OPSWAT.

METADEFENDER™

Optical Diode

For Safe OT/IT Communication

In compliance with NEI and other cyber security controls, MetaDefender 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. 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.

Benefits

- Airtight protection for OT/ICS-to-IT communication
- Secure, segmented, unidirectional data paths
- True protocol break, non-routable connection
- Redundant optical connection for unsurpassed reliability
- Easy deployment and operation
- Seamlessly integrates with MetaDefender Kiosk, Core, and Managed File Transfer

Key Features

No Return Path
One-way data flows are enforced by a unidirectional optical connection between the Optical Diode server pair.

Easy to Deploy
The preconfigured platform deploys quickly and seamlessly.

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

Scalable
Choose 100 Mbps, 1 Gbps, or 10 Gbps license. The DIN Rail version ranges from 10 Mbps to 50 Mbps.

High-Availability
With the purchase of a second Optical Diode, enable high-availability configurations (active/standby).[1]

Transparent to Users
High-fidelty data replication means there is no need to alter work procedures of corporate users.
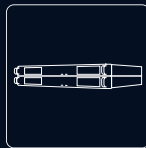
Industrial Cybersecurity Compliance
NEI 13-10, NERC CIP, NIST ICS/CSF/800-82/800-53, IEC 62443, NRC 5.71, CFATS, ISO 27001/27032/27103, ANSSI, IIC SF, and more. Protects against industrial attack techniques outlined by MITRE ATT&CK.

METADEFENDER OPTICAL DIODE

MetaDefender Optical Diode assures no way back to the OT network

| 1U | DIN Rail |

Electrical

Redundant Power Supply	250W	⊗
Voltage	100–240VAC, auto ranging	12–36VDC
Power Consumption	150W typical	30W typical

Hardware

Dimensions	2x 19 x 1.75 x 15.75" [483 x 44 x 400mm]	2x 2.5 x 7.32 x 6.3" [65 x 186 x 160mm]
Weight	2x 27lb [12.2kg]	2x 4.85lb [2.2kg]
Operating Temp	32 to 131°F [0 to 55°C]	-40 to 158°F [-40 to 70°C]
MTBF	>50,000 hours	
Mounting	1U rack kit included	No additional harware needed

Other Specifications

Connectivity	2x USB for connecting provided crypto keys
Tested Latency[2]	0.6ms TCP, 0.7ms UDP

Protocol & Certification

Industrial	Modbus OPC [UA, DA, A&E] MQTT IEC104 DNP3 AVEVA PI historian ICCP
IT	UDP, TCP, HTTP, HTTPS, SMTP Video/audio stream transfer
IT Monitoring	Log Transfer SNMP Traps SYSLOG SIEM integration via SYSLOG Screen view
File System	FTP, FTPS, SFTP Folder and file transfer/copy User-defined file polling interval Transfer priority based on date/time and filename Windows File Share SMB, CIFS Antivirus updates Patch [WSUS] updates
Certification	Common Criteria EAL 4+[3] FCC/CE/UKCA

1. Available on 1U model only.
2. Actual latency results may vary according to setup used, traffic characteristics, and network topology.
3. Certification pending.

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Protecting the World's Critical Infrastructure

opswat.com/get-started