

OPTS

for Rockwell Automation FactoryTalk



Securely Transfer Rockwell Automation FactoryTalk Historian Data

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 data diode technology which securely transfers historian data to end users.

OPTS: Owl + Rockwell 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 data diode 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-100, OPDS-1000, or EPDS. 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.

Partners in Strong Security

Owl's proven data diode solutions running OPTS software allows users to meet strict security requirements for business practices through hardware-enforced network segmentation and one-way data transfer. As a Rockwell Automation technology partner, Owl's data diode cybersecurity solutions are available with validated interface software designed specifically to replicate Rockwell Automation FactoryTalk® historian and transfer the information one-way, across network boundaries.

Rockwell Automation 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 off site 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.

OPTS CAPABILITIES

- Native API integration with FactoryTalk
- FT to FT and FT Data Archive replication options
- Historical backfill and dynamic updates
- High availability configurations (Optional)

SCALABILITY

- Users can upgrade their Owl hardware for increased bandwidth and data type requirements. A single Owl platform can simultaneously replicate a System and other data types (Syslog, files, SMTP, streaming, etc).
- Ongoing changes in the plant are automatically replicated to the HQ systems.

SECURE

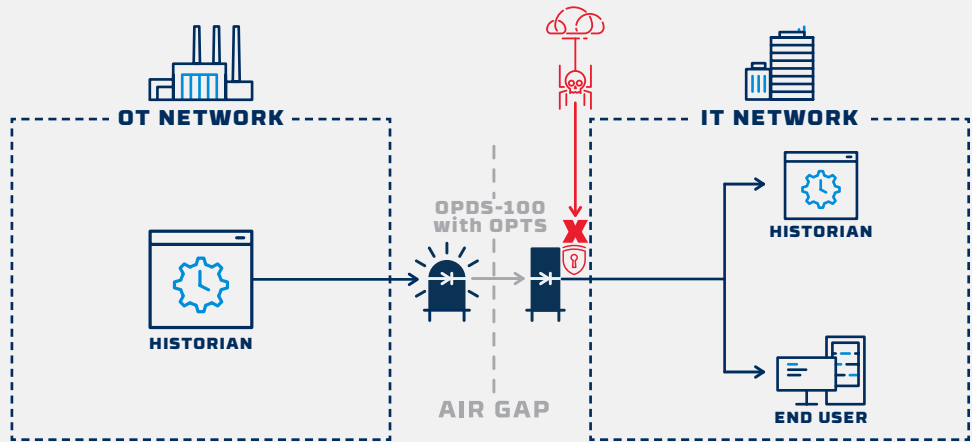
- Even if a plant network is under attack, FactoryTalk data can still be securely and safely transferred due to Owl's unique payload-only transfer technique. Owl uses a protocol break to make sure no routable information is transferred.
- Operations continue without lost time
- Supports authentication

PI DATA TRANSFER TYPES

Via a single UDP connection, OPTS transfers FactoryTalk 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



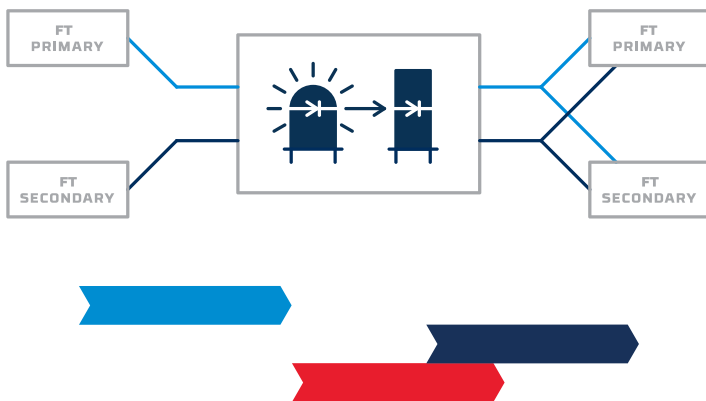
Operating in a fossil powered electrical generation facility, OPTS is replicating a Historian from the Operations Technology (OT) network to the business (IT) network. This configuration allows the data diode to secure the network, provide end-users on the IT network access to operational information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



High Availability Architecture

OPTS supports various permutations of redundant source and destination servers (primary source to primary destination, primary source to secondary destination, etc.). Hardware redundancy can be achieved by using Owl’s optional High Availability data diode solution. In a High Availability deployment, OPTS interfaces to multiple FactoryTalk Servers on both the source network and the destination network. In these networks, one of the FactoryTalk Servers is always designated as the primary. The primary server is the one OPTS will attempt 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 one until it comes back online.

