OPSWAT.

NETWALL®

Security Gateway Solutions Powering
Risk-Free IT-OT Communications

USE CASES

Protecting the World's Critical Infrastructure

THE CHALLENGE

Protecting Your Critical Network in the Converging World of IT and OT

The once-clear distinction between information technology (IT) and operational technology (OT) systems, processes, and people is becoming blurred. Conventional airgaps between OT and IT network segments have eroded due to increased corporate demand for connectivity and data analytics from industrial environments.

This increased demand for connectivity exposes industrial assets to targeted cyberattacks because firewalls and next-generation firewalls are inherently bi-directional. They rely on software-based policies and are prone to misconfiguration that threat actors can exploit.

OPSWAT NetWall Optical Diode and Security Gateways provide access to real-time OT data and enable secure data transfer to OT environments without compromising the security and integrity of your critical production systems.

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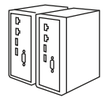
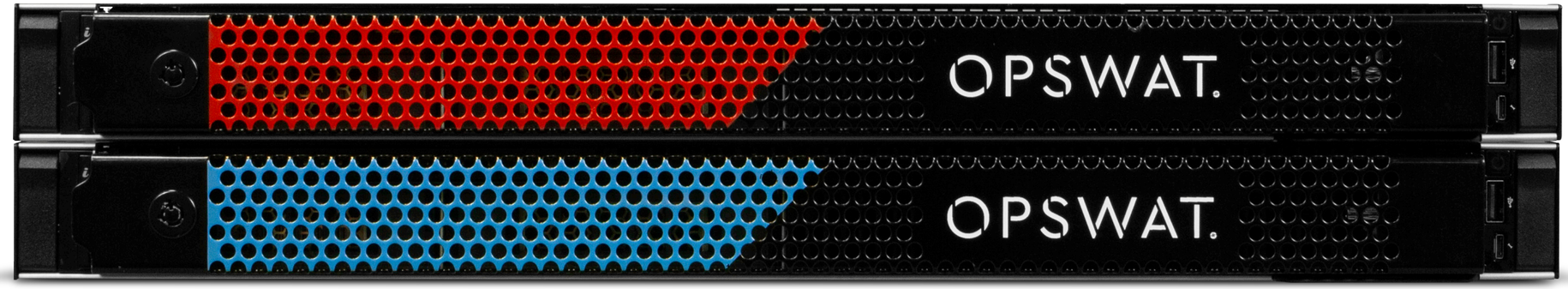
NETWALL® SERIES

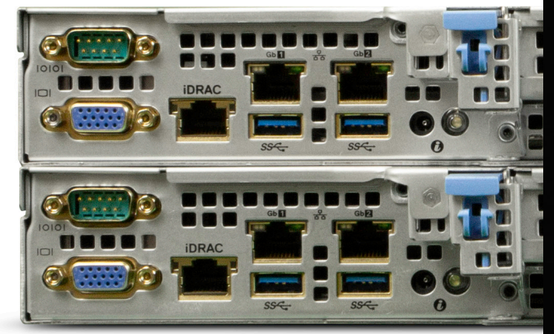
Available Form Factors

1U

Din Rail







FEATURES

Compelling Benefits

Real-time transfers of OT data to business users without disrupting their work procedures

No risk of cyber threats entering your protected OT network

Files transfers and database/server replications without proprietary vendor HW and SW

High-assurance payload delivery that allows concurrent transfers of multiple data types

No complicated firewall audit/ configuration projects and risky backdoor channels to the OT network

