

# SHIPBOARD INTEGRATED COMMUNICATIONS SYSTEM

Enabler of Digital Transformation



## Key Features



### Intercommunications and Telephony Services

- Point-to-point intercom
- Fixed and ad hoc conferences
- Split-ear operations
- Call transfer
- Call hold
- 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 for 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

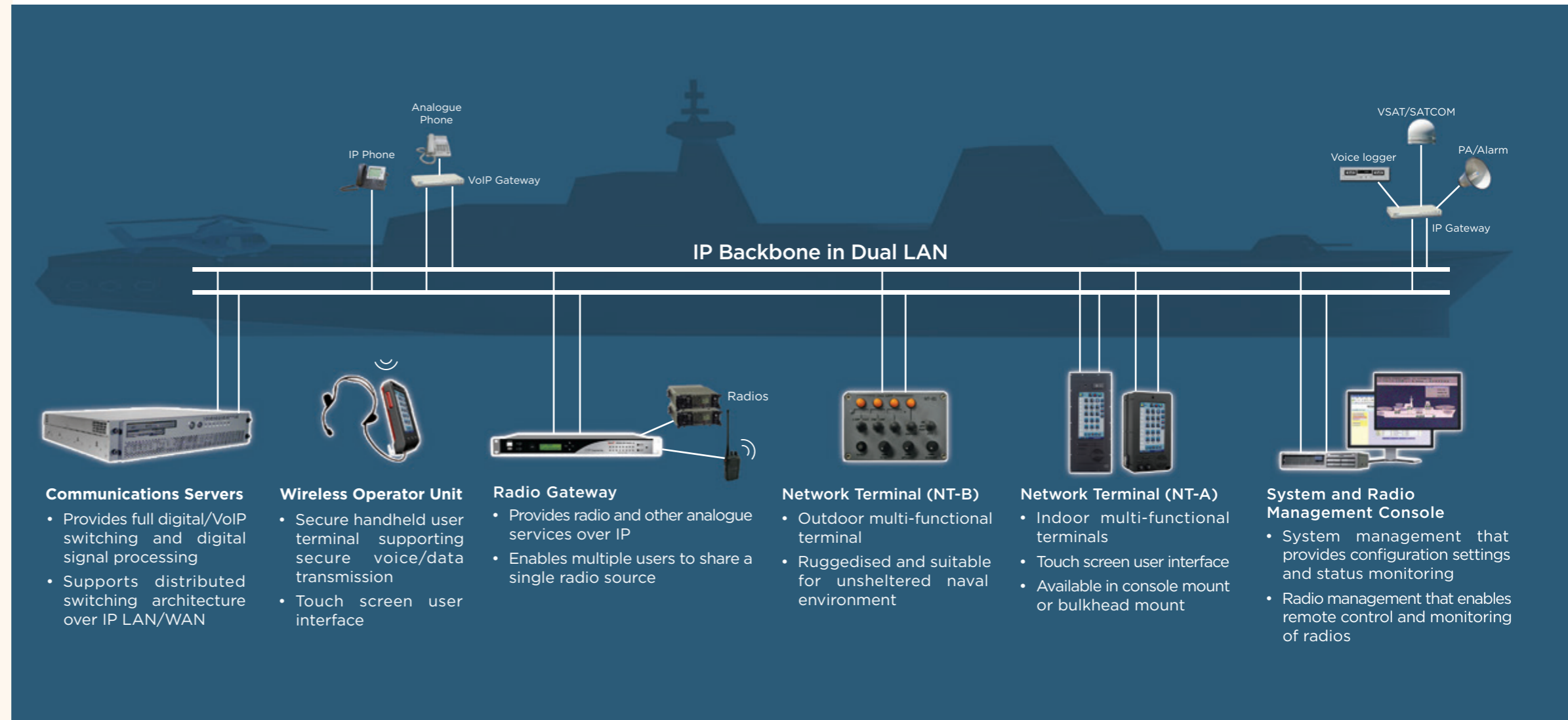
- Interfaces to PA/alarm systems



### Security

- Provides system security by supporting connectivity to various encryption devices

## Shipboard Integrated Communications System



### Communications Servers

- Provides full digital/VoIP switching and digital signal processing
- Supports distributed switching architecture over IP LAN/WAN

### Wireless Operator Unit

- Secure handheld user terminal supporting secure voice/data transmission
- Touch screen user interface

### Radio Gateway

- Provides radio and other analogue services over IP
- Enables multiple users to share a single radio source

### Network Terminal (NT-B)

- Outdoor multi-functional terminal
- Ruggedised and suitable for unsheltered naval environment

### Network Terminal (NT-A)

- Indoor multi-functional terminals
- Touch screen user interface
- Available in console mount or bulkhead mount

### System and Radio Management Console

- System management that provides configuration settings and status monitoring
- Radio management that enables remote control and monitoring of radios

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.

## Key Benefits

### 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

## 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 fall 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

**ST Engineering Electronics Ltd.**

[www.stengg.com](http://www.stengg.com)

[mktg.infocomm@stengg.com](mailto:mktg.infocomm@stengg.com)

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SICS-B1-12

