

HARDWARE-ENFORCED DATA DIODE

Unidirectional Network Segmentation

Hardware data diode protection that shields your critical networks from outside network threats, without ever opening a return path into your operational systems.

OWA-3U-1G



Where the OWA sits in your architecture

ONE-WAY IT / OT CONVERGENCE

Core OT Network LEVELS 2-3

- DCS & SCADA
- Historian
- Alarms & Events DB

OT-DMZ
3.5

OWA Gateway HARDWARE DIODE

OWA-3U-1G

Physical, one-way boundary
between production and supervision.

NO RETURN
LINK

IT / Sovereign Cloud LEVELS 4-5

- SIEM & Syslog
- IT Data Lake, Historian
- Backups & A/E DB

What is the OWA-3U-1G

The **OWA-3U-1G OT Edition** is a powerful, hardware enforced security gateway that permits strict one-way data movement at sustained speeds of 1+ Gbps. By placing a physical boundary between IT and OT domains, it delivers **airgap-grade isolation** of critical operational systems that reaches well beyond what a firewall can offer

Its secure-by-design architecture enables real-time delivery of OT data (SCADA, DCS, Historian) into IT or cloud platforms, along with reliable forwarding of alarms and events, all without exposing critical assets to outside cyber threats. In practice it enforces a **physical separation of duty** between the production (OT) layer and the supervision (IT) layer. Built to satisfy demanding frameworks including IEC 62443 and NIS2, and able to integrate an optional **up-to EAL7+ data diode** at its core, the OWA line lets you converge IT and OT securely while preserving integrity, availability, and safety

Arista Cyber delivers, deploys, and supports the OWA platform across North America in partnership with **Cyberium**, the manufacturer of the technology. Learn more at cyberium.io.



Complete Physical Separation

Upstream and downstream proxies are physically separated, each with its own redundant power supply



True Bandwidth

A sustained 1+ Gbps on a single link, tuned for file and multi protocol transfer.



Built for Resilience

Active/Active high availability with automated failover, plus automatic traffic recovery if the IT side goes offline. (1)



OT Systems Compatibility

Connects to a wide range of protocols and systems through deployed Agent software and native connectors. Full list on the back.



Reverse Secure Updater

Controlled IT-to-OT delivery of OT updates and patches (WSUS), protected by an advanced dual antivirus option. (1)



Strict Unidirectionality

No returning data link, not even on a separate channel for data flow control. Data only ever moves one way.



Absolute Reliability

Zero packet loss, zero file loss, and zero file corruption across every transfer



Eased Compliance

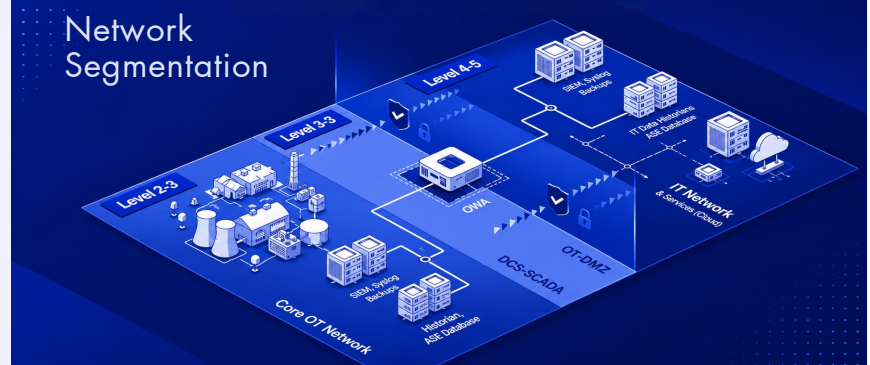
Aligns with IEC/ISA 62443 FR 5 Restricted Data Flow SL-C 4, NERC CIP v5, NIS2, and NEI 08-09. Optional EAL7+ or ANSSI-certified data diode.



Seamless Deployment

Transparent to end users with no network change. Easy administration, no added workload, above-grade MTBF.

Network Segmentation



Technical Specifications

• HARDWARE APPLIANCE

FIGURES ARE PER PROXY SERVER, WITHOUT THE DATA DIODE

Mounting 19" rack, sliding rails and rack kit included. 2U rack space for the two proxies, plus 1U (optional) for the optical data diode.

Dimensions H 42.8 mm × W 482 mm × D 548.13 mm

Weight 13.23 kg / 29.17 lb

Operating temp. 5 °C to 45 °C (41 °F to 113 °F), no direct sunlight on the equipment.