Easy deployment and field-upgrade software license keys for scaling

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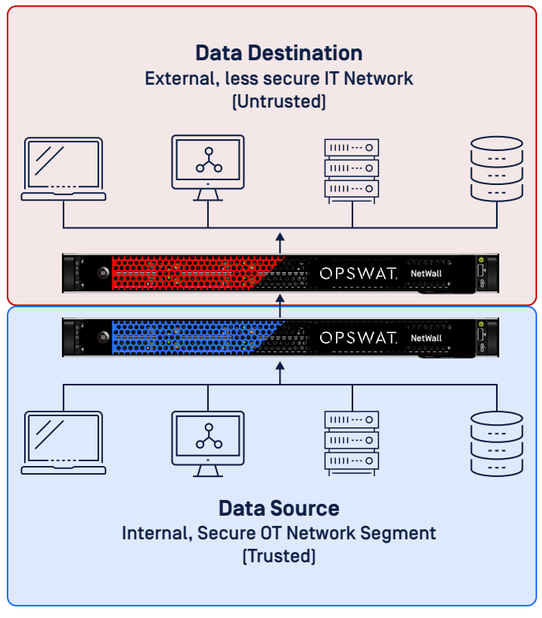
NetWall USG™
Unidirectional Security Gateway

OPSWAT NetWall USG provides access to real-time OT data and enables secure IT-OT data transfers—with the full benefit of speed, low latency, and functionality—and with complete reliability and no data loss. Since no return-path networking is possible, OPSWAT NetWall USG assures real-time operations data can be sent to the corporate network users without the risk of introducing security threats to protected OT networks.

One way data transfer over serial connection

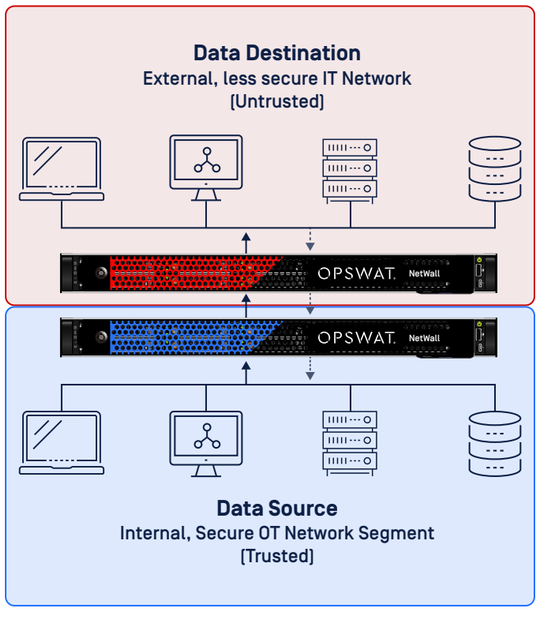


NetWall BSG™
Bilateral Security Gateway

In addition to all the capabilities of NetWall USG, NetWall BSG supports applications such as historians and SQL database servers that require a data response in order to operate. OPSWAT BSG performs real-time replication of the data (with no data loss) and uses a bilateral mechanism to handle data responses without compromising the security and integrity of the OT network.

When a connection is initiated from the trusted network to a destination in the untrusted network, OPSWAT NetWall BSG performs a full protocol break,allowing select applications from the destination to securely return a data response to the source application over a non-routable connection. NetWall will not allow a connection to be initiated from the untrusted network, ensuring that the communication channel cannot be exploited.

