# Enabling Cross Domain Missile Detection & Defense

## Summary

### INDUSTRY

Defense / Intelligence

### CHALLENGES

Collecting sensor and radar data from numerous defense, intelligence, and commercial systems across multiple countries without exposing sensitive networks or data to potential threats

### SOLUTION

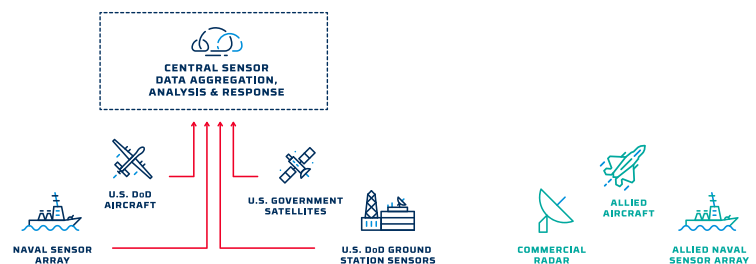XD Bridge & XD Guardian cross domain solutions

### BENEFITS

Real-time transfer, filter, and aggregation of varied, multinational sensor and radar data sources with high assurance network protection and segmentation

## Cybersecurity Challenge

Modern missile defense is an incredibly intricate and highly sophisticated undertaking, which requires the real-time aggregation of sensor and radar data from numerous defense, intelligence, and civilian sources for accurate and early detection and response. As guided missiles and ICBMs can now be launched from nearly anywhere on Earth, these shared data sources are located in multiple countries, across land, sea, air, and space – owned by the United States and also by its allies. The primary cybersecurity challenge is to enable the high-speed transfer of this sensor data between domains - that may cross both national and classified security boundaries - without exposing sensitive networks or data to unauthorized users and potential adversaries.

### REQUIREMENTS

- Enable real-time sensor data transfers from numerous disparate, multinational sources

- Secure connections between commercial and government/defense-based sensors

- Filter network and information to prevent potential unauthorized exposure



*Before Architecture*

## Solution

The Owl XD Bridge cross domain solution (CDS) features hardware-enforced network separation and comprehensive sensor data filtering, including metadata, at the lowest available latency of any comparable solution. The functional equivalent of XD Bridge, XD Guardian is an exportable CDS available to both international government and defense communities as well as commercial and industrial organizations. XD Guardian enables allied countries to transmit local sensor data, including private installations such as airports and ground-based radar, to missile defense operations for coordinated detection and response. The built-in hardware-enforced data diodes eliminate the transfer of network routing information, effectively shielding the source networks from digital probing and reconnaissance.



### XD Bridge

The premier cross domain guard platform for system integrators with application-specific needs, XD Bridge is a U.S. Government accredited, RTB compliant, ultra-high-performance cross domain solution.
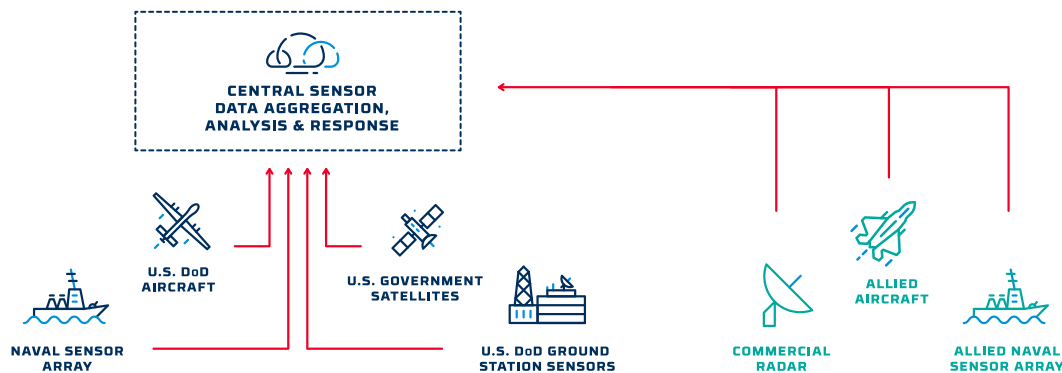


### XD Guardian

The only exportable, U.S. government-accredited and validated cross domain guard platform for non-U.S. government applications, including international defense, intelligence, commercial, and industrial applications.

## Results

- Enabled real-time, ultra-low latency sensor data transfers from numerous disparate, multinational sources
- Inline data filters prevented unauthorized exposure of sensitive and proprietary information, including metadata
- Exportable CDS platform provides a secure data outlet for numerous non-U.S. government data sources
- Built-in hardware separation via data diodes prevents transfer and potential exposure of network routing information



*After Architecture*