID of the parent record.
- `serviceAppointmentId`—ID of the service appointment created.

### Service Territories List Result

This new response body has this property.

- `serviceTerritories`—List of service territories.

### Service Territories Output

This new response body has this property.

- `result`—Result of the GET method.

### Service Territories Result

This new response body has these properties.

- `city`—Service territory city.
- `country`—Service territory country.
- `id`—ID of the service territory.
- `latitude`—Latitude of the service territory.
- `longitude`—Longitude of the service territory.
- `name`—Name of the service territory.
- `operatingHoursId`—ID of the service territory `operatingHours` record.
- `postalCode`—Service territory postal code.
- `state`—Service territory state.
- `street`—Service territory street.

## Managed Content

### Managed Content Channel (Beta)

This new response body has these properties.

- `channelId`—ID of the managed content channel.
- `channelName`—Name of the managed content channel.
- `channelType`—Type of managed content channel. Values are:
  - `CloudToCloud`
  - `Community`
  - `ConnectedApp`
- `isChannelSearchable`—Specifies whether the text contents of the channel are searchable (`true`) or not (`false`).

### Managed Content Channel Collection (Beta)

This new response body has these properties.

- `channels`—List of managed content channels.
- `currentPageUrl`—Chatter REST API URL identifying the current page.
- `nextPageUrl`—Chatter REST API URL identifying the next page, or `null` if there isn't a next page.
- `previousPageUrl`—Chatter REST API URL identifying the previous page, or `null` if there isn't a previous page.
- `totalChannels`—Total number of managed content channels.

### Managed Content Date and Time Node Value

This new response body has these properties.

- `dateTimeValue`—UTC date and time value of the managed content node.
- `nodeType`—Type of managed content node. Value is `DateTime`.
- `timeZone`—Time zone in which the date and time is authored.

### Managed Content Date Node Value

This new response body has these properties.

- `nodeType`—Type of managed content node. Value is `Date`.
- `value`—Date value of the managed content node.

### Managed Content Media Node Value

This response body has these new properties.

- `fileName`—File name of the managed content node.
- `resourceUrl`—Resource URL of the asset file.
- `unauthenticatedUrl`—Unauthenticated URL of the asset file or `null` if the asset file isn't visible to external users.

### Managed Content Search Result

This new response body has these properties.

- `contentType`—Content type of the managed content.
- `id`—ID of the managed content.
- `publishDate`—Publish date of the managed content.
- `title`—Title of the managed content.
- `urlName`—URL name of the managed content version.

### Managed Content Search Result Collection

This new response body has these properties.



- `count`—Total number of search results.
- `currentPageUri`—Chatter REST API URL identifying the current page.
- `items`—Collection of search results.
- `nextPageUri`—Chatter REST API URL identifying the next page, or `null` if there isn't a next page.

### Managed Content Search Result Content Type

This new response body has these properties.

- `developerName`—Developer name of the managed content type.
- `label`—Label of the managed content type.

### Managed Content Version

This response body has these new and changed properties.

- `contentNodes`—This property's type now supports maps of Managed Content Date and Time Node Value and Managed Content Date Node Value.
- `contentUrlName`—Content URL name of the managed content version.
- `language`—Language of the managed content version.

## Order Management

### Change Item Output

This new response body has the following properties.

- `grandTotalAmount`—Change to the `GrandTotalAmount` field.
- `totalAdjustedDeliveryAmount`—Change to the `TotalAdjustedDeliveryAmount` field.
- `totalAdjustedDeliveryTaxAmount`—Change to the `TotalAdjustedDeliveryTaxAmount` field.
- `totalAdjustedProductAmount`—Change to the `TotalAdjustedProductAmount` field.
- `totalAdjustedProductTaxAmount`—Change to the `TotalAdjustedProductTaxAmount` field.
- `totalAdjustmentDistributedAmount`—Change to the `TotalAdjustmentDistributedAmount` field.
- `totalAdjustmentDistributedTaxAmount`—Change to the `TotalAdjustmentDistributedTaxAmount` field.
- `totalAmount`—Change to the `TotalAmount` field.
- `totalExcessFundsAmount`—The amount of excess funds available on the `OrderPaymentSummaries` related to the `OrderSummary`.
- `totalRefundableAmount`—The total amount available to be refunded. It is the sum of the `totalExcessFundsAmount` field and the portion of the `grandTotalAmount` field that applies to post-fulfillment changes.
- `totalTaxAmount`—Change to the `TotalTaxAmount` field.

### Create Credit Memo Output

This new response body has the following property.

- `creditMemoId`—ID of the created Credit Memo.
- `errors`—Any errors that were returned.
- `success`—Indicates whether the transaction was successful.

### Create Order Payment Summary Output

This new response body has the following property.

- `errors`—Any errors that were returned.
- `orderPaymentSummaryId`—ID of the Order Payment Summary.

- `success`—Indicates whether the transaction was successful.

**Ensure Funds Async Output**

This new response body has the following property.

- `backgroundOperationId`—ID of the background operation.
- `errors`—Any errors that were returned.
- `success`—Indicates whether the transaction was successful.

**Ensure Refunds Async Output**

This new response body has the following property.

- `backgroundOperationId`—ID of the background operation.
- `errors`—Any errors that were returned.
- `success`—Indicates whether the transaction was successful.

**Fulfillment Order Cancel Line Items Output**

This new response body has the following properties.

- `errors`—Any errors that were returned.
- `success`—Indicates whether the transaction was successful.

**Fulfillment Order Invoice Output**

This new response body has the following property.

- `errors`—Any errors that were returned.
- `invoiceId`—ID of the created invoice.
- `success`—Indicates whether the transaction was successful.

**Fulfillment Order Output**

This new response body has the following property.

- `errors`—Any errors that were returned.
- `fulfillmentOrderIds`—A list of IDs of created Fulfillment Orders.
- `success`—Indicates whether the transaction was successful.

**Order Summary Output**

This new response body has the following property.

- `errors`—Any errors that were returned.
- `orderSummaryId`—ID of the Order Summary.
- `success`—Indicates whether the transaction was successful.

**Preview Cancel Output**

This new response body has the following properties.

- `changeBalances`—Expected change order financial values for the cancel action.
- `errors`—Any errors that were returned.
- `orderSummaryId`—ID of the OrderSummary.
- `success`—Indicates whether the transaction was successful.

**Preview Return Output**

This new response body has the following properties.

- `changeBalances`—Expected change order financial values for the return action.
- `errors`—Any errors that were returned.

- `orderSummaryId`—ID of the OrderSummary.
- `success`—Indicates whether the transaction was successful.

**Submit Cancel Output**

This new response body has the following properties.

- `changeBalances`—Financial values from the created change order.
- `changeOrderId`—ID of the created change order.
- `errors`—Any errors that were returned.
- `success`—Indicates whether the transaction was successful.

**Submit Return Output**

This new response body has the following properties.

- `changeBalances`—Financial values from the created change order.
- `changeOrderId`—ID of the created change order.
- `errors`—Any errors that were returned.
- `success`—Indicates whether the transaction was successful.

Personalization (Generally Available)

**Audience Criteria Details**

This response body has this change.

- `criterion`—The type of this property changed to Audience Criterion Details.

**Audience Criterion Details**

This new response body has this property.

- `value`—Mapping of an audience criterion value and field.

**Audience Target Assignment**

This response body has these new properties.

- `id`—ID of the target.
- `priority`—Priority of the target. Within a group, priority determines which target is returned if the user matches more than one audience.
- `publishStatus`—Publish status of the target. Values are:
  - Draft
  - Live
- `url`—URL to the target.

**Reports and Dashboards REST API**

Reports and Dashboards REST API enhancements include new properties that describe subscription email attachments and report field to sObject relationships.

**Changed Resources**

New properties describe subscription email attachments and relationships between report type fields and sObject fields.

**Reports (/services/data/48.0/analytics/reports/{report\_id}/ and /services/data/48.0/analytics/reports/{report\_id}/describe/)**


The `reportExtendedMetadata` and `reportTypeMetadata` have a new property.

Property	Type	Description
<code>entityColumnName</code>	String	<p>Describes the relationship between an sObject and a report field by returning the sObject and sObject field name that a report field maps to.</p> <p>The value returned is formatted as <i>sObject.sObject field</i>. The property is part of an object that describes a report field, such as an object in the <code>columns []</code> array of a report type object from <code>reportTypeMetadata</code>.</p> <p>For example, on the <code>LAST_UPDATE_BY</code> column, the value of <code>entityColumnName</code> is <code>"User.Name"</code>, which tells us that it's mapped to the <code>Name</code> field on the <code>User</code> sObject.</p>

```

"reportTypeMetadata" : {
  "categories" : [ {
    "columns" : {
      "LAST_UPDATE_BY" : {
        "allowedInCustomDetailFormula" :
true,
        "bucketable" : true,
        "dataType" : "string",
        "entityColumnName" : "User.Name",
        "fieldToFieldFilterable" : false,
        "filterValues" : [ ],
        "filterable" : true,
        "inactiveFilterValues" : [ ],
        "isCustom" : false,
        "isLookup" : true,
        "label" : "Last Modified By",
        "maxLength" : null,
        "uniqueCountable" : true
      }
    }
  } ]
}

```

 **Note:** Row-level formulas aren't directly mapped to sObject fields like report fields, but they still have an `entityColumnName` property. For row-level formulas, the value of `entityColumnName` is `CDF1`.

**Notifications (/services/data/48.0/analytics/notifications?source=lightningReportSubscribe)**

The `thresholds` object has a new property.

Property	Type	Description
<code>attachment</code>	String	<p>Specifies whether a Lightning Experience report subscription includes an attachment. If it includes an attachment, it also specifies the file attachment.</p> <p>There is only one valid value:</p> <ul style="list-style-type: none"> <li><code>excel</code>—Attach report results to the email as a spreadsheet formatted as a <code>.xlsx</code> file. Do not include record-level details in the subscription email.</li> </ul> <p>If the Lightning report subscription does not include an attachment, then the <code>attachment</code> property is not returned. When the <code>attachment</code> property is not returned, HTML-formatted report results are included directly in the subscription email body.</p>

**SEE ALSO:**

[Reports and Dashboards REST API Developer Guide \(can be outdated or unavailable during release preview\)](#)

## User Interface API

Work with new objects, access the record type ID for every record in a response, and get the case status in a picklist.

**List Record Collection Response Includes More Details**

The List Record Collection response body now includes the properties `fields`, `optionalFields`, `listReference`, `pageSize`, and `sortBy`.

**List View Summary Collection Response Includes More Details**

The List View Summary Collection response body now includes the properties `objectApiName`, `pageSize`, `queryString`, and `recentListsOnly`.

**Picklist Response Includes Case Status**

The Picklist Value response body now includes information about whether a case status is closed or not.

**Record Response Includes `recordTypeId`**

The Record response body includes a new `recordTypeId` property, which is the ID of the record's record type. Use this property instead of `recordTypeInfo`, which is returned for only two levels of nested records.

**Record Response Includes `weakEtag`**

To determine whether a record has changed, compare the value of this property between responses. If the value is larger, this record is newer. If the value is smaller, this record is older. If the value is the same, the records are the same. Not all record types are supported. If a record type is unsupported, this value is `0`.