One way data transfer with data response

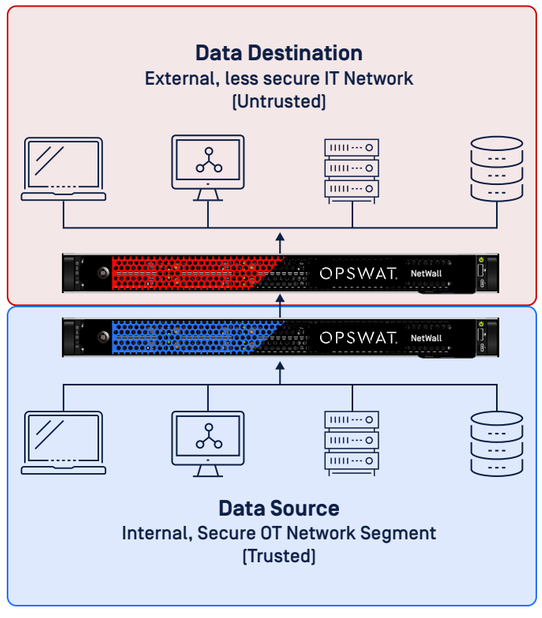


NetWall Optical Diode™

OPSWAT NetWall Optical Diode provides a hardware-enforced unidirectional transfer of real-time OT data and enables secure IT-OT data transfers over a reliable, high speed, low latency optical link. Since no return-path networking is possible, OPSWAT NetWall Optical Diode transfers real-time operations data while conforming to industry regulatory requirements for deterministic one-way transfer device. NetWall Optical Diode performs payload integrity checking and supports redundant optical links, achieving unsurpassed reliability and data delivery assurance.

NetWall Optical Diode is available on enterprise servers or ruggedized Din rail servers that can be deployed in harsh industrial environments.

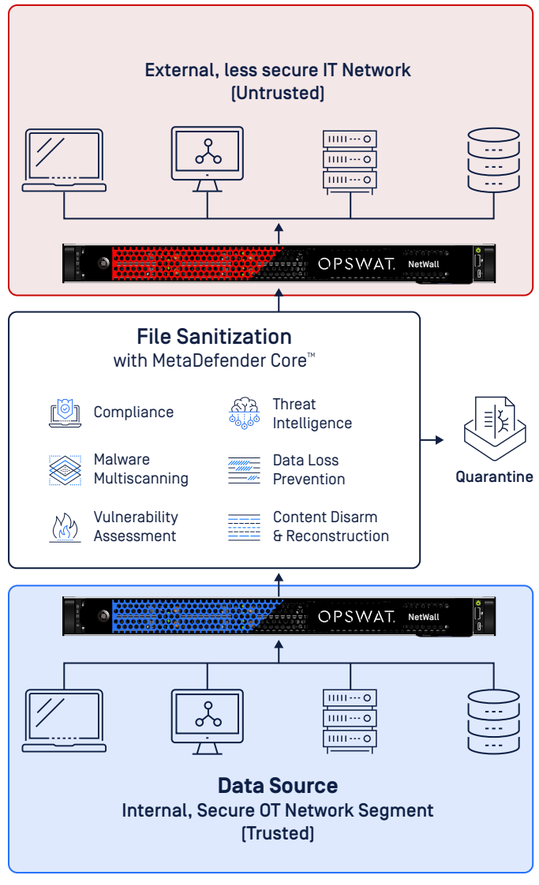
One way data transfer using optical link



Super NetWall™
with File Sanitization

Super NetWall integrates OPSWAT's award-winning MetaDefender Core™ (MD Core) file sanitization engine. MD Core thoroughly scans and sanitizes files before they are securely transferred by Super NetWall across a network security boundary to the desired destination. It can be delivered on the NetWall USG and Optical Diode platforms.

One way data transfer with file sanitization



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USE CASE

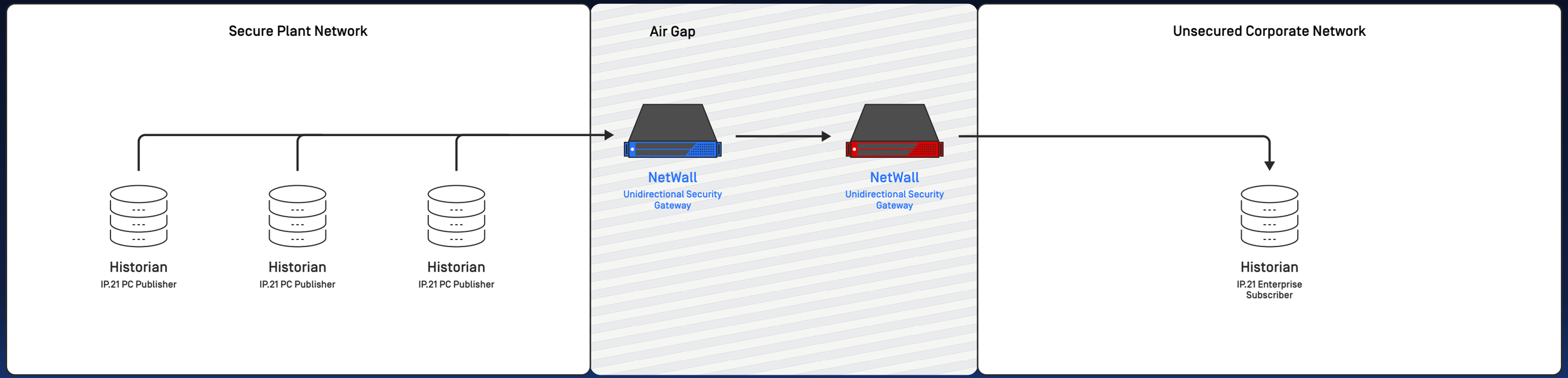
AspentTech IP.21 Replication Between Plant and Enterprise Historian