FACTORYTALK COLLECTIVE USE CASE



COMPATIBLE PLATFORMS

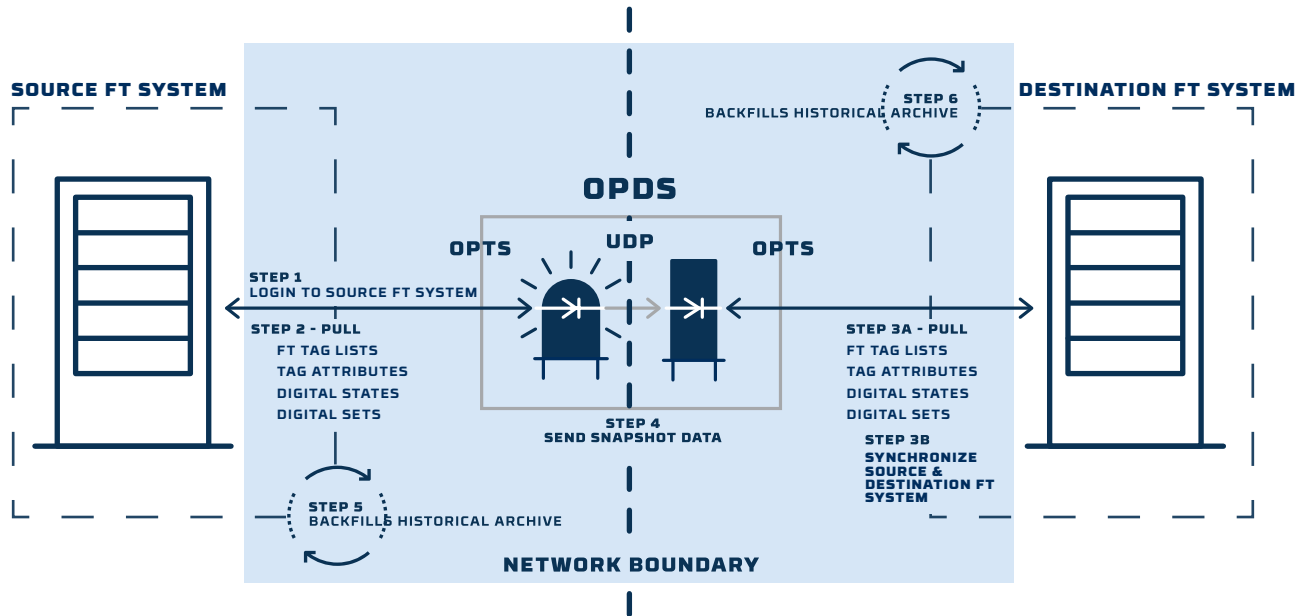
OPTS for Rockwell Automation is compatible with the entire line of OPDS and EPDS products –supported on the OPDS-100, OPDS-1000 & the EPDS server-based platform. All Owl data diode hardware is built around patented circuitry which physically only allows data to flow in one direction, thereby preventing all network based cyber attacks 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:



OPTS & Rockwell FactoryTalk® System



- **Step 1** - OPTS logs into the source historian via authentication
- **Step 2** - OPTS queries source historian and pulls the FT Tag list, Tag attributes, digital states and digital names
- **Steps 3A** - OPTS pulls the destination historian database obtaining FT tag list, tag attributes, digital states and digital names
- **Step 3B** - OPTS synchronizes the source and destination historian by adding/deleting/updating tags
- **Step 4** - Once the destination historian is built and synchronized, snapshot data begins to flow
- **Step 5** - During run time, the OPTS historical backfill feature continuously cycles historical data and passes it the destination historian
- **Step 6** - The destination historian replaces data missing from any unplanned network outage or interruption, ensuring data is never lost

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



@OwlCyberDefense

203-894-9342 | Info@owlcyberdefense.com