# **WEHAVE**

EQUIPPED MORE THAN

**30 000**VESSELS

Intelligent critical communication expert

www.zenitel.com







# BECAUSE



# COMMUNICATION

### IS CRITICAL



We have offered integrated, type-approved and certified systems for Critical Communication, Data, Safety and Entertainment for more than 70 years.

### WE'RE SPECIALISTS IN MARITIME AND ENERGY SEGMENTS

Zenitel has a long and strong presence in the onshore and offshore secure communications markets through our global brands Vingtor-Stentofon and Phontech.

In 2014, our respected Vingtor and Stentofon brands were merged to unify the identity of the products being designed, developed and manufactured by the Zenitel Group.

On November 1, 2018, Zenitel reached an agreement to acquire the Phontech product range from Jotron. Phontech

specializes in Intercom and Public Address & General Alarm solutions for the Maritime and Oil & Gas markets, with a worldwide market presence.

This strategic acquisition strengthens Zenitel's position as a worldwide market leader for intelligent communication solutions in the Maritime industry.

With these two brands, we provide integrated security communications for environments where life, property and assets are at stake.

Currently, more than 30,000 ships rely on our equipment and systems to keep their crystal-clear communications up and running.







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### SPECIAL MARITIME & ENERGY SOLUTIONS:

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We have a wide range of communication systems for the maritime environment, and, with our long history in the market, we have earned our reputation as a supplier of the most flexible, reliable and advanced Maritime Communication Systems available.

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### **PUBLIC ADDRESS**







### GENERAL ALARM



Zenitel delivers two different, flexible and scalable PA/GA systems for Maritime & Energy segment to meet the requirements for alarm and message distribution: SPA-V2 and EXIGO.



**EXIGO PA/GA SYSTEM** 

The EXIGO Networked IP PA/GA System is our most advanced and flexible Public Address and General Alarm system. It is scalable and offers a set of standard and optional features, making it ideal for all kinds of ships and offshore installations.

EXIGO is an IP Public Address System that allows you to leverage past investments and integrate other communication systems into your PA. The high degree of monitoring, and the possibilities for remote operation and maintenance, enable your organization to centralize operations. EXIGO gives you a system that is flexible, scalable and programmable.



The SPA series is specially designed to meet the demands and requirements for a cost-effective Public Address (PA) and General Alarm (GA) system, according to the SOLAS Rules and Regulations for Marine use.

The SPA system is an integrated, type approved PA and GA solution. SPA is extremely cost effective when SPA loudspeaker loops are used together with the integrated ACM units to cover areas where PA and GA are required onboard the ship.



#### **NEW EXIGO AMPLIFIERS**



The NEW Exigo ENA2200 or 2400-AC2 amplifiers come in either 2x200W or 2x400W with max 800W when one loudspeaker loop is used. They are power efficient Class D Technology amplifiers.



The Phontech 1670 is a high performance, high efficiency 400 watt power amplifier designed to meet the needs of the most demanding PA/GA applications. The amplifier is designed to operate from a 48VDC power supply. It is only 1HU\* high, weighs only 6.5kg and power consumption is only 480W at rated power output.

#### **LOUDSPEAKERS**

We offer a wide range of loudspeakers, including EX (Explosion-proof) and IP (PoE powered IP speakers), for a variety of uses.

Zenitel's IP Speaker range is scalable, with flexible zoning features. These help to mitigate security risks faster than ever before. Self-check and Automatic Volume Control functions limit the need for manual maintenance, which minimizes service costs and system downtime.





### **TELEPHONY**









### INTERCOM SYSTEMS



Zenitel delivers fully integrated telephony and intercom systems that are type approved and certified according to marine standards. Our systems can easily be integrated with PA/GA, two-way radio and other critical communication and safety systems.



#### **ACM - Integrated Maritime Communication**

The Vingtor-Stentofon ACM systems provide reliable, robust and proven communication solutions. The ACM systems have continuously been developed and enhanced to take advantage of new technologies such as IP Networking. The different ACM systems are built around the Vingtor-Stentofon AlphaCom XE intercom exchange. The AlphaCom exchange is an avanced communication switch designed to meet the growing needs of internal and external communication onboard ships.

#### **ICX AlphaCom Platform**

Our Intelligent Communication Platform provides management and security services and allows for seamless integration into the cloud and other applications.

