

Product brief: smartATIS/VOLMET

Advanced automatic terminal information service

Automation is a key enabler of lower costs as well as increased efficiency and safety. The Frequentis smartATIS/VOLMET solution is the advanced automatic terminal information service available, fully scalable to meet the demands of airports, ACCs and national ATM facilities. Supporting multiple voice and data-link broadcast channels, smartATIS is a tailored solution that can scale to any environment from regional to high-capacity towers. Major organisations in more than 36 countries all over the world have already chosen smartATIS.

Key features

High performance (D-)ATIS/VOLMET

Scalable from single- to multi-runway handling for complex solutions including multiple channels for arrival and departure. Fully data-link enabled (D-ATIS, D-VOLMET).

Fully automated

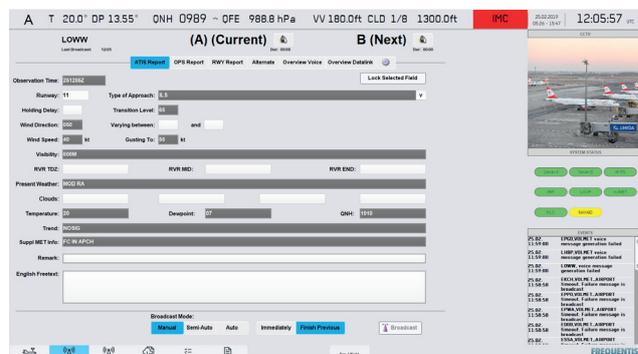
smartATIS/VOLMET follows a fully automated procedure, handling broadcasts and message releases. Users can amend messages or change to manual broadcast mode at any time.

Distributed broadcasting

The Frequentis iRIF broadcast interface enables the simple distribution of voice broadcasts over IP networks to remote radio sites. Reliability and availability are improved by decoupling voice broadcasts from the main system, while adding an extra redundancy layer.

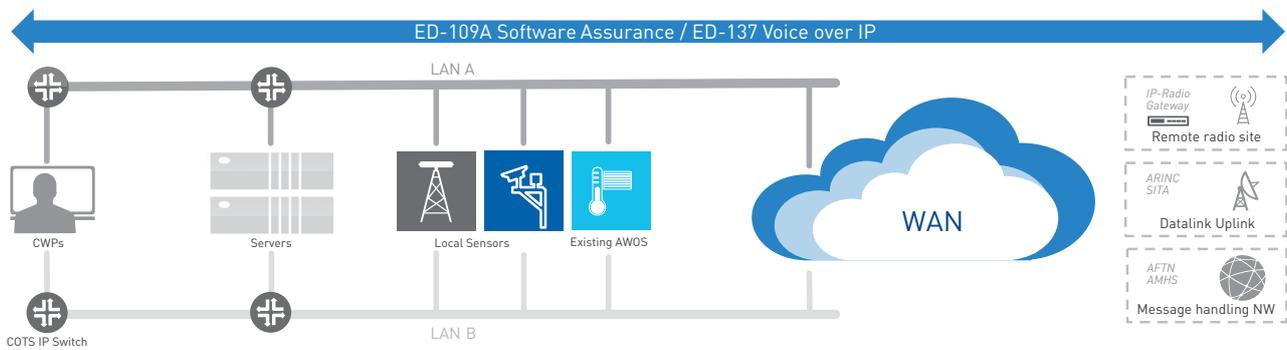
Advanced text-to-speech engine

Voice broadcasts are generated by a fast, high-quality synthetic text-to-speech (TTS) engine, eliminating the need for pre-recorded voice samples. Multi-language support at different frequencies (auto translation), speech-tuning options, and an adaptable library for special pronunciations are embedded in the TTS engine.



smartATIS/VOLMET at a glance

- Designed by controllers, for controllers
- Proven in use in >400 controller working positions worldwide (civil and military)
- Multi-level redundancy
- Scalable from regional to high-capacity towers
- Role-based access rights
- Automatic highlighting of information
- Quick and intuitive data input
- User-configurable solution
- Flexible HMI
- Supports iCWP concept



Both systems run continuously in hot/stand-by mode always receiving equal data

Complete network separation by duplication of information paths

Option to deploy the system centralized or de-centralized

Benefits

High reliability

Simple distribution of voice broadcasts over IP networks to remote radio sites. Decoupling voice from other functions boosts reliability, availability.

Excellent speech quality

Fast, high-quality synthetic TTS engine for voice broadcasts: no more pre-recorded voice samples.

Cost reduction

Integrated controller working positions lower maintenance and lifecycle costs for individual systems.

Integration

Fully integrated information and control system based on open interfaces and customisable adapters.

Outstanding usability

A clearly-structured and intuitive human-machine interface (HMI) with standardised controls guides users through tasks. The human-centric approach of smartATIS enables controllers to customise their HMI to their individual needs.

Safety Our development process is based on Software Safety Standard DO-278A/ED-109A Assurance Level 4, equivalent to ED-153 SWAL-3 and assessed with the Air Navigation System Safety Assessment Methodology – ensuring the highest safety standards.

Redundancy

Fully redundant hardware plus a dedicated broadcast interface that connects standard radios via an IP gateway (to ED-137B standards), adding another layer of redundancy for audio.

Technical specifications

Redundancy	Main/hot-standby architecture (server/client) in standard or virtual environment (VM cluster with distributed logic), dual network connections, redundant power supplies. Option to fully deploy on standalone workstations
Operating system	Red Hat Linux
Interfaces / Protocols	AFTN, AMHS, IRIF Radio Gateway output, generic AWOS, ARINC, SITA, Modbus, SNMP, NTP, SIP
Supported languages	English, French, Russian, Spanish
Standards	ICAO Annex 3; Annex 5; Annex 10; Annex 11; Annex 15/ICAO DOC 9377; DOC 9694/WMO 306/ARINC 618; 620; 622; 623/ED-89/ED-137B for the broadcast interface/ED-109A (level 4); ED-89 ATIS Data-link Service

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