Owl Talon® One

Bidirectional Data Diode

Secure Two-Way Communication Powered by Uncompromising One-Way Diodes

Key Features

→ Transfer multiple, simultaneous data types & protocols on a single device

→ Easy-to-use, web-based user interface

→ Long-lasting, set-and-forget reliability

→ Up to 1 Gbps max throughput

→ Advanced security features including SELinux enforcement, STIG-compliant OS, BIOS password, and disk encryption

→ U.S. Government evaluated and listed XDE Radium Protocol Filtering Diode (PFD)

→ Owl Talon One, based on XDE Radium diode has achieved Common Criteria EAL4+ Certification

Bidirectional Protocol Support

→ Remote Desktop

One-Way Protocol Support

→ TCP

→ UDP (unicast, multicast, broadcast)

→ NTP

→ Syslog

→ SMTP (email)

→ SNMP Traps

→ RTFS

→ OPC (DA/A&E, UA)

→ AVEVA PI Transfer

→ Remote Screen View

→ MQTT

→ SFTP

Supported Platforms

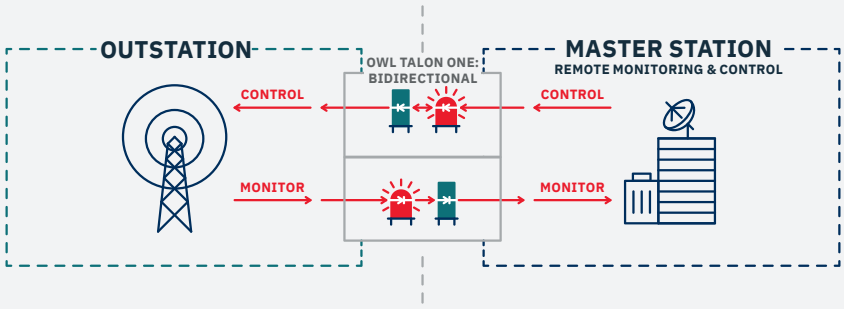
→ OnLogic MK100 bidirectional configuration

Owl Talon: The Data Diode, Reinvented.

acked by 25+ years of one-way networking expertise, Owl Talon® is a high-assurance data diode platform engineered to deliver the security, agility, and scalability critical operations demand. Its intuitive interface and flexible support for diverse environments enable fast, easy configuration and unmatched interoperability, while multiple layers of security ensure uncompromising one-way data transfer across critical network boundaries. Owl Talon's new Extensibility Framework enables organizations to realize custom features at the speed of business, without compromising the trusted security Owl Talon is known for. The Owl Talon One (OTO) Data Diode Card features enhanced hardware-enforced separation and consolidating multiple data flows and protocols onto a single card that does the work of two, reducing footprint and deployment time.

Owl Talon One™: Bidirectional

Owl Talon One: Bidirectional enables the secure, round-trip communication via two one-way diodes. It leverages 2x 1U OnLogic MK100 bidirectional hardware platforms, Owl Talon software, and the Owl Talon One Data Diode Card, with each 1U rack-mountable diode assuring a separate, independent path enabling only one direction of data transfer. Together, the two independent paths form a complete, secure bidirectional pathway. An Owl Talon One:Bidirectional configuration is ideal for remote access and other use cases requiring two-way communication without sacrificing one-way security assurance.



Use Cases

→ Communication between client and server

→ Remote access

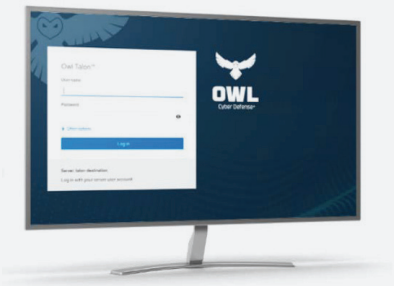
→ Remote command and control

→ Remote monitoring

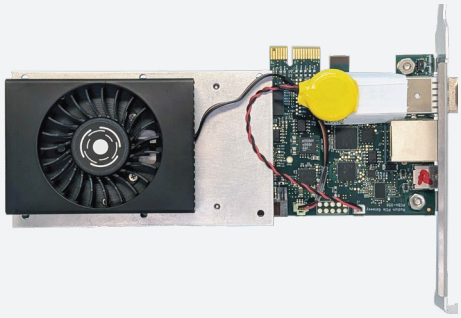
→ Safety system isolation

Unmatched Ease of Use

Featuring a modern, web-based user interface, the Owl Talon software platform is extremely easy to use. In just minutes, you can configure your data flows from source to destination, getting you up and running faster than ever before.



Talon 3 User Interface



Owl Talon One™ Data Diode Card

The Owl Talon One (OTO) data diode card is a protocol filtering data diode designed on a single PCIe card that transfers data one-way at up to 1 Gbps. By leveraging an FPGA-based architecture and System-on-Module (SOM) with an embedded processor, this single card can perform the work typically done by separate send and receive data diode cards with the same security level and hardware-enforced separation.

Technical Specifications (per server x2)

Case

19” 1U Rackmount Chassis with 4-wire PWM

Processor

1 x Intel Xeon

Memory (RAM)

1 x 8GB DDR5 UDIMM

Primary Storage

1 x 128GB SATA SSD

Mounting

Rackmount ears + half-depth rackmount Sliding Rail Kit

Power Supply

1 x 300W Flex-ATX Power Supply – US Power Cord
Input: 100~240 VAC

Estimated Normal operating usage:
120 Watts

Interfaces

Front: 2 USB (3.0)

Rear:
1 DB15 (VGA)
2 RJ45 (1GbE), 1 dedicated IPMI
2 Type A (USB3.2 Gen1)
1 UID button, 1 UID LED

OTO Data Diode Card:
2 RJ45 (1GbE)

Dimensions

Chassis Size:
With Mounting Ears: 482.6mm W x 257.1mm D
x 44.4mm H

Without Mounting Ears:
431.8mm W x 257.1mm D
x 44.4mm H

Unit Weight:
4.35 kg / 9.59 lbs.

Operating Conditions

10 - 35 C, 20% ~ 90% non operation humidity (non condensing

Approvals/Certifications

FCC Class A compliance
CE Mark
VCCI Class A compliance
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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**