Challenge

Plant historical data is captured in special purpose databases referred to as historians. When a security perimeter is established around plant assets, there needs to be a way of securely sharing historian data with the outside business network.

Solution

NetWall Bilateral Security Gateway reliably replicates historian data using the native AspenTech IP.21 replication facility. Data is transferred over non-routable protocol breaks enhancing security and confidentiality of the source network.



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USE CASE

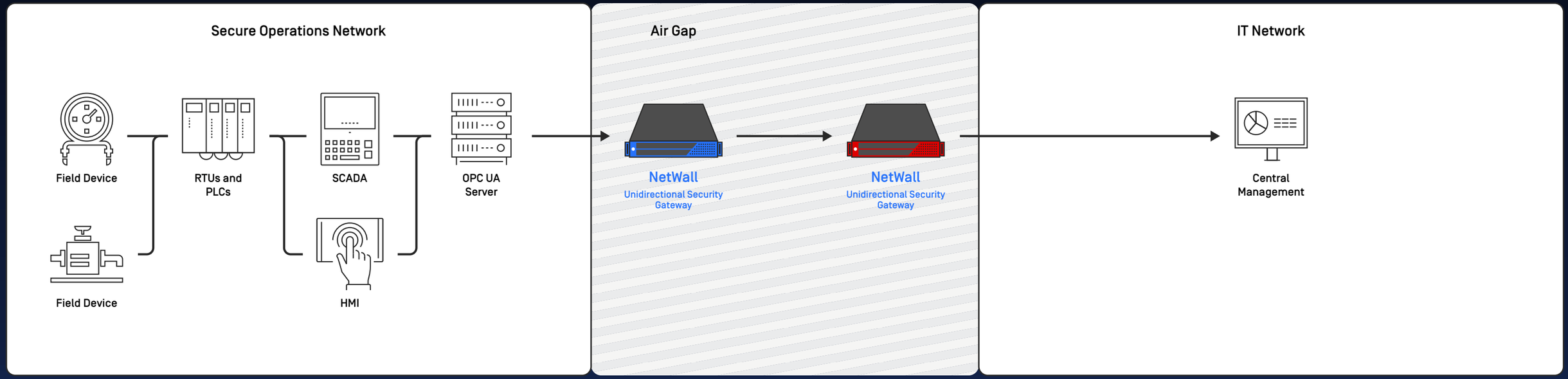
Water Treatment Plant Requires Real-Time Replication of OPC Data

Challenge

Transfer real-time operational data for OT to IT without compromising OT infrastructure security in water/waste-water facilities.

Solution

NetWall, which natively supports Open Platform Communications Unified Architecture (OPC UA), will integrate with OPC UA server in the OT domain and transfer real time values to IT over an enforced one-way transfer using a non-routable protocol.



