Technical Data

Switching Capability
• VoIP based on Session Initiation Protocol (SIP)
• Ethernet backbone connection up to 1Gbps
• Centralised or distributed switching with heartbeat monitoring between servers and database synchronisation
• Configurable fixed radio and/or line conference of up to 128 parties
• System and radio management

Power Supply
• 110/230 VAC
• 28 VDC for terminal devices

Inter-Communications Server Connection
• Dual 1Gbit Ethernet
• Configurable to operate in fail back mode with no degradation in services

Interfaces
• Ethernet : IP Phone/Radio
• Analogue Radio : 4-wire Tx/Rx/PTT, RS232
• Line : FXS to DTMF phone
• Trunk : FXO to PSTN/PABX
• Digital I/O (optical isolation input and output)

Environmental Specifications

Temperature
• 0°C to +50°C (operating temperature)
• 0°C to +65°C (storage temperature)
• MIL-STD-810G Method 501.5 (high temperature)
• Method 502.5 (low temperature)

Humidity
• Up to 95% relative humidity, non-condensing
• MIL-STD-810G, Method 507.5

Shock
• MIL-STD-810G, Method 516.6

Vibration
• MIL-STD-167-1

EMI/EMC
• MIL-STD-461E

* Specifications are subject to change without prior notice
The Shipboard Integrated Communications System (SICS) is a state-of-the-art IP based communications solution designed and built for the mission-critical needs of today’s navies. The SICS integrates a variety of communications systems to offer feature-rich voice and data services easily accessible by users from fixed and wireless terminals.

The SICS communicates with various types of radios, providing full digital/VoIP switching and digital signal processing. It supports distributed switching architecture over IP LAN/WAN, secure handheld user terminal supporting secure voice/data transmission, and touch screen user interface.

The system includes various key features such as:
- **Intercommunications and Telephony Services**: Point-to-point intercom, fixed and ad hoc conferences, split ear operations, call transfer, call hold, and call intrusion.
- **Radio Communications**: Ship-to-ship, ship-to-air, ship-to-shore for joint operations, supports LF, MF, HF, VHF, and UHF. Radio access, multi-party radio access, single and multiple radio monitoring, radio patching, radio silence, and remote radio control.
- **Data Communications**: External data communications to provide the switching of data terminals to radios, internal data communications via LAN.
- **Wireless Communications**: Facilitates crew mobility.
- **Satellite Communications**: Voice and data satellite communications.
- **System Management**: Supports system configuration and supervision.
- **Radio Management**: Remote centralised control and management of various types of radios.
- **Voice Logging**: Selectable communications channels.
- **Public Address Broadcast and Alarm**: Interfaces to PA/alarm systems.
- **Security**: Provides system security by supporting connectivity to various encryption devices.

**Open Interface and Architecture**
- IP based system which uses open standard protocols such as SIP based VoIP, for easy system integration

**High Survivability and Availability**
- Distributed and redundant architecture with no single point of failure

**Interoperability**
- Facilitates communications interoperability between disparate communications systems

**Integrated Communications Services**
- Satellite and radio communications (LF, MF, HF, VHF, UHF, and other radios) for ship-to-ship, ship-to-air, and ship-to-shore operations
- Data communications over radio network, WAN, and LAN

**User-Friendly Interfaces**
- Intuitive user interfaces designed to support situational overview and quick system operation
- Configurable hot keys
- Mission profile planning

**High Scalability**
- Designed based on IP protocol and infrastructure, the SICS is highly scalable to meet future needs and demands

**Network Management**
- System can be re-configured for varied missions
- Quick operational configuration with pre-loaded mission profiles
- Centralised control and communications planning of radio resources
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