



DESIGNED FOR SAFETY- AND MISSION-CRITICAL COMMUNICATION

The Frequentis VCX-IP Gateways are synonymous with a new era of operational voice communication in safety- and mission-critical systems. Conventional VoIP (Voice over Internet Protocol) gateways mainly use PC-based solutions lacking either VoIP-capabilities or failing to provide the required minimum latency, reliability and availability. By contrast, the Frequentis VCX VoIP gateways combine the high reliability of embedded systems with advanced VoIP-capabilities. Additionally, the Frequentis VCX VoIP gateways offer features to enhance your operational systems in terms of safety, efficiency and interoperability.

The Frequentis VCX-IP Gateway supplies connectivity of legacy systems used in civil Air Traffic Management (ATM), Air Defence and Maritime communication applications and supports a smooth and safe migration scenario for safety critical network solutions.

Many years of experience in providing air traffic management solutions have given Frequentis a thorough understanding of the specific needs of ATM service providers:

→ Frequentis VCX-IP gateways are designed for minimum latency and highest Quality of Service and fulfill therefore the requirements for safe transmission of operational voice over an IP backbone.

→ The Frequentis VCX-IP gateways allow to interconnect existing ATS interfaces over Ethernet/IP-based backbones while maintaining reliable and stable operation of the ATS protocol stacks

→ The Frequentis VCX-IP inter-gateway communication is based on standard protocols (Real-time Transport Protocol [RTP] for audio and Session Initiation Protocol [SIP] for signaling), and follows the specifications of Eurocae Working Group 67 (Voice over IP for Air Traffic Management).

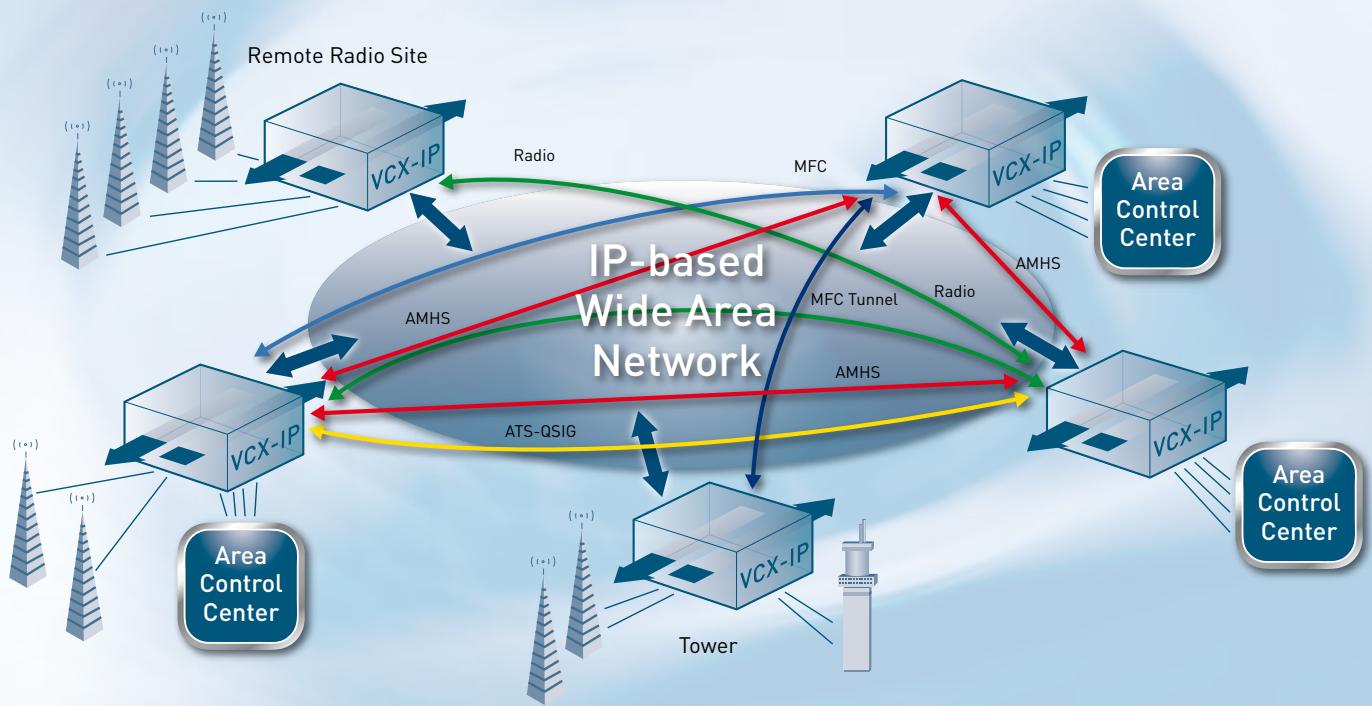
The main applications of the Frequentis VCX-IP Gateway family are:

- Integrated operational voice and data service network for Air Traffic Management, Defence and Maritime applications
- Multi-Protocol Gateways
- Backup Systems
- Implementation of Contingency/Business Resumption concepts

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FREQUENTIS VCX-IP GATEWAY



Redundant power supplies, cooling and processor resources guarantee maximum availability of the VCX-IP gateway. Additionally connectivity to two separate IP-Backbone networks is supported by fast switchover of the communication links. All interface boards are hot-swappable.

Migration of safety critical networks needs to be planned very delicately, in order to maintain the availability of all services. The VCX-IP gateway supports all different migration scenarios with its fully flexible deployment of different interfaces and protocols within the gateway.



Frequentis VCX-IP gateway

Radio Interfaces	→ E&M with PTT/SQU contacts, voice detection or in-band signaling Digital 2MBit/s CAS EUROCAE WG67 ED-137 radio
Telephone interfaces	→ 4-wire telephone [e.g. MFC EUROCAE WG-67 ED-137 telephone] Local Battery 2 MBit/s G.703 service aware interface with protocol termination for MFC, LB and ATS-QSIG 2MBit/s CAS and VCX-QSIG
Backbone interface	→ Two redundant fast Ethernet connections with capacity for 256 SIP/RTP Voice streams
Rack Size	→ 19", 3 HU

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