

## Historian Replication and Transfer Service

One of the tools critical infrastructure providers are using to improve their cybersecurity posture is network segmentation coupled with data diodes. The data diodes protect the boundaries of network segments from cyber threats while simultaneously allowing data to securely flow out of them. This is important when end-users outside the plant or facility need access to Rockwell Automation FactoryTalk® historian data. Owl's solution is a combination of software and patented DualDiode technology which securely transfers historian data to end users.

### The Owl Solution

- OPTS software was developed specifically to securely transfer historian data across network boundaries. OPTS interfaces directly with the Rockwell Automation Historian on the source network, replicates the data and utilizes the DualDiode to securely transfer the data to the destination network. On the destination network, OPTS can either build the historian from scratch or append to an existing one.
- OPTS is configured to run on any of the Owl data diode appliances: OPDS-5D, OPDS-100D, OPDS-100 or OPDS-1000. Appliance devices feature the convenience of a single, all-in-one solution capable of supporting the majority of historian data transfer situations. Owl also offers server-based configurations which support larger historians (or a large number of) historians with higher throughput requirements.



### RA Compatibility

Installed on a scalable Owl data diode platform, OPTS for Rockwell Automation is compatible with both FactoryTalk Site Edition (SE) and Machine Edition (ME) data. Any variety of performance, monitoring or other statistical data can be transferred in real time to offsite locations for remote monitoring and analysis. Owl products are also capable of interfacing with Rockwell Automation FactoryTalk View human machine interface software for a complete, secure view of your systems without opening up remote access.



### Multi-Historian Support

A single instance of OPTS is capable of replicating multiple historians in different ways. OPTS can do a simple one-to-one replication where one or more historians are each replicated on the destination network. Or multiple source historians can be consolidated into a single instance of the historian on the destination network. To preserve the original source site of the information, a customer selected site specific identifier is appended to each discrete tag name and value.

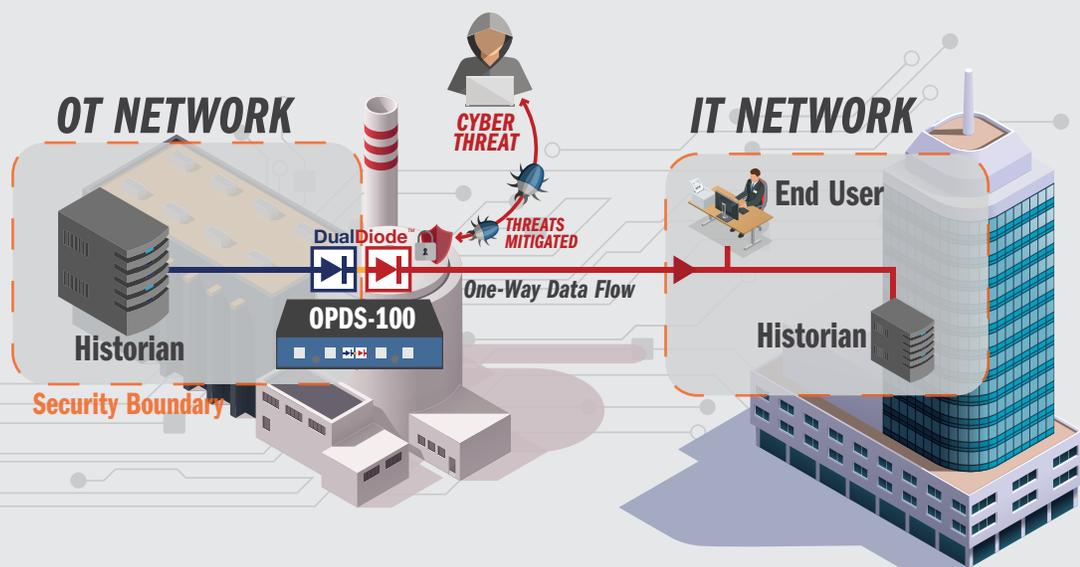


### PI Data Transfer Types

Via a single UDP connection, OPTS 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 the data and the schema

