


NETWORK SECURITY SOLUTIONS


Gas Turbine Vendor Enables Secure Remote Monitoring of Turbine


Company Overview

CASE SUMMARY:

 **INDUSTRY:**
Manufacturing

 **CHALLENGE:**
Malware breach at power plant destroyed data and incapacitated hundreds of application servers leading to disconnection of OT network and violating SLA with turbine vendor.

 **SOLUTION:**
OPDS-100 data diodes deployed on plant OT network to secure plant and transfer monitoring data to turbine vendor.

 **BENEFITS:**
Enabled remote monitoring of turbine performance data and alarm data via deterministic one-way data transfer to vendor.

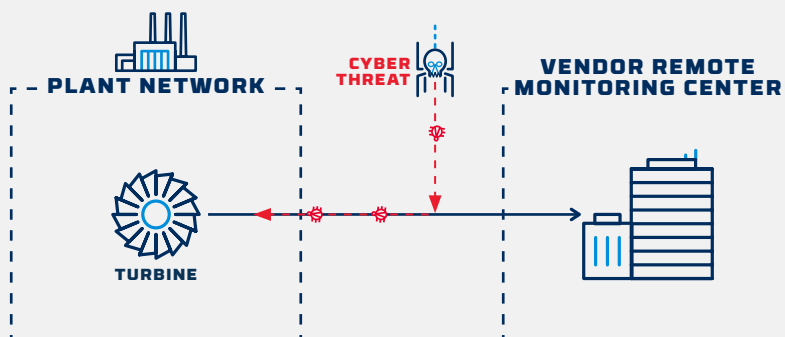
Gas turbine manufacturer and vendor, providing products and remote monitoring services to a natural gas power plant.

Cybersecurity Challenge

To uphold its obligations as outlined in the service level agreement (SLA) in place with a natural gas power plant, the gas turbine vendor required remote monitoring capabilities of its turbine equipment installed at the plant. However a severe malware breach destroyed data and servers at the plant, severely impacting the daily operations and leading them to disconnect their operational technology (OT) from outside networks. While this prevented malware proliferation, it also disabled the remote monitoring capabilities the turbine vendor had in place.

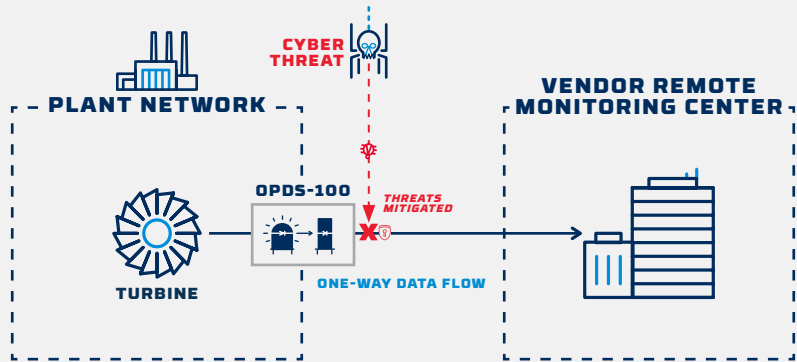
REQUIREMENTS:

1. Restore remote turbine operational visibility to meet SLA
2. Maintain a “disconnected” or segmented cybersecurity architecture
3. Allow remote turbine performance and alarm monitoring by turbine vendor from their global monitoring center



SOLUTION

Owl data diode (OPDS-100) network security was selected for deterministic, one-way data flow. This enabled critical turbine performance and alarm data replication and transfer from the plant OT network to the turbine vendor's global monitoring center.



Deployment



OPDS-100

Owl Perimeter Defense Solution - 100

Self-contained 1U data diode, purpose-built for network segmentation and deterministic, one-way data transfer.

Results

- 1 Provided network cybersecurity with effective segmentation of the plant OT network, helping to prevent malware breach and proliferation
- 2 Turbine vendor data collection modified to "push" data via UDP through the data diode to their monitoring center
- 3 Restored outbound turbine performance data flows from the plant to turbine vendor, meeting SLA requirements
- 4 Enabled alarm data flow from plant assets to turbine vendor global monitoring center

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