



OSLC Architecture Management Version 2.1. Part 2: Vocabulary

Committee Specification 01

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Technical Committee:

[OASIS OSLC Lifecycle Integration Domains TC](#)

Chairs:

Jim Amsden (jamsden@us.ibm.com), [IBM](#)

Graham Bachelor (gray_bachelor@uk.ibm.com), [IBM](#)

Editor:

Jim Amsden (jamsden@us.ibm.com), [IBM](#)

Additional artifacts:

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- OSLC Architecture Management Version 2.1. Part 1: Specification. <http://docs.oasis-open.org/oslc-domains/oslc-am/v2.1/cs01/part1-architecture-management-spec/oslc-am-v2.1-cs01-part1-architecture-management-spec.html>
- OSLC Architecture Management Version 2.1. Part 2: Vocabulary (this document). <http://docs.oasis-open.org/oslc-domains/oslc-am/v2.1/cs01/part2-architecture-management-vocab/oslc-am-v2.1-cs01-part2-architecture-management-vocab.html>

Related work:

This specification is related to:

- OSLC Architecture Management Specification Version 2.0. Work in progress. Current draft: <http://open->

Standards Track Work Product

services.net/wiki/architecture-management/OSLC-Architecture-Management-Specification-Version-2.0/

RDF Namespaces:

<http://open-services.net/ns/am#>

Abstract:

This specification defines a vocabulary and resource shapes for the OSLC Architecture Management domain.

Status:

This document was last revised or approved by the [OASIS OSLC Lifecycle Integration Domains TC](#) on the above date. The level of approval is also listed above. Check the “Latest version” location noted above for possible later revisions of this document. Any other numbered Versions and other technical work produced by the Technical Committee (TC) are listed at https://www.oasis-open.org/committees/tc_home.php?wg_abbrev=oslc-domains#technical.

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1. Introduction

This section is non-normative.

This specification defines a vocabulary and resource shapes for OSLC Architecture Management resources. The intent is to define resources needed to support common integration scenarios and not to provide a comprehensive definition of an architecture resource. The resource formats are intended to define a high-level resource that can be specialized by enterprise architecture, analysis or design artifacts. The approach to supporting these scenarios is to delegate operations, as driven by service provider contributed user interfaces, as much as possible and not require a service provider to expose its complete data model and application logic.

1.1 Terminology

This section is non-normative.

Terminology is based on OSLC Core Overview [OSLCCore3], W3C Linked Data Platform [LDP], W3C's Architecture of the World Wide Web [WEBARCH], Hyper-text Transfer Protocol [HTTP11]. Terminology for this specification is defined in part 1 of the multi-part specification.

1.2 References

1.2.1 Normative references

[HTTP11]

R. Fielding, Ed.; J. Reschke, Ed.. *Hypertext Transfer Protocol (HTTP/1.1): Message Syntax and Routing*. June 2014. Proposed Standard. URL: <https://tools.ietf.org/html/rfc7230>

[LDP]

Steve Speicher; John Arwe; Ashok Malhotra. *Linked Data Platform 1.0*. 26 February 2015. W3C Recommendation. URL: <https://www.w3.org/TR/ldp/>

[OSLCCore3]

Steve Speicher; Jim Amsden. *OSLC Core Overview v3.0*. Committee Specification. URL: <http://docs.oasis-open.org/oslc-core/oslc-core/v3.0/oslc-core-v3.0-part1-overview.html>

[RFC2119]

S. Bradner. *Key words for use in RFCs to Indicate Requirement Levels*. March 1997. Best Current Practice. URL: <https://tools.ietf.org/html/rfc2119>

1.2.2 Informative references

[OSLCQM]

Paul McMahan. *Open Services for Lifecycle Collaboration Quality Management Specification Version 2.0*. Final. URL: <http://open-services.net/bin/view/Main/QmSpecificationV2>

[OSLCRM]

Ian Green. *Open Services for Lifecycle Collaboration Requirements Management Specification Version 2.0*. Final. URL: <http://open-services.net/bin/view/Main/RmSpecificationV2>

[WEBARCH]

Ian Jacobs; Norman Walsh. *Architecture of the World Wide Web, Volume One*. 15 December 2004. W3C Recommendation. URL: <https://www.w3.org/TR/webarch/>

1.3 Typographical Conventions and Use of RFC Terms

As well as sections marked as non-normative, all authoring guidelines, diagrams, examples, and notes in this specification are non-normative. Everything else in this specification is normative.

