

# Cross Domain Solutions

For Military and Intelligence Operations

## The Trusted Leader

- Broadest Range of Capabilities
- Highest Performance
- Hardware-enforced Security
- Continuously Innovating New Solutions
- State of Industry Content Filtering



# Assured Transfer for Mission Critical Data

Owl cross domain solutions (CDSs) enable the secure transfer of authorized, filtered and verified data between security domains.

Owl’s CDSs have been trusted by the military and intelligence communities for more than 20 years, protecting critical information in low-to-high and high-to-low use cases.

No other provider of CDSs addresses as many use cases and data types. Owl is also the leader in hardware-enforced CDS technology, enabling secure connectivity with high-threat networks. Owl integrated hardware and software solutions incorporate the industry’s most advanced technology:

- Trusted operating systems
- Sophisticated content filtering, inspection, and sanitization
- Secure hardware-enforced domain separation

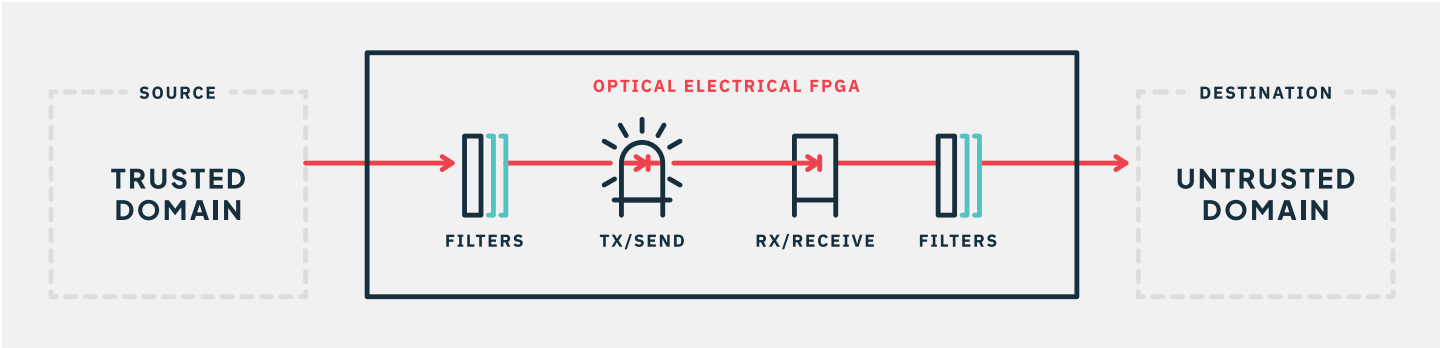
## Flexible, High Performance Filtering and Sanitization

The industry’s most comprehensive CDS product family, Owl Cyber Defense Cross Domain Solutions include high-performance, RTB-ready solutions to support a wide range of operational dataflows.

- Streaming of structured data messages (XML schemas)
- Streaming of fixed format data messages (Link16, USMTF, VMF DFDL schemas)
- REST POST transfer of structured and fixed format data files
- UDP/TCP/SIP/RTP transfer of video and audio streams.

## Hardware-Enforced Domain Separation and Data Transfer

Owl cross domain solutions integrate data diodes, a hardware-enforced one-way data transfer technology that provides physical separation of network infrastructures. They are critical technology for eliminating infiltration or exfiltration attack vectors at the network level between network infrastructures, and as such are often utilized with CDSs as an enforcement mechanism. Depending on the specific needs of the agency, Owl’s offers solutions that provide data transfers for one-way, two-way, or bi-directional configurations.



