

## USE CASE

# Data Diode Provides Secure Data Transfer from Ship to Port-side Users

### Industry

U.S. Navy

### Challenge

Transfer operations data from the secure ship network to 3rd party vendors port-side.

### Solution

A single Owl Talon One data diode was deployed to receive data from ship-board systems and transfer to end-users.

### Benefits

Ship remains secure while operations data is transferred in near real-time to the end-users. Removes the need for portable media.

### Company Overview

Large ships and vessels used for national defense require large scale, on-board industrial control systems to manage power generation, propulsion, steering, HVAC and other large systems similar to those used in land-based power plants and other critical infrastructure facilities.

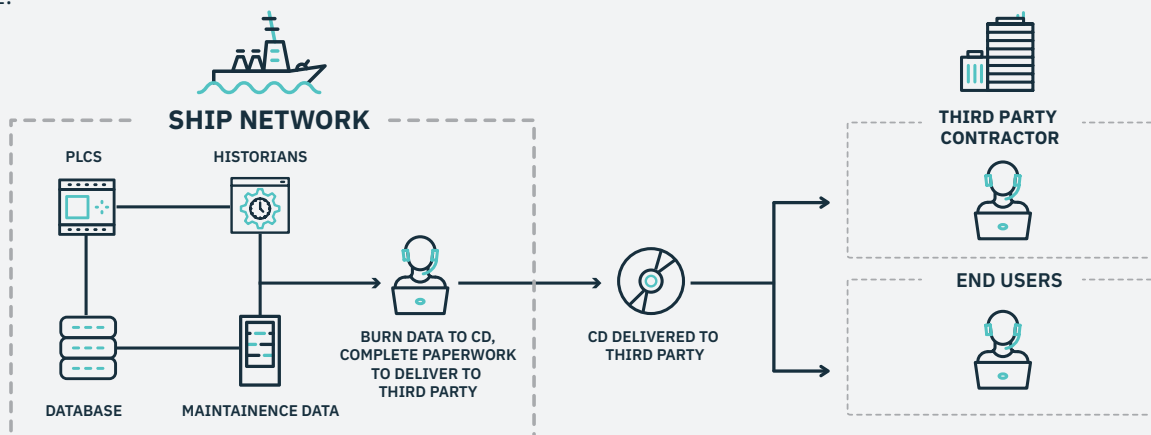
### Cybersecurity Challenge

The challenge is in providing operational data generated by the on-board systems, to 3rd parties (vendors, support and maintenance teams, etc.) that are external to the ship without opening up the ship to cyber threats. Typically when a ship comes into port, all of the industrial control data collected during the mission is offloaded to 3rd parties for analysis. To ensure the security and integrity of the ship's systems, many times this is a manual "sneaker net" process with the data being loaded onto a portable CD and hand carried dock-side; taking up to several days to complete the paper work and authorization process.

