

FAA Network Services in Alaska

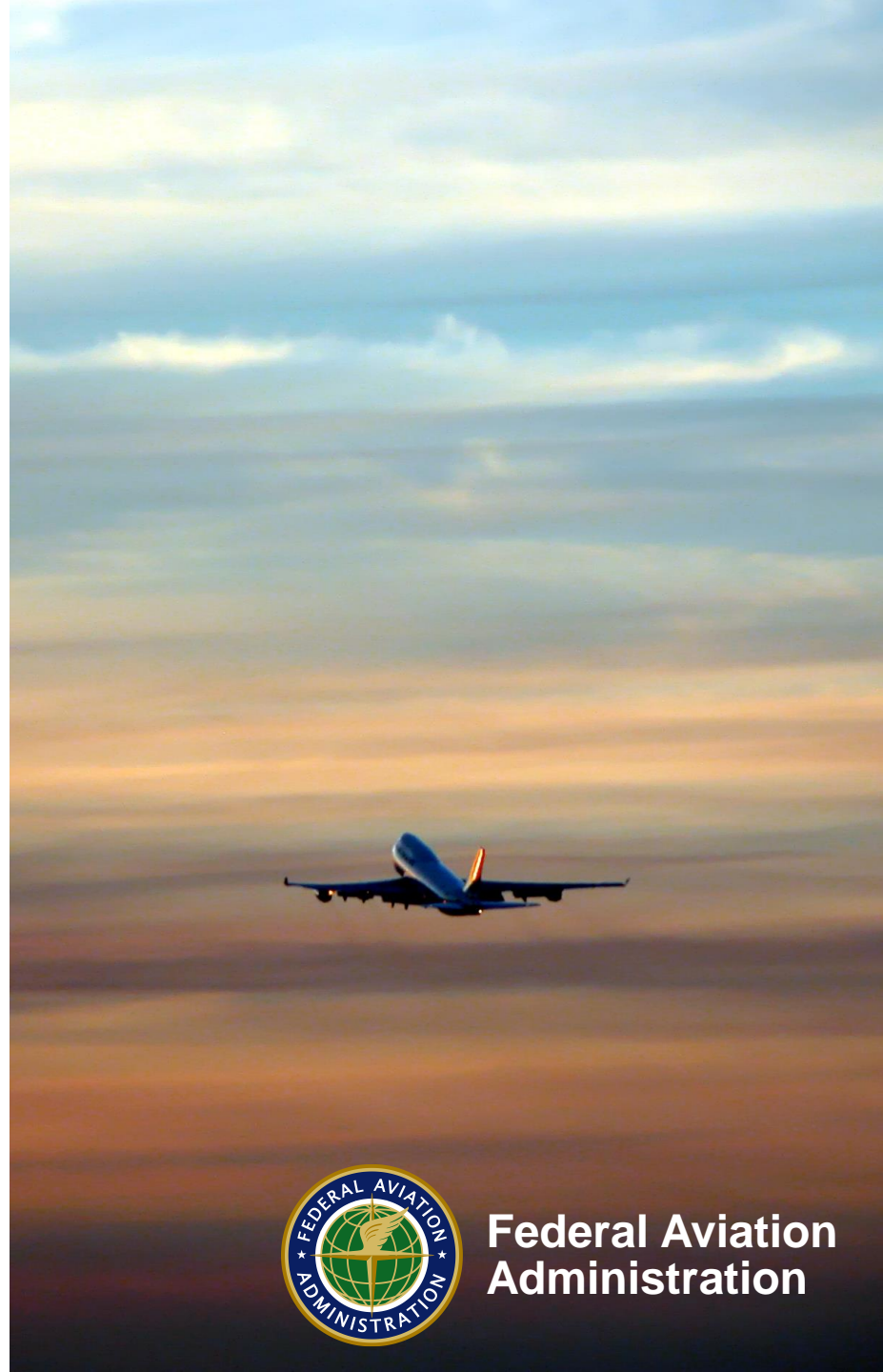
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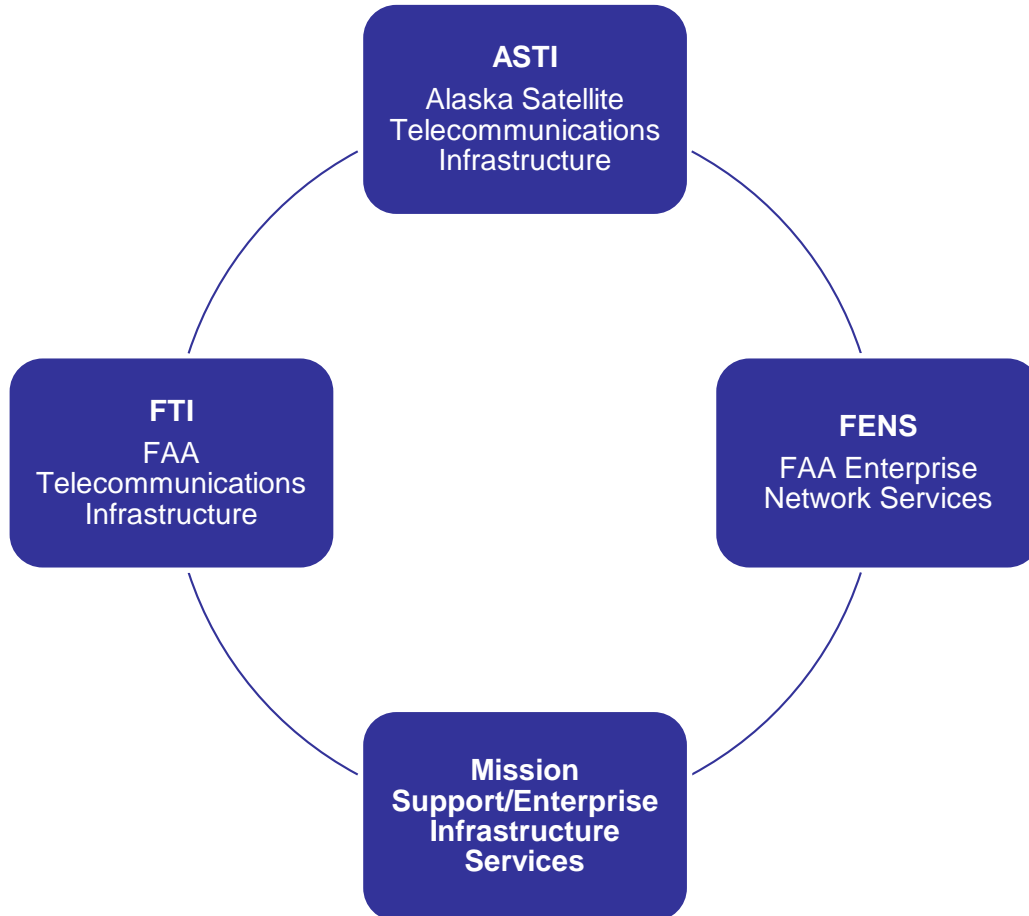
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**Federal Aviation
Administration**



