



WITRA™

MARINE

More than \$500 million per year is estimated to be lost through human error. From crew safety to on-board asset tracking and predictive maintenance use cases for IoT within the marine environment continue to develop. Improved connectivity between ship to shore and the use of narrowband technologies has driven an insatiable appetite for applications and data that drive efficiencies and operational effectiveness through process automation. Answering the question 'Where is my stuff and what is it doing?' remains a prerequisite in driving productivity, profitability and cost efficiencies. Wittra offers the perfect solution.

TARGET APPLICATIONS

- Crew Safety
- Security
- Regulatory Compliance
- Equipment Monitoring and Machinery
- Preventative Maintenance
- Cargo Monitoring (Supply Chain Management)
- Automation

TOP MARINE CHALLENGES

- Complex environment
- Cost of implementation
- Infrastructure
- Ease of Deployment
- Total Asset Visibility
- Security



WITRA IOT OUT OF THE BOX

Wittra IOT out of the box is a wireless sensor network kit with a cloud-based API that can be deployed on a site to monitor objects and assets. The ruggedized kit, enables users to Connect, Sense and Locate their assets in the toughest environments such as heavy industrial sites and areas of weak connectivity. The use of sub-GHz frequency bands provides long transmission range and enables the signal to penetrate dense building infrastructure. With pre-certified hardware, the kit is secure, easy to deploy and ready for field deployment.

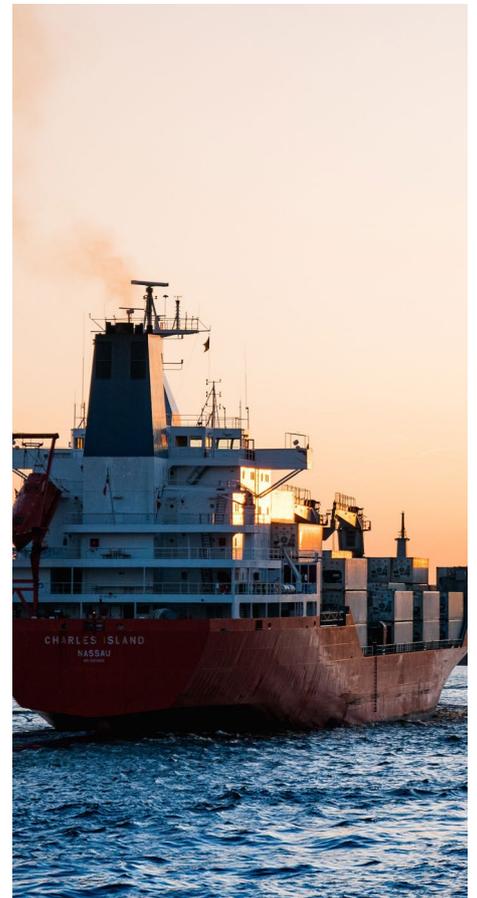
THE WITTRA SOLUTION TO YOUR CHALLENGES?

Wittra offers the only solution to allow users to Connect, Sense and Locate their assets in the toughest environments or areas of weak connectivity in a single technology deployment. We accelerate and simplify IoT delivering predictable pricing and a predefined ROI.

MARINE SOLUTION OVERVIEW

Building an IoT solution with Wittra is child's play, simplifying complexity is a key element of the Wittra DNA. Wittra's pre-integrated, pre-tested and pre-secure Network Kit allow users to collect, communicate with and control their assets on day one. Our web portal simplifies device commissioning, and the network monitoring tools ensure ease of deployment; and together through our cooperation with several world leading platforms providers Wittra offer the simplest way to build end solutions, months becomes days.

- ✓ Wittra's wireless devices run in an IP-based 6LowPAN mesh radio network. Using sub-GHz radio bands Wittra provides long range and good penetration of structures.
- ✓ Monitor crew safety and whereabouts.
- ✓ Cargo monitoring through multiple sensors
- ✓ True mesh eliminates radio black spots, giving total asset visibility in all environments.
- ✓ Less hardware and lower implementation costs.
- ✓ Predictability on pricing.
- ✓ Signal strength indicator drives ease of deployment.
- ✓ Highly secure using TPM authentication chips in all devices.



KEY BENEFITS

Wittra will help you reduce development and operational costs.

- ✓ Quick and easy application development cycle, weeks become days
- ✓ Future proof. Extend with click-on sensors
- ✓ Build comprehensive, cost-efficient, and competitive solutions
- ✓ Based on open standards for quick and easy interoperability
- ✓ Easy to install, integrate, support, and maintain
- ✓ True mesh eliminates radio black spots, giving total asset visibility in all environments
- ✓ Highly secure using TPM authentication chips in all devices

✓ Pre certified

✓ Ruggedized IP67

✓ Cloud API

✓ Plug and Play



ABOUT WITTRA

Wittra Sweden AB develops innovative technologies and solutions within Internet of Things (IoT). Since its start in 2012, Wittra has been able to secure a substantial portfolio of intellectual property and rights linked to its innovations. The unique pre-integrated, pre-tested and pre-secure solutions allow users to collect, communicate and control their assets even in the toughest of environments.