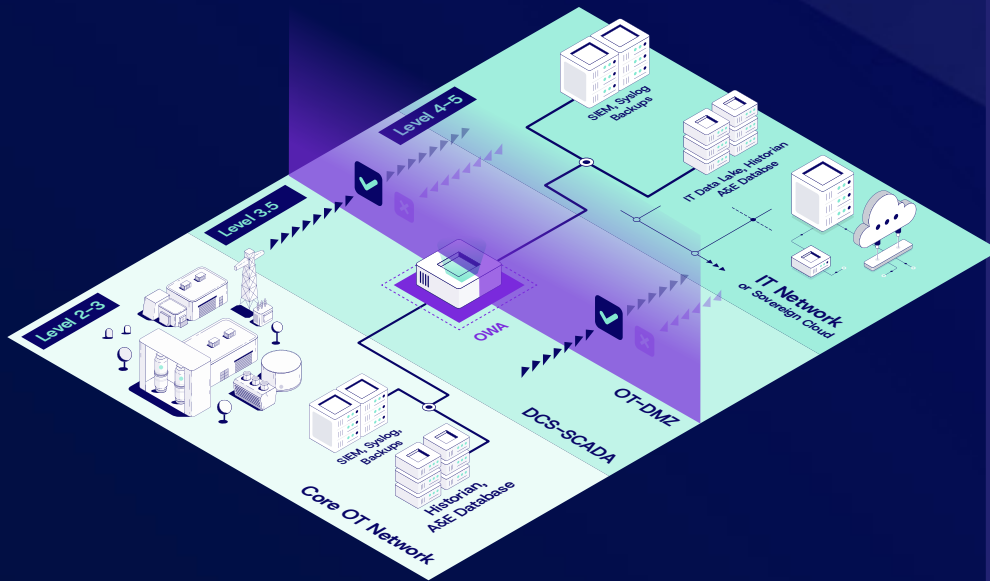




Unidirectional Network Segmentation



Hardware Data Diode protection for your Critical Networks from Network Outsider threats.

What is OWA-3U-1G

OWA-3U-1G **OT Edition** is a powerful, hardware-enforced security gateway designed to allow strict unidirectional data flow **up to 1+ Gbps**. By creating a physical barrier between IT and OT domains, it ensures **airgap-grade separation** of critical operational systems — **far beyond what firewalls can offer**. Its secure-by-design architecture enables both real-time transfer of OT data (SCADA, DCS, Historian) to IT or cloud systems and safe delivery of alarms and events— without exposing critical assets to outsider cyber threats. It enforces a physical **separation of duty** between production (OT) and supervision (IT) layers.

Built for **compliance** with the most stringent security frameworks such as IEC 62443 and NIS2, and integrating an **optional up-to-EAL7+ Data Diode at heart**, Cyberium's OWA product line enables secure convergence of IT/OT systems without compromising the integrity, availability, or safety of industrial operations.

OWA-3U-1G



DATASHEET OT EDITION

KEY CHARACTERISTICS



Complete Physical Separation

- Upstream and downstream proxies physically separated
- Redundant power supply per proxy



Strict Unidirectionality

No returning data link, not even on a separate channel for data flow control



True Bandwidth

1+ Gbps sustained on a single link, optimized for file and multi-protocol transfer



Absolute Reliability

0-packet loss[Ⓟ], 0-file loss[Ⓟ], and 0-file corruption[Ⓟ]



Built for Resilience

- Active/Active High Availability[Ⓟ] ⁽¹⁾
- Automated fail-over upon failure⁽¹⁾
- Automatic traffic recovery upon downstream (IT) unavailability



Eased Compliance with

IEC/ISA 62443 FR 5 Restricted Data Flow SL-C 4, NERC CIP version 5, NIS2 & NEI 08-09.

Includes an Optional EAL7+ or ANSSI-certified Data Diode



OT Systems Compatibility

A vast range of protocols and systems through deployed Agents software and native connectors... See a full list at the back



Seamless Deployment

Transparent to end-users. No change in the network. Easy admin. No extra workload for administrators. Above-grade MTBF



Reverse Secure Updater

IT-to-OT secured OT updates and patches (WSUS) protected by advanced dual Anti-Viruses ⁽¹⁾

(1) Requires an additional OWA Product.
- please get in touch with us.

Technical Specs

HARDWARE APPLIANCE

Ordering SKU	OWA-3U-1G
Mounting Rack	19" Rack Mounting, Rack kit included, Sliding rails. 2U Rack Space for the two proxies + 1U (optional) for the Optical Data Diode
Dimensions & Weight	H 42.8 mm W 482 mm D 548.13 mm By proxy server, without Data Diode 13.23 Kg / 29,17 Lb
Operating T°	5 °C to 45 °C (41 °F to 113 °F) with no direct sunlight on the equipment
Standards	Enterprise-Class Mission-Critical Hardware MTBF > 50 000 hr
Electrical/ Power	100-240 V AC – Avg consumption: 250 W By proxy server 2× 600 W PSU

NETWORK & CONNECTIVITY

Port / Interfaces	4× 1/10 Gbps (SFP+), 2× 1 Gbps (Copper)
USB / Other	2x USB-port, 1x VGA-port
Max end-to-end Throughput	1 Gbps – True deliverable capacity
File Sending Benchmark	Above 1000 files of 125 KB sent /sec at 1 Gbps. Max file size 100 GB, upgradable.