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USE CASE

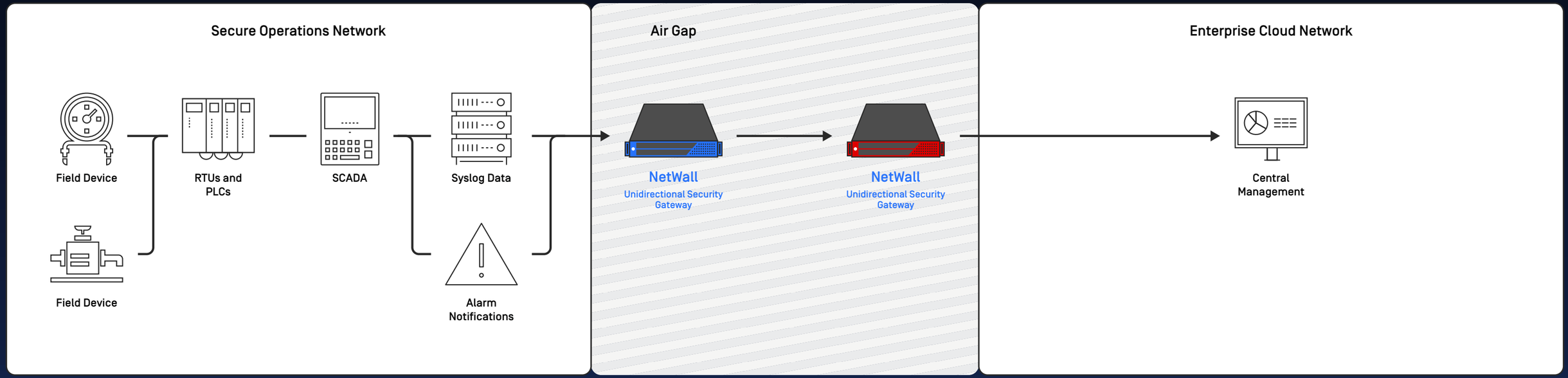
Efficiently Monitor Healthcare Data Centers

Challenge

Maintain a high level of security to protect data centers from outside threats while creating an operationally efficient means to monitor data centers from a central monitoring facility.

Solution

NetWall replicates log files and supports transferring email alerts to a central monitoring facility. NetWall's assured data delivery architecture delivers data in real time, supporting highly efficient system monitoring and alert management.



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USE CASE

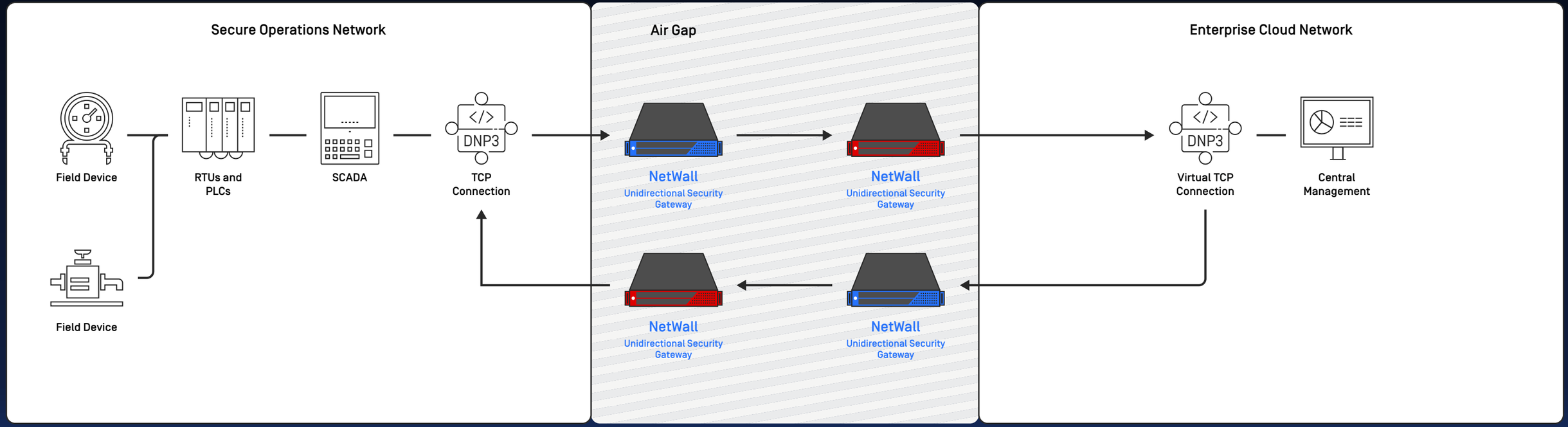
Bidirectional Command and Control of Substation Remote Terminal Units

Challenge

Maintain a high level of operational efficiency while isolating and protecting substation assets from outside threats.

