

One-Way Transfer from CDS Networks to DCO Monitoring Systems

Use Case Summary

INDUSTRY

DoD/Intel

CHALLENGE

Meeting Raise the Bar guidelines for CDS logging and monitoring without installing separate one-way transfer devices for each CDS.

SOLUTION

XD Matrix

BENEFITS

Hardware-enforced one-way transfer of as many as 32 separate CDS data flows through a single network appliance.

Cybersecurity Challenge

The latest version of the Raise the Bar (RTB) initiative introduced by the National Cross Domain Strategy & Management Office (NCDSMO) requires that future Cross Domain Solution (CDS) systems deliver journal and quarantine data to a Defensive Cyber Operations (DCO) aggregation point.

When multiple data sources from different security domains are reporting to the same DCO network, an approved one-way transfer (OWT) mechanism is required to protect the independent sources from potentially malicious content. For large-scale CDS deployments, this can result in a large concentration of OWT devices.

Compliance with these requirements using conventional OWT devices will consume an impractical amount of rack space and power. This approach will also create an administrative nightmare for network operators who need to configure, manage, and monitor an individual OWT appliance for every logging port connection.

USE CASE REQUIREMENTS

- Provide secure, hardware-enforced one-way transfer of CDS journal and quarantine data to Defensive Cyber Operations monitoring systems.
- Reduce the number of necessary one-way transfer appliances by aggregating multiple CDS data streams.
- Minimize latency by supporting 1Gb bandwidth for each input channel (CDS data stream)
- Minimize SWaP-C demands
- Deliver Syslog messages for each input channel to provide visibility into system status.

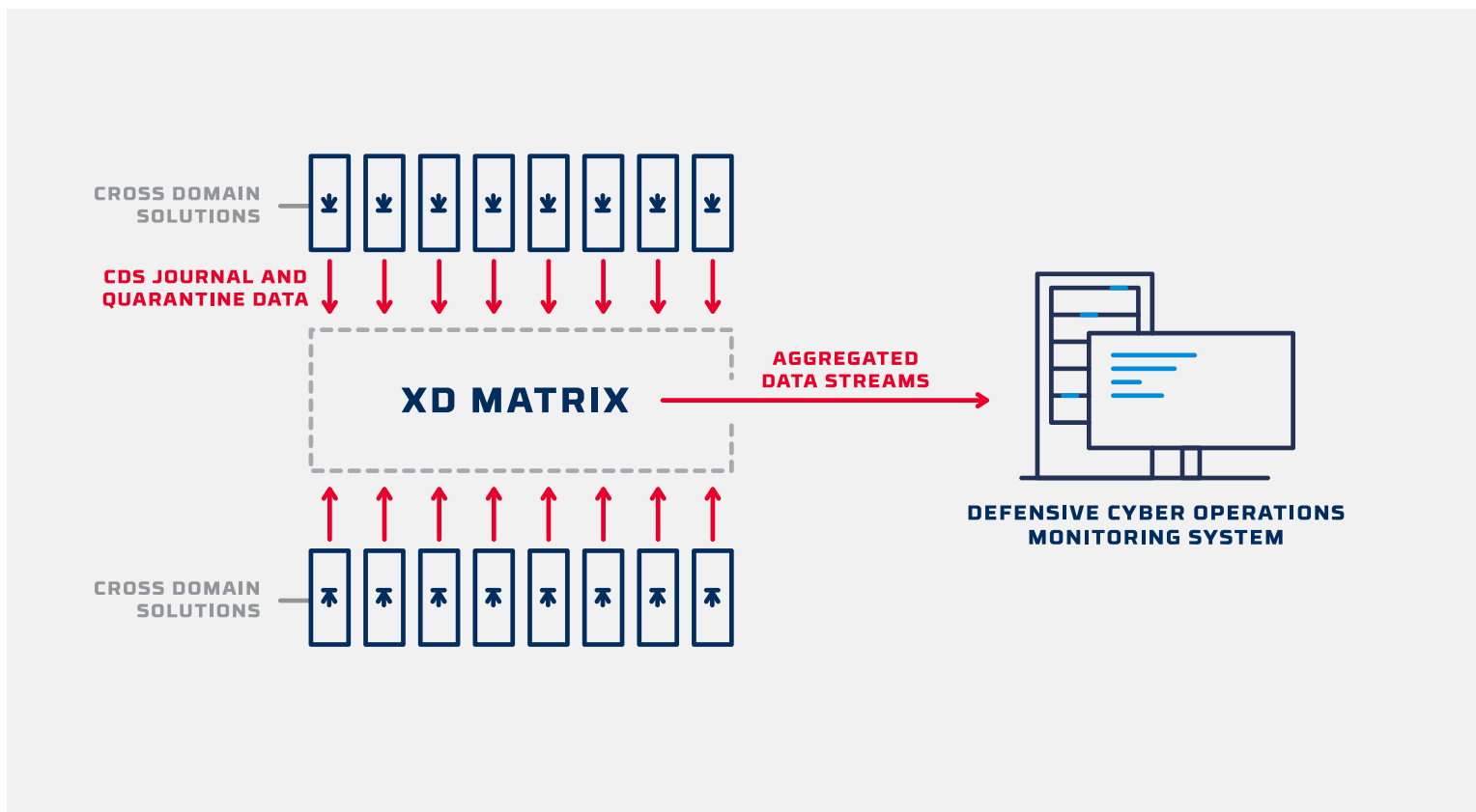
Solution

XD MATRIX

XD Matrix from Owl Cyber Defense is a one-way data transfer appliance that securely aggregates data flows and delivers them to monitoring enclaves for real-time network monitoring.

XD Matrix is a scalable solution that can aggregate between 8 – 32 1Gbe input data flows and deliver between 2- 8 10Gbe output data flows to the intended destination(s). XD Matrix enforces one-way data flow through FPGA logic and other hardware-based flow enforcement mechanisms. XD Matrix also performs FPGA-based packet level data filtering. XD Matrix’s combination of hardware-based flow enforcement and packet filtering uniquely satisfies MITRE’s D3FEND Network Isolation tactic through Broadcast Domain Isolation and Outbound Filtering techniques.

XD Matrix is a superior solution for government and critical infrastructure organizations wanting to leverage next-generation, hardware-based packet filtering and flow enforcement executed by an appliance with a proven secure platform management capability deployed in dozens of highly sensitive U.S. Government and critical infrastructure networks.



Owl Cyber Defense cross domain, data diode, and portable media solutions provide hardened network security checkpoints for hardened threat prevention and secure data availability. For over 20 years, Owl’s unmatched expertise, products, and services have been trusted by clients in government, defense, critical infrastructure, and commercial organizations around the world.

For more information on Owl, or to schedule a demo, visit www.owlcyberdefense.com