DATA SHEET

OWL Cyber Defense

OSTS

# OPC Server Transfer Service

## Software Module

### FEATURES & BENEFITS

- Windows OPC for OPC Server Interoperability, Point Selection, and Collection Ease
- OPDS Linux Operating System for Transfer Security and Reliability
- Certified to Conform with OPC 2.05 & OPC 3.0 Specifications
- Non-Routable Protocol Separation of Networks with Embedded Data Diodes, Owl One-Way DualDiode Technology™
- Simple and Easy Configuration and Operation
- OPC Interoperability Controls Costs, Simplifies Operations
- Integrated Platform Functionality Eliminates the Need for Changes to Legacy Networks
- Minimal Admin and Maintenance Costs Reduces Total Cost of Ownership

## OPC Server Transfer Service

**OPC Server Transfer Service (OSTS)** application operates as an OPC client and retrieves "point" data from one or more OPC servers in the network. The point data is then securely transferred from the source side of the Owl one-way data diode across to the destination side. On the destination side, an OPC server makes the point data available to OPC clients operating on the destination networks. OSTS has received OPC Foundation Laboratory Certification and supports OPC Data Access (DA), OPC Alarms and Events (A&E), and OPC Unified Architecture (UA) specifications.

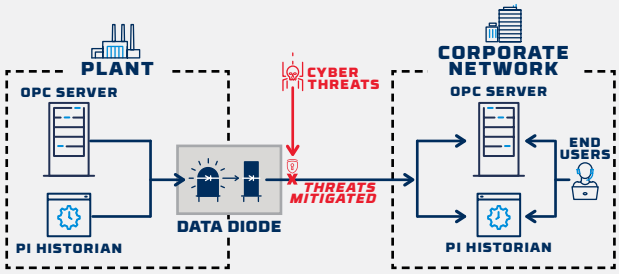
## The Owl Solution

Created by the OPC Foundation, OPC is the interoperability standard for the secure and reliable exchange of data in the industrial automation space. Owl's OSTS application provides a mechanism where data (real-time data, monitoring of alarms and events, historical data) can be accessed within an OT network using the OPC standard interface. An Owl data diode solution then transfers the data across the network security boundary to business users on the IT networks. This provides external users with access to plant data without jeopardizing the cybersecurity of the OT network.

USE CASE

### OWL OPC SERVER TRANSFER SERVICE

A substation operator needed to meet cybersecurity compliance according to NERC CIP v5 without disrupting access to OT data by business end-users. To meet this need, Owl data diodes were deployed with OSTS OPC data replication software module. The operator achieved NERC CIP compliance via deterministic, one-way data transfer, and enabled remote access to OPC monitoring data by business end users.



### DATA DIODE TECHNOLOGY

Owl's data diode technology is built around patented circuitry which physically only allows data to flow in one direction, thereby preventing all network-based cyber attacks. The design also includes a protocol break which terminates all Ethernet traffic, transfers the payload via the ATM protocol and then converts it back to Ethernet. This has the unique benefit of hiding all the IP and MAC address information from the outside world and preventing any probing of the network. This technology comes in different form factors depending operational environment.

### STANDARD OPDS CONFIGURATION

Standard units of the Owl single-chassis OPDS family are configured to support the concurrent transfer of files, TCP packets and UDP datagram streams. These OPDS products also support file transfer via Owl RFTS (trusted file movement across shared networks) and via common FTP, as well as secure transfer of syslog messages. Applications requiring specific transfer software are noted in the right column.

Files are filtered to meet file extension-type and executable checks. Standard OPDS products support the internal management of a wide variety of malware/virus filters and file content examiners – use licenses may be added to the base system.

The integrated servers within OPDS employ the CentOS Linux operating system, "locked down" from technical guidance taken from US government-formulated Security Technical Implementation Guides (STIGs) and satify the Center for Internet Security guidance.

## Point Selection

After selecting OPC servers, the user constructs one or more groups and selects the points to be collected. OSTS will browse the universe of points for the selected server, and display those points to the user. Point searches can be filtered to limit the number of points retrieved from the OPC server. Changes to the OPC point configuration (add/delete/modify servers and points) are performed dynamically, with no need to stop and restart OSTS services.

The OPC point configuration is transmitted periodically across the data diode secure boundary, synchronizing point data as well as current point configuration (business network users know which points to expect). OSTS contains diagnostics that reveal the current state of server connections as well as the point data rates from the selected OPC servers. Diagnostics also display the transmission data rate across the Owl data diode.

OSTS is compatible with all OPDS and EPDS products or as software with an Owl Communication Card set for use in stand alone servers.

## Compatible Platforms

**OPDS-100D**
**OPDS-100**
**OPDS-1000**


**OWL ENTERPRISE PERIMETER DEFENSE SOLUTION (EPDS)**

Owl uses a pair of Dell PowerEdge servers or equivalent.

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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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