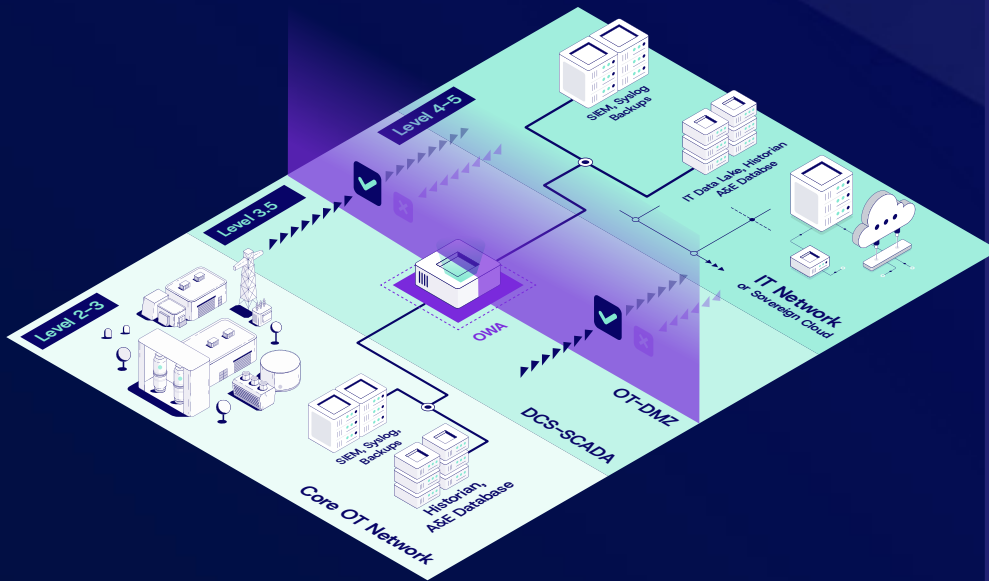




# Unidirectional Network Segmentation



## 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<sup>®</sup>, 0-file loss<sup>®</sup>, and 0-file corruption<sup>®</sup>
- Built for Resilience**
  - Active/Active High Availability<sup>®</sup> (1)
  - Automated fail-over upon failure<sup>(1)</sup>
  - 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<sup>(1)</sup>

(1) Requires an additional OWA Product. 10 Gbps HA is subject to eligibility – please get in touch with us.

# Technical Specs

## HARDWARE APPLIANCE

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

## NETWORK & CONNECTIVITY

<b>Port / Interfaces</b> <small>By proxy server</small>	4× 1/10 Gbps (SFP+), 2× 1 Gbps (Copper)
<b>USB / Other</b> <small>By proxy server</small>	2x USB-port, 1x VGA-port
<b>Max end-to-end Throughput</b>	10 to 25 Gbps (depending on the chosen version) – True deliverable capacity
<b>File Sending Benchmark</b>	Above 1000 files of 125 KB sent /sec at 1 Gbps. Max file size 100 GB, upgradable.

## SECURITY COMPONENTS

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

## PROTOCOLS & OT SYSTEMS COMPATIBILITY

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

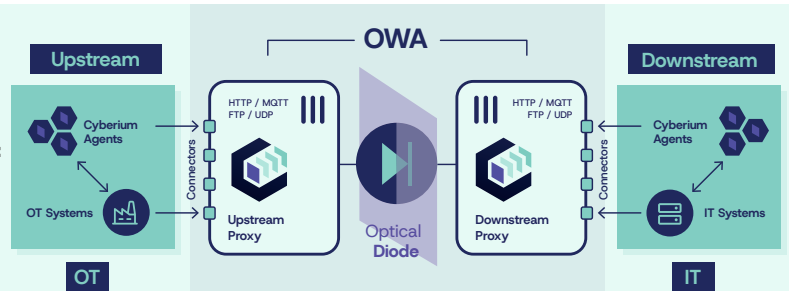
## MANAGEABILITY & RESILIENCE

<b>High Availability</b>	Active/Active – automated fail-over with the purchase of a second OWA appliance + High Availability Option
<b>Traffic Buffering</b>	Up to 1-day <sup>(2)</sup> automatic replay of past traffic in case of downstream network unavailability
<b>Solution Monitoring</b>	Either through Syslog OR Web GUI central console enables monitoring of traffic, health and performances, downstream of the proxy appliances
<b>Logging</b>	Every configuration change and every traffic is logged
<b>Administration Account</b>	Separated on the upstream and downstream proxies
<b>Config. saving / restore</b>	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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<b>19" Rack Mounting</b>	1U Rack Space Single Power Supply per proxy
<b>Security Isolation in-between proxies</b>	Unidirectional Optical Link
<b>Capacity</b>	2 Concurrent Connectors Up to 1-hour <sup>(2)</sup> traffic buffer <sup>(3)</sup>
<b>Industrial Protocols</b>	Off-proxy appliance Replicator Agents
<b>IT to OT WSUS updates</b>	Not recommended as a Reverse Data Diode No Antivirus control available.

<b>2U or 3U Rack Space</b>	2U or 3U Rack Space Redundant Power Supply per proxy
<b>2U: Unidirectional Optical Link</b>	2U: Unidirectional Optical Link
<b>3U: Optical &amp; Passive (no power) Data Diode option with certification ANSSI qualified (FR) or EAL7+</b>	3U: Optical & Passive (no power) Data Diode option with certification ANSSI qualified (FR) or EAL7+
<b>Unlimited Concurrent Connectors</b>	Unlimited Concurrent Connectors Up to 1-day <sup>(2)</sup> traffic buffer – ext. to 1-week <sup>(2)</sup> option
<b>On-proxy appliance Replicator Agents<sup>(3)</sup></b>	On-proxy appliance Replicator Agents <sup>(3)</sup>
<b>Recommended as a Reverse Data Diode with Dual Antiviruses option available</b>	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 limitations based on desired performance – please consult a Cyberium representative for more details.

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cyberium.solutions  
contact@cyberium.solutions