



THE

AUTONOMOUS

FUTURE

How Zenitel IP-based critical internal communication systems is key for the growing autonomous vessel market.

With **70 years** of dedication in the maritime market – we are set for the future.

www.zenitel.com

TODAYS MARKET:

 **1,000**

surface maritime autonomous ships operated by more than 53 companies worldwide, and growing.



Interest in autonomous technology is increasing rapidly, with more than 1000 autonomous vessels already in operation. Enabled by recent developments in sensor technology, maritime IoT, and connectivity applications the first fully commercial projects have started to launch.

Zenitel is a key partner when looking for critical internal communication systems based on IP technology that needs connectivity for operational and security applications.

From access control on the vessel to information sharing with land-based control centers – Zenitel offers state of the art IP technology for Intercom systems, PAGA systems, CCTV systems, and wireless interfaces such as two-way radio or DECT.

Why is an onboard internal communication system important for autonomous vessels?



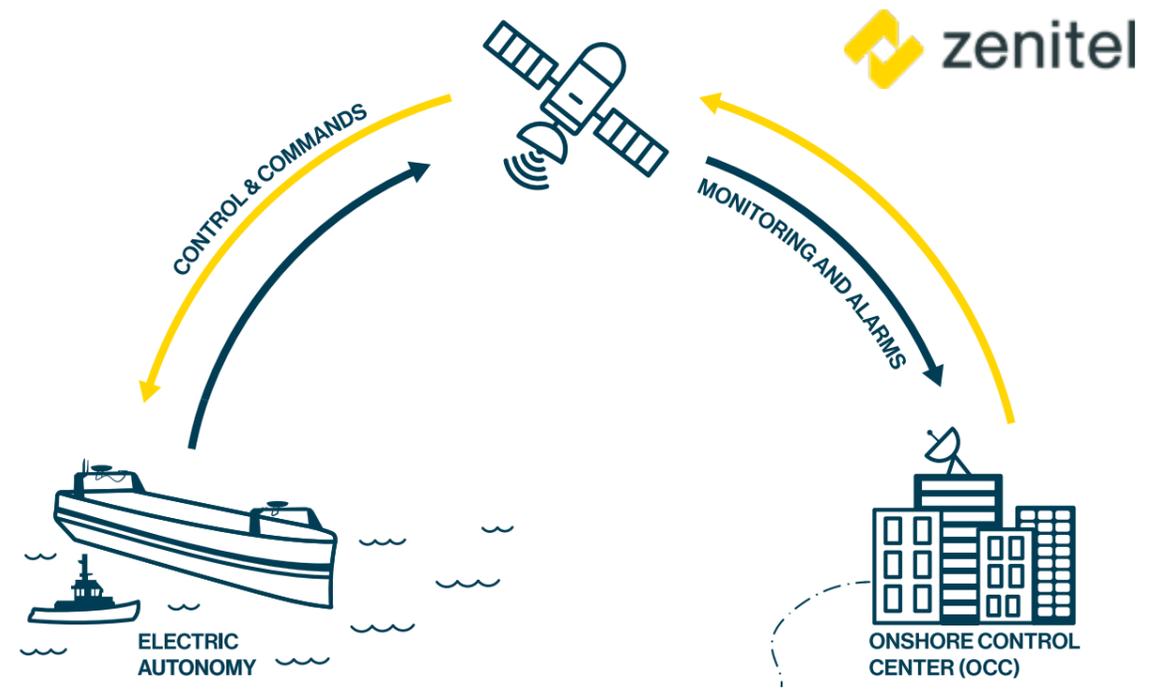
Hijacking. Terrorism. Emergencies – Zenitel onboard internal communication system enhances onboard security for autonomous vessels: communication links, cargo control, perimeter control, early warnings, crew safety and navigation aids.

Autonomous ships must comply with national and international rules such as the International Convention for the Safety of Life at Sea (SOLAS). Part of the SOLAS regulation requires the need for onboard General Alarm Systems and onboard communication systems for emergency events.

Zenitel Exigo IP-based PAGA-system and its components make the integration and interface easier and more user-friendly. This includes interface with IP-based CCTV system, UHF-radio system, Zenitel's ICX AlphaCom communication system and solutions for establishing a LAN, in combination with 4/5G or VSAT systems. In case of emergency or operational risk, the communication link is kept live to inform the onboard service crew, reducing the risk for crew and cargo while maintenance still can be performed.

WHY ZENITEL?

- Zenitel is a total solution provider.
- Zenitel has 70+ years of experience in the maritime industry.
- Zenitel has close cooperation with skilled partners.
- Leading provider of Critical and Intelligent onboard communication.



FACING NEW REQUIREMENTS AND WORLD STANDARDS, ASKO SEA DRONES, AND THE YARA BIRKELAND HAVE CHOSEN ZENITEL SOLUTIONS:

IP PAGA

EXIGO IP Public Address System is a flexible, scalable and programmable networked audio system. It is created to meet the requirements of a Public Address and General Alarm system (PA/GA) in the maritime industry, as well as offshore and onshore structures.

IP Intercom

ICX AlphaCom is an integrated audio communication system that employs packet audio technology over the IP network to achieve fast, accurate communications with optimal security. The system enables reliable transmission for a full range of emergency communications, including clear, easily understandable announcements.

IP CCTV

Cost-effective, high-quality area monitoring and video surveillance system that enhances the safety and security of the crew and cargo. The installation of this solution by Zenitel will greatly lower the requirements for the network bandwidth, significantly improve the video quality, and efficiently enhance the system's reliability.

UHF Repeater System

Zenitel's redundant UHF solution maximizes your efficiency in autonomous vessel operations during critical situations by ensuring safe and secure wireless communication, no matter where coordination is required. Our solution utilizes digital radio technology, providing clear communication even in noisy areas. The use of digital radio technology increases your efficiency of the onboard radio communication system.

Get personalized internal communication solutions for your project with a reliable partner!
www.zenitel.com



System "Remote Control" via VPN



Training



Global Service



Service agreements



Type-Approved systems



Innovative technology



Monitoring of system solution with follow-up on sailing ships



Spare parts policy



Extended warranty terms



Crew training program

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