**Supported Objects**

These objects are now supported by most User Interface API resources. List views resources and most recently used (MRU) list views resources support a smaller set of objects, which are listed below.

- `AccountForecast`
- `AccountForecastPeriodMetric`
- `AccountProductForecast`
- `AccountProductPeriodForecast`
- `BasicDataRecord`

- DataExportDefinition
- DeleteEvent
- DigitalSignature
- KnowledgeArticleVersion—DELETE is not supported
- LoyaltyProgramCurrency
- LoyaltyProgramMember
- LoyaltyTier
- LoyaltyTierGroup
- OpportunityLineItemSchedule
- Product2DataTranslation
- ProductCategoryDataTranslation

List views resources now support these objects.

- AccountForecast
- BasicDataRecord
- DeleteEvent
- LoyaltyProgramCurrency
- LoyaltyProgramMember
- LoyaltyTier
- LoyaltyTierGroup

Most recently used (MRU) list views resources now support these objects.

- AccountForecast
- LoyaltyProgramCurrency
- LoyaltyTier
- LoyaltyTierGroup

## Tooling API

Tooling API includes new and changed objects.

### Salesforce Overall

#### Fine-tune search results layouts for an object for each profile in your org

Use the new `Profile`, `ProfileName`, and `ListLayout` fields on the `SearchLayout` object.

#### Identify the functions supported in a specified formula type

Use the new `FormulaFunctionAllowedType` object.

#### **REMOVED: The `IsAllowedInEntityContext`, `IsAllowedInFlowContext`, and `IsAllowedInVisualforceContext` fields have been removed from the `FormulaFunction` object**

Use the new `FormulaFunctionAllowedType` instead.

#### Support configuration of Einstein Voice Assistant

`AssistantContextItem`, `AssistantDefinition`, `AssistantSkillQuickAction`, `AssistantSkillSubjectAction`, and `AssistantVersion` are visible but for internal use only. Introduced in API version 47.0, these objects have been added to the *Tooling API Developer Guide*.

## Packaging

### Skip validation of dependencies, package ancestors, and metadata during package version creation

Use the new `skipValidation` field on the `Package2VersionCreateRequest` object.

## Service

### Indicate that time sheet templates can be added to managed packages

Use two new fields on the `TimeSheetTemplate` object, `ManageableState` and `NamespacePrefix`.

### Use time sheet template assignments to link time sheets with profiles

Use the new `TimeSheetTemplateAssignment` object.

## Lightning Flow

### Set the context that a flow runs in

Use the new `RunInMode` field on the `Flow` object.

## Development

### Improved symbol table generation

The symbol table is generated to ensure that non-global implementation details aren't included in managed packages. For details, see [Improved Symbol Table Generation](#).

### Specify URLs that your Salesforce org can use to access resources for Lightning components

Use the `CspTrustedSite` object. Introduced in API version 39.0, this object has been added to the *Tooling API Developer Guide*.

### BEHAVIOR CHANGE: Required permissions changed for accessing some Tooling objects

Some objects have additional access requirements in Spring '20 and later.

- To access `ApexClassMember` or `ApexTriggerMember`, users must have the View All Data and Author Apex permissions.
- To access `ApexComponentMember`, `ApexPageMember`, or `ContainerAsyncRequest`, users must have both the View All Data and Customize Application permissions.
- To access `MetadataContainer`, users must have the View All Data and either the Author Apex or Customize Application permissions.
- To access `OperationLog`, users must have the View Setup and Configuration permission.

### BEHAVIOR CHANGE: Changed permissions for Change Data Capture channel access

To get `PlatformEventChannel` and `PlatformEventChannelMember` objects by ID, the View Setup and Configuration permission is now enforced. This permission was already enforced for querying the objects.

### Indicate whether a field is a compound field

Use the `isCompound` field on the `FieldDefinition` and `EntityParticle` objects. Introduced in API version 38.0, this field has been added to the *Tooling API Developer Guide*.

## Metadata API

Metadata API includes new and changed types and fields.

## Salesforce Overall

### Specify the name of the theme that is active in the org

Use the new `activeThemeName` field on the existing `LightningExperienceSettings` metadata type.

**Turn on Skype in your org**

Use the `enableSkypeChatEnabled` field on the existing `LightningExperienceSettings` metadata type.

**Turn on Webex Teams and Webex Meetings in your org**

Use the `enableSparkConversationEnabled` and `enableWebExEnabled` fields on the existing `LightningExperienceSettings` metadata type.

**Give all users access to Webex Teams and Webex Meetings**

Use the new `enableSparkAllUsers` and `enableWebexAllUsers` fields on the existing `LightningExperienceSettings` metadata type.

**Give all users access to Lightning Extension features**

Use the new `isLEXExtensionOff`, `isLEXExtensionDarkModeOff`, `isLEXExtensionComponentCustomizationOff`, and `isLEXExtensionLinkGrabberOff` fields on the existing `LightningExperienceSettings` metadata type.

**Assign records created by guest users of a Salesforce site to a default owner in the org**

Use the new `enableSitesRecordReassignOrgPref` field on the existing `SiteSettings` metadata type.

**Indicate whether a formal name is used for a person**

Use the new `enableInformalName` field on the `NameSettings` type.

**Store survey questions in different fields**

Use the new `ComponentChoice` and `ComponentInput` values in the `fieldType` field (`FlowScreenField` subtype) on the `Flow` metadata type.

**Modify appointment details**

Use the new `ModifyAppointment` value in the `standardLabel` field on the `QuickAction` metadata type. Introduced in API version 47.0, this type has been added to the *Metadata API Developer Guide*.

**Support configuration of Einstein Voice Assistant**

`AssistantContextItem`, `AssistantDefinition`, `AssistantSkillQuickAction`, `AssistantSkillSubjectAction`, and `AssistantVersion` are visible but for internal use only. Introduced in API version 47.0, these metadata types have been added to the *Metadata API Developer Guide*.

## Search

**Enable advanced search in the search sidebar in Salesforce Classic**

Use the new `enableAdvancedSearchInAlohaSidebar` field on the `SearchSettings` type.

**Enable Einstein Search Personalization in Lightning Experience**

Use the new `enableEinsteinSearchPersonalization` field on the `SearchSettings` type.

**Allow users to group records by theme with personal tags in Salesforce Classic**

Use the new `enablePersonalTagging` field on the `SearchSettings` type.

**Allow users to group records by theme with public tags in Salesforce Classic**

Use the new `enablePublicTagging` field on the `SearchSettings` type.

**Enable search synonyms**

Use the new `enableSalesforceGeneratedSynonyms` field on the `SearchSettings` type.

**Enable search term history in the global search box**

Use the new `enableSearchTermHistory` field on the `SearchSettings` type.

**Enable links to suggested knowledge articles from cases**

Use the new `enableSuggestArticlesLinksOnly` on the `SearchSettings` type.

**Enable use of the admin-specified default entity in sidebar search in Salesforce Classic**

Use the new `enableUseDefaultSearchEntity` on the `SearchSettings` type.



## Mobile

### **REMOVED: The `enableLightningOnMobile` field on the `MobileSettings` type was removed**

The `enableLightningOnMobile` field indicated whether an org was enabled for the new Salesforce mobile app during the opt-in period in Winter '20. All orgs are now enabled for the new Salesforce mobile app, so this field is no longer needed.

### **Turn on the new Salesforce mobile app tablet experience for all users**

Use the new `enableNewSalesforceMobileAppForTablet` field on the existing `MobileSettings` metadata type.

### **View and modify org-level notification settings for standard and custom notification types**

Use the new `NotificationTypeConfig` metadata type.

## Sales

### **Improve the quality of your imported data with sophisticated data cleansing tools.**

Use the `DataDotComSettings` metadata type. This type is available in API version 47.0 and later.

### **BEHAVIOR CHANGE: For unlocked packaging, the `Territory2` type now requires packages without a namespace in all API versions**

`Territory2` depends on `Territory2Type`, which requires packages without a namespace. This change makes the behavior of `Territory2` and `Territory2Type` consistent, so you can now use `Territory2` in unlocked packages.

### **Customize the communication process between Salesforce and a payment gateway provider**

Use the new `PaymentGatewayProvider` metadata type.

### **Enable better order processing**

Use the new `enableEnhancedCommerceOrders` field on the `OrderSettings` type.

### **BEHAVIOR CHANGE: In all API versions, we removed namespace support for `Territory2Model` in unlocked packages**

This change addresses a known issue where territory models were deployed with unlocked packaging but without a namespace.

### **Start a flow when a user rejects a recommendation in the Actions & Recommendations component**

Use the new `shouldLaunchActionOnReject` field on the `RecordActionDeployment` type.

### **BEHAVIOR CHANGE: The field `doesAutoAddSplitOwnerAsOpportunityTeamMember` is no longer available in the `OpportunitySettings` metadata type**

Use `Opportunity Split Settings` in Setup to enable this feature. When this feature is enabled, members are automatically added to opportunity teams when a user edits the opportunity splits. When this feature is disabled, users must use the opportunity team's related list to add members. This feature is disabled by default.

### **Allow users to create sales cadence steps that automatically send an email**

Use the new `enableACAutoSendEmail` field on the `HighVelocitySalesSettings` metadata type.

### **Create Microsoft Word documents from multiple records using mail merge**

Use the new `MailMergeSettings` metadata type.

### **Sync calendar events and contacts between Salesforce and your Microsoft or Google accounts**

Use the new `enableContactAndEventSync` field on the `EmailIntegrationSettings` metadata type.

### **Keep emails, events, and contacts in sync between your external accounts and Salesforce**

Use the new `EACSettings` metadata type. Control whether emails and events from your Microsoft or Google account are added to the activity timeline of related Salesforce records. Specify whether contact and event data is synced between your Microsoft or Google account and Salesforce.

### **The read-only process type `SalesEntryExperienceFlow` is added to the `FlowProcessType` enumeration**

This value is reserved for future use.

### **Configure Campaign Influence so that you can understand how your campaigns are affecting your opportunity pipeline.**

Use the new `CampaignSettings` metadata type.

**Use Einstein Automated Contacts to find new contacts and opportunity contact roles**

Use the new `AutomatedContactsSettings` metadata type to enable Einstein Automated Contacts. The settings control whether Einstein suggests the new data to users or adds it automatically.

**Use Einstein Opportunity Insights to get relevant updates about your opportunities**

Use the new `OpportunityInsightsSettings` metadata type to enable Einstein Opportunity Insights.

**Use Einstein Account Insights to help maintain relationships with customers**

Use the new `AccountInsightsSettings` metadata type to enable Einstein Account Insights.

**Make it easy for sales reps to create accounts, see relevant news articles, and add logos to account records**

Use the new `AccountIntelligenceSettings` metadata type to enable Automated Account Fields, News, and Account Logos.

**Commerce****Enable Salesforce Order Management**

Use the new `OrderManagementSettings` metadata type.

**Service****Control whether file attachments and field labels are included with inserted articles for Lightning Knowledge channel layouts**

Use the new fields `doesExcludeFieldLabels` and `doesExcludeFiles` on the `ChannelLayout` type.

**BEHAVIOR CHANGE: For social, chat, and messaging communication channels, field labels are included by default**

Previously, article fields inserted into social, chat, and messaging channels didn't include field labels. This change adds the `doesExcludeFieldLabels` field to `ChannelLayout`. The default value is `false`, so existing configurations for these channels now include field labels.

