DATA SHEET

OWL ADVANTAGE

THE GOLD STANDARD IN DATA DIODE TECHNOLOGY

Multiple Historian Support

BROAD VENDOR SUPPORT

Owl offers a wide range of data historian connectors that integrate seamlessly to solutions from leading historian vendors such as OSIsoft, GE, Rockwell Automation, Schneider Electric, and Yokogawa. These solutions are tested and deployed across a number of industries (power generation, water/wastewater, utilities, etc).

DATA TRANSFER TYPES

Via a single UDP connection, Owl transfers historian database records, snapshot data, historical archive data and schema definitions. This provides real-time transactional data updates, access to historical information to backfill after any service interruption, the ability to build a new historian database from scratch and full support for add/modify/delete for both data and the schema. This robust capability also supports true historian to historian replication.

Owl Historian Replication & Transfer

One of the tools critical infrastructure providers are using to improve their cybersecurity posture is network segmentation via data diodes. Data diodes segment and protect networks from cyber threats while allowing data to securely flow out of them. Owl data diodes feature optional software for historian replication and transfer out of an operational technology (OT) network, into the IT network or the cloud. It enables end-users outside the secure plant or facility to access historian data in real time without introducing a potential threat vector to the OT network.

The Owl Solution

Owl has developed specialized software to replicate and securely transfer historian data across network boundaries. This software interfaces directly with the historian on the source network to replicate its data and then utilizes the data diode to transfer the data to the destination network. On the destination network, Owl can either build a replicated historian from scratch or append data to an existing one.

The Owl historian replication and transfer software is an optional feature that runs simultaneaously with other applications and can be configured to run on one of Owl's all-in-one data diode appliances (OPDS-100D, OPDS-100, & OPDS-1000). Appliance devices feature the convenience of a single, all-in-one solution, and are capable of supporting the majority of historian data transfer situations. Owl also offers server configurations designed for larger (or a larger number of) historians with very high throughput requirements.

SUPPORTED HISTORIANS

OSIsoft.

Rockwell Automation

Wonderware by Schneider Electric Authorized Distributor

GE

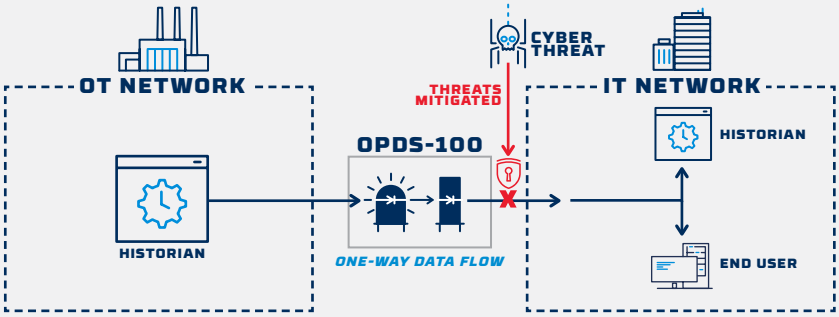
YOKOGAWA

USE CASE

REPLICATING A HISTORIAN

Operating in a fossil powered electrical generation facility, Owl data diodes are replicating a historian from the Operations Technology (OT) network to the business (IT) network.

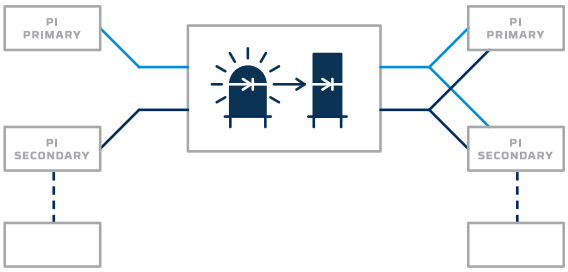
This configuration allows the data diode to secure the network, provide end-users on the IT network access to operational information for management and support functions and allows the company to meet NERC CIP compliance requirements.



High Availability Architecture

MULTI-HISTORIAN SUPPORT

A single Owl data diode is capable of replicating multiple source historians. It can accomplish this in one of two ways – a simple one-to-one replication where two or more source historians are each replicated on the destination network; or, multiple source historians can be consolidated into a single destination historian. To preserve the original source site of the information a customer selected site specific identifier is appended to each discrete tag name and value.



In a high availability deployment, Owl is interfacing to historian servers on both the source network and the destination network. In these networks one of the historians is always designated as the primary, this is the server the Owl software will always try to communicate with first. In addition to the primary there are one or more secondary servers. If the primary is not available then the software service automatically switches to the secondary server and continues replicating. While working with the secondary server the Owl data diode will also actively try to reconnect to the primary until it comes back online. Owl supports the various permutations of redundant source and destination servers (primary source to primary destination, primary source to secondary destination, etc.).

DATA DIODE TECHNOLOGY

Owl's data diode technology is built around patented circuitry which only allows data to physically flow in one direction thereby preventing all network based cyberattacks. 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.

Compatible Platforms

OPDS-100D
OPDS-100
OPDS-1000

OWL ENTERPRISE PERIMETER DEFENSE SOLUTION (EPDS)

Owl uses a pair of Dell PowerEdge servers or equivalent.

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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