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

**Frequentis**
For a safer world
2x2+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

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<th>Feature</th>
<th>Specification</th>
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<td>User interface</td>
<td>5.7” low-reflection, high-bright TFT-LC-display with analogue resistive touch sensor</td>
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<td>Security</td>
<td>Trusted Platform Module (TPM) crypto processor chip on board</td>
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<td>Cooling</td>
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<tr>
<td>Power supply</td>
<td>2x 24VDC power inputs (independent and redundant)</td>
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<td>External power supply</td>
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<td>Connectivity interfaces</td>
<td>Duplicated LAN interface for VoIP [2x RJ45]</td>
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<td></td>
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<td></td>
<td>Peripheral connectors iAUX [2x RJ45]</td>
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<td></td>
<td>Peripheral connectors iAUX secure Audio [2x fibre LC]</td>
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