

## DATA SHEET

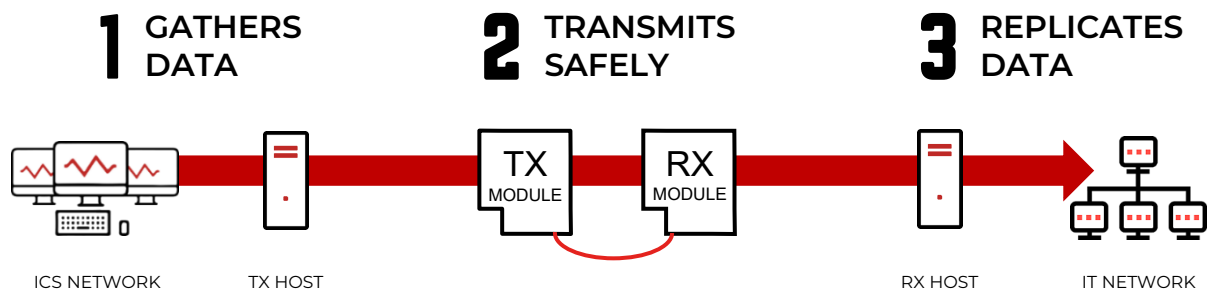
# UNIDIRECTIONAL SECURITY GATEWAY

## WF-500

Waterfall's flagship Unidirectional Security Gateway WF-500 replaces firewalls in industrial network environments, providing absolute protection to control systems and industrial control networks from attacks emanating from external less-trusted networks.

Unidirectional Gateways contain both hardware and software components, and ensure data flow in one direction only, from the ICS network to the IT network, **providing 100% protection from remote cyber threats.**

### UNIDIRECTIONAL SECURITY GATEWAY 1-2-3



### COMBINATION OF HARDWARE & SOFTWARE

#### OUR HARDWARE MAKES YOU SECURE

#### OUR SOFTWARE REPLICATES SERVERS IN REAL-TIME

- » **TX Host:** gathers data from industrial servers and devices in the ICS network.
- » **TX Module:** a transmitter only containing a fiber-optic laser.
- » **Fiber optic cable:** connects TX module to RX module, permitting data flow in one direction only and preventing data from entering back into the protected network.
- » **RX Module:** an optical receiver only.
- » **RX Host:** replicates & emulates a wide array of industrial servers, devices, protocols and other systems on the IT network.

## FEATURES & BENEFITS



Hardware is modular, flexible and user-serviceable



1Gbps standard throughput, multi-Gbps with several TX/RX pairs



Optional HA configuration (high-availability)



Front panel cabinet connections for clear system visibility



Wide variety of COTS software connectors, no customization fees



Flexible connector hosting supporting all major OS

# TECHNICAL SPECIFICATIONS

## 100+ COTS CONNECTORS

Waterfall connectors can run on customer supplied servers, virtual machines or Waterfall Host Modules. Waterfall connectors are supported on Windows, Linux, Solaris, AIX, VxWorks & other operating systems.

### HISTORIANS & DATABASES

- Osisoft: PI System, PI Asset Framework, PI Backfill
- GE: iHistorian, iHistorian Backfill, OSM
- Schneider-Electric: Wonderware eDNA, Wonderware Historian, Wonderware Historian Backfill, SCADA Expert ClearSCADA
- AspenTech IP.21, Rockwell FactoryTalk Historian, Honeywell Alarm Manager, Scientech R\*Time, Bentley Nevada System1
- Microsoft SQL Server, Oracle MySQL, PostgreSQL

### REMOTE ACCESS

- Remote Screen View

### ENTERPRISE MONITORING

- FireEye: Helix & Managed Defense
- Email/SMTP, SNMP, Syslog
- HP ArcSight, Splunk, IBM QRadar, McAfee ESM, CyberX, Radiflow iSID, ForeScout Silent Defence, Dragos, Indegy,
- MSMQ, IBM MQ, Active Message Queue, TIBCO,
- SolarWinds Orion, Thales Aramis, IOSight, Panorama

### INDUSTRIAL APPLICATIONS & PROTOCOLS

- Siemens S7 & PCS7 Historian
- OPC DA, A&E, HDA, HDA Backfill and OPC UA
- Emerson: EDS,
- Yokogawa OPC, GE iFix
- Modbus, DNP3, ICCP, IEC 60870-5-104, Omni Flow

### FILE TRANSFER

- Folder mirroring, Local Folders
- FTP/S, SFTP, TFTP, SMB, CIFS, NFS, HTTPFS
- Log Mirroring, HTTP Request

### OTHER CONNECTORS

- TimeSync, Netflow
- Video & audio streaming
- Kaspersky, Norton, FortiGate, Check Point McAfee and OPSWAT Anti-virus updaters
- WSUS and Linux Repository updaters
- Tenable Nessus Network Monitor, Nessus Security Center Updates
- Remote printing



COMPONENTS	WF-500 TX	WF-500 RX	WF-500 HOST	FLIP	SECURE BYPASS
Copper Network Intf	2	2	3	5	4
Fiber Network Intf	1	1	n/a	n/a	n/a
Network Intf	1000 Mbps	1000 Mbps	100 / 1000 Mbps	1000 Mbps	100 / 1000 Mbps
Dimensions	18.6 x 4 x 26.5 cm	18.6 x 4 x 26.5 cm	18.6 x 4 x 26.5 cm	41.8 X 4 X 26.5 cm	18.6 x 4 x 26.5 cm
Weight	0.8 kg	0.8 kg	1.2 kg	1.8 kg	0.8 kg
Optional Serial Port	n/a	n/a	n/a	1	1



FORM FACTORS	WF-500 STANDARD	WF-500 COMPACT	WF-500 DIN RAIL
Modular Capacity	2	4	n/a
Power Supply	2 per side (4)	2 per side (4)	2 per system
Dimensions	48.3 x 4.4 x 52 cm	48.3 x 4.4 x 76 cm	11.3 X 21.3 X 25 cm
Weight	2.5 kg	4 kg	3 kg

