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)

* Specifications are subject to change without prior notice

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
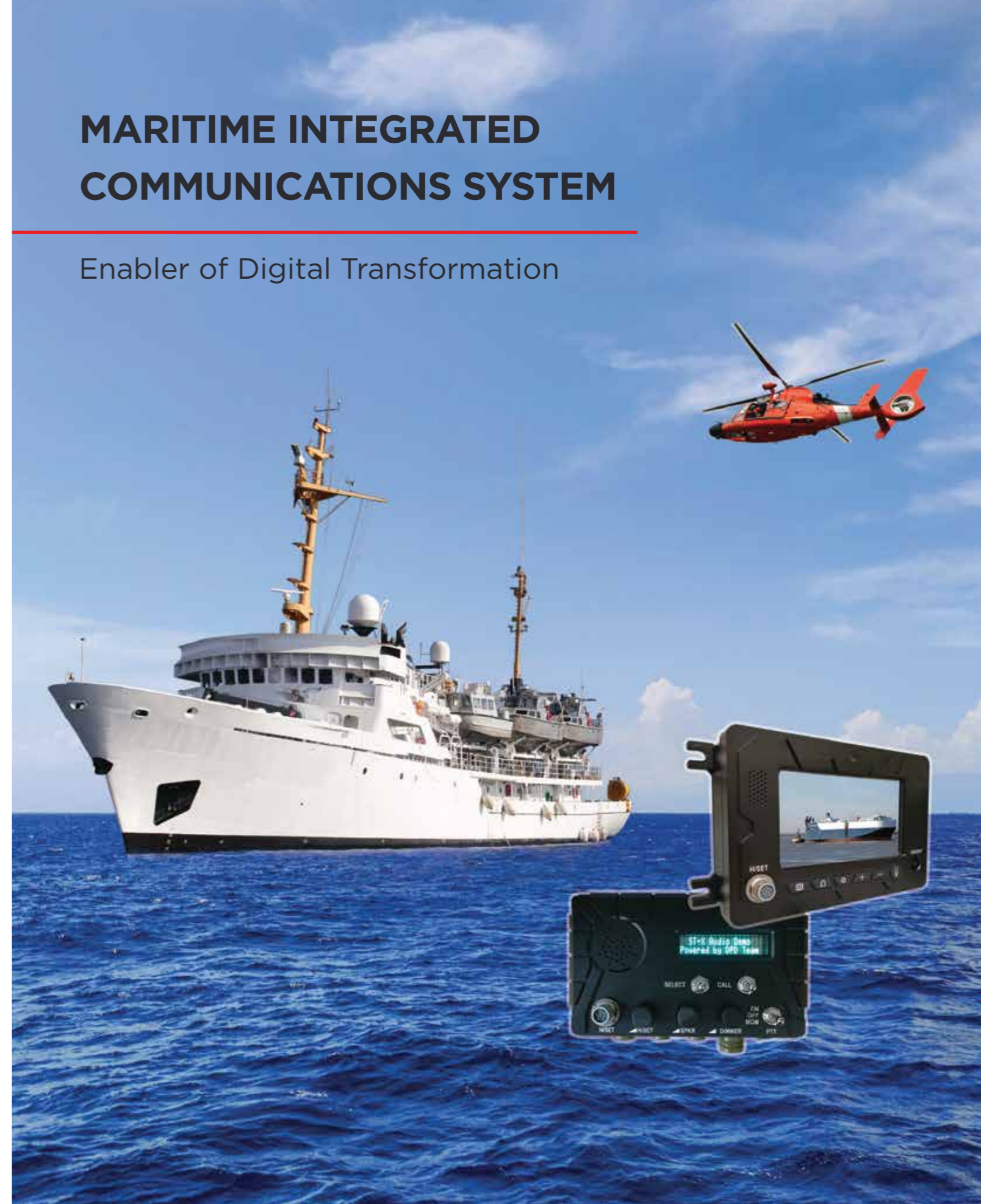
- MIL-STD-810G, Method 516.6