At the core of the system is the ICX-500 Intelligent Communication Gateway connecting people, devices & systems at unrivaled levels of manageability, scalability, robustness and interoperability.

#### **ICS 6200 SYSTEM**

The ICS 6200 Integrated Communication System is a digital communication system meeting all aspects of internal and external communication, information exchange onboard vessels, offshore installations and to/from onshore operation centers.

The system conforms to SOLAS, IMO and IEC regulations. Based on a modular design and flexible configuration, the system covers a wide range of installation complexities.



The Zenitel analog station range comprises Vingtor-Stentofon and Phontech analog telephones for analog extensions on ACM and ICS systems.

The telephones are well suited for bridge and control room onboard ships and have solid construction to withstand marine environments.



POWERFUL AND FLEXIBLE PLATFORMS FOR ONBOARD COMMUNICATION



#### **VOIP STATION RANGE**

Zenitel's IP Intercom Stations from Vingtor-Stentofon and VoIP Telephones from Phontech are made for easy connection to almost any relevant audio system.

They deliver exceptional audio of up to 95dB and are rugged devices designed for harsh environments such as marine and offshore installations.





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### **TELEPHONY**







### INTERCOM SYSTEMS

#### **TALK-BACK SYSTEMS**

Command Intercom System (CIS) is designed for important communication links onboard marine vessels. Its design is very compact, and the performance is enhanced through the use of microprocessor techniques. The CIS Talk-Back comes with master stations for 5, 10, 15 and 20 lines, together with a number of substations and accessories.

The systems are type approved and tested according to EN60945 and certified by DNV GL, RMRS, CCS and CRS.













#### **BATTERYLESS TELEPHONE SYSTEMS**

This is Vingtor-Stentofon's version of the traditional Sound Powered telephone (VSP). Independent of the vessel's power supply, it fulfills the demands for emergency communication between vital positions onboard. By using a dynamic microphone and receiver inserts, the VSP system can achieve speech and listening levels that are four times as loud as those found in a purely sound-powered system.

The system components have a versatile range of lightweight but robust and corrosion-resistant stations for all onboard environments. Additionally, the VSP system can be delivered with Intrinsically Safe stations, certified for both Zone 1 (EXII-2-G) and Zone 0 (EXII-1-G). Units are available for panel, desktop or bulkhead mounting.

Certified by: DNV GL, LR, CCS, RINA, RMRS, CRS, ABS.

#### **REFRIGERATOR & HOSPITAL ALARM**

Our hospital and refrigerator alarm system is designed for use onboard ships for calling from hospital and refrigeration rooms. It can be delivered as "Call from hospital", "Call from refrigeration room" or "Call from hospital and refrigeration room".

The hospital and refrigerator alarm system units include control units, repeater units, hospital call units, general call units, refrigerator units and additional signal units.



### INFO AND

### **ENTERTAINMENT**

### SYSTEMS

Your trusted name in critical communication for over 70 years is now also providing high-quality entertainment for an integrated audio experience.

Whether in restaurants, cabins, conference rooms, bars, the TV room, or guiding systems for small ferries, your audio is always high quality and crystal clear. Together with IPTV, the speakers will provide a complete high-quality entertainment experience with 4K and Superb Sound.

#### **IPTV ENTERTAIMENT SYSTEM**

Our IPTV System, with its comprehensive functionality in a highly HW-efficient setup, is ideal for marine vessels. Based on leading-edge technology, it is easy to set up and configure and provides customized interactive solutions in addition to traditional TV channels.

IPTV technology enables broadcast television via IP networks, with HD video and multichannel audio. The IP protocol enables two-way connections between head-end and set-top boxes.

With these features, users can enjoy interactive TV and other media features not available to conventional television subscribers.









#### COAX TV

AM & FM Antenna for receiving digital / analog terrestrial TV / radio signals. Systems available from a few TV / radio outlets and up to large systems.

Complete product range and systems with antenna, line amplifiers, outlets and accessories, tap-offs and splitters.