Solution

Deploying a pair of NetWalls to create a secure bidirectional communication between the substation and central command and control facility. The bidirectional pair of NetWalls replaces vulnerable firewalls to secure each substation.



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USE CASE

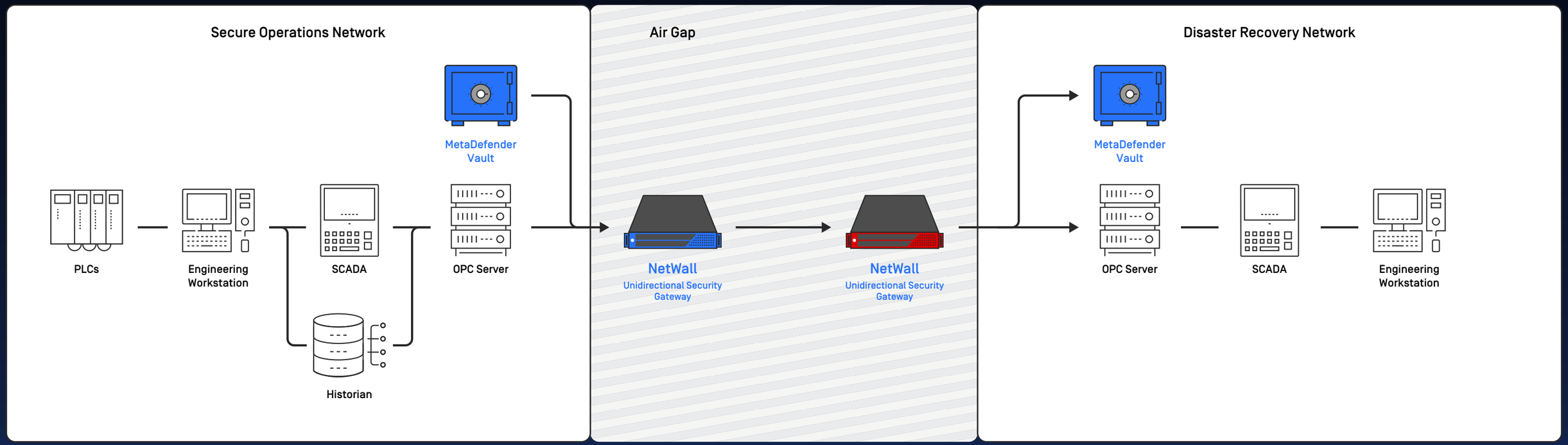
Creating a Secure Backup at a Disaster Relief Facility for Power Generation Plants

Challenge

A secure backup site is needed to restore operations in the event of a physical or cyber issue where normal operations are compromised. The site needs to be isolated to prevent malware from propagating to the disaster recovery facility.

Solution

NetWall replicates real time supervisory control and data acquisition (SCADA) data to the backup disaster recovery site while isolating it from the compromised environment. MetaDefender Vault to Vault replication stores the latest version of device software at the backup facility.