### USE CASE:

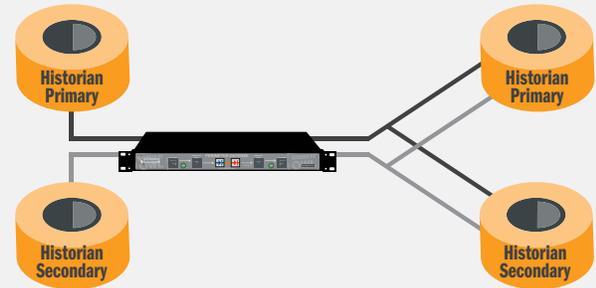
Operating in a fossil powered electrical generation facility, OPTS is replicating a Historian from the Operations Technology (OT) network to the business (IT) network. This configuration allows the DualDiode to secure the network, provide end-users on the IT network access to operational information for management and support functions and allows the company to meet NERC CIP compliance requirements.



## High Availability & Collective

OPTS supports HA and Collective configurations on both the source and destination networks. In a High Availability deployment, OPTS is interfacing to historian servers on both the source network and the destination network. In these networks one of the historian servers is always designated as the Primary, this is the server OPTS 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 OPTS automatically switches to the secondary server and continues replicating. While working with the secondary server, OPTS will also actively try to reconnect to the primary until it comes back online.

OPTS supports the various permutations of redundant source and destination servers (Primary source to Primary destination, Primary source to Secondary destination, etc.).



## Compatible Platforms

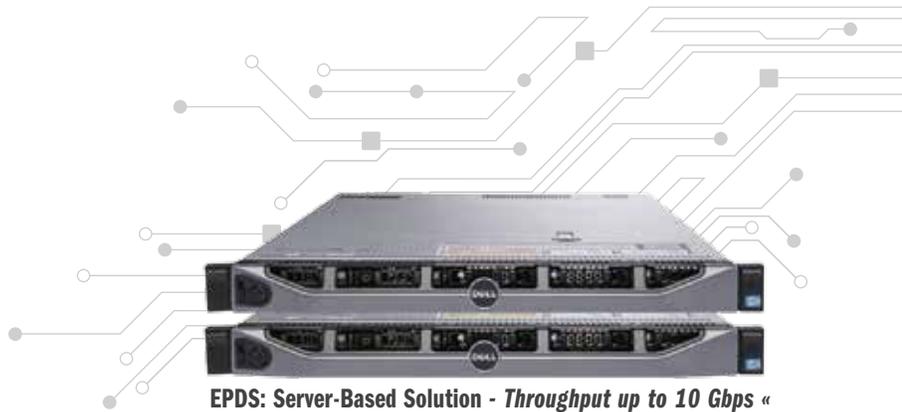
The OPTS for Rockwell Automation is compatible with the entire line of Owl Network Security Solutions – from the OPDS-5D DIN rail-compatible data diode to the EPDS commodity server-based platform. All Owl data diode hardware is built around patented circuitry which physically only allows data to flow in one direction, thereby preventing all network based cyberattacks into the protected network.

All Owl data diodes are designed to include a protocol break which 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 on the needs of the operational environment.

### Compatible platforms include:



- OPDS-5D: DIN rail Appliance - *Throughput up to 5 Mbps* «
- OPDS-100D: DIN rail Appliance - *Throughput up to 100 Mbps* «
- OPDS-100: 1U Appliance - *Throughput up to 100 Mbps* «
- OPDS-1000: 1U Appliance - *Throughput up to 1 Gbps* «



EPDS: Server-Based Solution - *Throughput up to 10 Gbps* «



OPDS-MP: 1U Appliance - *Throughput up to 155 Mbps* «

## About Owl

With over 2000 deployments globally, Owl Computing Technologies is the leader in data diode cybersecurity solutions, enabling hardware-enforced network segmentation and deterministic, one-way transfer of all data types and file sizes. U.S. owned and operated, Owl offers validated and accredited products, servicing the intelligence, military, government, and critical infrastructure communities.