- SPACE-EFFICIENT
- TERRESTRIAL AND SATELLITE SIGNALS
- VIDEO AND TV ON DEMAND (VOD & TVOD)
- 3D AND 4K UHD
- INFORMATION CHANNELS
- INTERACTIVE SERVICES ON TV
- EASY INTEGRATION WITH OTHER SYSTEMS

#### **MASTER CLOCK SYSTEMS**

The Vingtor-Stentofon's Marine Master Clock is an ideal solution for the distribution of both local and UTC time onboard ships. The system is delivered with a wide range of slave clocks, with options for time code, NTP, PoE, impulse or wireless signals. The system has easy cabling and calibration, signal receivers, RS232C/RS485 interface, alarm outputs and automatic summer / winter change-over.



### **WIRELESS**





### COMMUNICATION

Two-way radio has been a successful communication solution for generations, and it proves itself every day in countless deployments around the world.

We are one of the few companies in our markets that can deliver fully integrated communication platforms that include intercom, public address and two-way radio systems.







#### **TWO-WAY RADIO TETRA & DMR**

New digital platforms break through to new levels of performance and productivity and are revolutionizing the two-way radio communication and the options to integrate with other communication solutions. Regardless of the size, platform, area of coverage or technical requirements, we have the communications solution, equipment and radios to cover your needs.

#### DECT

DECT systems enable wireless communication between handsets, but they can also be interfaced with our other communication systems. We can deliver a combination of access points, repeaters and leakage cables to provide coverage wherever it is needed. Using a DECT handset together with a noise-cancelling headset is an ideal way to enable hands-free, full duplex communication in noisy areas such as engine rooms.

#### **PAGING**

The UHF Wireless Paging System has been developed to increase the accessibility and security of the crew which is frequently on the move while at work. The system can be fully integrated with ACM Integrated communication systems to increase the efficiency of crew operation.





By integrating two-way radio with the onboard communication system, we provide flexibility to address passengers and ship crew from anywhere on a vessel, increasing onboard safety.

Based on our extensive in-house radio expertise, Zenitel is accredited as a platinum reseller for Motorola Solutions.



#### **MOTOROLA** SOLUTIONS

#### PLATINUM RESELLER

As a Motorola Solution Platinume Reseller, we utilize Motorola Radio products for many applications and customer segments.

#### **DISTRIBUTED ANTENNA SYSTEMS**

We are specialist in designing optimal solutions in accordance with requirements specified by you, the classification societies and from the vessel's layout. By installing DAS, we provide extended coverage of radio communications to areas of your ship that are not normally covered or very poorly covered, by direct simplex connections between radios. The components in a DAS system can be a combination of leaky antenna cables and various indoor and outdoor antennas.

- Outdoor antennas
- Indoor antennas
- Leaky Feeder Cable



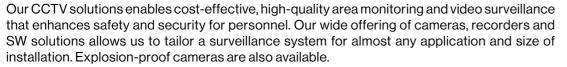
### CCTV-IP&ANALOG







#### Complete CCTV solutions for maritime and energy markets.











Designed to receive and detect foghorn sounds from surrounding vessels. Zenitel has Cisco Certified service personnel and offers extensive LAN/WLAN knowledge

#### **SOUND RECEPTION SYSTEMS**

Zenitel's Sound Reception Systems are an acoustic, electronic navigational aid. The systems enable the officer on watch at a "closed bridge" to hear sound signals from other ships or foghorns that are audible outside the ship – when standing inside a totally enclosed bridge space.

The system is manufactured according to SOLAS Rules and Regulations, tested according to EN60945 and certified by DNV GL, RINA, BV, RMRS, CCS, and CRS.



LAN/WLAN SOLUTIONS

LAN/WLAN solutions cater to the increasing demand for highspeed communication. Coupled with high-availability and security optimization using products and technologies that offer scalability, cutting-edge features, energy efficiency and simplicity.







### SAFE RETURN

### **TO PORT**

Reliable and secure communication – from engine room to command bridge.

- Safe & Secure UHF Communication
- Redundant system to improve reliability and availability
- Distributed Antenna System for coverage of all locations on the vessel
- Complies with IMO / SOLAS SRtP requirements

#### Maximize efficiency in critical operations

The Zenitel Safe Return to Port (SRtP) solution maximizes your operational efficiency on the vessel during critical situations by ensuring safe and secure wireless communication, no matter where coordination is required. In an emergency, the solution enables the ship's Safety Crew, Fire Fighters and Incident Commanders to communicate anywhere on the ship, fulfilling the SOLAS regulations on SRtP.



