L3HARRIS®
FAST. FORWARD.

FAA TELECOMMUNICATIONS INFRASTRUCTURE (FTI) PROGRAM

Aviation voice and data communication capability for the U.S. National Airspace System

L3Harris operates, improves, evolves and expands the Federal Aviation Administration's data and voice network infrastructure that enables air traffic control and management in the United States airspace.

The Federal Aviation Administration (FAA) is the air navigation service provider (ANSP) responsible for managing the United States' National Airspace System (NAS). The NAS is a complex system, comprised of air navigation facilities, air traffic control facilities, airports, technology, and rules and regulations that provide safe and efficient services to airspace users, including the flying public.

The NAS facilities and systems are interconnected by a network of complex telecommunications services provided and operated by L3Harris. The mission-critical voice and data communications capability is delivered to the FAA as a managed service.

L3Harris installs and operates a diverse set of last-mile access technologies including terrestrial, satellite and microwave connectivity, providing service to both urban and remote locations across the continental United States, Alaska, Hawaii and U.S. territories.

L3Harris designed, implemented, operates and maintains a nationwide private, secure wide area network (WAN) with 99.99971% reliability for the sole purpose of interconnecting over 4,400 FAA sites with over 29,000 telecommunications services. This infrastructure enables the FAA to maintain a safe, secure and efficient NAS network and an administrative support network. The FTI network supports both FAA legacy system interfaces and the latest modern interfaces.

MANAGED SERVICE MODEL

L3Harris delivers a managed infrastructure service to the FAA that enables enterprise-wide, resilient, highly available and secure network capability that is always on and always there for critical air traffic management communications.

As the prime managed services contractor for FTI, we own the equipment and lease the telecommunications services needed to deliver secure and efficient transmission of voice, data and video communications to the FAA that are critical to the NAS.

The FTI managed services contract is governed by service level agreements that are defined based on the FAA's operational needs. L3Harris designed this nationwide telecommunications network that exceeds availability requirements, including the most stringent for safety-critical systems.

FTI is one of the largest networks in the world delivering managed services for ANSP operations and mission support communication needs. The network provides the FAA with flexibility in adding NAS services, operational predictability and responsiveness.

Following FTI's implementation, the FAA adopted managed services business models for other modernization initiatives. L3Harris is applying this model to ANSP networks worldwide to deliver reliable, secure solutions that allow the ANSP to focus on their mission, not their network infrastructure.

99.99971%

SERVICE AVAILABILITY

Supported by:

- **Private nationwide network**
- **High-capacity optical backbone**
- **24/7/365 operations support**
- **High bandwidth**
- **Low latency**
- **High security**

Facts

FTI's high availability network carries all voice, data and video communications.

- **Connects 4,400+ government sites**
- **Supports ATC activities enabling 87,000 flights per day**
- **Delivers 29,000+ services**
- **Enables 50,000+ users**

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PERFORMANCE-BASED SERVICES

The FTI managed network services contract sets the standard for government performance-based service programs. It consolidated twelve legacy networks into a single enterprise network for secure delivery of end-to-end services with guaranteed performance.

The performance-based services construct of the FTI program enables the FAA to order what they need, when they need it. L3Harris designed the network to be flexible to fit performance requirements. The network structure enables scalability for new technology, incorporation of evolving mission needs and extension to partner agencies as needed.

Through service level agreements, the FAA specifies latency or availability requirements, interface options and security levels, enabling a tailored end-system solution.

UPGRADING LEGACY SYSTEMS

L3Harris met the challenge of integrating multiple siloed systems into one to deliver an integrated telecommunications infrastructure to support the FAA enterprise needs.

The FTI network interconnects sites of different sizes and with different service needs. FTI provides both internet protocol (IP) and legacy time division multiplexing (TDM) services, under strict performance service level agreements, driven by the operational needs of the connected systems. Standardized service-focused designs for the FTI site provide configuration management ease, ordering and operations simplification, and maximum flexibility to add, change or remove services as NAS needs evolve.

FTI PROGRAM HIGHLIGHTS

- L3Harris Network Operations Control Center (NOCC) monitors and manages over 100,000 communications devices 24 hours a day, 7 days a week, all year long.
- A private, secure operational IP backbone runs 100 percent of the FAA's IP traffic. This supports the agency's future IP connectivity requirements for the Next Generation Air Traffic System (NexGen).
- Service availability and stability for critical services at 20 FAA Air Route Traffic Control Centers (ARTCC) was achieved through implementing a dual private Metro Ring solution, providing optical carrier protection switching across diverse telecommunications ingress and egress.
- A private optical backbone replaced a commercial service provider-based network to dramatically improve performance and continuity of operations, and significantly increase capacity at a lower cost. The optical backbone includes diverse DWDM optical waves interconnecting redundant FTI points-of-presence within each FAA airspace, providing the interconnection points for all FAA facilities.

SWIM ENABLING PLATFORM

Since 2010, FTI's IP-based networked telecommunications services have enabled the FAA's System Wide Information Management (SWIM) data-sharing architecture. FTI moves terabytes of data daily and connects dozens of FAA systems to hundreds of government agencies and external NAS stakeholders.

FAA Telecommunications Infrastructure (FTI) Program

L3Harris Technologies is the Trusted Disruptor in the defense industry. With customers' mission-critical needs always in mind, our employees deliver end-to-end technology solutions connecting the space, air, land, sea and cyber domains in the interest of national security. Visit L3Harris.com for more information.

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