Vibration

- MIL-STD-167-1

EMI/EMC

- MIL-STD-461E

MARITIME INTEGRATED COMMUNICATIONS SYSTEM

Enabler of Digital Transformation

MICS-B1-12

ST Engineering

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

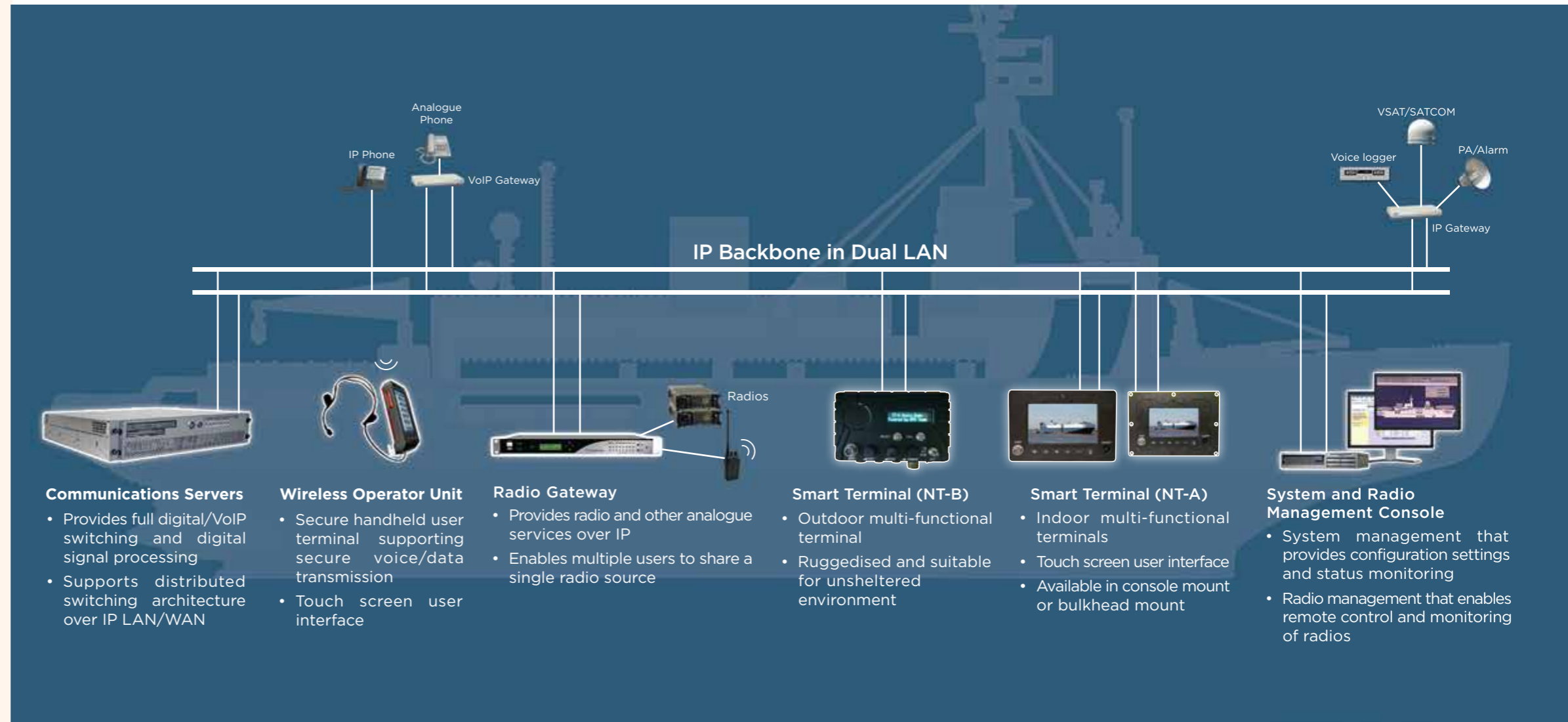## Public Address Broadcast and Alarm
- Interfaces to PA/alarm systems

Security
- Provides system security by supporting connectivity to various encryption devices

Maritime Integrated Communications System

IP Backbone in Dual LAN

Analogue Phone · IP Phone · VoIP Gateway · VSAT/SATCOM · Voice logger · PA/Alarm · IP Gateway · Radios

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

Smart Terminal (NT-B)
- Outdoor multi-functional terminal
- Ruggedised and suitable for unsheltered environment

Smart 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

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Maritime Integrated Communications System (MICS) is a Unified Communication System for Commercial Maritime Vessels. Crews are able to perform mission critical operations involving intercom, telephony, conference, radio, satellite, public address, alarm activation and many other communication services.

The MICS integrates with radio and satellite communication systems enabling crews to communicate externally with other vessels, aircrafts and shore control centres. terminals.

After many years of delivering field proven solutions in integrated communications, the MICS has evolved to a full IP-based system. The MICS has the full IP-based system deployment on-board the vessels offering both wired and wireless solutions.

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 MICS 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