

NetWall™ Optical Diode

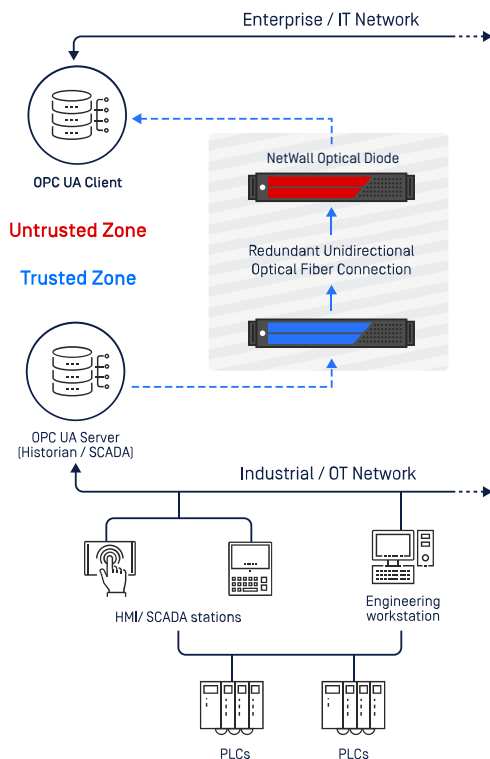
Unidirectional Security
for Safe OT/IT Communications

Hardware-Enforced, Deterministic,
One-Way Data Transfer Data Diode

In compliance with NEI and other cyber security controls, NetWall Optical Diode serves as a deterministic isolation device which protects critical assets while allowing multiple data types to be transferred concurrently. The hardware-enforced, one-way optical link between the source and destination servers reliably transfers data over a non-routable protocol, ensuring complete security from network-borne threats. NetWall Optical Diode provides access to real-time OT data and enables secure IT/OT data and file transfers without the risk of introducing security threats to critical OT production networks and assets.



NetWall Optical Diode Assures No Way Back to the OT Network



Key Features

Highly Reliable Payload Delivery: Secure and reliable data delivery over a hardware enforced one-way optical connection.

No Return Path: One-way data flows are enforced by a non-networked serial connection between the NetWall server pair.

Easy to Deploy: Preconfigured platform deploys quickly, seamlessly.

Simple to Operate: Ready for use in minutes after one-time initial setup. No firewall audit or configuration needed.

Highly Scalable: Choose 100Mbit or 1Gbit throughput license. The Din Rail version starts at 10Mbps and can be licensed to 100Mbps.

Transparent to Users: High-fidelity data replication means there is no need to alter work procedures of corporate users.

Enables Regulatory Compliance: Meets many requirements of Industrial Cyber Security standards, including NEI 13-10, NERC CIP, NIST ICS/CSF/800-82/800-53, IEC 62443, NRC 5.71, CFATS, ISO 27001/ 27032 / 27103, ANSSI, IIC SF, and more. Protects against Industrial attack techniques outlined by MITRE ATT&CK for ICS.

Benefits

- Airtight protection for OT/ICS-to-IT communication
- Secure, segmented, unidirectional data paths
- True protocol break, non-routable connection
- Assured delivery with no data loss
- Easy deployment and operation

OPSWAT.

NetWall™ Optical Diode

Reliable Unidirectional Data Communications

- Isolates OT/ICS assets against cyberattacks
- Blocks any traffic originating from the IT network from entering the OT Network
- Segments and protects networks, devices
- Seamlessly integrates with OPSWAT MetaDefender, Kiosk, and Vault
- Secures the transfer of software updates and other files to the protected domain
- Optional OPSWAT MetaDefender Core integrates into NetWall for advanced malware prevention and detection

OPSWAT NetWall Optical Diode Specifications

PRODUCT DESCRIPTION

NetWall Optical Diode is delivered as a preconfigured appliance, comprising of a pair of 19" 1U rack-mounted or din rail mount servers (2U total). It includes a non-networked optical cable, USB security dongles, and it is field-upgradable by software licensing.

ENVIRONMENTAL DIN RAIL SERVER

Voltage	12 - 36 VDC
Power Consumption	Typically, 30W
USB Interface	1 USB socket on each platform to connect provided USB crypto key

ENVIRONMENTAL 1U SERVERS

Power Supply	250W
Voltage	100 - 240 VAC, auto-ranging
Power Consumption	Typical ~150W
USB Interface	1 USB socket on each platform to connect provided USB crypto key

TESTED LATENCY*

TCP Data Stream	0.6ms
UDP Data Stream	0.7ms

*Actual latency results may vary according to setup used, traffic characteristics and network topology.

RELIABILITY

MTBF	> 50,000 hours
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FORM FACTOR - DIN RAIL

Weight	2 units @ 2.2kg each
Mounting	Din Rail mounting

FORM FACTOR 1U SERVERS

Weight	2 units @ 27lb / 12.2kg each
Mounting	Rack mounting kit supplied



Broad Support for Unidirectional OT/IT Convergence

OPSWAT NetWall Optical Diode data replication solutions support a wide range of industrial OT and corporate IT protocols and applications.

Application and Protocol Support

Industrial Protocols

- Modbus
- OPC (UA, DA, A&E)
- MQTT-SN

IT Protocols

- UDP, TCP, HTTP, HTTPS, SMTP
- Video/Audio stream transfer

IT Monitoring Applications

- Log transfer, SNMP Traps, SYSLOG
- SIEM integration via SYSLOG

File/Folder Transfers

- FTP, folder and file transfers/copying
- Windows file share, SMB, CIFS
- Antivirus updates, patch (WSUS) updates



Protecting the World's Critical Infrastructure