**Customize case management options**

Use these new boolean fields on the `CaseSettings` type.

- `enableEmailContactOnCasePost`—Notify the case contact by email when someone makes an externally visible post on a community case.
- `enableEscalateQfiToCaseInternal`—Let moderators create cases from Chatter questions in your organization.
- `enableEscalateQfiToCaseNetworks`—Let moderators create cases from Chatter questions in all communities where Chatter Questions is enabled.
- `enableExtNetworksCaseFeedEnabled`—Let community members see case-related emails, comments, and updates in the case feed.
- `keepCaseMergeRecords`—Keep duplicate case records after a case merge.
- `visibleInCssCheckbox`—Set the default visibility of a case in CSS.

**Configure a setup node for creating a channel menu deployment**

Use the new `EmbeddedServiceMenuSettings` metadata type.

**Define the type of data within an entity in an Einstein Intent Set**

Use the new `dataType` field on the existing `MISlotClass` metadata type.

**Deliver knowledge articles to the bot based upon an end user entry**

Use the new `conversationRecordLookup` field on the existing `BotVersion` metadata type.

**Analytics****Deploy and retrieve Analytics recipes to create custom datasets**

Use the new `WaveRecipe` metadata type.

**Associate a dataflow with the name of the Analytics application it's connected to**

Use the new `application` field on the `WaveDataflow` type.

**Enable the Customer 360 data validation dashboard connector**

Use the new `enableC360GlobalProfileData` field on the `AnalyticsSettings` metadata type.

**Enable Data Discovery live model metrics calculation**

Use the new `canEnableLiveMetrics` field on the `AnalyticsSettings` metadata type.

**Enable encryption for Analytics**

Use the new `enableAnalyticsEncryption` field on the `AnalyticsSettings` metadata type.

**Enable Analytics sharing**

Use the new `enableAnalyticsSharingEnable` field on the `AnalyticsSettings` metadata type.

**REMOVED: The `enableAnalyticsSubtotals` field on the `AnalyticsSettings` type has been removed**

The `enableAnalyticsSubtotals` field was removed in API version 48.0.

**Enable exporting a dashboard to a PDF**

Use the new `enableDashboardToPDFEnable` field on the `AnalyticsSettings` metadata type.

**Enable data blending**

Use the new `enableDataBlending` field on the `AnalyticsSettings` metadata type.

**Enable the Firebird Editor**

Use the new `enableFirebirdEditor` field on the `AnalyticsSettings` metadata type.

**Enable support of null values as a grouping key in an Analytics SAQL query**

Use the new `enableNullDimension` field on the `AnalyticsSettings` metadata type.

**Enable query of live connectors**

Use the new `enableQueryLiveConnectors` field on the `AnalyticsSettings` metadata type.

**REMOVED: The `enableReportFieldToFieldPref` field on the `AnalyticsSettings` type was removed**

The `enableReportFieldToFieldPref` field was removed in API version 48.0.

**Enable report notifications**

Use the new `enableReportNotificationsEnable` field on the `AnalyticsSettings` metadata type.

**REMOVED: The `enableReportUniqueRowCountPref` field on the `AnalyticsSettings` type was removed**

The `enableReportUniqueRowCountPref` field was removed in API version 48.0.

**Enable EclairNG charts in S1 Mobile Analytics**

Use the new `enableS1AnalyticsEclairEnable` field on the `AnalyticsSettings` metadata type.

**Enable browser tab navigation for record actions**

Use the new `enableWaveRecordNavigation` field on the `AnalyticsSettings` metadata type.

**Enable medium visibility sharing inheritance for Analytics sharing inheritance on all Salesforce objects besides the Opportunity object**

Use the new `inheritSharingForNonOpptyObjects` field on the `AnalyticsSettings` metadata type.

**Enable medium visibility sharing support for Analytics sharing inheritance on the Salesforce Opportunity object**

Use the new `inheritSharingForOpptyObject` field on the `AnalyticsSettings` metadata type.

**Enable the support of null values and make the implicit default value for blank measures null**

Use the new `replaceBlankMeasuresWithNulls` field on the `AnalyticsSettings` metadata type.

**Enable the timezone feature**

Use the new `turnOnTimeZones` field on the `AnalyticsSettings` metadata type.

**Apply field-to-field filters to most report types**

Use the new `columnToColumn` field with the existing `ReportFilterItem` field type. Field-to-field filters aren't supported for report types that refer to an external object or that have an outer join ("with or without") relationship between objects.

**View the index value the system assigns to an item in a list**

Use the new `sortIndex` field on the existing `WaveXmdRecordDisplayLookup` metadata type.

**Associate XMD with an Analytics application**

Use the `application` field on the existing `WaveXmd` metadata type. Introduced in API version 43.0, this field has been added to the *Metadata API Developer Guide*.

**Determine the Analytics XMD type**

Use the `type` field on the existing `WaveXmd` metadata type. Introduced in API version 43.0, this field has been added to the *Metadata API Developer Guide*.

**See the Analytics asset visualization of the XMD**

Use the `waveVisualization` field on the existing `WaveXmd` metadata type. Introduced in API version 43.0, this field has been added to the *Metadata API Developer Guide*.

**Allow conditional formats to be set on XMD Dimension and Measure values**

Use the `conditionalFormatting` field on the existing `WaveXmdDimension` and `WaveXmdMeasure` metadata types. Introduced in API version 43.0, this field has been added to the *Metadata API Developer Guide*.

**Create conditional formatting for XMD dimensions and measures**

Use the new `WaveXmdFormattingProperty` metadata type. Introduced in API version 43.0, this type has been added to the *Metadata API Developer Guide*.

**Customize the decimal separator in the XMD measures format**

Use the new `formatDecimalSeparator` field on the existing `WaveXmd` metadata type.

**Customize the thousands separator in the XMD measures format**

Use the new `formatThousandsSeparator` field on the existing `WaveXmd` metadata type.

**Communities****Indicate whether the audience is the default audience**

Use the new `isDefaultAudience` field on the `Audience` type.

**Create a no-results page for B2B searches**

Use the new `CommNoSearchResultsPage` value in the `FlexiPageType` field on the `FlexiPage` type.

**See contacts from private accounts**

Use the new `enableCspContactVisibilityPref` field on the `CommunitiesSettings` type.

**Access notes and attachments associated with accounts and contacts**

Use the new `enableCspNotesOnAccConPref` field on the `CommunitiesSettings` type.

**Enable partner users**

Use the new `enableEnablePRM` field on the `CommunitiesSettings` type.

**Enable External Account Hierarchies**

Use the new `enableExternalAccHierPref` field on the `CommunitiesSettings` type.

**Set a default owner for records created by guest users**

Use the new `enableGuestRecordReassignOrgPref` field on the `CommunitiesSettings` type.

**Invite guest users to Chatter**

Use the new `enableInviteChatterGuestEnabled` field on the `CommunitiesSettings` type. (Deprecated)

**Enable Experience Workspaces**

Use the new `enableCommunityWorkspaces` field on the `CommunitiesSettings` type.

**Let external users in communities run reports**

Use the new `enableNetPortalUserReportOpts` field on the `CommunitiesSettings` type.

**Enable Communities**

Use the new `enableNetworksEnabled` field on the `CommunitiesSettings` type.

**Use standard external profiles for self-registration and user creation**

Use the new `enableOotbProfExtUserOpsEnable` field on the `CommunitiesSettings` type.

**Change Case statuses as a Customer Community Plus user**

Use the new `enablePowerCustomerCaseStatus` field on the `CommunitiesSettings` type.

**Access Account Relationship and Account Relationship Data Sharing Rule setup options**

Use the new `enablePRMAccRelPref` field on the `CommunitiesSettings` type.

**Allow editing for Partner Account fields on opportunities and leads**

Use the new `enableRelaxPartnerAccountFieldPref` field on the `CommunitiesSettings` type.

**Display warnings for unsupported browsers in Communities**

Use the new `enableUnsupportedBrowserModalPref` field on the `CommunitiesSettings` type.

**Contain username uniqueness to the org level**

Use the new `enableUsernameUniqForOrgPref` field on the `CommunitiesSettings` type.

**Set the default view of a route**

Use the new `activeViewId` property in the `page_name.json` files in the `routes` folder on the `ExperienceBundle` type.

**Define a preferred domain to improve search engine results**

Use the new `preferredDomain` property in the `sitename.json` file in the `config` folder on the `ExperienceBundle` type.

**REMOVED: The `preferredDomainId` field on the `ExperienceBundle` type has been removed**

Use the new `preferredDomain` property instead.

**Chatter****Set the Case feed item timestamp format to relative or absolute time**

Use the new `enableCaseFeedRelativeTimestamps` field on the `ChatterSettings` type.

**REMOVED: The `allowSharingInChatterGroup` field on the `ChatterSettings` type has been removed**

The `allowSharingInChatterGroup` field has no effect on the org.

**Files****Configure files settings**

Use the new `ContentSettings` metadata type.

**Customization****Indicate whether related lists of external objects are loaded asynchronously**

Use the new `enableExternalObjectAsyncRelatedLists` field on the `UserInterfaceSettings` type. Salesforce Classic only.

**Indicate whether local names can be defined for standard objects**

Use the new `enableLocalNamesForStdObjects` field on the `LanguageSettings` type.

**Indicate whether users must have read access to a record to see the record's name in lookup and system fields**

Use the new `enableRestrictAccessLookupRecords` field on the `SharingSettings` type.

**Grant access to specific custom settings using profiles**

Use the new `customSettingAccesses` field on the `Profile` type.

**Grant access to specific custom settings using permission sets**

Use the new `customSettingAccesses` field on the `PermissionSet` type.

**In-App Guidance****Include videos in docked prompts**

Add videos with the `videoLink` field on the `Prompt` type.

**Filter prompts by profile**

Show prompts to specific profiles with the `userProfileAccess` field on the `Prompt` type. The `leftValue` and `rightValue` fields were also updated to reflect this.

**Ignore the global delay time for a single prompt**

Ignore the global delay between prompts for a specific prompt with the `shouldIgnoreGlobalDelay` field on the `Prompt` type.

**Organize translated prompt labels**

Use the new `prompt` field on the `Translations` type.

**BEHAVIOR CHANGE: User permissions and prompt visibility**

Users no longer need the `View Setup and Configuration` permission to see prompts that are visible only with specific permissions.

**Lightning Flow****Launch a flow when records are created or updated**

Use the new `RecordBeforeSave` enum in the `triggerType` field and specify the enum `Create`, `Update`, or `CreateAndUpdate` in the new `recordTriggerType` field on the `Flow` type. For more information, see [Update New and Changed Records 10 Times Faster by Using Before-Save Updates in Flows](#) on page 406.

**Implement flows for Order Management (orgs with Salesforce Order Management enabled)**

Use the new enums for Order Management in the `actionType` field on `Flow`.

- `cancelFulfillmentOrderItem`
- `cancelOrderItemSummariesPreview`
- `cancelOrderItemSummariesSubmit`
- `createCreditMemoOrderSummary`
- `createFulfillmentOrder`
- `createInvoiceFromFulfillmentOrder`
- `createOrderPaymentSummary`
- `createOrderSummary`
- `ensureFundsOrderSummaryAsync`
- `ensureRefundsOrderSummaryAsync`
- `returnOrderItemSummariesPreview`
- `returnOrderItemSummariesSubmit`

**Indicate that variables and outputs are being handled automatically**

Use the new `storeOutputAutomatically` field on the `FlowRecordCreate` and `FlowActionCall` subtypes of `Flow`.

