

NETWORK SECURITY SOLUTIONS

Gas Turbine Support Vendor Enables Centralized Remote Operation & Maintenance Monitoring

Company Overview

CASE SUMMARY:

INDUSTRY:
Power Generation

CHALLENGE:
Provide secure, centralized remote monitoring of turbine O&M data without allowing remote access to the process control network, DCS or turbines.

SOLUTION:
OPDS-100D data diode solution selected to transfer OPC DA tags one-way, from turbines to a centralized remote monitoring center.

BENEFITS:
Turbine performance data is available remotely for centralized O&M monitoring, while the process control network and turbines are secured from external cyber threats.

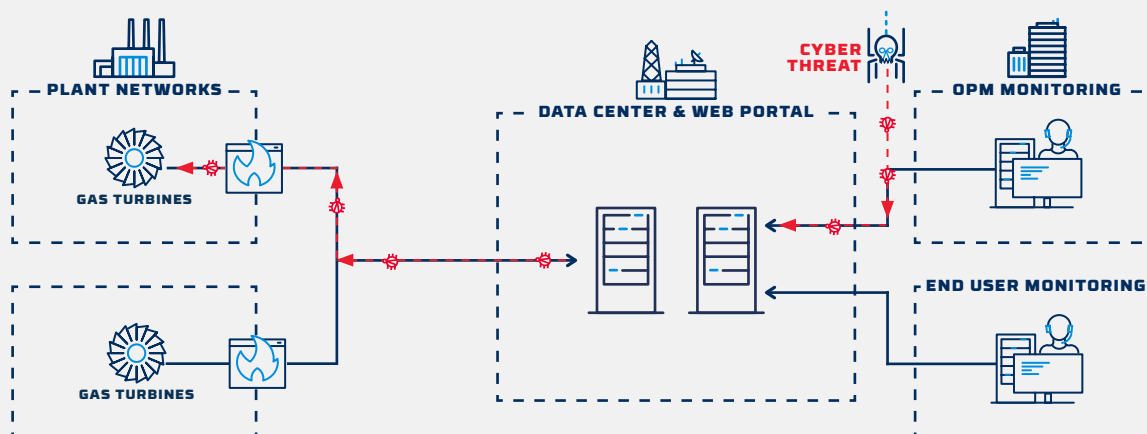
Major gas turbine maintenance vendor and spare parts supplier, specializing in turbine technical maintenance needs and performance optimization. Oversees operation and maintenance (O&M) of over 60 turbines across multiple sites; relying on remote monitoring to determine when on-site maintenance is required.

Cybersecurity Challenge

The turbine maintenance service required structured and secure remote monitoring of 60+ turbines at multiple sites for analytics and optimization. However, direct internet access to the turbines would render them vulnerable to cyberattack. The company required a solution which would enable remote monitoring without allowing remote access to the turbines.

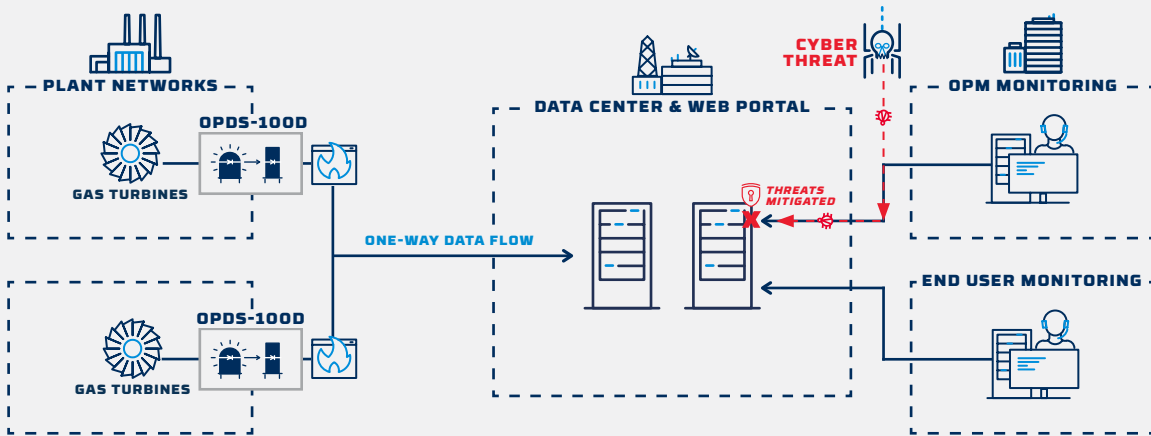
REQUIREMENTS:

1. Protect turbines from cyberattack
2. Automate transfer of turbine maintenance data from multiple sites to centralized collection point
3. Data transfer must be compatible with OPC DA
4. Centralized monitoring data must be accessible via web-portal



SOLUTION

OPDS-100D data diode solution selected and deployed at each site to move OPC DA tags one-way, from turbines to remote monitoring web portal for operation and maintenance analytics. Data is collected from over 60 turbines across 9 physical sites, with one data diode at each site supporting all collection. From there the data is passed on to the remote monitoring center where the vendor can perform analytics and provide operation and maintenance recommendations to their customers.



Deployment



OPDS-100D

Owl Perimeter Defense Solution - 100D

DIN rail compatible data diode solution for deterministic, one-way data transfer and effective network segmentation. Supports a wide range of data formats and transport layer protocols at up to 104 Mbps.

Results

- 1 O&M data securely and automatically collected and transferred to a web-accessible centralized repository
- 2 Systems securely connected via hardware-enforced data diode for one-way-only data transfer
- 3 Data is available offsite for remote monitoring and analytics while the turbines are secured from external access

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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