USE CASE

Missile Detection & Defense

Secure, real-time sensor data sharing

Summary

Challenge

Global missile defense requires secure, real-time cross-domain sensor data sharing without exposure risks.

Solution

XD Bridge ST™ enables filtered, high-speed transfers with hardwareenforced security and exportability.

Outcome

Secure multinational sensor data fusion enhances threat detection, response speed, and decisionmaking accuracy.

Challenge: Securing Cross-Domain Sensor Data

Modern missile threats, including ICBMs launched from global locations, require real-time sensor data integration across land, sea, air, and space domains. This data often crosses national borders and classified security boundaries, creating cybersecurity risks. The challenge lies in enabling ultra-low latency transfers of sensor data from multinational, multi-domain sources—commercial and government—without exposing sensitive network details, proprietary metadata, or routing information to adversaries.

Requirements:

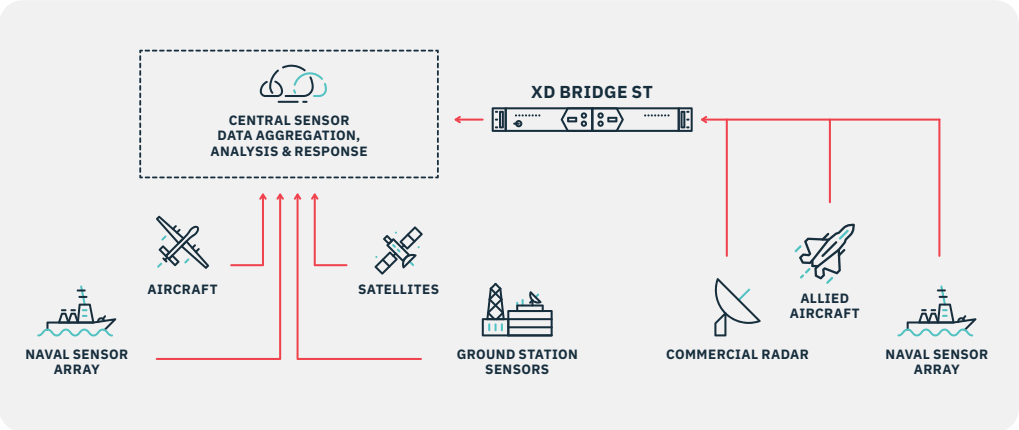
→ Enable real-time sensor data transfers from numerous disparate sources

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

→ Filter network and information to prevent potential unauthorized exposure

Solution: XD Bridge ST™ for Sensor Data Fusion

XD Bridge ST™ enables high-speed sensor data exchange while preventing unauthorized access to sensitive networks and data by providing a hardware-enforced cross domain solution that supports ultra-low latency, real-time data transfers and robust inline filtering, blocking unauthorized exposure of sensitive or proprietary information. Its hardware based separation prevents the disclosure of source network routing, and pre-configured, customizable content filters ensure compliance with rigorous U.S. Government standards for cross domain solutions. The result is a secure, scalable platform that enables trusted, real-time data sharing for multinational defense operations while meeting rigorous U.S. Government security standards.



Results

Deployment of XD Bridge ST™ enabled seamless, secure integration of global sensor networks, enhancing missile threat detection and response times. Real-time data fusion improved decision-making accuracy, while advanced filtering and hardware security mitigated risks of data leakage.

Key Outcomes

- → Real-time, ultra-low latency sensor data sharing across 50+ multinational sources
- → Zero unauthorized data/metadata exposures via inline validation and filtering
- → Exportable CDS platform adopted by 15+ non-U.S. allied defense networks
- → Hardware-enforced separation protects network routing and source identities

XD Bridge ST™: Secure, High-Speed Cross Domain Data Sharing for Mission Assurance

XD Bridge ST provides agencies secure cross domain data sharing, streaming, and collaboration. It features hardware-enforced separation and after successful completion of the U.S. Government's Lab Based Security Assessment (LBSA) process, has achieved certification of the National Cross Domain Strategy and Management Office (NCDSMO)'s Cross Domain Solution standards.

The platform supports high-speed, low-latency data transfer with customizable pipeline filtering for structured and unstructured data. Agencies benefit from best-in-class throughput, comprehensive data inspection, flexible deployment options, and assured compliance.

XD Bridge ST enables secure ISR streaming, unclassified data feeds, coalition/partner exchange, and automated software updates—all with industry-leading resiliency and operational flexibility.

XD Guardian XML is the exportable counterpart to XD Bridge ST, purpose-built and thoroughly validated as across domain solution for commercial or defense organizations worldwide that require high-assurance, military-grade data transfer—providing trusted and compliant data flows.

Scan the QR code or visit **owlcyberdefense.com/product/xd-bridge-st/** to learn more

OWL Cyber Defense™

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.**

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