The key words **must**, **must not**, **required**, **should**, **should not**, **recommended**, **may**, and **optional** in this specification are to be interpreted as described in [RFC2119].

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In addition to the namespace URIs and namespace prefixes `oslc`, `rdf`, `dcterms` and `foaf` defined in the [OSLC Core specification](#), OSLC AM defines the namespace URI of `http://open-services.net/ns/am#` with a namespace prefix of `oslc_am`

This specification also uses these namespace prefix definitions:

- `oslc_rm` : `http://open-services.net/ns/rm#` [OSLCRM]
- `oslc_qm` : `http://open-services.net/ns/qm#` [OSLCQM]

2. Architecture Management Vocabulary Terms

Property value types that are not defined in the following sections, are defined in [OSLCCore3].

There are two OSLC AM defined resources: Resource and LinkType. OSLC AM defines a least common set of properties for resources, however service implementations are free to extend this set of properties. Clients **must** preserve properties it does not recognize when updating resources. AM Servers **may** ignore properties that it does not recognize. Additional properties may come from existing vocabularies (ie. Dublin Core, OWL). When additional properties do not come from a known vocabulary, it is recommended that they exist in their own unique namespace, and providers **should not** reuse namespaces defined in these specifications.

All RDF/XML resources that include links with annotations **must** begin with an outer `<rdf:RDF>` element. This outer XML element is required to support the ability to include annotations on 'link' properties with additional `<rdf:Description>` elements [reifying statements](#) about the link.

Service implementations and clients **must** be prepared to accept any form of valid RDF/XML. For example the following two resource forms are equivalent.

EXAMPLE 1

```

xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
xmlns:oslc="http://open-services.net/ns/core#"
xmlns:oslc_am="http://open-services.net/ns/am#"
xmlns:dcterms="http://purl.org/dc/terms/"

<oslc_am:Resource rdf:about="https://acme.com/resources/res1">
  <dcterms:title>Service Interface</dcterms:title>
  <dcterms:identifier>res1</dcterms:identifier>
  <oslc:serviceProvider rdf:resource="http://open-services.net/ns/am#" />
</oslc_am:Resource>

</rdf:RDF></verbatim> is equivalent to <verbatim><rdf:RDF
xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
xmlns:oslc="http://open-services.net/ns/core#"
xmlns:dcterms="http://purl.org/dc/terms/"

<rdf:Description rdf:about="https://acme.com/resources/res1">
  <dcterms:title>Service Interface</dcterms:title>
  <dcterms:identifier>res1</dcterms:identifier>
  <rdf:type rdf:resource="http://open-services.net/ns/am#Resource" />
  <oslc:serviceProvider rdf:resource="http://open-services.net/ns/am#" />
</rdf:Description>

</rdf:RDF>

```

This specification defines a number of specific, commonly occurring vocabulary terms (OWL classes), properties and values. Servers may define additional classes and provide additional properties as needed.

2.1 Vocabulary Details

The namespace URI for this vocabulary is: <http://open-services.net/ns/am#>

All vocabulary URIs defined in the OSLC Architecture Management (AM) namespace.

See Also:

- <http://docs.oasis-open.org/oslc-domains/>

2.1.1 RDFS Classes in this namespace

[Architecture Resource](#), [Link Type](#)

2.1.2 Architecture Resource

<http://open-services.net/ns/am#Resource>

Architecture Resource is an RDFS class.

A generic architecture resource. A resource of this type is likely to be a model or design artifact.

2.1.3 Link Type

<http://open-services.net/ns/am#LinkType>

Link Type is an RDFS class.