**Map generic sObject inputs or outputs to a specific object**

Use the new `dataTypeMappings` field on the `FlowActionCall` subtype of `Flow`.

**Set the context that a flow runs in**

Use the new `runInMode` field on the `FlowVersionView` subtype of `Flow`.

**Security, Privacy, and Identity****Prevent identity verification by email for users who have registered other verification methods**

Use the new `canConfirmIdentityBySmsOnly` field on the `SessionSettings` subtype of the `SecuritySettings` type.

**Apply the selected Request Signature Method (RSM) during single logout**

Use the new `useConfigRequestMethod` field on the `SamlSsoConfig` type.

**Limit external user access to Salesforce APIs**

Use the new `enableAdminApprovedAppsOnlyForExternalUser` field on the `ConnectedAppSettings` type.

**Select Apple as a third-party authentication provider**

Use the new `Apple` value in the existing `providerType` field on the `AuthProvider` type.

**Provide an identity-first login experience**

Use the new `MyDomainDiscoverableLogin` type.

**Whitelist trusted URLs that users can navigate to without being shown a warning message**

Use the new `RedirectWhitelistUrl` metadata type.

**Development****REMOVED: The OrgPreferenceSettings metadata type has been removed**

Deprecated in API version 47.0, the `OrgPreferenceSettings` type is removed in API version 48.0 and later. Instead, use the appropriate `Settings` type for the functionality you want to enable or disable. For more information and a list of available types, see *Settings* in the *Metadata API Developer Guide*. See also the `OrgPreferenceSettings` reference topic, which includes links from each `preferences` field value to its new location on another `Settings` type.

**Enable Developer Hub (Dev Hub) and unlocked and second-generation managed packaging**

Introduced in API version 47.0, the new `DevHubSettings` metadata type has been added to the *Metadata API Developer Guide*.

**Indicate whether Apex type visibility rules are strictly enforced for the `Type.newInstance` method**

Use the new `enableSecureNoArgConstructorPref` field on the `ApexSettings` metadata type.

**Grant access to specific custom settings using permission sets**

Use the new `customSettingsAccesses` field on the `PermissionSet` type.

**Grant access to specific custom settings using profiles**

Use the new `customSettingsAccesses` field on the `Profile` type.

**Indicate a capability for a Lightning web component**

Use the new `capabilities` field on the `LightningComponentBundle` type.

**Enable dependency access checks in Lightning components**

Use the new `enableAuraDepAccessChksCRUCPref` field on the `LightningExperienceSettings` type, which corresponds to the `Enable Dependency Access Checks In Lightning Components` critical update. This field improves Lightning component access checks by checking the access level of all component dependencies. A dependency is any resource used within a top-level component.

**Specify which resources a Lightning component can load from a trusted site**

Use the new `isApplicableToConnectSrc`, `isApplicableToFrameSrc`, `isApplicableToImgSrc`, `isApplicableToStyleSrc`, `isApplicableToFontSrc`, and `isApplicableToMediaSrc` fields on the existing `CspTrustedSite` metadata type.

**BEHAVIOR CHANGE: Access rules changed for DeployMessage**

Only authenticated users can access `DeployMessage`, a child of `DeployResult`.

**Salesforce CMS****Identify URL, date, or datetime as the supported type of content in the node**

Use the one of the new `URL`, `DATE`, or `DATETIME` values in the existing `nodeType` field on the `ManagedContentType` metadata type.

**Einstein Next Best Action****Load recommendations from the records of any object**

Use the new `object` field on the `StrategyNodeRecommendationLoad` subtype of the `RecommendationStrategy` type.

**Sort the order of the records by choosing a value from the object to sort on**

Use the new `sortField` field on the `StrategyNodeRecommendationLoad` subtype of the `RecommendationStrategy` type.

**Salesforce CLI: New and Changed Commands**

Use Salesforce CLI to create environments for development and testing, synchronize source code, run tests, and control your application lifecycle. Read the weekly release notes to learn about recent updates to [v48 of the Salesforce CLI](#).

**IN THIS SECTION:**[Uninstall the Pre-Release Version of Salesforce CLI](#)

If you have the pre-release version of the CLI, it no longer updates. Uninstall it and update the CLI so that you have the released version.

[Discover New and Changed CLI Commands](#)

Here are the updates to Salesforce CLI v48. However, we release changes to the CLI regularly. Read the weekly release notes to learn about updates to [v48 of the Salesforce CLI commands](#).

**Uninstall the Pre-Release Version of Salesforce CLI**

If you have the pre-release version of the CLI, it no longer updates. Uninstall it and update the CLI so that you have the released version.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

**How:**

Uninstall the pre-release and update to the released version:

```
sfdx plugins:uninstall salesforcedx
sfdx update
```



## Discover New and Changed CLI Commands

Here are the updates to Salesforce CLI v48. However, we release changes to the CLI regularly. Read the weekly release notes to learn about updates to [v48 of the Salesforce CLI commands](#).

### New Commands

**force:analytics:template:create**

Allows you to create a simple analytics template in a specified directory.

**force:community:create**

Creates a community using a template.

**force:community:publish**

Publishes your Lightning community to make it live. Each time you publish, you update the live community with the most recent updates.

**force:community:template:list**

Retrieves the list of templates available in your org for creating a community.

### Changed Commands

**force:package:version:list, force:package:version:report**

Display columns that indicate if the package version has passed code coverage, and the code coverage percentage. We also added columns to indicate the ancestor ID and ancestor version number for the package version's ancestor. Ancestor ID and version number display for package versions created in Spring '20 and later.

**force:project:create**

The `S1DesktopEnabled` setting is automatically enabled when you create a scratch org. We removed the setting from the sample scratch org definition file when you create a project.

### New Parameters

**force:package:version:create --skipvalidation**

Skips validation during package version creation. Skipping validation allows you to create package versions faster, but you can't promote a package version that was created without validation.

**force:source:delete --checkonly**

Performs a test deployment (validation) in the non-sourced-tracked org without deleting the metadata. After the validation passes, you can safely delete the metadata using this command.

### Changed Parameters

These parameters were added to the `force:source:convert` and `force:mdapi:convert` commands in a weekly release of `salesforcedx`

**-x | --manifest**

Specifies the complete path to the manifest (`package.xml`) file that specifies the metadata types to convert.

**-m | --metadata**

Specifies a comma-separated list of metadata component names to convert.

**-p | --sourcepath**

Specifies a comma-separated list of paths to the local source files to convert.

## Deprecated Parameters

We removed the `-a` short version of the `--apiversion` parameter. The following commands were affected:

**`force:apex:class:create`**

**`force:apex:trigger:create`**

**`force:lightning:app:create`**

**`force:lightning:component:create`**

**`force:lightning:event:create`**

**`force:lightning:interface:create`**

**`force:visualforce:component:create`**

**`force:visualforce:page:create`**

SEE ALSO:

[Programmatically Create and Publish Communities in Scratch Orgs](#)

[Skip Validation to Quickly Iterate Package Development](#)

[View More Packaging Details in List and Report Salesforce CLI Commands](#)

[Salesforce CLI: Autocompletion, Enhanced DX Templates, Progress Bar, Code Coverage](#)

## Quip: Related Lists, Admin Insights, Filtered Salesforce Reports, New Quip Process Builder and Flow Builder Actions, Simplified Setup, and More

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Connect your Salesforce orgs to Quip faster than ever. Bring your filtered reports to Quip and embed them on Salesforce records to have them filter dynamically. Automate your business workflows with new Quip actions in Process Builder and Flow Builder. View and edit your related Salesforce lists views with the updated Salesforce List Live App.

IN THIS SECTION:

[Import Related Lists into a Quip Document](#)

Add record-specific related lists to a Quip document with the updated Salesforce List Live App. Embedded Quip documents dynamically pull the related lists of the records they're embedded on to save your users time. Your users can easily stay on top of deals and cases with in-line editing, comments, and bi-directional syncing to Salesforce.

[Get Insights on Quip for Customer 360 Usage](#)

Measure user adoption with the new Quip for Customer 360 Insights dashboard in the Quip Admin Console. Use data to track engagement with Salesforce integrations in Quip and to make the most of your Quip for Customer 360 licenses.

[Dynamically Filter Live Salesforce Reports from Quip](#)

Filter live Salesforce reports in Quip using your report's custom filters. Create a standard template from a Quip document and add it to a Salesforce record using the Quip Document component. Reports added to an embedded Quip document dynamically filter based on the record's data.

### [Get Summarized Salesforce Reports in Quip](#)

Hide your report's detail rows in Quip to improve report performance and to focus on key details like groupings, totals, subtotals, and record counts. Use Summary view to get a high-level overview of your report, making it easier to collaborate without getting stuck in the weeds.

### [Keep Your Quip Templates Up-to-Date with Dynamic Live Apps](#)

Add Salesforce live apps to a Quip document embedded in a Salesforce record. Configure them to automatically update based on the record's data.

### [Automate Workflows with New Quip Process and Flow Builder Actions](#)

Add users with different permissions to a Quip document. Lock document edits to mark a document as completed. Copy comments from a Quip template to keep annotations top of mind. Trigger a process to remove members from a document or documents from a folder. Automatically edit sections of a document with text detection.

### [Quip Component Is Now the Quip Associated Documents Component](#)

We changed the name of the Quip Lightning component to the Quip Associated Documents component. We also added new functionality. Now you can add the Quip Associated Documents component to your page layouts so that your users can easily access documents linked to a record and its related records.

### [Use Ready-Made Quip Templates in Salesforce](#)

Save time copying and pasting with Quip templates. Don't know how? Now you can add ready-made Quip templates right from the Lightning App Builder.

### [See Quip Documents Linked to Related Records](#)

Access your linked documents and documents linked to related records from one place. With the new Quip Associated Documents component, see all documents linked to an account so your users can find the right document at the right time.

### [Log In to Quip with Multiple SSOs](#)

Users that belong to multiple Salesforce orgs can now use multiple Single Sign-ons (SSOs) to log in to the same Quip site, saving them time and increasing productivity.

### [Use Salesforce Live Apps Without Reconnecting](#)

After users connect their Salesforce orgs to Quip, they can add live Salesforce data to a Quip document without needing to reconnect. No more logging in to each live app separately. They can even connect multiple Salesforce orgs to one Quip site, making it easier to keep cross-cloud collaboration in context.

### [Set Up Quip for Salesforce In Fewer Steps](#)

We cut down the number of steps to connect Quip to Salesforce—gone are the days of navigating to a separate site to download the Connected App. Now you can connect your existing Quip site to Salesforce with just a few clicks, or start a free trial from the Quip Setup page.

### [Add Quip Slides to Salesforce Records](#)

Let your team collaborate more efficiently by attaching Quip slides to Salesforce records. Users can share slide decks with coworkers or prospective customers by linking them to a Salesforce record. Set templates, control user access, and even view linked slides on mobile.

### [Mail Merge Lookup Field Limit Removed](#)

We removed the 20 lookup fields per template limit so you can better customize your Quip templates for your business.