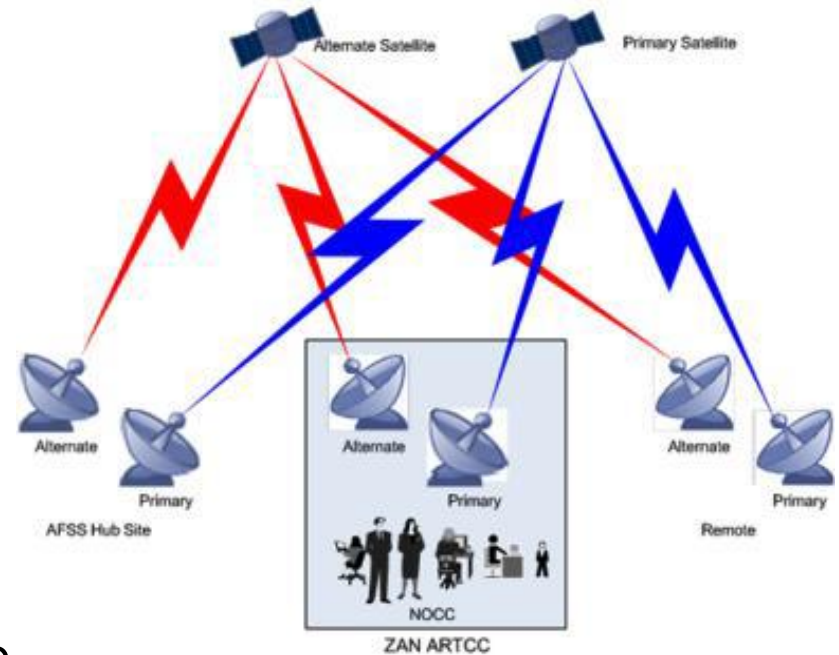
FAA Networks



- **Four Networking Programs**
 - **ASTI**
 - Alaska-specific
 - Satellite and FTI
 - **FTI**
 - Current primary networking infrastructure
 - **FENS**
 - Upcoming infrastructure
 - FTI replacement
 - **Mission Support/Enterprise Infrastructure Services**