# XD Bridge ST

## Fixed Format and Streaming Data

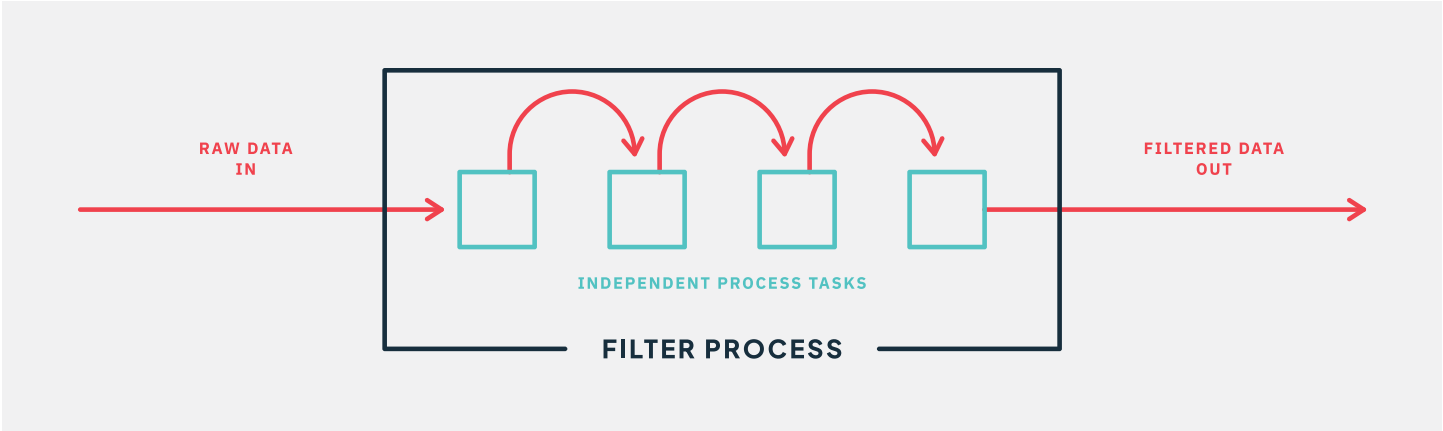
XD Bridge ST is a flexible, high performance Cross Domain Solution providing assured transfer for streaming and posting fixed format and structured data flows.

XD Bridge ST provides structured and fixed format data inspection and sanitization through a comprehensive linear pipeline filtering process using validated data schemas to ensure data is “clean” prior to transfer. Owl’s linear assured pipelines enable a wide range of high-to-low and low-to-high use cases, with support for XML, USMTF, VMF, and other data formats.

XD Bridge ST is built with 10 Gbps network connections and is due to be through NCDSMO LBSA testing in 2024.

## Accreditations and Certifications

- NCDSMO Baseline Certification (due 2024)
- NSA and Common Criteria hardware-enforced diode certification
- CLIP enforced STIG compliant configuration



## Available Form Factors

**Datacenter – 2 x 2U**  
Up to 10 Gbps bandwidth

**Datacenter – 1U**  
Up to 10 Gbps bandwidth

**Datacenter – 2 x 1U**  
Up to 1 Gbps bandwidth

**Datacenter – 1U**  
Up to 1 Gbps bandwidth

# XD Vision\*

## Multi-Domain Voice, VTC, FMV, & XML


XD Vision is a multi-domain, scalable, secure software-based cross domain solution for sharing high-definition video and audio among multiple classified or coalition domains. Designed with a base 3-domain architecture, it can support Voice/Video teleconferencing (VTC), full-motion video (FMV), and XML Structured/Fixed Format data transfer between up to 12 or more domains (depending on throughput requirements). XD Vision can be configured as requirements grow to add additional domains, data types, and/or call and stream volume.

Designed for multi-domain collaboration, XD Vision builds off of Owl’s revolutionary voice and video cross domain technology, enabling flexible data sharing and calling across multiple classified and/or coalition networks in real-time. From FMV feeds to video teleconferencing, XD Vision is the world’s most capable multi-domain voice and video cross domain solution.

