Product brief: ACU-II audio panel
Quintuply redundant IP communications

There is no mission control without communication. Switching between analogue and IP-based voice communication does not require different systems and interfaces. The combination of ACU-II (audio control unit) and the VCS3020X voice communication system enables quintuple (five-times) redundancy for higher sustainability while ensuring security, flexibility and resilience. It provides analogue audio, ethernet and fibre connections in combination with a 5.7" touch panel to support a variety of use cases. An integrated backup system within each VCS3020X controller working position allows simultaneous operation of the main and backup facilities. This combination can also be used as a stand-alone operator position to access local radio and phone resources, for stationary and mobile use.

Key features

Independent, all-in one backup system

The ACU-II supports controllers as an independent communications system with its integrated audio devices within a VCS3020X controller working position. The user can operate backup radio and phone lines in parallel to the main VCS, which is compatible with the iSAS secure audio switch for multiple security domain support, keeping audio and signal delay lower than 1ms to the VCS audio path.

Quintuple redundancy for exceptional resilience

The combination of full VoIP VCS3020X and ACU-II empowers quintuple redundancy, which is outstanding on the market and ensures 24/7 operations even in disaster scenarios where sustainability and safety count.

Stand-alone operator position

The system can also be used stand-alone, as it works out-of-the-box while enabling compatibility with well-established audio devices such as iPIPS, iSAS and iLSP.
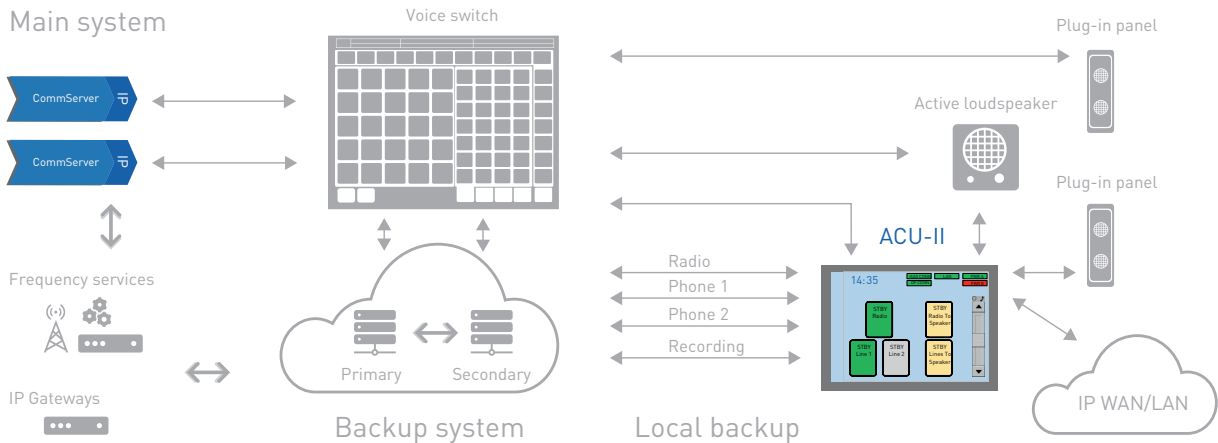
Seamless integration

Supporting industry standards for VoIP (e.g. SIP, EUROCAE ED-137/138), ACU-II can be integrated into existing networks and is designed for full interoperability with third-party gateways, radios, SIP phones, collaboration applications, as well as legal recording and post analysis of voice, data, screens and ambiance.

ACU-II at a glance

- Quintuple redundancy
- Full IP-based Voice Communication System
- Secure 24/7 operations
- Intuitive user interface
- Small footprint
- Duplicated and parallel operating backup VCS
- Analog and digital radio and phone access on every ACU-II panel
- Main and backup VCS share IP radio and phone infrastructure
- ACU-II operates in parallel to the main system and can be used as last-resort system

Defence

FREQUENTIS

FOR A SAFER WORLD

2x2+1 = **five-times safety**

Main system

Voice switch

Plug-in panel

Active loudspeaker

CommServer

CommServer

Plug-in panel

ACU-II

Radio
Phone 1
Phone 2
Recording

Frequency services

14:35

IP Gateways

Primary   Secondary

IP WAN/LAN

Backup system   Local backup

2   +   2   +   1   =   **five-times safety**

Benefits

Superior mission effectiveness

Give your operators an easy-to-use, comprehensive and secure toolset that provides everything needed for effective mission control, securely combining voice communications in one binaural headset and HMI together with analog communications.

Non-stop availability where it matters

Field-proven, bulletproof technology that is designed with no single point of failure and built-in redundancy to ensure continuity of service.

De-risked operations

Ensure value into the future with an open-standards compliant IP solution that offers a proven track record of interoperability, guaranteed long-term support, unparalleled data security and straightforward scalability.

Quintuple redundancy

The ACU-II empowers secure voice over IP communication with up to five-times redundancy. This secure communications technology is outstanding on the market and gives operators the latest technology for securing their communications 24/7.

Technical specifications

User interface	5.7" low-reflection, high-bright TFT-LC-display with analogue resistive touch sensor
Security	Trusted Platform Module (TPM) crypto processor chip on board
Cooling	Fan-less
Power supply	2x 24VDC power inputs (independent and redundant)
External power supply	1x 24VDC power output (e.g. for an iSAS)
Connectivity interfaces	Duplicated LAN interface for VoIP (2x RJ45) Analogue phone line (1x RJ45) Analogue radio line including PTT (1x RJ45) Analogue recording (1x RJ45) Peripheral connectors iAUX (2x RJ45) Peripheral connectors iAUX secure Audio (2x fibre LC)