CAPABILITY BRIEF

Special Operations Forces

ACCELERATING INTEGRATION OF COMPLEX SYSTEMS
USING OPEN ARCHITECTURE TECHNOLOGIES

HIGHLIGHTS

Unparalleled open architecture network connectivity expertise

Rapid technology insertion, maintainability and extensibility capabilities

Success in achieving mission performance and scalability objectives

Robust safety, security, interoperability and resilience solutions

Open standards support including FACE, UCS, SOSA, OMS and GVA/NGVA

Open Architectures (OA) improve system affordability by reducing integration, maintenance and upgrade costs, while promoting reuse and competition. With its interoperability, portability, loose coupling and real-time Quality of Service (QoS), the Data Distribution Service (DDS) standard is the preeminent foundation for mission-critical OA systems. RTI is a leading supplier of DDS software for SOF OA systems.

US Special Operations Forces (SOF) are tasked with rapidly organizing and executing joint operations, including active, reserve, special operations, psychological operations, and civil affairs forces of the US Army, Navy and Air Force. These units work closely with allied and coalition forces to respond to global crisis situations.

These challenging SOF missions requires the capability to:

1. Develop, acquire, and consolidate unique special operations forces, material, and equipment from a diverse pool of assets to successfully perform unique missions

2. Rapidly integrate and interoperate mission assets to meet SOF timeframes

3. Prepare Warfighters for missions through high-fidelity Modeling, Simulation and Training (MS&T) using realistic Live, Virtual, and Constructive (LVC) integrated environments

Real-Time Innovations (RTI) is the commercial leader in complex systems connectivity. RTI technology and expertise are proven through more than 1,200 Aerospace and Defense (A&D) applications to safely and securely integrate critical systems using open networking standards.

RTI Connext® DDS supports open architecture systems by providing fast, scalable, reliable and secure connectivity within and between land, sea, air and space-based systems. Based on the Object Management Group (OMG®) Data Distribution Standard (DDS™), Connext DDS supports safety certification with commercial-off-the-shelf (COTS) software. This certification evidence supports RTCA DO-178C and EUROCAE ED-12C DAL A, resulting in faster time to airborne safety certification.

Connext DDS integrates with A&D industry standards, including the Open Group Future Airborne Capability Environment (FACE™), and has developed the only certified conformant FACE Transport Service Segment (TSS) solution to enable rapid insertion of new FACE avionics applications.

Connext DDS also meets the stringent requirements of Modeling, Simulation and Training (MS&T) applications by providing interoperability between distributed simulation components, regardless of where they are located. This capability enables the rapid integration of a wide range of simulation, training, deployed and hardware-in-the-loop assets with vastly reduced timeframes. RTI Connext secures data-in-motion between multiple security domains, enabling a robust connectivity foundation for MDO and JADC2 environments.

PROVEN IN MORE THAN 1,200 UNIQUE DESIGNS
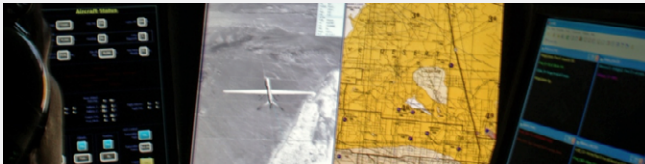
Massive Application Scalability
Zumwalt DDG 1000
RTI Connext DDS software coordinates and manages complex, diverse onboard hardware and software systems. These include hundreds of computers, thousands of applications and more than 10 million publish-subscribe pairs.

Ground-Air Cooperative Control
General Atomics Aeronautical Systems, Inc.
General Atomics' Advanced Cockpit Ground Control Stations deliver enhanced situational awareness for unmanned aircraft systems, such as the Predator® and Reaper®. RTI's software accelerated the development process and the solution was delivered in less than 14 months, significantly faster than with alternative software or in-house development.

Large Scale Asset Tracking
U.S. Army Blue Force Tracker
The U.S. Army's Joint Battle Command-Platform (JBC-P) system tracks the positions of friendly and hostile forces on the battlefield, requiring hundreds of thousands of tracked updates per second. A redesign using RTI Connext DDS resulted in a fully redundant system able to handle an order of magnitude more tracks, with an order of magnitude fewer CPU cores.

System of Systems Integration
General Dynamics Littoral Combat Ship (LCS)
RTI's software connects disparate systems, interoperates across multiple programming languages and operating systems, and handles disadvantaged links and legacy interfaces for the US Navy LCS.

Easy Technology Upgrade
Boeing AWACS Airborne Surveillance Command & Control
The Boeing AWACS upgrade design is more open and supportable. DDS provides a foundation for lowering ongoing maintenance and upgrade costs.

Critical Real-Time Communication
US Navy
The Ship Self Defense System (SSDS) is the "last line of defense" coordinating high-speed, radars, targeting defensive missiles and directing 1000+ rounds/second at incoming cruise missiles. RTI Connext DDS delivers these critical messages in real-time.

Non-Stop Reliability
Raytheon Ship-Wide Area Network (SWAN)
The SWAN on the US Navy LPD-17 runs machinery, damage control, steering, magnetic signature, mission control, navigation and communications. RTI Connext DDS supports redundant networks, data and sensors without servers.

COMPLIANCE

DUNS: 797735883
CAGE: 03FH8
NAICS Codes:
    511210 - Software Publishers
    541511 - Custom Computer Programming Services
    541512 - Computer Systems Design Services

ABOUT RTI

Real-Time Innovations (RTI) is the largest software framework company for autonomous systems. RTI Connext® is the world's leading architecture for developing intelligent distributed systems. Uniquely, Connext shares data directly, connecting AI algorithms to real-time networks of devices to build autonomous systems.

RTI is the best in the world at ensuring our customers' success in deploying production systems. With over 1,500 designs, RTI software runs over 250 autonomous vehicle programs, controls the largest power plants in North America, coordinates combat management on U.S. Navy ships, drives a new generation of medical robotics, enables flying cars, and provides 24/7 intelligence for hospital and emergency medicine. RTI runs a smarter world.

RTI is the leading vendor of products compliant with the Object Management Group® (OMG®) Data Distribution Service™ (DDS) standard. RTI is privately held and headquartered in Sunnyvale, California with regional offices in Colorado, Spain and Singapore.

Download a free 30-day trial of the latest, fully-functional Connext DDS software today: https://www.rti.com/downloads.

**Your systems.
Working as one.**

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