



DATASHEET

# RTI Connex TSS

FACE CERTIFIED CONFORMANT TSS BASED ON RTI CONNEXT

## HIGHLIGHTS

Certified conformant to the FACE™ Technical Standard, enabling cross-platform reuse, compatibility, interoperability and scalability

Executes on a wide variety of operating systems and CPUs

Standards-based loose coupling between portable components to minimize integration, maintenance and upgrade costs

Rapid integration of both legacy and new communications technologies

Large FACE Partner Ecosystem to accelerate solution development

Commercial RTCA DO-178C DAL A certification evidence

The FACE Technical Standard and Business Approach promotes software reuse across disparate airborne platforms, supporting both piloted and autonomous missions. Within the FACE architecture, the Transport Services Segment (TSS) provides the APIs and capabilities that portable application components can use to exchange data.

## FACE CERTIFIED CONFORMANT TSS

RTI Connex<sup>®</sup> TSS provides a commercial FACE TSS solution that can accelerate Future Airborne Capability Environment (FACE™) application component development and integration.

Connex TSS is based on RTI Connex, making it easy for component developers and systems integrators to take advantage of both the FACE Technical Standard and the Data Distribution Service (DDS™) standard. Connex TSS offers loosely coupled, decentralized architecture with peer-to-peer communication for low latency while having no single point of failure. No brokers or servers are required.

RTI has commercial tools that enable the rapid translation of data from different systems into a FACE solution stack, which simplifies the integration of FACE conformant software components with legacy systems, systems without data models, and non-FACE conformant systems.

Connex TSS is available as an add-on product for RTI customers with a license to RTI Connex.

## ADDITIONAL ADVANTAGES OF RTI CONNEXT TSS

**RTCA DO-178C DAL A Certification Evidence:** To accelerate airworthiness, Connex offers commercial RTCA DO-178C and EUROCAE ED-12C DAL A certification evidence audited by a third party for rapid and reliable review. This hyperlinked evidence contains design documents, high and low level requirements, project documents, project plans, project standards, project certification documentation, tool qualification documents, development and verification artifacts, and more, which drives down the certification risk, and accelerates time to airworthiness and deployment.

**Royalty Free:** RTI Connex TSS is licensed using a simple yearly subscription based upon the number of developers. There are no production royalties or unit license fees.

**RTI FACE Partner Ecosystem:** RTI has the most comprehensive FACE Partner Ecosystem in the industry. RTI has proven integrations with over twenty hardware and software providers that accelerate the development and deployment of FACE platforms. Most of these partners have commercial RTCA DO-178C and DO-254 certification evidence, and many have RTCA DO-330 qualified tools that accelerate airworthiness.

**Connext TSS is open standards-based from top to bottom:** The FACE TSS API is managed by The Open Group®. The marshaling and presentation of data to the FACE TSS and FACE applications is managed by the Object Management Group® (OMG®) open DDS standard. The delivery of data on the network is managed by the OMG open Real-Time Publish-Subscribe (RTPS) wire protocol, enabling rapid interoperability.

**RTI Connext Tools and Infrastructure Services:** RTI Connext includes a unique, comprehensive set of tools and utilities to provide deep visibility into running systems, accelerate testing, help troubleshoot application connectivity, and solve complex data integration problems. From design to production, Connext Tools help ease the entire development lifecycle.

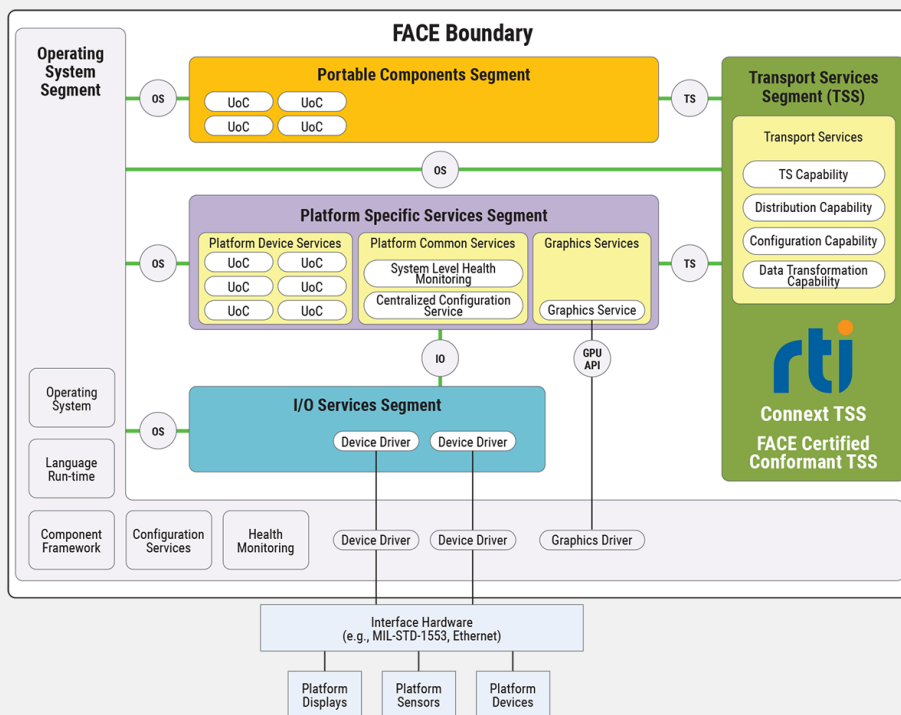
**Pluggable transport architecture:** Connext supports multiple avionics transports, including UDP, TCP, and ARINC 653

queueing ports, with the option of integrating with other transports as needed. The included IDL compiler generates type-specific C++ interfaces from the Platform Data Model.

**CONNEXT TSS SUPPORT: RTI PROFESSIONAL SERVICES**

RTI’s comprehensive [support plans](#) provide your team with direct access to [Professional Services](#) experts who can increase your efficiency with Connext TSS and accelerate your integration efforts into new or existing infrastructure. RTI offers time-tested services, called [Xcelerators](#), with options for [training](#), architectural analysis and design support, whether your target is the FACE Operating System Segment (OSS) Security, Safety Base, Safety Extended or General Purpose profiles.

[Learn more about RTI and FACE](#)



**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 1,800 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 software today: [www.rti.com/downloads](http://www.rti.com/downloads).

RTI, Real-Time Innovations and the phrase "Your systems. Working as one," are registered trademarks or trademarks of Real-Time Innovations, Inc. All other trademarks used in this document are the property of their respective owners. ©2023 RTI. All rights reserved. 20004 V23 0223