### Requirements

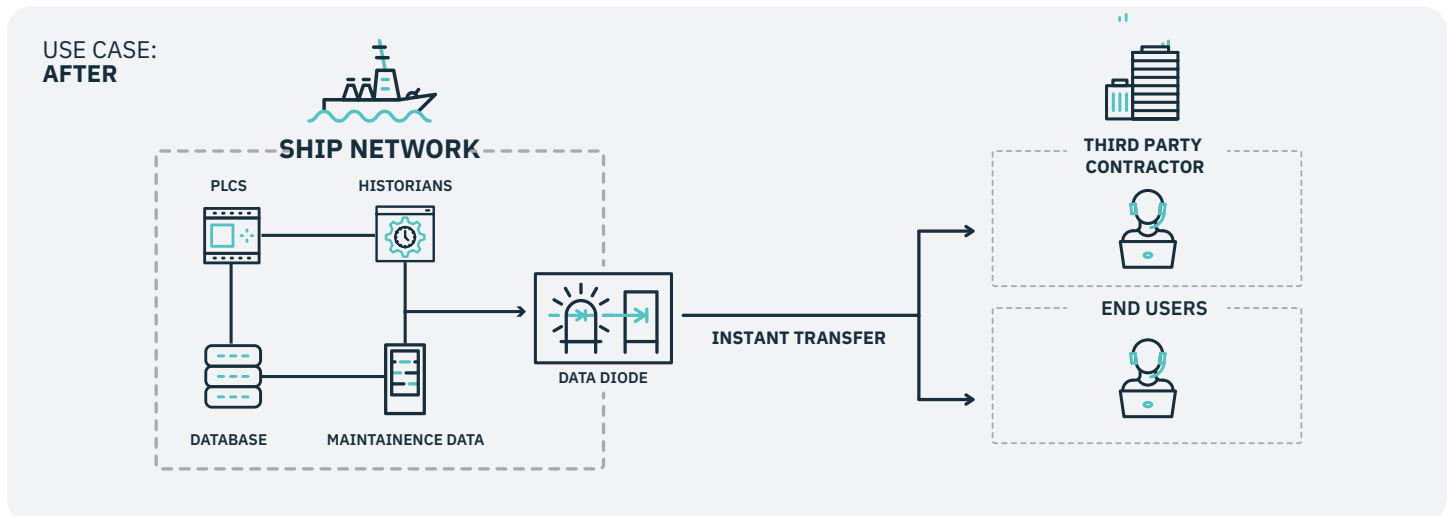
- Prevent any network based attacks against the ship
- Support transfer of multiple data types (files, historians, databases, alarms, syslog, etc.)
- Support fast, high bandwidth transfer of stored data to port side facilities
- Support data originating from a variety of systems
- Support simultaneous protocols and data flows

#### USE CASE: BEFORE



## Solution

The Owl Talon One product line consists of simple to use, easy to configure cybersecurity products capable of simultaneous support of multiple data types, protocols and data flows. The ship network is configured as the “source” and all data needing to be transferred to port-side end-users is sent to the source side of the data diode. The end-users are configured as destinations and as data is transferred across the data diode it is directed to the appropriate end-users.



## Deployment

### Owl Talon One

**Secure, Hardware-enforced, One-way Transfers at up to 1Gbps** Self-contained 1U data diode, purpose-built for network segmentation and deterministic, one-way data transfer.

### Owl Talon One – DIN–Rail

**Same functionality in DIN-Rail form factor** DIN rail compatible data diode, purpose built for network segmentation and deterministic, one-way data transfer. Features all-in-one, compact form factor.

### Additional Use Case: High Speed Data Transfer Needs

In some cases, logs and system data can expand to include larger-size data, such as imagery, video, and/or extensive digital captures. For these applications, where real-time access to data is required over a high-bandwidth one-way secure interface, Owl Talon Torrent solutions can deliver up to 100 Gbps performance while providing hardware-enforced one-way guarantees. Owl Talon Torrent solutions are available in 1U and 2U server appliances and range from 10 to 100 Gbps data rates, with the same Talon user interface for a full range of configurability and protocol translation options.

## Results

- The Owl Talon One data diode replaced the use of the portable CD to transfer data
- Data is transferred at near real-time, eliminating a delay of multiple days to retrieve the data
- The ship network remains secure from outside threats
- The potential for contaminated portable media is eliminated
- Allows the information to be shared for analytics without access to ship network



Owl Cyber Defense Solutions, LLC, headquartered in Columbia, MD, leads the industry in data diode and cross-domain network cybersecurity solutions for faster, safer and smarter decision making. We create solutions tailored for high-risk sectors including the military, government and critical infrastructure. Our advanced technologies enable secure, near-instantaneous collaboration, bridging network barriers to protect critical missions. With a focus on scalability and interoperability, Owl ensures that organizations can maintain secure, reliable, and compliant communication channels against evolving cyber threats.

For more information on Owl, or to schedule a demo, visit [www.owlcyberdefense.com](http://www.owlcyberdefense.com).

