

RTI in Aerospace and Defense



Enabling Open Architecture Mission-Critical Systems



RTI is the world leader in delivering fast, resilient, safe and secure communications software based on the widely adopted Data Distribution Service (DDS) standard. RTI Connex[®] DDS provides developers and integrators with high-level publish/subscribe communication APIs and adapters. It makes development and integration efforts easier by providing well-defined and loosely coupled interfaces between system components.

Supporting Defense Agencies

Accelerated development of increasingly large-scale and complex systems

Interoperability between competitively sourced subsystems

Legacy system integration

Reduced cost of ownership

Adoption of open system architectures

Enabling Systems Integrators

Low latency with real-time Quality of Service

Extremely scalable

Highly resilient: systems are self-forming and self-healing with no single point of failure

Secure with full support for confidentiality, integrity and access control

Certifiable to the flight-critical avionics standard DO-178C Design Assurance Level A (DAL A)

RTI is a strategic software supplier to world's leading defense agencies, systems integrators and their suppliers. Connex DDS is based on open standards. It is designed to meet the most stringent performance, reliability, safety and security requirements of defense programs.

By using open standards for integration, defense agencies maintain an open and competitive acquisition capability and ensure that systems integrators focus their innovation efforts on program objectives. Using open standards for integration helps defense agencies rapidly introduce new technologies and mitigate the impact of component obsolescence.

RTI delivers Commercial off-the-Shelf (COTS) software integration infrastructure that accelerates development and helps build scalable and highly adaptable systems.

"RTI middleware with Ada integration is helping our developers build complex applications that require real-time data availability and response across large distributed systems. A major advantage of this approach is our ability to support and develop applications in a heterogeneous COTS-based environment requiring simple and straightforward integration of legacy code with newly developed systems."

Thomas Jungfeldt, Senior Systems Engineer Saab Systems, Naval Systems Division

"We are successfully using RTI DDS for our inter-process and inter-subsystem communications, recording, and in our DO-178C automated test environment that runs on Windows. Having RTI's Connex DDS Cert product available allows us to move forward with our certification efforts with system deployment scheduled in 2016!"

Greg Polhamus, Software Engineering Manager, SRC, Inc.

Unmanned Systems

RTI is helping define a standard architecture for unmanned vehicles. The company's products and services support the architecture and data modeling efforts for both UCS (ground stations) and FACE (airborne software) standards.



General Atomics Aeronautical Systems, Inc.

General Atomics Advanced Cockpit Ground Control Stations deliver real-time data acquisition, analysis, and response for unmanned aircraft systems such as Predator®.

RTI software accelerated the development process; the solution was delivered in less than 14 months, significantly faster than with alternative software or in-house development.



US Navy

Ship Self Defense System (SSDS) is the "last line of defense" coordinating high-speed radars, targets defensive missiles, and directs 1000+ rounds/sec at incoming cruise missiles.



Raytheon

Raytheon Total Shipboard Computing Environment Infrastructure (TSCEI) manages complex, diverse onboard hardware and software systems. RTI connects hundreds of computers, thousands of applications in real time.



"Our SMS2040 required a fully scalable publish-subscribe messaging middleware environment to provide a modular integration backbone for real-time data management and distribution. The COTS-based RTI Data Distribution Service offered the ideal solution as the most mature, easy-to-use and best-performing real-time middleware product available."

Bob Martin

Raytheon DDG 1000 System Software Development Director

About RTI

RTI provides the connectivity platform for the Industrial Internet of Things.

Our RTI Connex® messaging software forms the core nervous system for smart, distributed applications. RTI Connex allows devices to intelligently share information and work together as one integrated system. RTI was named "The Most Influential Industrial Internet of Things Company" in 2014 by Appinions and published in Forbes.

Our customers span the breadth of the Internet of Things, including medical, energy, mining, air traffic control, trading, automotive, unmanned systems, industrial SCADA, naval systems, air and missile defense, ground stations, and science. The total value of system designs that trust RTI for their fundamental architecture exceeds \$1 trillion.

RTI is committed to open standards, open community source and open architecture. RTI provides the leading implementation of the Object Management Group (OMG) Data Distribution Service (DDS) standard.

RTI is the world's largest embedded middleware provider, privately held and headquartered in Sunnyvale, California.



Your systems. Working as one.

CORPORATE HEADQUARTERS
232 E. Java Drive
Sunnyvale, CA 94089
Tel: +1 (408) 990-7400
Fax: +1 (408) 990-7402
info@rti.com
www.rti.com