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USE CASE

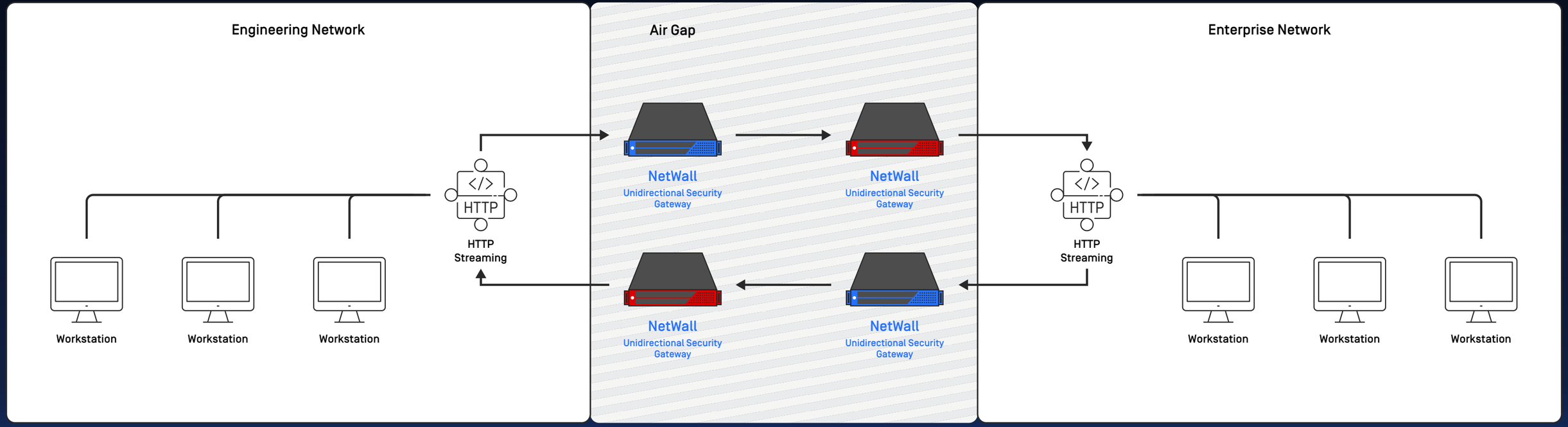
Protecting Intellectual Property by Isolating Engineering Environments

Challenge

An engineering firm needs to secure their engineering environment from outside threats while allowing finished documents such as an application bill of materials (ABOM) to be securely transferred to the enterprise system.

Solution

NetWall transfers files from the engineering environment to the enterprise system over a secure one-way link. Two NetWalls provide secure bidirectional file transfer between the enterprise network and the engineering application.



OPSWAT.

USE CASE

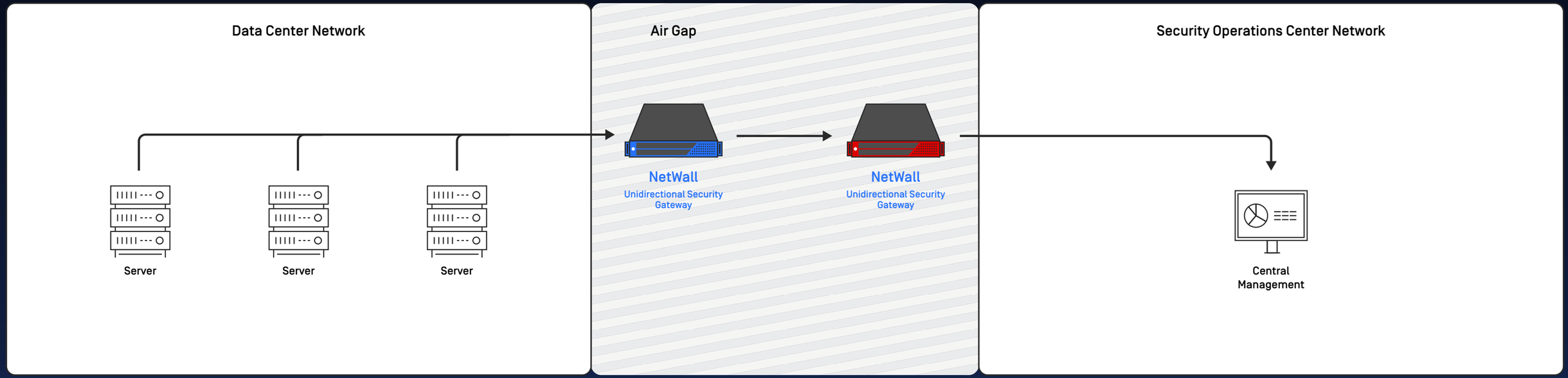
Major Healthcare System Needs to Efficiently Monitor Their Data Centers

Challenge

Maintain a high level of security to protect data centers from outside threats while creating an operationally efficient means to monitor the data centers from a central monitoring facility.