SECURITY COMPONENTS

Included Optical Diode – 1U option	Allentis Tapics (passive – ANSSI FR) Thalès Elips (passive – ANSSI FR / eq. EAL 7+) ⁽¹⁾ Sentryron 1 G (active – EAL 7+) ⁽¹⁾
OS	Hardened OS based on AlmaLinux SE

PROTOCOLS & OT SYSTEMS COMPATIBILITY

Industrial Protocols	MQTT, OPC UA/DA, Modbus, DNP3, IEC.104
Historians and similar OT systems	AVEVA Pi2Pi Replication AspenTech (InfoPlus21) Bently Nevada (S1) Emerson (AMS Optics) GE (OSM: On-Site Manager) Honeywell (Uniperformance PHD) Yokogawa (Data Historian)
Centralized Monitoring	Cisco Splunk (extended API integration) ArcSight (via SYSLOG) Generic SIEM integration via SYSLOG Generic SNMP Traps Screen view (via HDMI replicator)
Alarms & Events	Hexagon (PAS) Emerson (DeltaV AgileOps)
IT Protocols	UDP, HTTP/S API, SMTP
File Transfer	Direct File Channel: Supports SFTP, FTP/S/ES MS Windows File Transfer Agent (via Files Channel)
Generic Data Transfer for DCS/SCADA applications	MS SQL / Oracle Database Replication (Incremental Backups) SQL Real Time Data Replication (Changes)

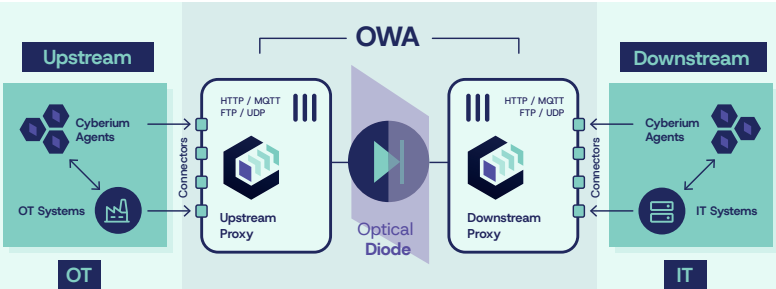
MANAGEABILITY & RESILIENCE

High Availability	Active/Active – automated fail-over with the purchase of a second OWA appliance + High Availability Option
Traffic Buffering	Up to 1-day ⁽²⁾ automatic replay of past traffic in case of downstream network unavailability
Solution Monitoring	Either through Syslog OR Web GUI central console enables monitoring of traffic, health and performances, downstream of the proxy appliances
Logging	Every configuration change and every traffic is logged
Administration Account	Separated on the upstream and downstream proxies
Config. saving / restore	Locally, on USB or on the network

How does it work

OWA / AGENTS combined architecture:

OWA-3U-1G/10G is entirely compatible with Cyberium AGENTS, an exclusive Suite of OT/IT Software Replicator Agents
– See Cyberium OWA AGENTS Datasheet for more details.



OT Portfolio Overview

See also

OWA-1U-500M	500 Mbps	OWA-1U-1G	1 Gbps
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OWA-3U-1G	1 Gbps	OWA-3U-10G	10 Gbps
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19" Rack Mounting	1U Rack Space Single Power Supply per proxy	2U or 3U Rack Space Redundant Power Supply per proxy
Security Isolation in-between proxies	Unidirectional Optical Link	2U: Unidirectional Optical Link 3U: Optical & Passive (no power) Data Diode option with certification ANSSI qualified (FR) or EAL7+
Capacity	2 Concurrent Connectors Up to 1-hour ⁽²⁾ traffic buffer ⁽³⁾	Unlimited Concurrent Connectors Up to 1-day ⁽²⁾ traffic buffer – ext. to 1-week ⁽²⁾ option
Industrial Protocols	Off-proxy appliance Replicator Agents	On-proxy appliance Replicator Agents ⁽³⁾
IT to OT WSUS updates	Not recommended as a Reverse Data Diode No Antivirus control available.	Recommended as a Reverse Data Diode with Dual Antiviruses option available

(1) Option subject to prior regulatory approval.
(2) Buffer capacities are calculated based on an average traffic load at 1 Gbps bandwidth.
(3) Not applicable for all agents. Subject to hardware extensions and limitations based on desired performance – please consult a Cyberium representative for more details.

Member of:



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