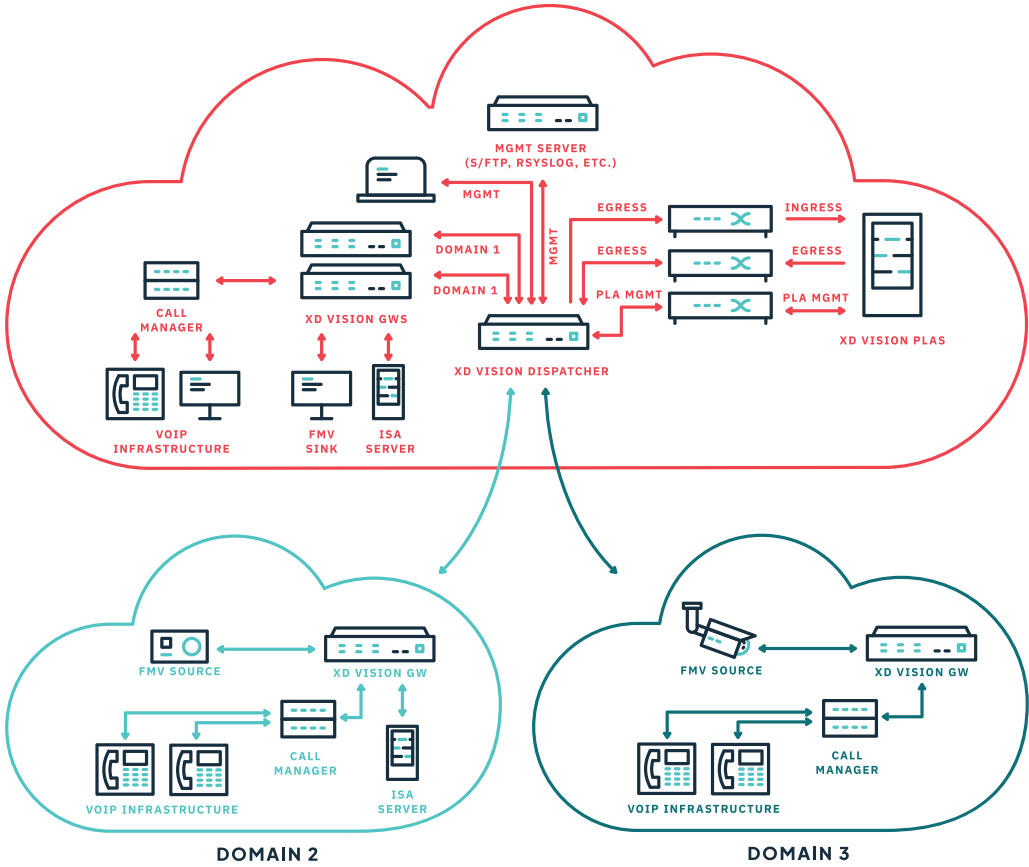
### Accreditations and Certifications

- NCDSMO Baseline Certification (due 2024)
- RTB 3.0 Compliant
- Based on NSA-Approved Assured Pipeline Technology

### Available Form Factors



**Datacenter – 1U**  
Up to 10 Gbps bandwidth



\*Owl XD Vision was previously named V3CDS.  
XD Vision solutions are ITAR controlled and restricted to U.S. and Five Eyes military and intelligence use.

