

Protecting Ships at Sea from Cyberattack Using Fend's Data Diodes

Transportation infrastructure from trains to cargo ships and the materials they carry need to keep moving to meet the supply chain demands of the world's economies. From ports to parts suppliers, customers can rely on Fend's data diode technology for real-time data and security that protects against the threat of supply chain disruption and keeps assets reliably running to get goods to their destination.

Maritime Cybersecurity For Supply Chain Resilience

An international marine integration and service company needed to know what was happening in the engine rooms of client's ships but could not take the risk of operational disruption from cyberattacks. Each day one of its vessels was docked was potentially a day of lost revenue and diminished reputation. The company trusts Fend's one-way communication diodes to send real-time AMCS signals from their engine rooms, BCS, EMS and on-board security systems at sea to their shore-based operations centers so service can be planned in advance before ships enter a port.

Since two-way ship-board satcoms are vulnerable, data diodes can segment and secure operational data systems from other personal crew communications use. The client was able to safely integrate real-time operational data into its centralized control center while reducing OT network threat vectors by sharing data with maintenance teams on shore, saving time and money. Teams with the right parts and supplies are now positioned when vessels return to port reducing downtime and uncertainty about getting them safely back to sea sooner.

Example: Safely Monitor Vessel Operational Equipment from Anywhere at Sea While Safely Blocking Cyber Threats



AMCS, BCS, and EPS Data







Satellite Comms

Real-time Analytics

Next Level Marine Security: from Super Yachts to Container Ships

For many years, one-way communication diodes (also known as data diodes) were too costly for the maritime shipping industry. Now, the same technology that protects nuclear power plants and oil refineries is affordable for marine vessels and other transportation assets,

allowing real-time analytics that protect operational networks and assets to keep precious cargo moving. Customers turn to Fend to safely transfer data automatically from the OT network to the IT network using one-way communication (data) diodes.

Fend's data diodes physically block 100% of all inbound traffic and require no security patches or maintenance, offering the same level of security as a physical air gap with data exfiltration without the vulnerabilities. Risk transference and hardening of maritime operational technology networks is now available, affordable and easy to install. You get the secure ship-to-shore information and operational data you need quickly and cost effectively.

Learn about Fend's Data Diodes - Made in the USA

Learn more about the power of Fend's American-made data diodes and enterprise cloud technology. Get product specifications at <u>www.fend.tech/products</u>.

CISA Recommends One-Way Data Diodes

Data diodes are in use across many sectors. In September 2021, The Cybersecurity & Infrastructure Security Agency recommended the use of one-way communication diodes to protect industrial control systems from cyberattack. Read more at <u>https://www.cisa.gov/controlsystems-goals-and-objectives</u>

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