OWL Cyber Defense

OPDS-1000

FOR GOVERNMENT MINISTRIES

Hardware-Enforced Data Diode Cybersecurity

Defending Operational Technology

Government ministries are constantly sharing data between secure networks and untrusted external networks, including sensitive data like personal identification and border control information. Protecting government ministry networks requires a high level of security to prevent unwanted risk from impacting operations and uptime. By deploying a hardware-enforced data diode, government ministries can securely transfer data one-way out of secure networks to destinations like the cloud, or transfer data one-way into secure networks with the addition of file sanitization to prevent threats from entering secure networks.

Multi-Purpose Data Diode

The OPDS-1000 is a highly integrated, all-in-one, 1U, rack-mountable data diode that provides secure, high speed data transfers to or from secure government ministry networks. The OPDS-1000 supports multiple, simultaneous protocols, data types, and data streams. The OPDS-1000 is comprised of two communication cards that work as a pair. The first card is a send-only card and is incapable of receiving data, and the second card is a receive-only card and is incapable of sending data. This one-way architecture creates an air-gapped barrier around the secure government ministry network and prevents threats from entering the data diode through the network path. For use cases that require data to be transferred into a secure network, the OPDS-1000 has a built in Content Disarm and Reconstruction (CDR) solution that scans and analyzes all files before they enter the network. If the files do not pass the checks and are not approved to enter the network, they will be denied to prevent threats from entering the secure network.

THE OWL SOLUTION

The OPDS-1000 is a multi-purpose, all in one, 1U rack mountable cybersecurity solution designed to create a defensive cyber perimeter around high risk government ministry networks.

The OPDS-1000 is EAL4+ certified, has gone through shock and vibration testing and provides a number of physical security features to resist tampering. Licensable throughput tiers allow customers to purchase only the throughput they need with the knowledge that they can increase it at any time by moving up to the next tier.

Physical Self Protection

In situations where physical threats can jeopardize network cyber security, the OPDS-1000 protects itself from physical attack with several different security measures. The OPDS-1000 comes with a locking enclosure that includes a special key option. The bottom is attached with rivets instead of screws so that it can't be opened. The top of the enclosure is attached with tamper resistant screws and comes with a provision for an additional lock or tamper evident wire ties.
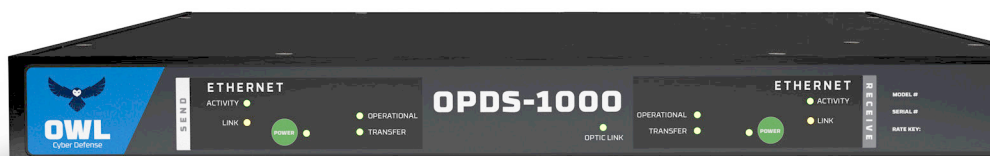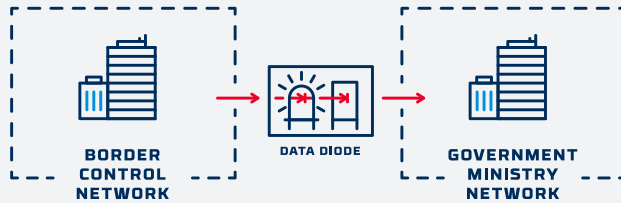
Transferring data one-way into a secure government ministry network
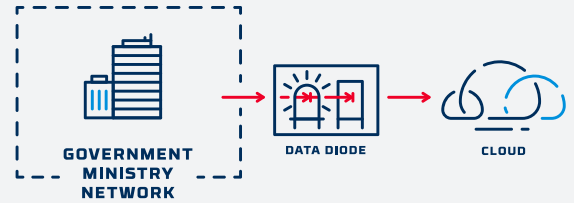
Transferring data one-way out of a secure government ministry network to destinations like the cloud, SIEM platforms, etc.

Software Interfaces

The OPDS-1000, like all OPDS products, supports a wide range of standard data formats and transport layer protocols including:

Included Protocol Adapters:

TCP, UDP (multicast/unicast/broadcast), Syslog, Remote File Transfer (RFTS), Secure Network Transfer (SNTS), SNMP Traps, Email (SMTP), FTP

Add-On Protocol Adapters:

PI Transfer, MQTT, IEC 104, SFTP, OPC Foundation (DA, A&E), OPC UA, SFTP, SQL Database Replication, Virtual Screen View, Modbus, HTTP, Remote HMI Screen Replication

Technical Specifications

OPERATING CONDITIONS:
- 32°F to +110°F
- 0°C to +43.33°C
- 5% to 90% humidity non-condensing

POWER SUPPLY:
- Input: 75-230 VAC,
- Estimated Normal operating Usage 10-16 W/side
- Max. 20W per side

STORAGE:
- -40°F to 158°F
- -40°C to 70°C
- 5% to 90% humidity non-condensing

VIBRATION:
- Vibration: (IEC 60255-21-1)
- Vibration 1g(10-500Hz) (Operational)
- Vibration 2g(10-500Hz) (Operational and Non-Operational)

CHASSIS:
- Black Anodized aluminum with Locking Top

MOUNTING SYSTEM:
- (1U) Rack Mount, tabletop

NETWORK CONNECTIVITY:
- 1000 base-T copper
- Separate Ethernet connections for network traffic and remote administration
- Physical connectors: 8P8C (RJ45)

THROUGHPUT:
- Supports three configurations: standard capacity (26 Mbps), mid capacity (155 Mbps), and high capacity (1,000 Mbps)

COOLING SYSTEM:
- Conductive cooling through enclosure side walls with High Life Expectancy/Low Noise Fans

SHOCK:
- Shock: (IEC 60255-21-2)
- Shock 10g 11ms (Operational)
- Shock 30g 11ms (Operational and Non-Operational)

APPROVALS:
- FCC Class A compliance
  CE Mark
  CB Certificate: DE 2-034658
  EN 62368-1:2014/AC:2015
- International Common Criteria Certification - EAL4+ Certified
- VCCI

ISO:
- Manufactured using ISO9001:2015 certified quality program

CHASSIS SIZE:
- 16.5" W x 1.75" H x 13" D
- 41.91 cm x 4.5 cm x 33 cm

UNIT WEIGHT:
- 7.92 lbs./3.6 kg.

MEAN TIME BETWEEN FAILURE (MTBF):
- 11+ years

LOCAL ADMINISTRATION:
- VGA connector for monitor
- USB connectors for keyboard and mouse

OWL Cyber Defense

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.

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

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