# V2CDS

## Voice and Video Communicationsand

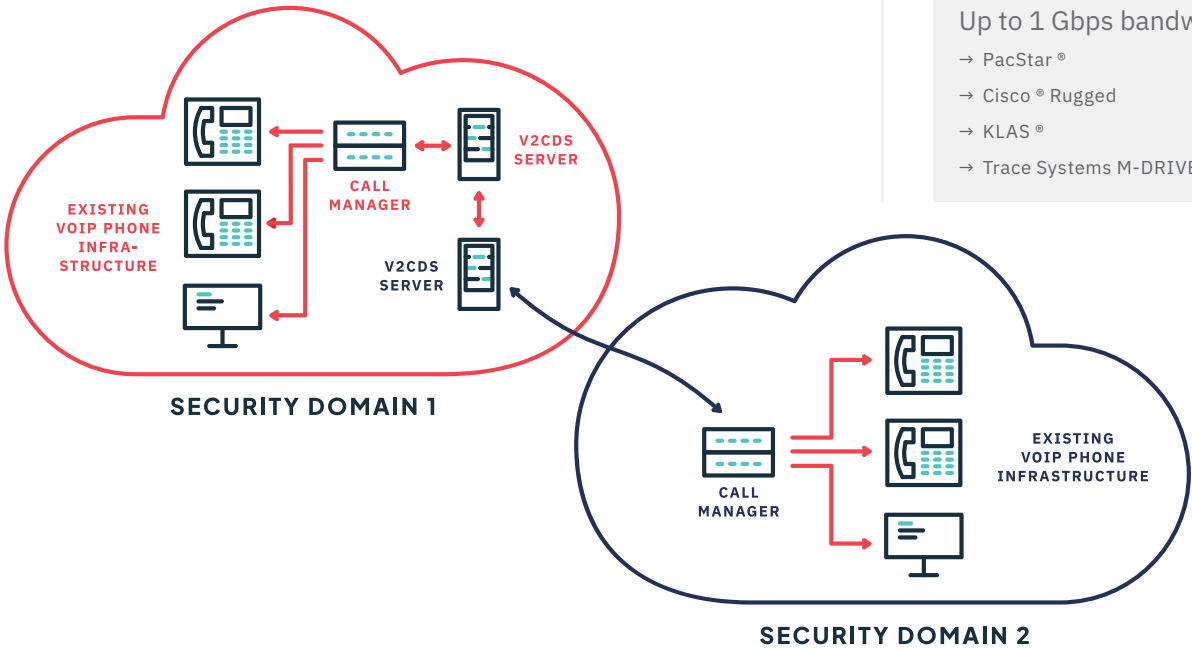
Owl’s Voice and Video Cross Domain Solution (V2CDS) enables secure communication using existing call infrastructure, and is the only VoIP solution approved for deployment in the U.S. Department of Defense and the U.S. intelligence community.

V2CDS provides delivers cross-domain communication securely, efficiently and in a user-friendly and timely manner. The solution enables users to hold two-party direct [one-toone calls] and multi-party digital voice/audio calls between two security domains and enhances VoIP functionality with added video support.

With V2CDS, users initiate, run and securely close point-to-point videophone calls [one-to-one videophone calls] using cross-domain communications. V2CDS also authenticates users, and reduces covert channels to an acceptable risk, while simultaneously maintaining point-to-point video capability.

### Flexible Configuration

V2CDS is a platform-agnostic platform available for integration into other hosting hardware platforms.




XD Vision solutions are ITAR controlled and restricted to U.S. and Five Eyes military and intelligence use. V2CDS solutions are ITAR controlled and restricted to U.S. and Five Eyes military and intelligence use.


### Accreditations and Certifications

- NCDSMO Baseline Certification (Q3CY21)
- Common Criteria and NIAP certified Operating System
- CLIP enforced STIG compliant configuration

### Available Form Factors



**Datacenter – 2 x 2U**  
Up to 10 Gbps bandwidth



**Tactical**  
Up to 1 Gbps bandwidth

- PacStar ®
- Cisco ® Rugged
- KLAS ®
- Trace Systems M-DRIVE ® (planned)

# CDFMV

## Full Motion Video

CDFMV is the next generation cross-domain system that enables secure sharing and filtering of full motion video—including metadata—between network domains. CDFMV leverages Owl’s certified V2CDS technology, which supports full motion video between two security domains.