### [Use Rich-Text Editing for Quip Documents from the Files Tab](#)

View and edit your Quip documents from the Files tab without leaving Salesforce.

## Import Related Lists into a Quip Document

Add record-specific related lists to a Quip document with the updated Salesforce List Live App. Embedded Quip documents dynamically pull the related lists of the records they're embedded on to save your users time. Your users can easily stay on top of deals and cases with in-line editing, comments, and bi-directional syncing to Salesforce.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**When:** Add related lists to your Quip documents starting in February 2020.

**Who:** Available in orgs with a Quip for Customer 360 plan or free Quip trial.

**How:** @mention Salesforce List in a Quip document and select **Related List** to get started.

## Get Insights on Quip for Customer 360 Usage

Measure user adoption with the new Quip for Customer 360 Insights dashboard in the Quip Admin Console. Use data to track engagement with Salesforce integrations in Quip and to make the most of your Quip for Customer 360 licenses.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**When:** Get insights on your Salesforce integrations starting March 3 2020.

**Who:** Available in orgs with a Quip for Customer 360 plan or free trial.

**Why:** Quantify the number of active users who have opened a Quip document with Salesforce integrations. See how many Quip documents are linked to Salesforce records or have embedded Salesforce live apps and live reports.

**How:** Log in to the Quip Admin Console. Under Insights, click **Salesforce**.

## Dynamically Filter Live Salesforce Reports from Quip

Filter live Salesforce reports in Quip using your report's custom filters. Create a standard template from a Quip document and add it to a Salesforce record using the Quip Document component. Reports added to an embedded Quip document dynamically filter based on the record's data.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**When:** You can filter reports in Quip starting in February 2020.

**Who:** Available in orgs with a Quip for Customer 360 plan or free Quip trial.

**Why:** Save time tailoring your master report to each individual by automatically filtering your reports based on your users, region, and more. Embed a Quip document with a Salesforce report in a record and it dynamically filters based on that record.

**How:** To dynamically filter your reports based on a record, make sure that you added the Quip Document component to the record page layout.

Import your live Salesforce report into a Quip document with a simple @Salesforce Report. To enable dynamic filtering, click the checkbox **Reapply report filters based on the Salesforce record**.

## Get Summarized Salesforce Reports in Quip

Hide your report's detail rows in Quip to improve report performance and to focus on key details like groupings, totals, subtotals, and record counts. Use Summary view to get a high-level overview of your report, making it easier to collaborate without getting stuck in the weeds.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**When:** Import summarized reports in Quip starting in February 2020.

**Who:** Available in orgs with a Quip for Customer 360 plan or free Quip trial.

**How:** @Mention Salesforce Report and click the checkbox **Hide detail rows**.

## Keep Your Quip Templates Up-to-Date with Dynamic Live Apps

Add Salesforce live apps to a Quip document embedded in a Salesforce record. Configure them to automatically update based on the record's data.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**When:** Add dynamic live apps to your Quip templates starting in February 2020. The dynamic Salesforce record live app will be available by end of February.

**Who:** Available in orgs with a Quip for Customer 360 plan or free Quip trial.

**Why:** Add a Salesforce Related List to a Quip template embedded in an Account to see Opportunities related to that Account. You can configure your desired output depending on the object when you set up the Quip template.

## Automate Workflows with New Quip Process and Flow Builder Actions

Add users with different permissions to a Quip document. Lock document edits to mark a document as completed. Copy comments from a Quip template to keep annotations top of mind. Trigger a process to remove members from a document or documents from a folder. Automatically edit sections of a document with text detection.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in orgs with a Quip for Customer 360 plan or free Quip trial.

### IN THIS SECTION:

#### [Add Users with Different Access Levels to a Quip Document](#)

Automatically share a Quip document with users with different permissions using Process Builder. Get feedback from users with comment access or collaborate on a document with edit or full-access users.

#### [Mark a Document as Complete with Lock Edits](#)

Trigger a process to finalize edits to contracts or other sensitive documents. Only users with full access to a Quip document can lock or unlock edits.

#### [Add Live Apps to a Quip Template](#)

Automatically keep your templates up to date with the latest Salesforce data. Now you can use Process Builder and Flow Builder to add live Salesforce records and list views to your Quip documents.

#### [Update Cloned Documents Using Text Detection](#)

Automate your document updates using Process Builder. Now you can update documents cloned from templates using text detection. Keep your Account Plans up to date with the latest Salesforce data and update sections of cloned documents at scale.

#### [Control When and Where Your Quip Content Is Shared](#)

When there's a Tier 3 escalation or a deal that's about to fall through, cross-team collaboration gets the job done. But what happens after the fire's been put out? Trigger a process to auto-remove users from a document and documents from a folder to go about business as normal.

#### [Copy Comments from a Quip Template](#)

Copy comments from a template's source document to a newly created target document to keep annotations top of mind.

## Add Users with Different Access Levels to a Quip Document

Automatically share a Quip document with users with different permissions using Process Builder. Get feedback from users with comment access or collaborate on a document with edit or full-access users.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in orgs with a Quip for Customer 360 plan or free trial.

**How:** In Setup, enter *Process Builder* in the Quick Find box. You can define user access levels from the **Add Members to Document** Quip action.

## Mark a Document as Complete with Lock Edits

Trigger a process to finalize edits to contracts or other sensitive documents. Only users with full access to a Quip document can lock or unlock edits.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in orgs with a Quip for Customer 360 plan or free trial.

**How:** In Setup, enter *Process Builder* in the Quick Find box. Under the action type Quip, select **Lock Document Edits**.

## Add Live Apps to a Quip Template

Automatically keep your templates up to date with the latest Salesforce data. Now you can use Process Builder and Flow Builder to add live Salesforce records and list views to your Quip documents.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in orgs with a Quip for Customer 360 plan or free trial.

## Update Cloned Documents Using Text Detection

Automate your document updates using Process Builder. Now you can update documents cloned from templates using text detection. Keep your Account Plans up to date with the latest Salesforce data and update sections of cloned documents at scale.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in orgs with a Quip for Customer 360 plan or free trial.

**How:** In Setup, enter *Process Builder* in the Quick Find box. Under the action type Quip, select **Edit Document**. Under Section in Document, select **Text Detection** to add new content based on section text instead of an anchor link.

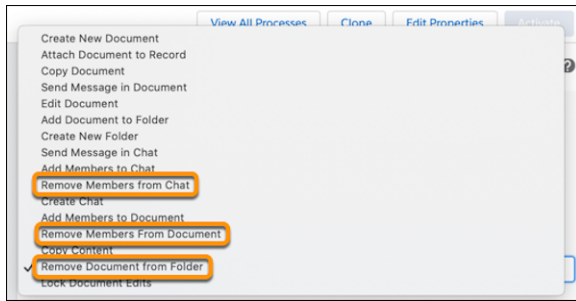
## Control When and Where Your Quip Content Is Shared

When there's a Tier 3 escalation or a deal that's about to fall through, cross-team collaboration gets the job done. But what happens after the fire's been put out? Trigger a process to auto-remove users from a document and documents from a folder to go about business as normal.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in orgs with a Quip for Customer 360 plan or free trial.

**Why:** Remove users from a document when the collaboration is over. Make a shared document private again.



## Copy Comments from a Quip Template

Copy comments from a template's source document to a newly created target document to keep annotations top of mind.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in orgs with a Quip for Customer 360 plan or free trial.

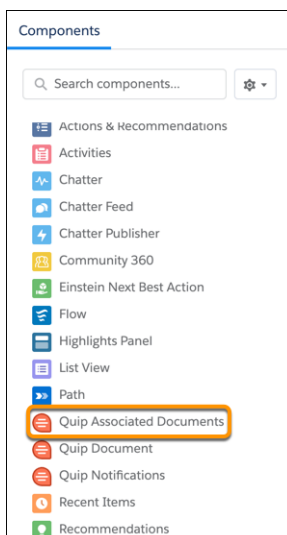
**Why:** Any Quip document can be used as a template to standardize business practices. Now you can copy comments from your templated document so important notes don't get left behind.

## Quip Component Is Now the Quip Associated Documents Component

We changed the name of the Quip Lightning component to the Quip Associated Documents component. We also added new functionality. Now you can add the Quip Associated Documents component to your page layouts so that your users can easily access documents linked to a record and its related records.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in orgs with a Quip for Customer 360 plan or free Quip trial.



## Use Ready-Made Quip Templates in Salesforce

Save time copying and pasting with Quip templates. Don't know how? Now you can add ready-made Quip templates right from the Lightning App Builder.



**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in orgs with a Quip for Customer 360 plan or free Quip trial.

**How:** In the Lightning App Builder, click **Tell Me More** when setting up the Quip Document component to see a gallery of pre-made templates. You can also go to <https://quip.com/templates>.

## See Quip Documents Linked to Related Records

Access your linked documents and documents linked to related records from one place. With the new Quip Associated Documents component, see all documents linked to an account so your users can find the right document at the right time.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in orgs with a Quip for Customer 360 plan or free Quip trial.

**Why:** Documents linked to child accounts are easy to lose, which can lead to lost time, duplicate documents, and user frustration. The new Associated Documents component not only surfaces the most relevant related documents, but also offers smart document suggestions based on the record's name.

The screenshot shows a Salesforce account record for 'Acme'. The 'Associated Documents' component is highlighted with an orange border. It displays two sections: 'Directly Linked (9+)' and 'Linked from Related Records (6+)'. The 'Directly Linked' section lists documents such as 'Strategic Opportunity Assessment Tool copy', 'Strategic Opportunity Assessment Tool', 'COPI Español - Rise Methodology Account Planning copy', and 'COPI Español - Rise Methodology Account Planning copy'. The 'Linked from Related Records' section lists documents related to opportunities like 'Acme - 200 Widgets', 'Acme - 200 Widgets - Mutual Success Plan copy', and 'Acme - 200 Widgets'.

**How:** To add the component, go to the Lightning App Builder. In Search Components, enter *Quip Associated Documents*, and drag the component onto your page layout.

## Log In to Quip with Multiple SSOs

Users that belong to multiple Salesforce orgs can now use multiple Single Sign-ons (SSOs) to log in to the same Quip site, saving them time and increasing productivity.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in orgs with a Quip for Customer 360 plan or free Quip trial.

SEE ALSO:

[Best Practices and Tips for Implementing Single Sign-On](#)

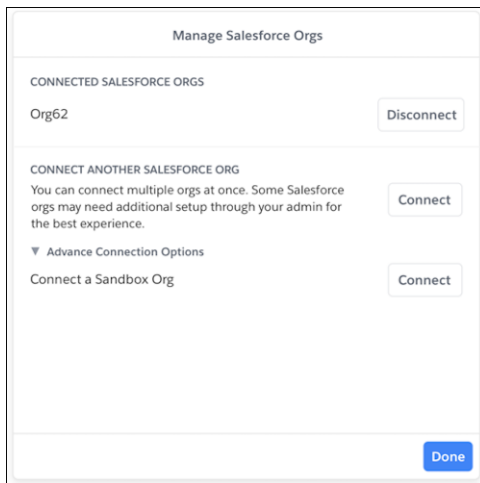
## Use Salesforce Live Apps Without Reconnecting

After users connect their Salesforce orgs to Quip, they can add live Salesforce data to a Quip document without needing to reconnect. No more logging in to each live app separately. They can even connect multiple Salesforce orgs to one Quip site, making it easier to keep cross-cloud collaboration in context .

