

Owl Talon One™

Bidirectional Data Diode

Hardware-Enforced Protocol Filtering Diode for Secure, Flexible Dual-Path Transfers

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
- Compact 2x 1U hardware form factor
- 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

Supported Protocols

- Remote Desktop
- TCP
- UDP (unicast, multicast, broadcast)
- NTP
- Syslog
- SMTP (email)
- SNMP Traps
- RTFS
- OPC DA/A&E
- AVEVA PI Transfer
- Remote Screen View
- MQTT
- OPC UA
- SFTP

Supported Platforms

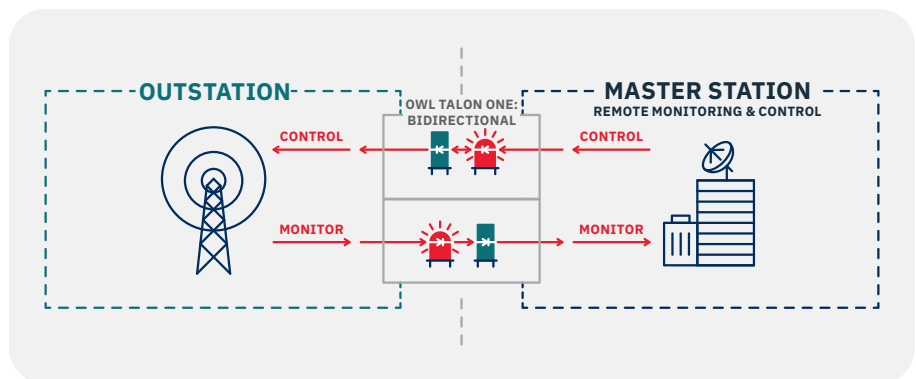
- OnLogic MK100 bidirectional configuration

Owl Talon: The Data Diode, Reinvented.

Building on more than a quarter century of one-way networking expertise, Owl Talon™ is the latest iteration of Owl's award-winning, industrial-strength data diode platform. Designed for fast and easy configuration, unmatched interoperability, and secure, reliable operation, it features enhanced hardware-enforced separation via the Owl Talon One (OTO) Data Diode Card. A single OTO Data Diode Card performs the work of two separate cards and incorporates a revolutionary system-on-module architecture and leverages Owl's XDE Radium core diode technology. XDE Radium is a miniature FPGA-based diode technology, which has been evaluated, approved and listed by the U.S. Government to meet Protocol Filtering Diode (PFD) requirements.

Owl Talon One: Bidirectional

The **Owl Talon One: Bidirectional** is a hardware-based cybersecurity solution that gives organizations the ability to provide secure round trip, bidirectional communication. The Owl Talon One: Bidirectional leverages 2x 1U OnLogic MK100 hardware platforms, Owl Talon software and the Owl Talon One Data Diode Card. Each 1U rack-mountable data diode assures a separate path — each enabling only one direction (send or receive) of the data transfer and each completely independent from the other together — thus creating a complete bidirectional pathway in one device.



Use Cases

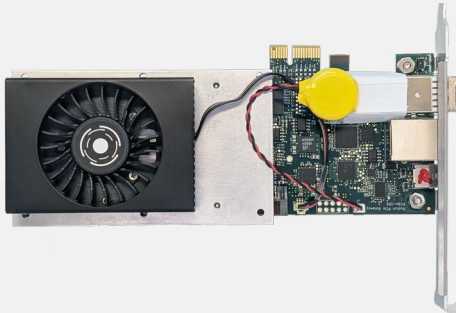
- Communication between client and server
- Remote command and control
- Remote monitoring
- Remote access
- Safety system isolation

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

Power Supply

1 x 300W Flex-ATX Power Supply – US Power Cord

Input: 100–240 VAC

Estimated Normal operating usage: 120 Watts

Mounting

Rackmount ears + half-depth rackmount Sliding Rail Kit

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

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

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



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