Standards / MTBF Enterprise-class mission-critical hardware. MTBF > 50,000 hr.

Electrical / power 100-240 V AC. Avg. consumption 250 W. 2 × 600 W PSU.

• NETWORK & CONNECTIVITY

Ports / interfaces 4 × 1/10 Gbps (SFP+), 2 × 1 Gbps (copper), per proxy server.

USB / other 2 × USB port, 1 × VGA port, per proxy server.

Max throughput 1+ Gbps sustained. True deliverable end-to-end capacity.

File benchmark More than 1,000 files of 125 KB per second at 1 Gbps. Max file size 100 GB, upgradable

• SECURITY COMPONENTS

Optical link Allentis Tapics (passive, ANSSI FR). Thales ELIPS SD (passive, ANSSI FR / eq. EAL7+). Sentryron 1G (active, EAL7+). (1)

Operating system Hardened OS based on AlmaLinux SE.

• PROTOCOLS & OT SYSTEMS COMPATIBILITY

Industrial protocols MQTT, OPC UA/DA, Modbus, DNP3, IEC 104.

Historians & OT systems AVEVA Pi2Pi Replication, AspenTech (InfoPlus21), Bently Nevada (S1), Emerson (AMS Optics), GE (OSM On-Site Manager), Honeywell (Uniformance PHD), Yokogawa (Data Historian).

Centralized monitoring Cisco Splunk (extended API integration), ArcSight (via Syslog), generic SIEM (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 supporting SFTP and FTP/S/ES. MS Windows File Transfer Agent via the Files Channel.

DB replication (DCS/SCADA) MS SQL / Oracle database replication (incremental backups). SQL real-time data replication (changes).

• MANAGEABILITY & RESILIENCE

High availability Active/Active automated failover with the purchase of a second OWA appliance, plus a High Availability option.

Traffic buffering Up to 1 day (2) of automatic replay if the downstream network is unavailable, extendable to a 1-week option.

Monitoring Via Syslog or a Web GUI central console for traffic, health, and performance, downstream of the proxies

Logging Every configuration change and all traffic is logged.

Admin accounts Separated across the upstream and downstream proxies.

Config save / restore Locally, on USB, or over the network.

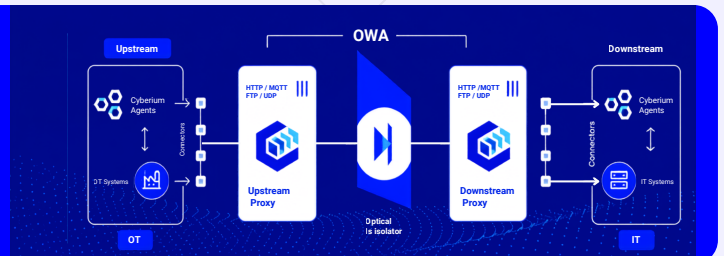
OT Portfolio Overview

	OWA-1U-500M 500 Mbps	OWA-1U-1G 1 Gbps	OWA-3U-1G 1 Gbps	OWA-3U-10G 10 Gbps
Rack & power	1U rack space. Single power supply per proxy.		2U or 3U rack space. Redundant power supply per proxy.	
Isolation between proxies	Unidirectional optical link.		2U: unidirectional optical link. 3U: optical & passive (no power) data diode option, ANSSI qualified (FR) or EAL7+.	
Capacity	2 concurrent connectors. Up to 1-hour (2) traffic buffer.		Unlimited concurrent connectors. Up to 1-day (2) buffer, extendable to a 1-week 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 a dual-antivirus option available.	

How it works

UPSTREAM → OPTICAL DIODE → DOWNSTREAM

OPTIONAL EAL7+ / ANSSI OPTICAL DIODE



(1) Option subject to prior regulatory approval. (2) Buffer capacities are based on an average traffic load at 1 Gbps bandwidth. (3) Not applicable to all agents and subject to limitations based on desired performance. Please consult an Arista Cyber representative. The OWA-3U-1G/10G is fully compatible with Cyberium Agents, an exclusive suite of OT/IT software replicator agents. See the Cyberium OWA Agents datasheet for more.

TALK TO ARISTA CYBER

Arista Cyber
396 Old Colony Road
Richmond Hill, ON L4E 5A5, Canada

REACH OUT

info@aristacyber.io
+1 (437) 223-7770
aristacyber.io



TECHNOLOGY PARTNER

Powered by Cyberium technology.
cyberium.io