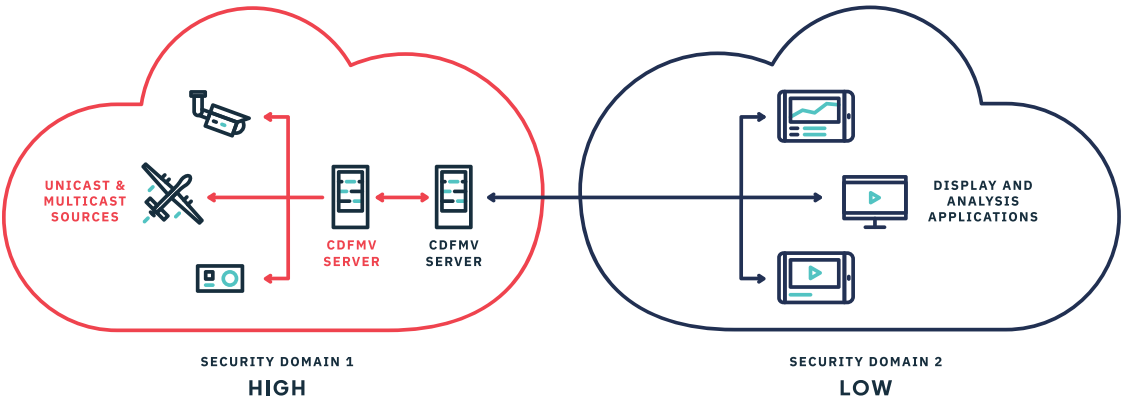
The world’s most advanced full motion video cross domain solution, CDFMV facilitates real time video and audio communication across network security domains and is the only technology available that meets the latest NCDSMO “Raise-The-Bar” certification requirements for video filtering.

CDFMV is designed to securely and efficiently filter and deliver up to 18 full 1080p HD video streams at near-realtime between two secure network domains. CDFMV reduces covert channels to an acceptable risk, while simultaneously maintaining point-to-point video capability.

CDFMV encoder profiles allow for video quality optimization at the destination. Our CDFMV solution using the Integrated Sensor Architecture (ISA) enables the remote domain to send messages that control the camera’s field of view on the local domain.

## Flexible Configuration

CDFMV is a platform-agnostic platform available for integration into other hosting hardware platforms.




CDFMV solutions are ITAR controlled and restricted to U.S. and Five Eyes military and intelligence use.


## Accreditations and Certifications

- NCDSMO Baseline Certification (Q3CY21)
- Common Criteria and NIAP certified Operating System
- CLIP enforced STIG compliant configuration

## Available Form Factors



**Datacenter – 2 x 2U**  
Up to 10 Gbps bandwidth



**Tactical**  
Up to 1 Gbps bandwidth

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# XD Guardian XML

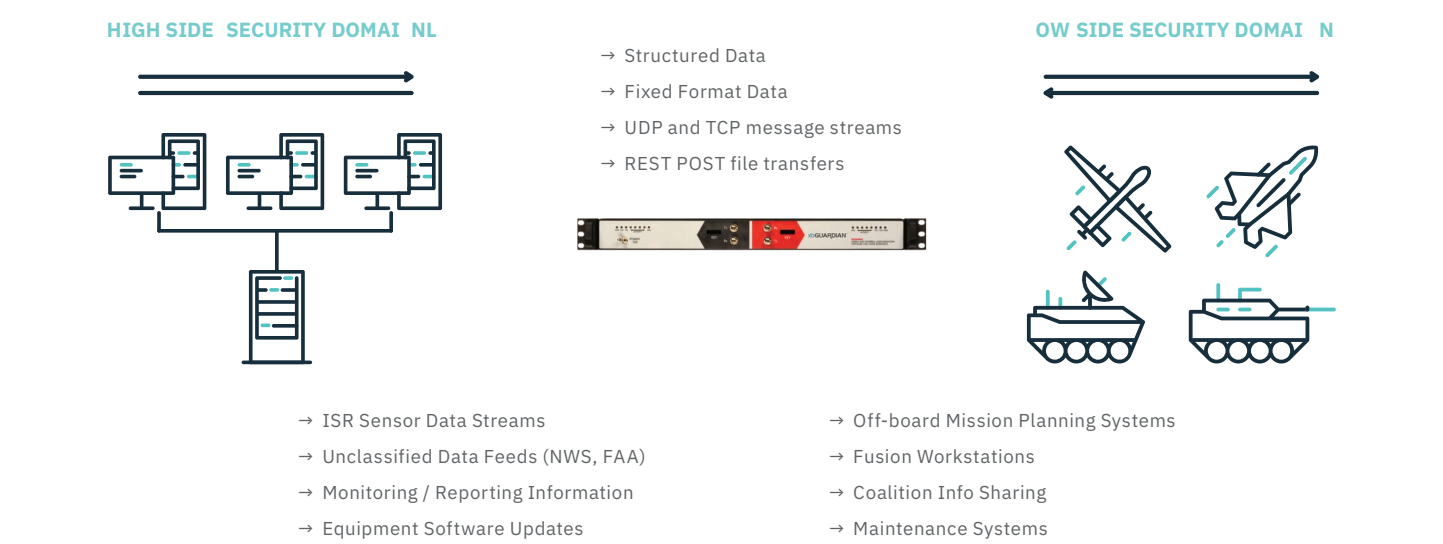
## The Industry’s Highest-Performance Exportable, Accredited CDS