A locally managed resource that describes a link type predicate that might otherwise not be directly resolvable.

3. Resource Constraints

This section specifies the constraints for the Architecture Management resources. The resource properties are not limited to the ones defined in this specification, AM Servers may provide additional properties. It is recommended that any additional properties exist in their own unique namespace and not use the namespaces defined in these specifications.

3.1 Resource: Resource

An Architecture Management Resource (AMR) is a generic resource format that can be used to represent any type of specific architecture resource such as a UML Class, Use Case, or Business Process Diagram.

- **Name:** `Resource`
- **Type URI:** `http://open-services.net/ns/am#Resource`
- **Summary:** Resource
- **Description:** A generic resource format that can be used to represent any type of specific architecture resource like a UML Class, Use Case, or Business Process Diagram.

Resource Properties

Prefixed Name	Occurs	Read-only	Value-type	Representation	Range	Description
<code>dcterms:contributor</code>	Zero-or-many	unspecified	AnyResource	Either	<code>oslc:AnyResource</code>	Contributor or contributors to the resource. It is likely that the target resource will be a <code>foaf:Person</code> but that is not necessarily the case.
<code>dcterms:created</code>	Zero-or-one	unspecified	dateTime	N/A	Unspecified	Timestamp of resource creation
<code>dcterms:creator</code>	Zero-or-many	unspecified	AnyResource	Either	<code>oslc:AnyResource</code>	Creator or creators of the resource. It is likely that the target resource will be a <code>foaf:Person</code> but that is not necessarily the case.
<code>dcterms:description</code>	Zero-or-one	unspecified	XMLLiteral	N/A	Unspecified	Descriptive text about resource represented as rich text in XHTML content.

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Prefixed Name	Occurs	Read-only	Value-type	Representation	Range	Description
<code>dcterms:identifier</code>	Exactly-one	unspecified	string	N/A	Unspecified	A unique identifier for a resource. Typically read-only and assigned by the service provider when a resource is created. Not typically intended for end-user display.
<code>dcterms:modified</code>	Zero-or-one	unspecified	dateTime	N/A	Unspecified	Timestamp of latest resource modification.
<code>dcterms:source</code>	Zero-or-one	unspecified	Resource	Reference	<code>oslc:AnyResource</code>	The resource URI a client can perform a get on to obtain the original non-OSLC AM formatted resource that was used to create this resource. The source resource is usually a binary or proprietary format that the service provider can consume and convert into an OSLC AM format. The service may use content negotiation with the Accept header to obtain the desired content type.

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<i>Prefixed Name</i>	<i>Occurs</i>	<i>Read-only</i>	<i>Value-type</i>	<i>Representation</i>	<i>Range</i>	<i>Description</i>
<code>dcterms:title</code>	Exactly-one	unspecified	XMLLiteral	N/A	Unspecified	Title of the resource represented as rich text in XHTML content.
<code>dcterms:type</code>	Zero-or-many	unspecified	string	N/A	Unspecified	A short string representation for the type, for example 'Car'.
<code>oslc:instanceShape</code>	Zero-or-one	unspecified	Resource	Reference	<code>oslc:ResourceShape</code>	The URI of a Resource Shape that describes the possible properties, occurrence, value types, allowed values and labels. This shape information is useful in displaying the subject resource as well as guiding clients in performing modifications. Instance shapes may be specific to the authenticated user associated with the request that retrieved the resource, the current state of the resource and other factors and thus should not be cached.

Prefixed Name	Occurs	Read-only	Value-type	Representation	Range	Description
<code>oslc:serviceProvider</code>	Zero-or-many	unspecified	Resource	Reference	<code>oslc:ServiceProvider</code>	A link to the resource's OSLC Service Provider. There may be cases when the subject resource is available from a service provider that implements multiple domain specifications, which could result in multiple values for this property.
<code>oslc:shortTitle</code>	Zero-or-one	unspecified	XMLLiteral	N/A	Unspecified	Short name identifying a resource, often used as an abbreviated identifier for presentation to end-users. should include only content that is valid inside an XHTML <code></code> element.
<code>rdf:type</code>	Zero-or-many	unspecified	Resource	Reference	<code>rdfs:Class</code>	The resource type URIs.

