RTI Connext 6

THE FIRST CONNECTIVITY SOFTWARE FOR HIGHLY AUTONOMOUS SYSTEMS

HIGHLIGHTS

Efficient High-Bandwidth Data Distribution for increased throughput and reduced latency.

Integration with Standardized Frameworks and Platforms to ease integration between OEMs and suppliers, from research through production.

Safety Certification Pathway to meet the stringent requirements of ISO 26262 ASIL-D, reducing risk, time and project costs.

Built on Data Distribution Service (DDS), the proven connectivity standard used by AUTOSAR Adaptive and ROS2 for autonomous vehicles.

Accelerate the development, deployment and management of autonomous systems with Connext 6, the first connectivity software for the highest levels of autonomy. Its standard-based framework manages complex data distribution for real-time, scalable connectivity across platforms and systems.

THE FIRST CONNECTIVITY SOFTWARE FOR HIGHLY AUTONOMOUS SYSTEMS

Advancements in artificial intelligence and sensor technology are driving autonomy across the IIoT. Yet these highly and fully autonomous systems pose challenges that are unaddressed by traditional approaches to data communications. In particular, AI algorithms must efficiently assimilate high volumes and high rates of data from disparate sensors while assuring resilience, security and safety. RTI Connext® DDS is the first connectivity framework designed for these demanding requirements.

RTI Connext 6, the newest release of the RTI Connext Product Suite, includes:

- Connext DDS Professional 6.0
- Connext DDS Secure 6.0
- Connext DDS Micro 3.0

WHAT'S NEW

Connext 6 supports autonomous system development from research to production. It is the first standards-based connectivity framework to handle the complex integration and data distribution challenges of sensor fusion applications in autonomous systems. It enables level 4 and level 5 autonomy through fast, scalable, and efficient distribution of high-bandwidth sensor data. Integration with standardized software frameworks, like AUTOSAR Adaptive and ROS, combined with a path to safety certification saves months of development time.

Connext 6 delivers new capabilities for improved application performance, scalability and functionality, plus developer productivity features including:

Optimized Data Processing
The new RTI FlatData™ representation significantly reduces latency and CPU utilization for large and small data samples. Systems running multiple applications on the same node can use the optimized shared memory transport to nearly eliminate end-to-end latency and overhead in Connext DDS Professional, Connext DDS Secure and Connext DDS Micro.

Easy System Integration

The new generation of Routing Service simplifies bridging data domains with support for advanced transformations including aggregation, splitting and enrichment. The new diagram-based view of Routing Service in Administration Console allows users to intuitively manage routes and monitor performance.

Enhanced Performance

With support for the latest Object Management Group® (OMG®) DDS Extensible Types standard, applications will benefit from network bandwidth savings. An optimized Dynamic Data implementation delivers improved serialization performance, reducing end-to-end latency. XTypes annotations and optional members provide a simpler, more affordable approach to evolving complex, safety-critical systems.

Simplified Data Recording

The new Recording Service offers improved record/replay performance and easier configuration. It includes support for data transformations and content filtering, and a new API for integrating custom storage plugins.
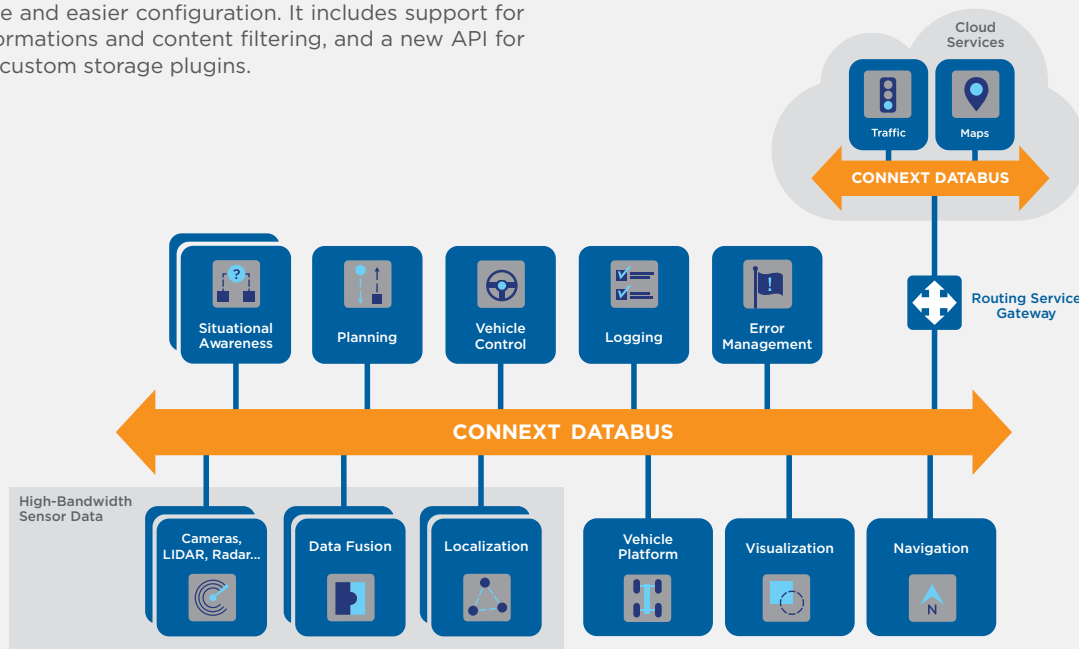
Updated DDS Security

Connext products are compliant with the latest OMG DDS Security specification. Connext 6 extends support for DDS Security plugins to Connext DDS Micro.

Configurable Micro Applications

With XML-Based Application Creation, users can simply define and configure their Connext applications. Connext 6 provides additional tools for maintaining interoperability between Connext DDS Micro, Connext DDS Professional and Connext DDS Secure applications.

Extended Platform Support

Connext 6 expands its broad support for compute platforms and embedded systems with libraries for the latest Linux, QNX, Integrity, and VxWorks platforms.

ABOUT RTI

Real-Time Innovations (RTI) is the Industrial Internet of Things (IIoT) connectivity company. The RTI Connext® Databus is a software framework that shares information in real time, making applications work together as one, integrated system. It connects across field, fog and cloud. Its reliability, security, performance and scalability are proven in the most demanding industrial systems. Deployed systems include medical devices and imaging; wind, hydro and solar power; autonomous planes, trains and cars; traffic control; Oil and Gas; robotics, ships, and defense.

RTI lives at the intersection of functional artificial intelligence and pervasive networking[SM].

RTI is the largest vendor of products based on the Object Management Group (OMG) Data Distribution Service™ (DDS) standard. RTI is privately held and headquartered in Sunnyvale, Calif.

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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