

Petrochemical Giant Secures Central Monitoring of Operational Network

REQUIREMENTS:

- 1 Reduce or eliminate the attack surface of the OT network
- 2 Securely transfer OPC, TCP, and UDP (Unicast and Multicast) operational data from OT to IT
- 3 Enable remote monitoring from Corporate Command Centre
- 4 Replicate OPC DA tags from DCS to the IT network in Real-Time
- 5 Real-Time Transfer of OPC Alarms and Events to Aggregated Situation Awareness Dashboards

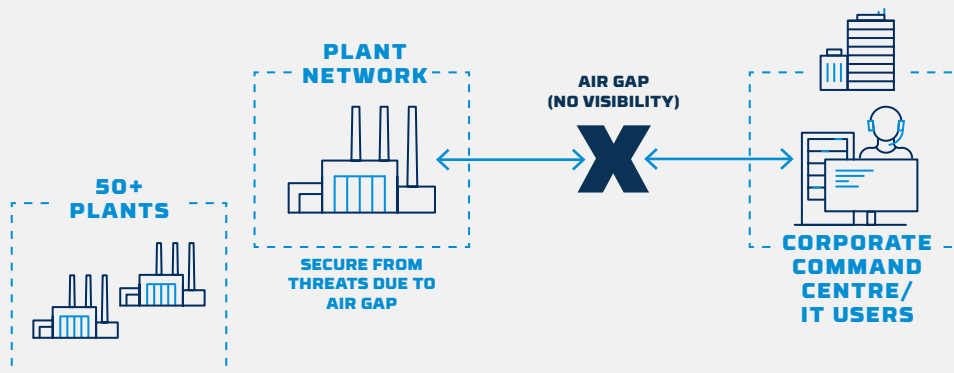
Company Overview

Fortune 500 global leader in petrochemical and energy business with 50+ operational units, serving India's fast growing energy needs.

Cybersecurity Challenge

The company identified an opportunity to enhance production capacity and achieve better efficiency, automation, and situational awareness seamlessly connecting their operational control systems with their IT network. However they required a method to achieve this connectivity without increasing exposure to cyber threats.

The company was looking for a foolproof solution with no disruption to the 24x7x365 operation of the production plant while providing them with two-way, air-gapped connectivity between OT and IT.



Implementation

Due to their highly reliable and secure hardware-enforced nature, Owl Perimeter Defense Solutions (OPDS) were identified as an ideal protection and data transfer mechanism for the OT network. Designed to transfer only one-way, OPDS products integrate seamlessly with the OPC, UDP, and TCP protocol data and files from the OT network.

Two data diodes were installed - one in each direction - between the IT and OT sub-networks.

OT > IT

OPDS-100

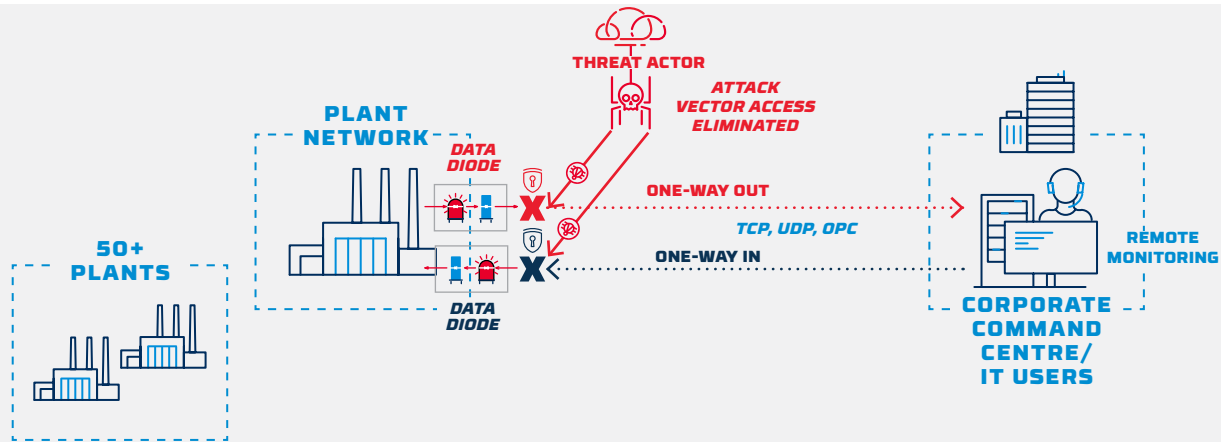
- 10 Mbps data diode with OPC software module (OSTS)
- TCP, UDP, HTTP, SMTP, Syslog, SNMP, NTP, FTP transfers
- OPC SW with DA and A&E transfer

IT > OT

OPDS-50

- 5 Mbps data diode with OPC transfer module (OSTS)
- TCP, UDP, HTTP, SMTP, Syslog, SNMP, NTP, FTP transfers, Patch Transfer

USE CASE (AFTER)



Results

- 1 Provided secure, air-gapped connectivity with zero side channel leakage was assured in both directions between the customer petrochemical plant OT networks and Corporate Command Centre IT network.
- 2 Enabled layer 3 and 4 protocol support for all the existing customer applications as well as multiple vendor applications.
- 3 Increased situational awareness and business continuity with no loss of air-gapped security posture.
- 4 Secured data transfers into plant network and reduced attack surface.

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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