



OPDS-1000

Perimeter Defence Solution

The Owl Solution

The OPDS-1000 (Owl Perimeter Defence Solution) is a multi-purpose, all in one, 1U rack-mountable cybersecurity solution designed to create a defensive cyber perimeter around plants. Optimised 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 undergone shock and vibration testing and provides several physical security features to resist tampering. In addition, 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.

Defending Operational Technology

Data from Operational Technology (OT) networks need 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. Optimised 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, SFTP protocol adapters, OPC UA, OPC Transfer Service, Pi Transfer, Virtual Screen View, and Modbus application connectors.

Physical Self Protection

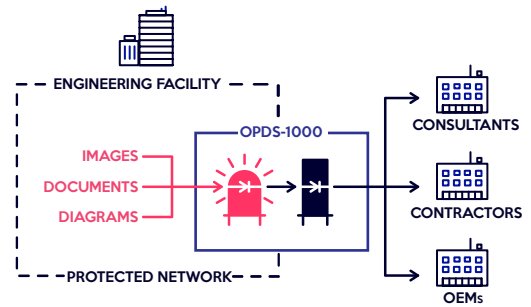
In situations where physical threats can jeopardise cyber network security, the OPDS-1000 protects itself from physical attacks with several security measures. The OPDS-1000 comes with a locking enclosure that includes a special key option. The bottom is attached with rivets instead of screws so that it can't be opened. The top of the enclosure is secured 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 several commercial and critical infrastructure markets (oil & gas, utilities, power generation, financial services, etc.), the Owl Perimeter Defense Solution (OPDS) product family supports various 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.

USE CASE: SECURE REMOTE MONITORING

A large U.S. aerospace contractor needed to securely transfer documents, diagrams, and images associated with different ongoing 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 transfers different file types of various sizes (up to 2Gb) to multiple third-party locations simultaneously. The OPDS-1000 was selected because of the large bandwidth requirements, Owl's reputation, and long history experience 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 several 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, Sciencetech R*Time.

TrustedFilter™ Applications

The following file transfer applications can be integrated with the OPDS-1000:

- 4SFT™
- 4BDT™
- 4XJS™
- 4TLS™
- 4MQT™
- Enterprise

Technical Specifications

OPERATING CONDITIONS

- 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

STORAGE

- -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)

NETWORK CONNECTIVITY

- Ethernet connections for network traffic and remote administration
- Physical connectors: 8P8C (RJ45)

SHOCK

- (IEC 60255-21-2) / Shock 10g 11ms (operational)
- Shock 10g 11ms (operational)
- Shock 30g 11ms (operational and non-operational)

COOLING SYSTEM

- Conductive cooling through enclosure side walls with high life expectancy/low noise fans

ISO

- Manufactured using ISO 9001:2015 certified quality program

MOUNTING SYSTEM

- (1U) Rackmount, tabletop

CHASSIS

- Black anodised aluminium with locking top

CHASSIS SIZE

- 16.5"W x 1.75"H x 13"D
- 4.91cm x 4.5cm x 33cm

UNIT WEIGHT

- 3.6kg

DEVICE LIFESPAN

- 14+ years



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