OWL Cyber Defense

OPDS-1000
Perimeter Defense Solution

Defending Operational Technology

Data from Operational Technology (OT) networks needs to get out, without introducing new threat vectors. The OPDS-1000 provides high, assurance, hardware-enforced, one-way security that securely transfers data out of OT networks, without increasing risk. Optimized for more demanding applications, the OPDS-1000 is EAL4+ certified and is available in three configurations, standard capacity at 26 Mbps, mid capacity at 155 Mbps, and high capacity at 1,000 Mbps.

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. Supporting multiple protocols, data types, and data streams at a time, the OPDS-1000 includes support for TCP, UDP (multicast/unicast/broadcast), Secure Network Transfer (SNTS), Remote File Transfer (RFTS), email (SMTP), FTP, SNMP, and Syslog. The OPDS-1000 additionally supports AMQP, MQTT, HTTP, IEC 104, and SFTP protocol adapters, as well as OPC UA, OPC Transfer Service, Pi Transfer, Virtual Screen View, and Modbus application connectors.

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.

Entry Level. Expandable.
Single Device. Easily Deployed.

Serving the cybersecurity needs of a number of commercial and critical infrastructure markets (oil & gas, utilities, power generation, financial services, etc.) the Owl Perimeter Defense Solution (OPDS) product family supports a variety of standards based and vendor specific interfaces. Designed to protect the industrial control systems found at refineries, substations, plants, pumping stations, manufacturing facilities, etc., the OPDS-1000 ensures cyber protection of digital assets within the plant and deterministic one-way only transfer of operational data to end-users outside of the plant.

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 plants. Optimized for more demanding industrial control applications, the OPDS-1000 supports software interfaces (connectors) to a broad range of applications that generate business critical data (sensor information, data points, database historians, syslog messages, alarms, etc.). That data is securely transferred to the business network and used for remote monitoring, production planning, and other management tasks.

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

SECURE REMOTE MONITORING

A large, U.S. based aerospace contractor needed to securely transfer documents, diagrams, and images, associated with different on-going projects and programs, to third party partners. Their data security solution included an OPDS-1000 to transfer files from the protected engineering facility to the third parties while preventing access into their facility. In this deployment, the OPDS-1000 is transferring different files types, of different sizes (up to 2Gb), to multiple third party locations simultaneously. The OPDS-1000 was selected because of the large bandwidth requirements and Owl's reputation and lengthy experience in working with the U.S. DoD.
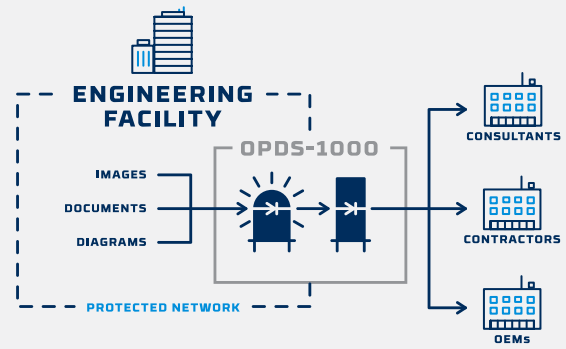
Software Interfaces

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

Email (SMTP), FTP/SFTP, Modbus, OPC Foundation (DA, A&E), Remote File Transfer (alarms, events), Remote HMI Screen Replication, SQL Database replication, SNMP Traps, Syslog, TCP transfers, UDP transfers (multicast, unicast).

In addition, industrial control solutions from a number of different vendors are also supported, including:

Fox Guard Patch Management, GE Proficy Historian, GE OSM Support, OSIsoft PI System, PAS Alarm Management, Rockwell Automation – RSLinx Classic, FactoryTalk Gateway, FactoryTalk Historian, Rolls Royce PMS, Schneider Electric – RemoteWatch, Wonderware eDNA, Wonderware Historian, Scientech R*Time

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:
- Separate Ethernet connections for network traffic and remote administration
- Physical connectors: 8P8C (RJ45)
- 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: 72161659
  UL 60950-1:2007 R10.14
  CAN/CSA-C22.2 NO.60950-1-07+A1:2011+A2:2014
- International Common Criteria Certification - EAL 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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