XD Vision is a multi-domain, scalable, secure software-based cross domain solution for sharing high-definition video and audio among multiple classified or coalition domains. Designed with a base 3-domain architecture, it can support Voice/Video teleconferencing (VTC), full-motion video (FMV), and XML Structured/Fixed Format data transfer between up to 12 or more domains (depending on throughput requirements). XD Vision can be configured as requirements grow to add additional domains, data types, and/or call and stream volume.

Designed for multi-domain collaboration, XD Vision builds off of Owl’s revolutionary voice and video cross domain technology, enabling flexible data sharing and calling across multiple classified and/or coalition networks in real-time. From FMV feeds to video teleconferencing, XD Vision is the world’s most capable multi-domain voice and video cross domain solution.

## Convenient Configuration

With its standard 1U rack-mountable configuration and minimal administration requirements, XD Guardian XML can be easily deployed in enterprise applications or remote or isolated environments.



XD Guardian XML Cross Domain Solutions are certified for Foreign Military Sales (FMS) and available for use in commercial environments. They have achieved ATO (Authorization to Operate) status for active deployments in joint and coalition missions.

# Comparison Chart

	V2CDS	CDFMV	XD Vision	XD Bridge ST	XD Guarduan XML
<b>Dataflows Supported</b>	Video and Voice Transfer and Filtering	Full-Motion Video Transfer and Filtering	Multi-Domain unidirectional & bidirectional Voice, Video, FMV, XML	Structured Data/Fixed Format Transfer and Filtering, DFDL, XML	Structured Data/Fixed Format Transfer and Filtering, DFDL, XML
<b>Protocols Supported</b>	UDP: MPEG-2, MPEG-4, H.263, H.263(v2), H.264, SIP, RTP	UDP: MPEG-2, MPEG-4, H.263, H.263(v2), H.264, ISA	UDP: MPEG-2, MPEG-4, H.263, H.263(v2), H.264, SIP, RTP	UDP Unicast, Multicast, TCP Streaming, HTTP REST POST	UDP Unicast, Multicast, TCP Streaming, HTTP REST POST
<b>Bandwidth Supported</b>	Up to 10 Gbps	Up to 10 Gbps	Up to 10 Gbps	Up to 10 Gbps	Up to 1 Gbps
<b>ITAR Supported</b>	Yes	Yes	Yes	Yes	No
<b>Exportable</b>	No	No	No	No	Yes
<b>Certification/Accreditation</b>	Assessed/Certified Accredited/Authorized SABI/TSABI	Assessed/Certified Accredited/Authorized SABI/TSABI	Assessed/Certified Accredited/Authorized SABI/TSABI	Assessment/Certification In-Process	Assessed/Certificatied



Owl Cyber Defense Solutions, LLC leads the world in data diode and cross-domain network cybersecurity. With a constant focus on customers in the military, government, critical infrastructure, and commercial communities, Owl develops market-first, one-way data transfer products to meet a variety of operational needs, from entry level to enterprise. Owl cybersecurity specialists are intimately familiar with a wide variety of industry pain points, technologies, and best practices, and have helped hundreds of organizations around the world secure their networks with Owl's patented hardware-enforced, un-hackable data diode solution

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