3.2 Resource: LinkType

A Link Type Resource (LTR) represents type of link that is or can be used when defining links from AM resources. The type has an ID (expressed as a string), whose universally accepted semantics may be defined elsewhere. This resource represents the definition as it is used by this service provider. This resource is meant as a convenience for clients to get a list of known/registered link types with human readable labels and definitions that can be used in client user interfaces when links are being created.

The resource defines the properties `rdfs:label` and `rdfs:comments` for the link type URI. The link type URI is made type: <http://open-services.net/ns/am#LinkType> via an `rdf:type` property. The remaining properties may be properties of the link type URI, or on a separate resource managed by the service provider. In the case where the service provider owns the domain of the link type URI these can be the same, and all properties can be on the same link type URI.

Links from AMR resources are managed in accordance with the [OSLC Core Guidance on Links and Relationships](#). They appear as simple properties in the resource. Links **may** include inlined values for the target and **may** include anchor properties on the link

itself. AM Servers **should** support LinkType Resources for clients to get a list of known and acceptable link properties.

- **Name:** LinkType
- **Type URI:** <http://open-services.net/ns/am#LinkType>
- **Summary:** LinkType
- **Description:** Represents type of link that is or can be used when defining links from AM resources.

LinkType Properties

Prefixed Name	Occurs	Read-only	Value-type	Representation	Range	Description
<code>dcterms:contributor</code>	Zero-or-many	unspecified	AnyResource	Either	<code>oslc:AnyResource</code>	Contributor or contributors to the resource. It is likely that the target resource will be a foaf:Person but that is not necessarily the case.
<code>dcterms:created</code>	Zero-or-one	unspecified	dateTime	N/A	Unspecified	Timestamp of resource creation
<code>dcterms:creator</code>	Zero-or-many	unspecified	AnyResource	Either	<code>oslc:AnyResource</code>	Creator or creators of the resource. It is likely that the target resource will be a foaf:Person but that is not necessarily the case.
<code>dcterms:identifier</code>	Exactly-one	unspecified	string	N/A	Unspecified	A unique identifier for a resource. Typically read-only and assigned by the service provider when a resource is created. Not typically intended for end-user display.
<code>dcterms:modified</code>	Zero-or-one	unspecified	dateTime	N/A	Unspecified	Timestamp of latest resource modification.

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Prefix Name	Occurs	Read-only	Value-type	Representation	Range	Description
<code>oslc:instanceShape</code>	Zero-or-one	unspecified	Resource	Reference	<code>oslc:ResourceShape</code>	The URI of a Resource Shape that describes the possible properties, occurrence, value types, allowed values and labels. This shape information is useful in displaying the subject resource as well as guiding clients in performing modifications. Instance shapes may be specific to the authenticated user associated with the request that retrieved the resource, the current state of the resource and other factors and thus should not be cached.

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Prefix Name	Occurs	Read-only	Value-type	Representation	Range	Description
<code>oslc:serviceProvider</code>	Zero-or-many	unspecified	Resource	Reference	<code>oslc:ServiceProvider</code>	A link to the resource's OSLC Service Provider. There may be cases when the subject resource is available from a service provider that implements multiple domain specifications, which could result in multiple values for this property.
<code>rdfs:comment</code>	Zero-or-one	unspecified	string	N/A	Unspecified	TDescriptive text about link type. Provides a description of this link type that could be used in hover help or other areas of the UI where the user wants to understand more about what a link of this type means.
<code>rdfs:label</code>	Exactly-one	unspecified	string	N/A	Unspecified	The human readable name for this link type. This value is expected to be used in drop down lists and in tables where a link of this type is involved.

Appendix A. Change History

This section is non-normative.

Revision	Date	Editor	Changes Made
01	08/24/2018	Jim Amsden	Committee Specification Draft for Public Review published
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