

D-ATIS Digital Automatic Terminal Information Service

A Flexible solution for Airport Weather information broadcast

» Mission

The Digital Automatic Terminal Information Service (D-ATIS) is the Techno Sky's solution for the automated and continuous broadcast of meteorological and aeronautical information.



The D-ATIS system can be combined with Techno Sky's e-AWOS system, AMHS/AFTN systems or any other MET system, allowing aircrafts, prepared for landing and takeoff operations, to retrieve up to date critical information without contacting ATC personnel.

Nowadays the D-ATIS system is operating in over 20 Italian airports. It manages and collects meteorological and aeronautical information and performs a continuous broadcast to aircrafts crew.

Operational Scenario:

The D-ATIS system allows automatic and continuous transmission to pilot of all the main meteorological and additional information.

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 transceiver to aircrafts, optional PTT signal emulation
- 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:

D-ATIS system provides the following acquisition channels:

- Techno Sky's e-AWOS system or any other local MET system, in an agreed format;
- AFTN/AMHS system via standard protocols;
- REAL TIME channels - by opening dedicated connections, with NUDP/IP or TCP/IP protocol,
- FILE - information acquired by interpreting the content of one or more files, in an agreed format.



Technical specifications:

- Network redundancy and master/slave configuration using a fault tolerant cluster system
- Windows based workstations for clients and servers
- Failover < 20secs

Regulations and certifications:

- Developed according to ENAV Safety Management System and Security Policy
- CMMI Compliant Development Cycle
- Developed according to the Software Assurance Level (SWAL) identified during the safety assessment process
- EATMN Constituents certified by DSU (Reg. (EU) 2018/1139)
- ICAO Annex 3, Annex 10 and Annex 11 standards, ICAO Doc 8896, Doc 9377 and Doc 9705

Support:

- Skilled Train-the-Trainers human resources for maintenance scope