

Owl Talon®

Data Diode Platform

Secure, Flexible, Extensible One-Way Transfers

Key Features

- Multiple, simultaneous data types & protocols on a single device
- Modern, web-based interface for faster, easier configuration
- Long operational life, set-and-forget reliability
- Available in compact 1U hardware and DIN Rail form factors
- Developed using the Microsoft Secure Development Lifecycle
- High Availability configuration availability for can't fail environments.
- Extensible framework enables secure feature customization at speed
- Meets rigorous U.S. Government PFD and Common Criteria, NERC-CIP, IEC 62443 data diode requirements

The Data Diode, Reinvented...Again

Backed by more than 25 years of one-way networking expertise, Owl Talon® is a high-assurance data diode platform engineered to deliver the security, operational agility, and scalability critical operations demand. Its intuitive interface and flexibility to support diverse environments and data types enable fast, simplified deployment, while its multiple layers of security ensure strict, uncompromising one-way data transfer across critical network boundaries.

The release of **Owl Talon v3.5** brings with it a pivotal shift in one-way security through a more extensible platform. With Owl Talon's new Extensibility Framework, organizations can now realize new, custom features at the speed of business, without waiting for traditional release cycles, and without sacrificing the end-to-end security Owl Talon is known for. Organizations aren't locked into a fixed feature set. Instead, they gain a platform that grows and adapts alongside evolving operational, compliance, and mission requirements.

Defense-in-Depth for Critical Networks

Engineered to meet rigorous U.S. Government standards for Protocol Filtering Diodes (PFD), Owl Talon combines multiple layers of protection into a single, cohesive defense to keep critical organizations ahead of evolving high-assurance security requirements. FPGA-based inspection powers protocol filtering, ensuring only expected and compliant traffic crosses the diode. This is reinforced by hardware-rooted trust through TPM binding - which prevents tampering and spoofing - and by enhanced, STIG-compliant SELinux policies that enforce granular access controls to minimize the attack surface. Additional safeguards, including BIOS security, file integrity monitoring, and disk encryption, augment continuous system integrity and compliance with the most stringent security requirements.

Multiple Use Cases on One Device

Owl Talon supports multiple, simultaneous data flows on a single platform, reducing hardware footprint and operational overhead. Its extensible architecture accommodates a wide range of IT and OT protocols and interfaces, enabling diverse one-way transfer use cases without requiring multiple solutions. This flexibility allows organizations to consolidate deployments while maintaining secure, deterministic data flows.

Owl Talon supports a broad range of protocols out-of-the-box, including TCP, UDP (unicast, multicast, broadcast), NTP, Syslog, SMTP, SNMP Traps, SFTP/RFTS file transfer, OPC (DA/A&E, UA), Remote Screen View, AVEVA PI Transfer (OPTS), Remote Desktop, HTTP/HTTPS and MQTT with additional protocol support enabled through the Extensibility Framework.

Available Configurations

1x1U (OnLogic MK100)
DIN-Rail (OnLogic HX600)
Round-trip/Dual-path (via 2x OnLogic MK100)
1x1U (SuperMicro TwinPro)
2x1U (Dell R6615)

Throughput

Up to 100 Gbps

Certifications

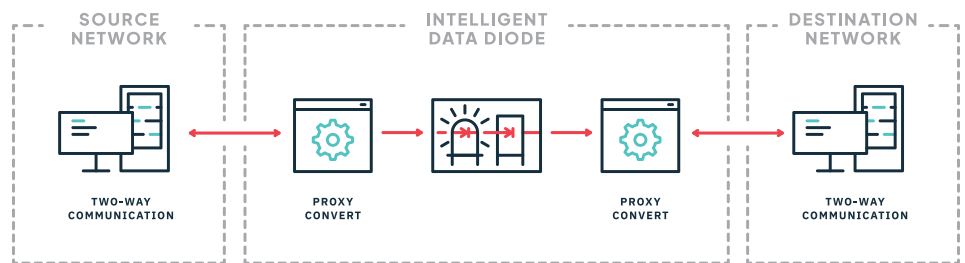
FCC Class B Compliance
CE mark
CB certificate
IEC/EN 62368-1
CAN/CSA-C22.2 62368-1:2024
VCCI-B
TUV
XDE Radium (in Owl Talon One Data Diode Card) U.S. Government evaluated and listed as Protocol Filtering Diode (PFD)
XDE Radium (in Owl Talon One Data Diode Card) has achieved Common Criteria EAL4+ certification
Owl Talon Torrent card pair U.S. Government evaluated and listed as Protocol Filtering Diode (PFD)

Simplified Hardware, Streamlined Experience

A modern, web-based interface enables rapid configuration of data flows from source to destination in minutes. Owl Talon runs on flexible, COTS-based hardware platforms, supporting both new deployments and upgrades from legacy Owl solutions, helping organizations accelerate adoption while minimizing disruption to existing infrastructure.

One-Way in a Two-Way World

Many enterprise and industrial protocols are inherently bidirectional, requiring acknowledgments and session management. Owl Talon enables these protocols to function seamlessly across a one-way boundary using proxy-based communication on each side of the diode. These proxies maintain expected protocol behavior locally while securely transferring data in a single direction across the diode. The result is uninterrupted operations and full protocol compatibility—without compromising the fundamental security of one-way data transfer.



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.

