

e-ATIS ENAV Automatic Terminal Information Service

A Flexible solution for Airport Weather information broadcast

» Mission:

The ENAV Automatic Terminal Information Service (e-ATIS) developed by Techno Sky allows automatic transmission of meteorological and aeronautical information to aircrafts by means of continuous radio broadcast or datalink, in order to reduce both ATC and aircraft crews workload.



Operational Scenario:

The e-ATIS system can be combined with Techno Sky's e-AWOS system, AMHS/AFTN systems or third party AWOS class systems, allowing aircrafts crew, preparing for landing and takeoff operations, to retrieve up to date critical information without contacting ATC personnel.

Nowadays the e-ATIS system is operating at over 20 airports.

Key Benefits:

- Improvement of automated operational processes, allowing ATC operators to achieve efficient and safe operations
- Minimization of ATC operators workload and human intervention, reducing the air/ground communications between TWR/APP and pilots
- Easy integration with existing third party systems
- Easy HMI customization according to users requirements
- Reliable and flexible solution, suitable to be upgraded according to the ICAO amendments or local operational needs

Main technical features and overview:

- Data acquisition, validation, elaboration and quality check, in accordance with all relevant international standards
- Automated building of text messages according to configurable and appropriate syntax and semantic
- Continuous update of aeronautical and meteorological information
- Conversion to a high-quality audio stream based on a speech synthesis technology
- Offline configuration to manage a single message for both landing and taking-off aircrafts or distinct messages for arrival and departure traffic
- Facilities to insert additional aeronautical information or explicit emergency messages
- Manual data insertion in case of unavailability of upstream systems or meteorological sensors
- Analog broadcast over a VHF/VOR transmitter to aircrafts
- Digital broadcast over ARINC/SITA networks to aircrafts by means of an external Datalink system
- Local data storage and archive consultation of received meteorological data and created messages
- Provision of ATIS messages to external users by means of a phone analog line and a voicemail system
- Management of aeronautical dictionary and predefined messages

Interfaces:

Data input channels:

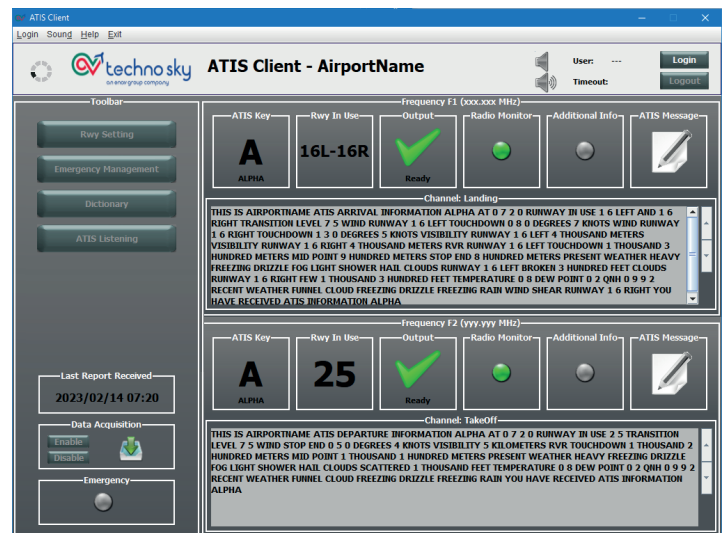
- Techno Sky e-AWOS system or other AWOS class system, including custom interfaces
- AFTN / AMHS (X.400 protocol), ensuring standardized weather data exchange
- REAL TIME channels (UDP/IP or TCP/IP)

Supervision:

- SNMP interface to allow external monitoring via TECSUP system (nagios® based) or any SNMP compliant NMS

Output channels:

- Analog or VoIP (EUROCAE ED-137 compliant) audio to radio transmitter
- Datalink system interface according to EUROCAE ED-89A
- Telephone line answering



Technical specifications:

- Server redundancy with master/slave configuration using a fault tolerant cluster system (failover < 20 sec)
- Seamless network redundancy at switch and host level.
- Windows or Linux servers and workstations

Regulations and certifications:

- ICAO Annex 3, Annex 10, Annex 11, Doc 8896, Doc 9377
- EATMN Equipment compliant with Reg.(EU) 2018/1139
- Supporting ANSPs for SoC emission in compliance with Reg.(EU) 2017/373
- CMMI-DEV Level 2 (V.3.0) compliant development cycle
- Software Assurance Level (SWAL) according to EUROCAE ED-153
- Secure Development process compliant with EUROCAE ED-205A

Support:

- Train-the-Trainers service for user and maintenance topics