Alaskan Satellite Telecommunications Infrastructure (ASTI) System

- Previously the Alaskan NAS Interfacility Communications Systems (ANICS)
- Provides backbone links from remote areas not served by terrestrial communications
- Transport for Ground/Ground, Air/Ground, Radar, Weather
- 41 operational sites across Alaska, plus 2 labs in Anchorage and Oklahoma City
- Modernization Program completed in 2019
- Sustainment Program 2020-24



ASTI Supported Locations

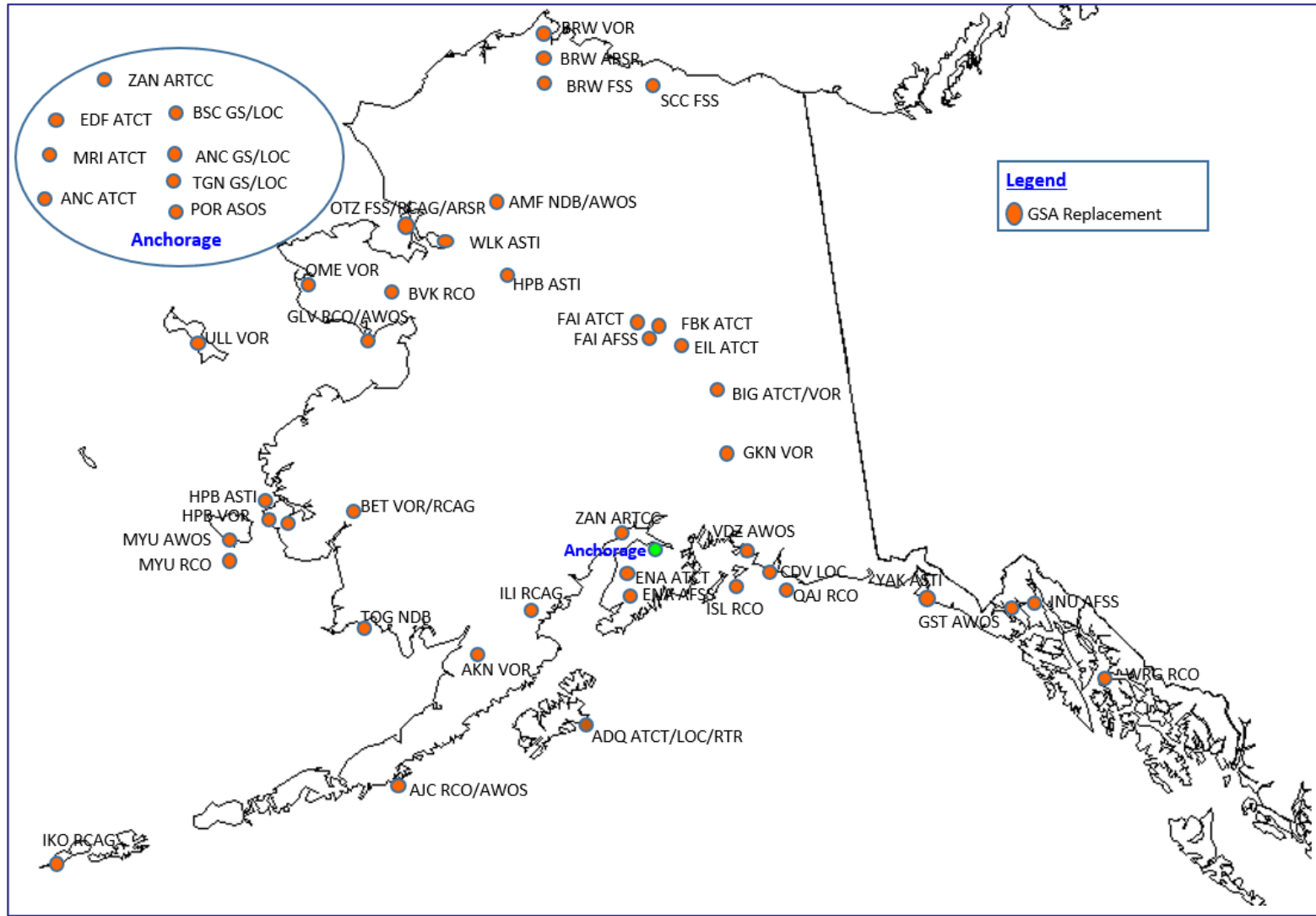
- 1 Air Route Traffic Control Center (ARTCC) in Anchorage (ZAN)
- 3 network Hub locations
 - Kenai (ENA), Juneau (JNU), Fairbanks (FAI)
- 37 remote sites:

Talkeetna (TKA)	Sand Point (SDP)	McGrath (MCG)
King Salmon (AKN)	Bettles (BTT)	Cape Romanzof (CZF)
Middleton Island (MDO)	Annette Island (ANN)	Tin City (TNC)
Homer (HOM)	Cold Bay (CDB)	Aniak (ANI)
Test/Training Facility (TTF)	St. Marys (KSM)	Dillingham (DLG)
Barter Island (BTI)	Galena (GAL)	Woody Island (ODK)
Nome (OME)	Cape Newenham (EHM)	Port Heiden (PTH)
Dutch Harbor (DUT)	Cape Lisburn (LUR)	Tanana (TAL)
Biorka Island (BKA)	Level Island (LVD)	Northway (ORT)
Fort Yukon (FYU)	Gambell (GAM)	Sparrevohn (SVW)
Adak (ADK)	Shemya (SYA)	Johnstone Point (JOH)
Deadhorse (SCC)	Unalakleet (UNK)	Indian Mtn. (UTO)
		St. Paul (SNP)

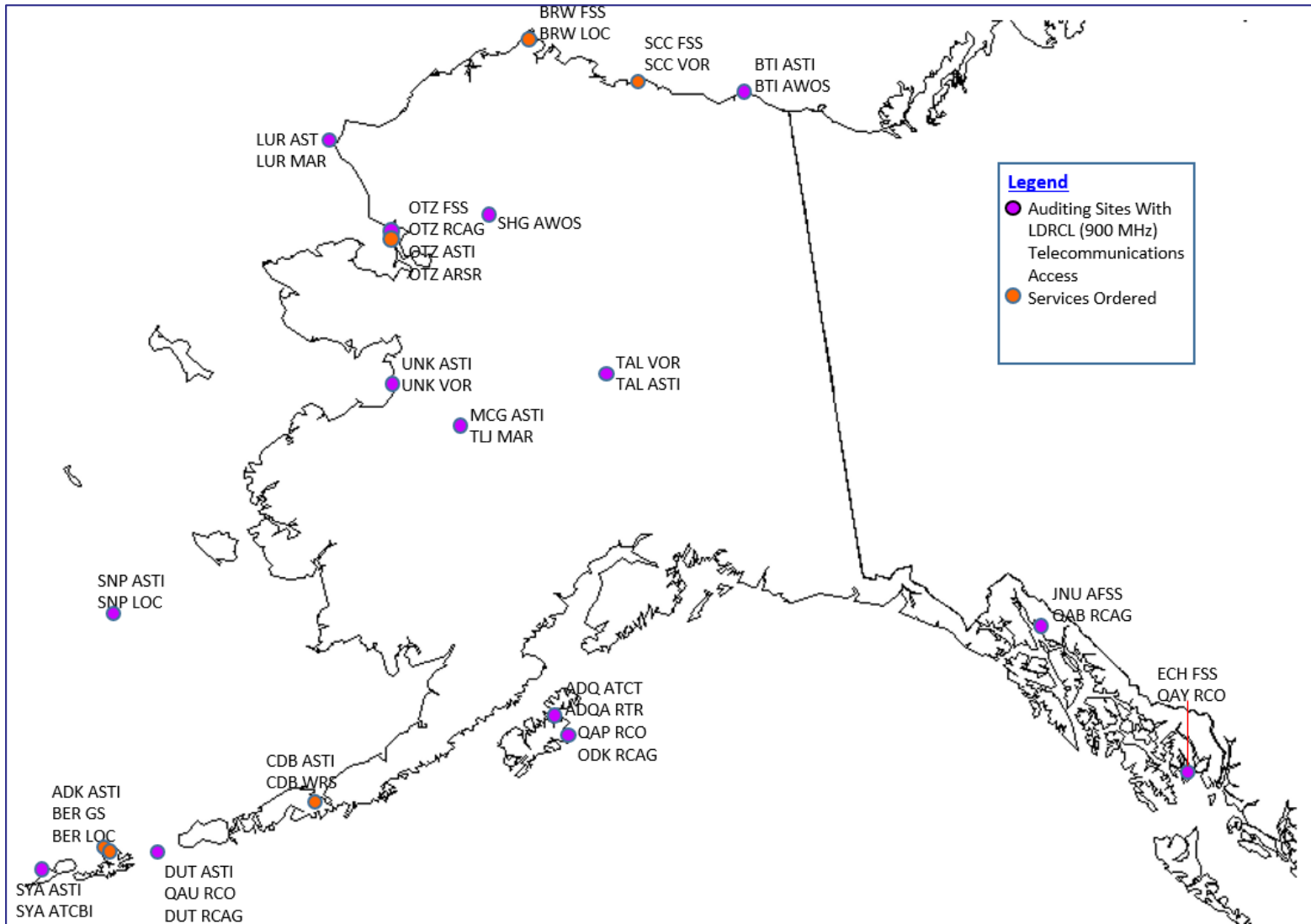
FTI Program Overview

- **FTI is an 18-year managed service contract where L3Harris represents the FAA in working with local telco vendors to install NAS communication services**
- **FTI is utilized to improve performance and downtime on radio communication, radar, weather updates, and distance measuring equipment**
- **FTI has increased services in Alaska over the last 5 years:**
 - Growing from 14 services to over 700
 - Reducing FAA-owned systems (ASTI reduced by 20 sites)
 - Replacing FAA-owned 900Mhz Microwave systems with leased services
 - Replacing GSA services being used for the NAS operations
 - 100 more services are installed and ready to be tested put into operations
 - 100+ services have been ordered and are planned for 2022-23

GSA to FTI Transitions – February 2022



Alaska LDRCL (900 MHz) Sites



FENS: Evolution of FAA Telecommunications



FAA Engineered Networks with Leased Circuits

- Numerous networks
- Circuit switched voice
- Analog and low speed serial interfaces
- Analog and low bandwidth digital circuits



Private, Dedicated Network with Fixed Capacity

- Breakthrough for FAA as first consolidated Agency-wide communications services contract
- Components assembled into FAA custom network
- Each service order custom engineered



Performance-Based Commercial Services

- Evolutionary leap by aligning the Agency with commercial communications market
- Standardized and adaptable services
- Simplified ordering using a service catalog

FENS Program Objectives

Maintain the high levels of availability, survivability, security, and performance that are required for NAS mission critical applications.

Provide dynamic service provisioning, reconfiguration and configuration management capabilities.