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**When:** Seamlessly use live apps in Quip starting in late February 2020.

**Who:** Available in orgs with a Quip for Customer 360 plan or free Quip trial.



## Set Up Quip for Salesforce In Fewer Steps

We cut down the number of steps to connect Quip to Salesforce—gone are the days of navigating to a separate site to download the Connected App. Now you can connect your existing Quip site to Salesforce with just a few clicks, or start a free trial from the Quip Setup page.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in orgs with a Quip for Customer 360 plan or free Quip trial.

**How:** In Setup, enter *Quip* in the Quick Find box, and follow the new, simpler steps.

## Add Quip Slides to Salesforce Records

Let your team collaborate more efficiently by attaching Quip slides to Salesforce records. Users can share slide decks with coworkers or prospective customers by linking them to a Salesforce record. Set templates, control user access, and even view linked slides on mobile.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in orgs with a Quip for Customer 360 plan or free Quip trial.

## Mail Merge Lookup Field Limit Removed

We removed the 20 lookup fields per template limit so you can better customize your Quip templates for your business.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in orgs with a Quip for Customer 360 plan or free Quip trial.

## Use Rich-Text Editing for Quip Documents from the Files Tab

View and edit your Quip documents from the Files tab without leaving Salesforce.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in orgs with a Quip for Customer 360 plan or free Quip trial.

## Marketing: Interactive Email, Data Mapping Visualizer, and Distributed Marketing Quick Send for SMS

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Marketing Cloud is the premier platform for delighting customers with 1:1 customer journeys. It enables you to build a single view of your customer, leveraging data from any source. Plan and optimize unique customer journeys based on your business objectives. Deliver personalized content across every channel and device at precisely the right time. Measure the impact of each interaction on your business so that you can optimize your approach in real time and deliver better results.

Learn about our latest features and enhancements in Marketing Cloud Release Notes.

- [March 2020 Release](#)
- [January 2020 Release](#)
- [October 2019 Release](#)
- [August 2019 Release](#)
- [June 2019 Release](#)
- [April 2019 Release](#)
- [January 2019 Release](#)

SEE ALSO:

[Marketing Cloud Overview](#)

[Marketing Cloud: Earlier Release Notes](#)

[Salesforce Marketing Cloud Facebook Page](#)

## Critical Updates and Security Alerts

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Salesforce periodically releases updates that improve the performance, logic, and usability of Salesforce, but which can affect your existing customizations. These are the updates available in the Critical Update Console in Spring '20. Also review updates on the Security Alerts page, and previously released and newly enforced critical updates.

To ensure a smooth transition, each critical update has an opt-in period, which ends on the auto-activation date that's displayed on the Critical Updates page in Setup. During this period, you can manually activate and deactivate each update as often as you need to evaluate the impact on your org and modify affected customizations. After the opt-in period has passed, the update is permanently activated by Salesforce. For more details, see [Respond to Critical Updates](#).

The Security Alerts page in Setup gives a list of security alerts that affect your org. Each alert comes with step-by-step recommendations for actions to take in your org.

## New Critical Updates

These critical updates are new in Spring '20.

### Opt Out of Turning Off Community-Specific Setting for Guest Users to See Other Members (Critical Update)

By activating this critical update, you opt out of turning off the community-specific **Let guest users see other members of this community** setting in the Winter '21 release.

### Enforce Data Access in Flow Formulas (Critical Update)

This update enforces the running user's data access when a flow uses a formula resource or a formula field on a record variable to access a field on a record.

### Make Flows Respect Access Modifiers for Legacy Apex Actions (Critical Update)

With this critical update enabled, developers can trust that their legacy Apex actions are properly protected and available only to other components in their managed packages. This update makes a flow fail if it contains a public legacy Apex action.

### Require Permission to View Record Names in Lookup Fields (Critical Update)

To better protect your Salesforce org's data, we restrict who can view record names in lookup fields. Beginning in Winter '21, users must have read access to these records or the View All Lookup Record Names permission to view this data. This critical update also applies to system fields, such as Created By and Last Modified By.

### Enable the New Salesforce Mobile App (Critical Update)

This update upgrades all mobile users to the new Salesforce mobile app.

### Restrict Reflective Access to Non-Global Constructors in Packages (Critical Update)

When this critical update is enabled, regardless of API version, you can initiate only Apex classes that have a no-arguments constructor that is visible to the code running `Type.newInstance`.

### Enable Improved Caching of Org Schema (Critical Update)

Improved caching of org schema resolves known issues with version-specific object and field handling.

### Require Secure HTTPS Connections (Critical Update)

As part of updates related to Google Chrome's SameSite cookie changes, HTTPS connections are required to access Salesforce. HTTP connections are no longer permitted. This update enables the Require secure connections (HTTPS) setting on the Session Settings Setup page and prevents it from being disabled. The Require secure connections (HTTPS) for all third-party domains setting isn't affected by this update.

### Opt Out of Guest User Security Policies Before Summer '20 (Critical Update) on page 324

By activating this update, you opt out of three policies aimed at increasing your data security with regards to guest, or unauthenticated, users. Activating this critical update opts your org out of having the following settings automatically enabled with the Summer '20 release: **Secure guest user record access**, **Assign new records created by guest users to the default owner**, and **Assign new records created by Salesforce Sites guest users**. If your org already has these settings enabled, activating this critical update doesn't change your configuration.

### Enforce Sharing Controlled by Parent for Google Docs Related to Salesforce Records (Critical Update)

This update enables admins to set sharing permissions to "Controlled by Parent" for Google Docs. Only users with access to a record can see any Google documents related to the record.

## Previously Released Critical Updates

These critical updates were announced in a previous release and are still available.

### Open Hyperlinks in Formula Fields Correctly (Previously Released Critical Update)

If you have formula fields that contain a `HYPERLINK` function, Lightning Experience ignores the target value when attempting to open the link. This critical update ensures that the target value for hyperlinks is honored, whether it's explicitly configured or set by default. This critical update was first made available in Winter '19.

### Enable ICU Locale Formats (Previously Released Critical Update)

To help you do business wherever you are, we're adopting the International Components for Unicode (ICU) formats for dates and times. These new formats replace Oracle's Java 8 Development Kit (JDK8) formats. ICU sets the international standard for these

formats for all locales. The new formats provide a consistent experience across the Salesforce platform and improve integration with ICU-compliant applications across the globe. This critical update was first made available in Winter '20.

#### **Stabilize the Hostname for My Domain URLs in Sandboxes (Previously Released Critical Update)**

We're removing instance names from MyDomain URLs for sandboxes. The instance name identifies where your Salesforce sandbox org is hosted. Removing the instance name makes the URL cleaner and easier for users to remember. For example,

`MyDomain--SandboxName.my.salesforce.com` replaces

`MyDomain--SandboxName.cs5.my.salesforce.com`. This critical update was first made available in Summer '18.

#### **Stabilize URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files (Previously Released Critical Update)**

We're removing the instance names from Visualforce, Experience Builder, Site.com Studio, and content file URLs. An instance name identifies where your Salesforce org is hosted. Instanceless domains are cleaner and easier for users to remember. This critical update applies to orgs that have a deployed My Domain. After this update, a URL that includes the instance name, such as a bookmark, automatically redirects to the new hostname. This critical update was first made available in Spring '18.

#### **Route My Domains Through Salesforce Edge (Previously Released Critical Update)**

We're accelerating domain requests for My Domains. With this update, you keep the same My Domain address, but requests go through Salesforce Edge. Salesforce Edge uses machine-learning technology to improve connectivity and performance. You can acknowledge this update to let Salesforce move your org's My Domain to the new service before the July 2020 auto-activation date. This critical update was first made available in Winter '20.

#### **Prevent Creation of Function Expressions in Dynamically Created Aura Components (Previously Released Critical Update)**

To improve security and stability, this critical update prevents attribute values passed to `$.createComponent()` or `$.createComponents()` from being interpreted as Aura function expressions. This critical update was first made available in Summer '19.

#### **Migrate Legacy Policies to the Enhanced Transaction Security Framework (Previously Released Critical Update)**

With Salesforce's enhanced transaction security policy framework, you can create transaction security policies that execute actions on any standard or custom object. Now that the new framework is generally available, we no longer allow users to create legacy transaction security policies. We're retiring the legacy framework in the Summer '20 release. To prepare for this retirement and take advantage of the new features, migrate your legacy transaction security policies to the new framework as soon as possible. This critical update was first made available in Winter '20.

#### **Keep Working with Tab-Focused Dialogs (Previously Released Critical Update)**

In Lightning console apps, dialogs no longer stop you from interacting with the rest of the UI. This critical update limits the focus of dialogs triggered by a workspace tab or subtab to only the tab that triggered it. This critical update was first made available in Winter '20.

#### **Evaluate Criteria Based on Original Record Values in Process Builder (Previously Released Critical Update)**

This critical update ensures that a process with multiple criteria and a record update evaluates the *original* value of the field that began the process with a value of null. This critical update was first made available in Summer '19.

#### **Remove the Manage Encryption Keys Permission from the System Admin Profile (Previously Released Critical Update)**

Admins must actively assign the ability to perform key management roles. The Manage Encryption Keys permission is revoked for the standard admin profile when you activate this Critical Update. Custom profiles that include the Manage Encryption Keys permission are not affected. Any user who has the permission through a custom profile or permission still has the permission. This critical update was first made available in Spring '16 and applies only to customers who enabled Shield Platform Encryption before the Spring '16 release.

## Enforced Critical Updates

These critical updates were announced in a previous release and are now enforced.

**Turn On Lightning Experience Critical Update Activates Starting January 7, 2020**

Salesforce is turning on Lightning Experience for all orgs that don't already have it enabled. The Turn on Lightning Experience Critical Update begins activating on January 7, 2020. Orgs will be activated on a rolling basis, with all orgs expected to be activated by January 31, 2020. After we turn on Lightning Experience, users still have access to Salesforce Classic. But Lightning Experience is where everyone should be for driving business growth and improving productivity. To get ready, verify your org's existing features and customizations in the new interface, and prepare your users with change management best practices.

**Enable Manual Account Sharing in Enterprise Territory Management (Critical Update, Enforced)**

Enable Manual Account Sharing in Enterprise Territory Management was a critical update in Spring '19 and is enforced in Spring '20. This critical update changes the `TerritoryManual` reason code in AccountShare records to `Territory2AssociationManual` and is required to let users share accounts manually with territory groups.

**API Only Users Can Access Only Salesforce APIs (Critical Update, Enforced)**

API Only Users Can Access Only Salesforce APIs was a critical update in Spring '19 and is enforced in Spring '20. If a user has the API Only User permission, they can access Salesforce only via APIs, regardless of their other permissions. This restriction already applies to other Salesforce features, but this critical update enforces the restriction in Lightning Out.

**Require Customize Application Permission for Direct Read Access to Custom Metadata Types (Critical Update, Enforced)**

Access for users without the Customize Application permission to read unprotected custom metadata types is revoked as part of this critical update. Using different APIs that are provided by Salesforce, users without the Customize Application permission could read unprotected custom metadata types. Following the "secure by default" approach, this access is revoked.