#### Clear onboard communication

Zenitel's solution utilizes digital radio technology, which provides clear communication even in noisy areas. This will prevent your vital communication from being lost, which is crucial especially in stressed and critical situations.

The use of digital radio technology increases your efficiency of the onboard radio communication system, as the capacity in these systems is double compared to analog systems, and the integration with other onboard communication systems such as Zenitel's PAGA or Intercom solutions is easier and cost saving at the same time.

DOES YOUR VESSEL COMPLY WITH THE REQUIREMENTS FOR SRtP REGULATIONS?

### **VS OPERATOR**

### **SYSTEM**

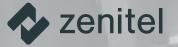
Integrating all communication channels in a single interface.

Vingtor-Stentofon Operator is a Windows-based system management solution for AlphaCom Audio Servers. Through the AlphaCom, it integrates all communication channels in a single interface, which includes interactive map functionality that shows the location and status of all connected communication devices.

Operator is both flexible and easy to set up. A library of templates and icons enable you to be up and running within minutes of installation, while its configuration capabilities allow you to customize the system to your individual preferences and requirements.

#### **INTERACTIVE MAP**

The use of map views allows users to see all the device icons defined in the selected area clearly. Calls can quickly be made to a specific location without spending time to find the right extension number. Device icons are shown depending on their state so that operators have a real-time view of the status of all devices. When a call is established, the relevant map is shown automatically.



### Full contgrol over the vessel's onboard communication system

- Brings all your communication systems together under one management solution
- Flexible and easy to setup
- Provides a clear overview for operators with multiple layout possibilities according to the operator's preference
- Software also suited for touchscreen operation



### REPLACEMENT

### **EXCHANGES**

### FOR RETROFIT

A large number of vessels worldwide are sailing with old Vingtor-Stentofon systems. Our Flowire technology provides economical and efficient retrofit solutions, while vessels are still sailing.

We retrofit all brands of PABX and PA/GA systems. All original and existing cabling, and correctly working loudspeakers with 100 volt line for PAGA systems, can be kept and re-used.

#### **REFERENCE:**

- MS Crown Seaways PA/GA 2014 / PABX 2022
- MS Pearl Seaways PA/GA 2016 / PABX 2023
- Both vessels are modern cruise ferries handling the Copenhagen-Oslo route.



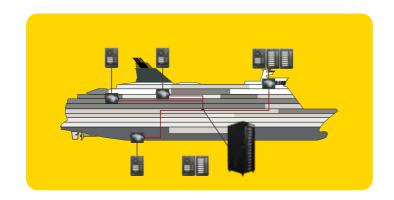




#### Flowire IP over two-wire

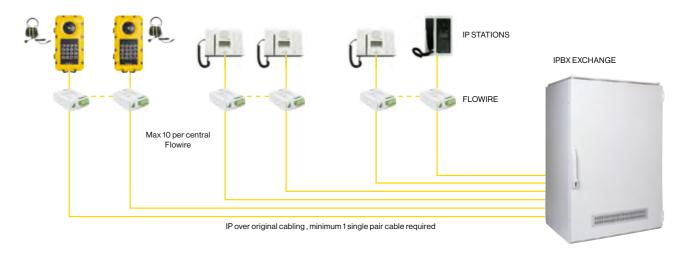
The Flowire Converter. Flowire is our own technology, which allows you to use any type of two-wire cable to provide IP and power to our devices.

Efficient retrofit solutions, while vessels are still sailing. Reuse of all existing cabling and working loudspeakers.

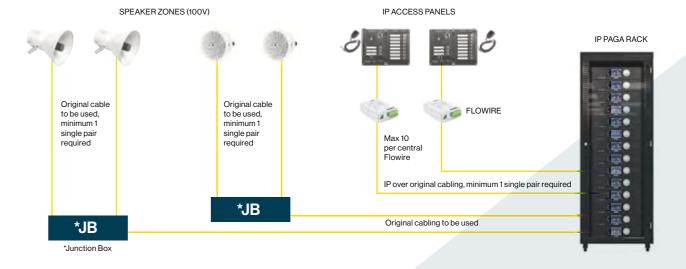


### FLOWIRE TECHNOLOGY WILL PROVIDES ECONOMICAL AND EFFICIENT RETROFIT SOLUTIONS WHILE VESSELS ARE STILL SAILING.





#### ALL ORIGINAL AND EXISTING CABLING ONBOARD CAN BE KEPT AND RE-USED.



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### MEET ALL

### YOUR MARITIME

### COMMUNICATION

### **NEEDS**

From Maritime PABX and PA / GA systems to Infotainment / IPTV Systems and Analog or VoIP Telephony Systems, Master Clock Systems, CCTV and much more, Zenitel products and solutions can meet your maritime communication needs.