Solution

NetWall was selected to replicate log files and support transferring email alerts to a central monitoring facility. NetWall's assured data delivery architecture delivers data in real time, supporting highly efficient system monitoring and alert management.



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USE CASE

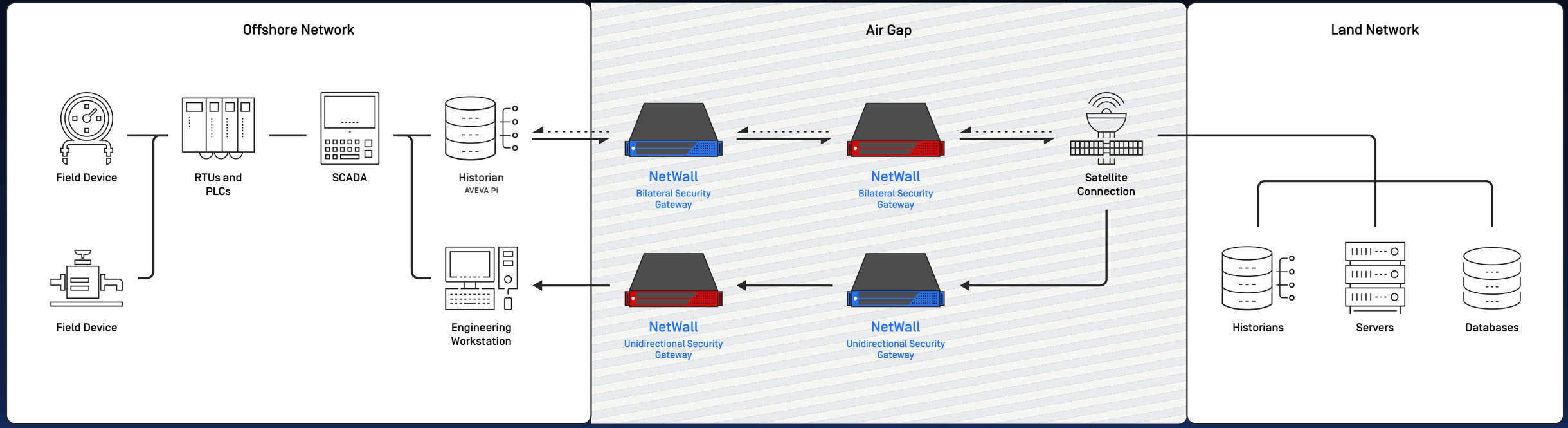
Securing an Offshore Oil Rig

Challenge

Securely transfer historical data from the oil rig over a satellite connection while supporting sending software updates back to the rig.

Solution

NetWall unidirectional and bilateral security gateways deliver superior security as compared to a firewall plus, they offer the guaranteed data delivery that an optical diode can't provide. NetWall reliably delivers data over the satellite connection and other networks that may experience intermittent availability.



GET STARTED

Are you ready to put NetWall on the front lines of your cybersecurity strategy?

Talk to one of our experts today.

Scan the QR code or visit us at:
opswat.com/get-started
sales@opswat.com

OPSWAT.
Protecting the World's Critical Infrastructure

OPSWAT protects critical infrastructure (CIP). Our goal is to eliminate malware and zero-day attacks. We believe that every file and every device pose a threat. Threats must be addressed at all locations at all times—at entry, at exit, and at rest. Our products focus on threat prevention and process creation for secure data transfer and safe device access. The result is productive systems that minimize risk of compromise. That's why 98% of U.S. nuclear power facilities trust OPSWAT for cybersecurity and compliance.