**Require Customize Application Permission for Direct Read Access to Custom Settings (Critical Update, Enforced)**

Access for users without the Customize Application permission to read unprotected custom settings is revoked as part of this critical update. Using different APIs that are provided by Salesforce, users without the Customize Application permission could read unprotected custom settings. Following the "secure by default" approach, this access is revoked.

**Make Actions & Recommendations Deployments Mandatory (Critical Update, Enforced)**

This update requires that you select a deployment for the Actions & Recommendations component. When you configure Lightning Flow for Service, a deployment lets you control the actions that agents can start when they need an action that doesn't appear in the component's to-do list. Make Actions & Recommendations deployments mandatory was a critical update in Winter '20 and is enforced in Spring '20.

**Return Null Values in Process and Flow Formulas (Critical Update, Enforced)**

Check for Null Record Variables or Null Values of Lookup Relationship Fields in Process and Flow Formulas was a critical update in Spring '19 and is enforced in Spring '20, on February 18, 2020. This update enables process and flow formulas to return null values when the calculations involve a null record variable or null lookup relationship field.

**Enable Partial Save for Invocable Actions (Critical Update, Enforced)**

Enable Partial Save for Invocable Actions was a critical update in Winter '20 and is enforced in Spring '20, on April 9, 2020. This critical update improves the behaviors and effects of failed invocable actions. It only affects external REST API calls to invocable actions done in bulk. With this update, when invoking a set of actions in a single request, a single failed invocable action no longer causes the entire transaction to fail. Without this update, if a single invocable action fails, other invocable actions within the transaction are rolled back and the entire transaction fails.

**Stop Automated Field Updates from Suppressing Email Notifications (Critical Update, Enforced)**

Stop Automated Field Updates from Suppressing Email Notifications was a critical update in Summer '17 and is enforced in Spring '20, on March 1, 2020. For various operations, such as assigning a task to someone, you can choose to notify the affected user by email. This update stops processes, workflow rules, and Apex triggers from suppressing these email notifications.

**Prevent Using Standard External Profiles for Self-Registration and User Creation (Security Alert and Critical Update, Enforced)**

This update restricts the use of standard external profiles for self-registration and assignment to users.

## Postponed Critical Updates

### **Disable Access to Non-global Apex Controller Methods in Managed Packages (Critical Update, Postponed)**

This critical update is postponed to Summer '21. Released in Summer '17, it was scheduled for auto-activation in Winter '20. The critical update corrects access controls on Apex controller methods in managed packages. When this update is enabled, only methods marked with the `global` access modifier are accessible by Aura components from outside the package namespace. These access controls prevent you from using unsupported API methods that the package author didn't intend for global access.

### **Use with sharing for @AuraEnabled Apex Controllers with Implicit Sharing (Critical Update, Postponed)**

This critical update is postponed to Spring '21. It was scheduled for auto-activation in Spring '20. This critical update changes the behavior of `@AuraEnabled` Apex controllers that don't specify `with sharing` or `without sharing` to default to `with sharing`. This critical update applies only to orgs created after Spring '18 or orgs that activated the retired "Use without sharing for @AuraEnabled Apex Controllers with Implicit Sharing" critical update that had the opposite effect and set the default to `without sharing`. Orgs created before Spring '18 already default to `with sharing`. Those orgs don't see the critical update unless they enabled the now retired `without sharing` critical update.

### **Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile (Critical Update, Postponed)**

This critical update is postponed to Winter '21. It was scheduled for auto-activation in Spring '20. This critical update gives you more control over which guest, portal, or community users can access Apex classes containing `@AuraEnabled` methods. Add guest user profile access to any `@AuraEnabled` Apex class used by a community or portal. When this critical update is activated, a guest, portal, or community user can access an `@AuraEnabled` Apex method only when the user's profile or an assigned permission set allows access to the Apex class.

### **Enable Dependency Access Checks In Lightning Components (Critical Update, Postponed) on page 502**

This critical update is postponed to Winter '21. It was scheduled for auto-activation in Summer '20. This critical update improves Lightning component access checks by checking the access level of all component dependencies. A dependency is any resource used within a top-level component. For example, a component can use or extend another component in its markup or implement an interface.

### **Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile (Critical Update, Postponed)**

This critical update is postponed to Winter '21. It was scheduled for auto-activation in Summer '20. This critical update gives you more control over which authenticated users can access Apex classes containing `@AuraEnabled` methods. When this critical update is activated, an authenticated user can access an `@AuraEnabled` Apex method only when the user's profile or an assigned permission set allows access to the Apex class.

### **Enforce Access Modifiers on Apex Properties in Lightning Component Markup (Critical Update, Postponed)**

This critical update is postponed to Summer '21. It was scheduled for auto-activation in Summer '20. This critical update makes Lightning components consistent with the use of Apex properties in other contexts. For example, a markup expression can no longer access an Apex property with a private Apex getter. This critical update was first made available in Winter '20.

### **Require User Access to Apex Classes Invoked by Flow (Critical Update, Postponed)**

This critical update, released in Summer '19, was scheduled for auto-activation in Winter '20, but has been postponed to Spring '21. The critical update was previously called "Improve Security by Requiring User Access to Apex Classes Invoked by Flow."

## Retired Critical Updates

These critical updates were announced in a previous release but have been retired. They have been removed from the Critical Update Console and won't be activated.

### **Generate Valid HTML Output from Formulas in Processes and Flows (Critical Update, Retired)**

This critical update was released and retired in Spring '20. This change affects your Salesforce org if you activated the critical update in the short time that it was available. And, if you modified any HTML in your formulas to prepare for this critical update, this retirement affects your org.

## New Security Alerts

These security alerts are new in Spring '20.

### **Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile (Security Alert)**

This security alert is related to a critical update that gives you more control over which guest, portal, and community users can access Apex classes with @AuraEnabled methods in Aura and Lightning web components.

### **Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile (Security Alert)**

This security alert is related to a critical update that gives you more control over which authenticated users can access Apex classes with @AuraEnabled methods in Aura and Lightning web components.

## Previously Released Security Alerts

These security alerts were announced in a previous release.

### **Automatically Assign Records Created by Guest Users to a Default Owner (Previously Released Security Alert)**

To increase the security of your Salesforce data, set up your org so that guest users are no longer automatically the owner of records they create. Instead, when a guest user creates a record, the record is assigned to a default active user in the org, who becomes the owner.

### **View All Users and Other Permissions Disabled in Guest User Profiles (Security Alert, Enforced)**

Guest users typically don't need access to view all users in a Salesforce org, so to promote data security, we disabled the View All Users permission in guest user profiles. If you have an org created before Winter '20, we recommend that you check guest user access and deselect the View All Users permission in all your guest user profiles. To enhance security, we also removed these permissions from the guest user profile: Can Approve Feed Post and Comments, Enable UI Tier Architecture, Remove People from Direct Messages, View Topics, and Send Non-Commercial Email.

## Enforced Security Alerts

These security alerts were announced in a previous release and are now enforced.

### **Secure Guest Users' Org-Wide Defaults and Sharing Model (Security Alert, Enforced)**

Learn about the **Secure guest user record access** setting in this security alert, and how to safeguard your org's data. This setting enforces private org-wide defaults for guest users and restricts the sharing mechanisms that you can use to grant record access to guest users. If you have a Salesforce org created before Winter '20, we recommend that you review the external org-wide defaults, public groups, queues, manual sharing, and Apex managed sharing that you use to grant access to guest users. Then replace the access previously granted by these sharing mechanisms with guest user sharing rules before the security alert is enforced.

### **Block Certain Fields in the User Record for Orgs with Communities and Portals (Security Alert and Critical Update, Enforced)**

Salesforce is giving customers the option to enable a user setting that allows the hiding of certain personal information fields on the user records in orgs with communities or portals. The fields are hidden from view when external users are accessing user records. External users can still see their own user records. This change doesn't apply to queries running in System Mode.

SEE ALSO:

[Remove the Manage Encryption Keys Permission from the System Admin Profile \(Previously Released Critical Update\)](#)



## Spotlight on Content

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Learn about Salesforce in-app content, tips for transitioning to Lightning Experience, our new technical requirements and performance best practices hub, and the Sustainability Cloud. We added Trailhead modules and projects, and updated instructional videos. We also updated our Trust and Compliance documentation.

### IN THIS SECTION:

#### [Learn About Salesforce In-App Content](#)

Introducing new documentation that lists the valuable in-app prompts, welcome mats, and popovers that Salesforce displays to admins and end users. Use to avoid duplicating the same information as you create your own In-App Guidance prompts or other in-app content.

#### [Learn Tips as You Transition to Lightning Experience](#)

A collection of tips and best practices for integrating data and business-critical customizations in Salesforce with Lightning Experience features. Learn ways to avoid common gotchas and work around issues that can have you stumped.

#### [Get the Most Out of Salesforce with the Technical Requirements and Performance Best Practices Hub](#)

The new technical requirements and performance best practices hub is your one-stop shop for everything performance-related. Learn what hardware we recommend, how to measure and improve your Salesforce org's performance.

#### [Reduce and Report Your Carbon Footprint with Sustainability Cloud](#)

Introducing Salesforce Sustainability Cloud. Using global emission factors to calculate greenhouse gas emissions, Sustainability Cloud helps you collect, categorize, and analyze energy usage and greenhouse gas emissions data throughout your organization's business activities. Data collection and auditing activities that once took months can be reduced to weeks.

#### [Explore Features with Trailhead](#)

Get familiar with Salesforce or discover a new feature with Trailhead, a fun, guided, and interactive tool. You can follow guided learning paths for admins or developers, or choose your own adventure with self-paced modules.

#### [Watch Videos \(English Only\)](#)

We updated instructional videos to help your users learn about improved Salesforce features.

#### [Review Trust and Compliance Documentation](#)

We made seasonal updates to the Salesforce Trust and Compliance Documents.

## Learn About Salesforce In-App Content

Introducing new documentation that lists the valuable in-app prompts, welcome mats, and popovers that Salesforce displays to admins and end users. Use to avoid duplicating the same information as you create your own In-App Guidance prompts or other in-app content.

**Where:** This change applies to Lightning Experience in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## Learn Tips as You Transition to Lightning Experience

A collection of tips and best practices for integrating data and business-critical customizations in Salesforce with Lightning Experience features. Learn ways to avoid common gotchas and work around issues that can have you stumped.

**Where:** This change applies to Lightning Experience in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## Get the Most Out of Salesforce with the Technical Requirements and Performance Best Practices Hub

The new technical requirements and performance best practices hub is your one-stop shop for everything performance-related. Learn what hardware we recommend, how to measure and improve your Salesforce org's performance.

**Where:** This change applies to Lightning Experience in all editions.

SEE ALSO:

[Salesforce Help: Technical Requirements and Performance Best Practices \(can be outdated or unavailable during release preview\)](#)

## Reduce and Report Your Carbon Footprint with Sustainability Cloud

Introducing Salesforce Sustainability Cloud. Using global emission factors to calculate greenhouse gas emissions, Sustainability Cloud helps you collect, categorize, and analyze energy usage and greenhouse gas emissions data throughout your organization's business activities. Data collection and auditing activities that once took months can be reduced to weeks.

**Where:** This change applies to Lightning Experience and the Salesforce mobile app in Enterprise, Performance, and Unlimited editions.

