Requirements Analysis for FACE™ TSS

The Future Airborne Capability Environment (FACE) Reference Architecture developed by the FACE Consortium strives to make airborne systems more affordable for the military avionics community by reducing the time and cost to develop, integrate and launch avionics capabilities. Its efforts include the development of a technical standard for a software Common Operating Environment (COE). The Transport Services Segment (TSS) is one of the abstraction layers in the software COE.

The Requirements Analysis for FACE TSS helps give your team the ability to rapidly deliver FACE TSS functionality to meet government standards and requirements cost-effectively.

Benefits

Quickly and easily gain an understanding of the FACE Reference Architecture and FACE TSS

Help your team deliver FACE TSS functionality cheaper and faster

Gain extended access to industry expertise on the latest high-performance technology standards

Make fast, smart and productive architectural decisions

Lay the groundwork for a system architecture that:

- Achieves current and future TSS mission threads
- Meets TSS requirements
- Adopts TSS key business drivers and key architectural drivers
- Adheres to schedules and milestones

FACE Reference Architecture and TSS

The FACE Reference Architecture is designed to promote cross-platform portability, maintain safety and security standards and reduce costs over project lifecycles.

The TSS provides a standard, transparent way to interface with the TSS software library. This ultimately allows portable avionics applications to be affordably integrated with disparate architectures and aviation platforms.

Requirements Analysis

The primary purpose of this extended process is to help your team make efficient architectural and technology decisions very early in your project lifecycle.
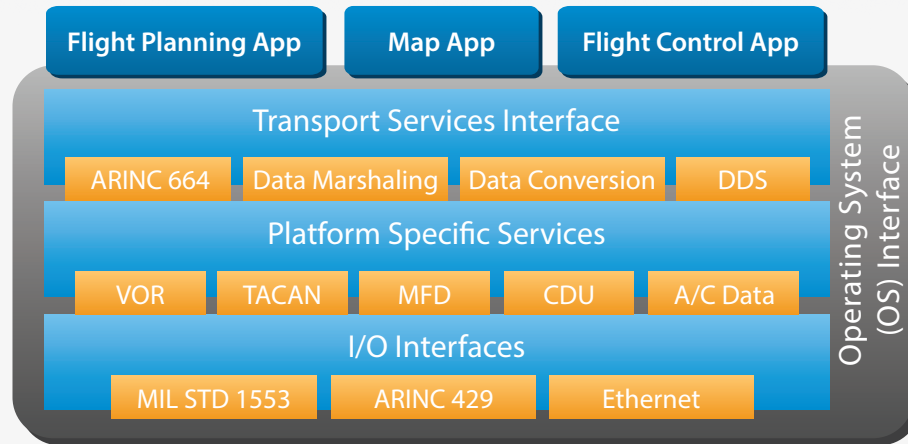
It uses a robust systems engineering approach and includes generous access to seasoned FACE TSS experts.

Upon completion, participants will be presented with:

- Thorough documentation of TSS mission threads and key drivers, as well as all functional, non-functional and compliance requirements
- Actionable recommendations and guidance
- Technology roadmap to follow for optimal results

Participants

This process was designed for all software architects and developers who are working with, or plan to work with the FACE Reference Architecture.

Flight Planning App	Map App	Flight Control App

Transport Services Interface

| ARINC 664 | Data Marshaling | Data Conversion | DDS |

Platform Specific Services

| VOR | TACAN | MFD | CDU | A/C Data |

I/O Interfaces

| MIL STD 1553 | ARINC 429 | Ethernet |

Operating System (OS) Interface

The FACE Reference Architecture, in context.

Process

Conduct Onsite Technology Training (1 day)

- Cover terminology, concepts, patterns and capabilities of RTI TSS technology

Facilitate Onsite Technical Interchange Meeting (TIM) (2-3 days)

- Identify and document known mission threads and derived mission threads
- Identify and document operational requirements documents (ORD) or other TSS requirements
- Identify key architecture drivers (KAD) and key business drivers (KBD)
- Explore current and future functional requirements
- Create TSS derived requirements

Deliver a TSS Requirements Analysis (varies)

- Identify TSS requirements, mission threads, KADs and KBDs
- Equip team for systems requirement review (SRR)

Deliver a TSS Requirements Analysis Presentation (1 day)

Your Consultants

Consultants engaged to provide the requirements analysis will be expert systems engineers and members of the RTI Professional Services team. They have practical, hands-on field experience working with The Open Group and related entities, partners, customers and technology, including the FACE Reference Architecture.

RTI Professional Services

Your success with developing complex distributed systems is the primary objective of the RTI Professional Services team. Our engineering experts help you mitigate project risk, increase productivity, and delivery quality on a shorter schedule. Contact us today at solutions@rti.com to request this course or discuss other design, development, training or support needs.

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 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, California.

rti

Your systems. Working as one.

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