Provide insight and visibility into the network service configuration and operations.

Evolve to future technologies that may benefit both NAS and Administrative users.

Manage initial and lifecycle costs for both NAS and administrative communications needs.

FENS Program Overview

Replaces the expiring FTI contract

- FTI contract awarded in FY2002
- Extended through FY2022
- Replacement for FTI for all services, at all locations

Enables move from TDM-based technologies to IP-based

- TDM technology being phased out in the commercial market
- FENS is long-term solution for migrating from TDM networking technology

Enables compliance with new FAA security requirements

- FISMA High and other priorities

Meets requirements not supported by legacy networks

- NextGen ConOps for advanced information management
- FAA's objectives for improving NAS resiliency

Mission Support Overview

- **Mission Support FTI**

- Provides administrative IP data and FTI Mission Support Wide Area Network for network connectivity for day-to-day agency businesses such as payroll, personnel, email applications, and administrative phones
- Supports client server applications, the FAA's Intranet web server operation, and is the medium for user access to the FAA's Intranet and the public Internet

- **Administrative**

- General category of administrative telecommunication services that are not administered via FTI
- Services that are ordered and planned to be ordered through GSA Contract Vehicles that provide local LEC services, toll free services, administrative satellite services, etc.

- **FAVES: FAA Administrative Voice Enterprise Services**

- Program developed to transform the Agency's multiple premise based administrative phone systems into a centralized and modern infrastructure based on Voice over Internet Protocol (VoIP) and IP Telephony technologies that provide a greater degree of flexibility and opportunities to reduce operating costs

Mission Support in Alaska

- **Alaska currently has 16 Administrative Facilities and 343 Operational Facilities transitioning to EIS**
- **FAA is performing a transformation of services, not like for like.**
- **Transition must be complete by May 2023**
- **Workbooks have been created to document all current services at a facility**
 - The EIS Vendor will review those services and provide a transformed solution
- **FAA will accept the proposed solution and orders will be submitted**