SEE ALSO:

[Salesforce Help: Reduce and Report Your Carbon Footprint](#)

[Sustainability Cloud Trailblazer Community](#)

[Sustainability Cloud Partner Community](#)

## Explore Features with Trailhead

Get familiar with Salesforce or discover a new feature with Trailhead, a fun, guided, and interactive tool. You can follow guided learning paths for admins or developers, or choose your own adventure with self-paced modules.

Check out Trailhead at <https://trailhead.salesforce.com>, and find the right trail for you. Here are the latest modules, trails, and projects.

### Modules

#### **Salesforce CMS Basics**

Create and share content across channels with the Salesforce content management system.

#### **User Engagement**

Create in-app guidance to help users get the most value out of your Salesforce app.

#### **Salesforce Licensing**

Understand the relationship between licenses, permissions, editions, and add-ons.

#### **Health Cloud Data Models**

Learn how to use the various data models available in Health Cloud.

#### **Insurance Agent Console for Sales and Service**

Learn how the insurance platform can help deliver connected customer experiences.

#### **Retail Execution in Consumer Goods Cloud**

Turn every store into the perfect store through in-app customer visit management.


## Projects

### Put Predictions into Action with Next Best Action

Use Einstein Prediction Builder to create predictions about customers, accounts, sales, and much more, and turn those predictions into recommendations with Next Best Action.

## Watch Videos (English Only)

We updated instructional videos to help your users learn about improved Salesforce features.

- We updated the  [Forecast Accurately with Collaborative Forecasts in Lightning Experience](#) video to show recent improvements to the forecasts page, such as inline editing, quick actions, and wrapped text in the opportunity list.

## Review Trust and Compliance Documentation

We made seasonal updates to the Salesforce Trust and Compliance Documents.

## Infrastructure and Sub-Processors

These changes have been made in the **Infrastructure and Sub-Processors Documentation**.

**Sales Cloud, Service Cloud, Community Cloud, Chatter, Lightning Platform (including Force.com), IoT Explorer (including IoT Plus), Site.com, Database.com, Einstein Analytics (including Einstein Discovery), Work.com, Messaging, Financial Services Cloud, Health Cloud, Sustainability Cloud, Consumer Goods Cloud, Manufacturing Cloud, Salesforce CPQ and Salesforce Billing, Salesforce Maps, Salesforce Advisor Link, and foundationConnect**

- **Services Covered:** Updated Services covered to include new Services (Sustainability Cloud, Consumer Goods Cloud, Manufacturing Cloud) and new Einstein Features.

### Einstein Platform

- **Services Covered:** Updated Services Covered to include new Einstein Features, including Einstein Opportunity Scoring, Einstein Case Classifications, Einstein Article Recommendations, Einstein Object Detection, and Einstein Prediction Builder.
- **Branding Change:** Updated Einstein Agent to current feature name Einstein Case Classification.
- **Data Hosting Location:** Added new EU-based data centers for Einstein Case Classification and Einstein Prediction Builder.

### Marketing Cloud

- Added two new Einstein features under the applicability of the Exact Target and Predictive Intelligence documentation.
- Google Cloud Services (GCP) was added as a sub-processor for ExactTarget services.

## Security, Privacy, and Architecture

These changes have been made in the **Security, Privacy, and Architecture Documentation**.

### Audience Studio

- **Audits and Certifications:** Updated Audits and Certifications to state that the Audience Studio Services are subject to Salesforce's Binding Corporate Rules (BCR) for Processors and PRP Certification under the APEC Privacy Framework.
- **Deletion of Customer Data:** Updated to clarify scope of data and time frame for deletion after termination of Audience Studio Services.
- **Personal and Sensitive Data:** Updated for consistency with defined terms in the 2020 Network Advertising Initiative (NAI) Code of Conduct.

**Sales Cloud, Service Cloud, Community Cloud, Chatter, Lightning Platform (including Force.com), IoT Explorer (including IoT Plus), Site.com, Database.com, Einstein Analytics (including Einstein Discovery), Work.com, Messaging, Financial Services Cloud, Health Cloud, Sustainability Cloud, Consumer Goods Cloud, Manufacturing Cloud, Salesforce CPQ and Salesforce Billing, Salesforce Maps, Salesforce Advisor Link, and foundationConnect (“Covered Services”)**

- **Audits and Certifications:** Updated and clarified the scope of certifications in this section . Added information about APEC Privacy Recognition for Processors (PRP).
- **Services Covered:** Updated Services covered to include new Services (Sustainability Cloud, Consumer Goods Cloud, Manufacturing Cloud) and new Einstein Features.
- **Reliability and Backup:** Updated to include Sustainability Cloud in the list of products for which replication and backups may not be available under certain circumstances.
- **Sensitive Data:** Added Consumer Goods Cloud and Manufacturing Cloud to the list of Covered Services that are not permitted to receive certain types of sensitive data.

**B2B Commerce**

- Updated Audits and Certifications to add Salesforce’s Binding Corporate Rules for Processors (BCR).
- Updated Audits and Certifications to add EU-U.S. and Swiss-U.S. Privacy Shield certifications.
- Updated Audits and Certifications to add APEC Privacy Recognition for Processors (PRP).

**B2C Commerce/Commerce Cloud**

- Updated Audits and Certifications to add Salesforce’s Binding Corporate Rules for Processors (BCR).
- Updated Audits and Certifications to add APEC Privacy Recognition for Processors (PRP).

**Einstein Discovery Classic**

- **Certifications:** Updated Audits and Certifications Documentation to state that Einstein Discovery Classic is covered by Salesforce the EU-U.S. and Swiss-U.S. Privacy Shield certifications, Binding Corporate Rules (BCRs), and APEC Privacy Recognition for Processors (PRP).

**Einstein Platform**

- **Services Covered:** Updated Services Covered to include new Einstein Features, including Einstein Opportunity Scoring, Einstein Case Classifications, Einstein Article Recommendations, Einstein Object Detection, and Einstein Prediction Builder.
- **Branding Change:** Updated Einstein Agent to current feature name Einstein Case Classification.
- **Certifications:** Updated Audits and Certifications Documentation to state that Covered Services are covered by Salesforce the EU-U.S. and Swiss-U.S. Privacy Shield certifications, TRUSTe, and APEC Privacy Recognition for Processors (PRP).
- **Certifications:** Updated Audits and Certifications Documentation to state that all Covered Services are now covered by Salesforce’s Binding Corporate Rules for Processors (BCR), other than those Covered Services specifically listed above as excluded Services.

**Desk.com, Einstein Discovery, LiveMessage, Quip, myTrailhead, and SalesforceIQ CRM Services**

- **Audits and Certifications:** Updated Audits and Certifications to state that Covered Services (excluding Desk.com, myTrailhead, and SalesforceIQ CRM) are covered by Salesforce’s Binding Corporate Rules (BCR) for Processors and by the EU-U.S. and Swiss-U.S. Privacy Shield certifications.
- **Audits and Certifications:** Updated Audits and Certifications to state that all Covered Services are now covered by APEC Privacy Recognition for Processors (PRP) certification.

**Heroku**

- **Audits and Certifications:** Updated Audits and Certifications to add Salesforce’s Binding Corporate Rules (BCR) for Processors and APEC Privacy Recognition for Processors (PRP) certification.
- **Quota and Limits:** Deleted Quota and Limits section because this information is stated in the Notices and License Information (NLI) for Heroku.

**IoT Cloud**

- **Audits and Certifications:** Updated Audits and Certifications to add Salesforce's Binding Corporate Rules for Processors (BCR), EU-U.S. and Swiss-U.S. Privacy Shield certifications, and APEC Privacy Recognition for Processors (PRP) certification.

**Marketing Cloud**

- Updated Security Controls section.
- **Services Covered:** Updated the Predictive Intelligence Services to include new Einstein features, Einstein Copy Insights and Einstein Messaging Insights.

**MuleSoft**

- **Audits and Certifications:** Added Salesforce's Binding Corporate Rules (BCR) for Processors and APEC Privacy Recognition for Processors (PRP).
- **Deletion of Customer Data:** Added clarification for data retention of Transaction Processing Information in MuleSoft Anypoint Partner Manager.

**Pardot**

- **Audits and Certifications:** Updated Audits and Certifications to add Salesforce's Binding Corporate Rules (BCR) for Processors and APEC Privacy Recognition for Processors (PRP) certification.
- **Data Encryption:** Updated Data Encryption information to add additional encryption standards.

## Notices and Licenses

These changes have been made in the **Notices and Licenses Documentation**.

**Audience Studio**

- **Restricted Uses of Information and Compliance with Self-Regulatory Programs:** Updated for consistency with defined terms in the 2020 Network Advertising Initiative (NAI) Code of Conduct.

**Salesforce**

- **Services Covered:** Updated Services covered to include new Services (Sustainability Cloud, Consumer Goods Cloud, Manufacturing Cloud) and new Einstein Features.
- **foundationConnect:** Clarified that foundationConnect uses the Consolidated Screening List API and is subject to the International Trade Administration's Terms of Service.

**Einstein Analytics (including Einstein Discovery)**

- **Non-SFDC Applications:** Updated section on Einstein Analytics Connectors to add Non-SFDC applications to which Salesforce Customers can integrate.

**"Einstein Platform" (Sales Cloud Einstein, Pardot Einstein, Salesforce Inbox, Einstein Engagement Scoring, Einstein Vision and Language, Einstein Bots, Service Cloud Einstein, Einstein Prediction Builder, and Einstein Vision for Social Studios)**

- **Services Covered:** Updated Services Covered to include new Einstein Features, including Einstein Opportunity Scoring, Einstein Case Classifications, Einstein Article Recommendations, Einstein Object Detection, and Einstein Prediction Builder.
- **Salesforce Inbox:** Removed FullContact and Clearbit Non-SFDC Applications due to End of Life.
- **Einstein Vision for Social Studios:** Clarified that Einstein Vision for Social Studios uses Google Vision APIs and is subject to Google terms.

**Marketing Cloud**

- Updated Restricted Uses of Information section for Social Studio to more clearly delineate use of cookies and/or other tracking technologies in the platform.
- Updated Mentions section for Social Studio.

- Updated third party notices section for Social Studio to reflect current product offerings, including adding new third party content providers, products, services and/or platforms.
- **Services Covered:** Updated the Predictive Intelligence Services to include new Einstein features, Einstein Copy Insights and Einstein Messaging Insights.

#### myTrailhead

- **Distributed Software:** Updated Distributed Software to add Trailhead GO for iOS.

#### Salesforce Maps

- Updated to add new third-party data source.

#### Sustainability Cloud

- Updated to add third-party data sources used in Sustainability Cloud.

## Other Salesforce Products and Services

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### Heroku

Heroku is a cloud-based application platform for building and deploying web apps.

For information on new features, go to the [Heroku Changelog](#).

### Success Cloud

The certified experts, consultants, and innovative tools of Salesforce Success Cloud are here to help with professional services, prescriptive advice, and expertise at every stage of your journey.

### IdeaExchange

The IdeaExchange is the home base for sharing ideas with the Trailblazer community and Salesforce product managers. In late 2019, a prioritization process was added to allow users to contribute to the Salesforce release planning process. By spending virtual coins on your preferred feature ideas, you get to tell Salesforce product managers what's important to you. Follow along with prioritization results and the development progress of winners. Visit the [IdeaExchange](#) for more information.