Our systems conform with the rules of all major classification societies, tested according to IEC 60495, IEC 60533 and IACS among other standards and comply with SOLAS regulations and codes.



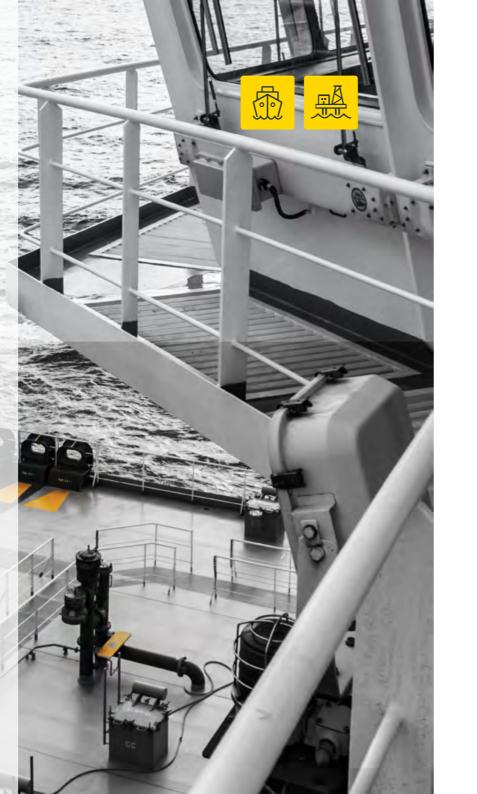








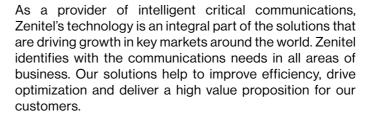




### **FUTURE-PROOF**



### SCALABLE



Zenitel's core business practice of innovation and quality ensures our solutions meet the most stringent requirements of IT departments by delivering the high availability scalability, maintainability, reliability and cyber defensibility required for mission-critical applications in both onshore and offshore environments. By reducing hardware to a minimum, while maintaining the benefits of centralized server management, our customers gain more flexibility in scale and performance.

#### Our vision:



«The world leading provider of intelligent critical communication solutions.»

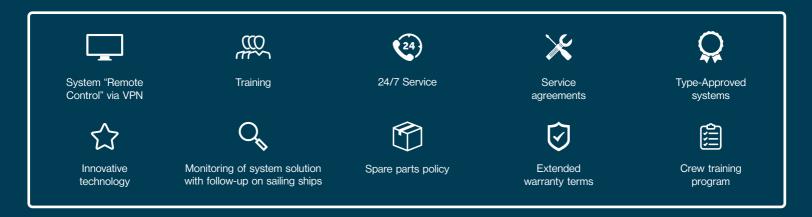




#### WORLDWIDE DISTRIBUTION NETWORK

Our extensive worldwide distribution network includes our head office in Horten, Norway, and sales and service offices in 12 different countries. We have more than 90 highly qualified engineers around the world, ready to serve your needs.

#### **AFTER SALES SUPPORT AND BENEFITS**



#### **WHY ZENITEL?**

You need systems that work. Every time. We provide reliable and resilient integrated communication solutions. We understand that the safety and efficiency of your most valuable resource – your employees – is key to your success.

We're specialists in the maritime and energy segments: we know the ocean industry, and we speak your language. Our innovative solutions for critical and intelligent communication deliver reliable performance in all conditions. We also understand your need to safeguard your assets, whether it is an ocean going vessel or energy plant. That's why we offer integrated communication solutions that enable seamless information sharing, so you can make better decisions more quickly.

Our systems and solutions provide high availability, reliability, reliability, maintainability and cyber defensibility. Our flexible and innovative solutions for intelligent communication, data, safety and entertainment systems deliver reliable performance in all conditions.

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