

Data Diode Solution

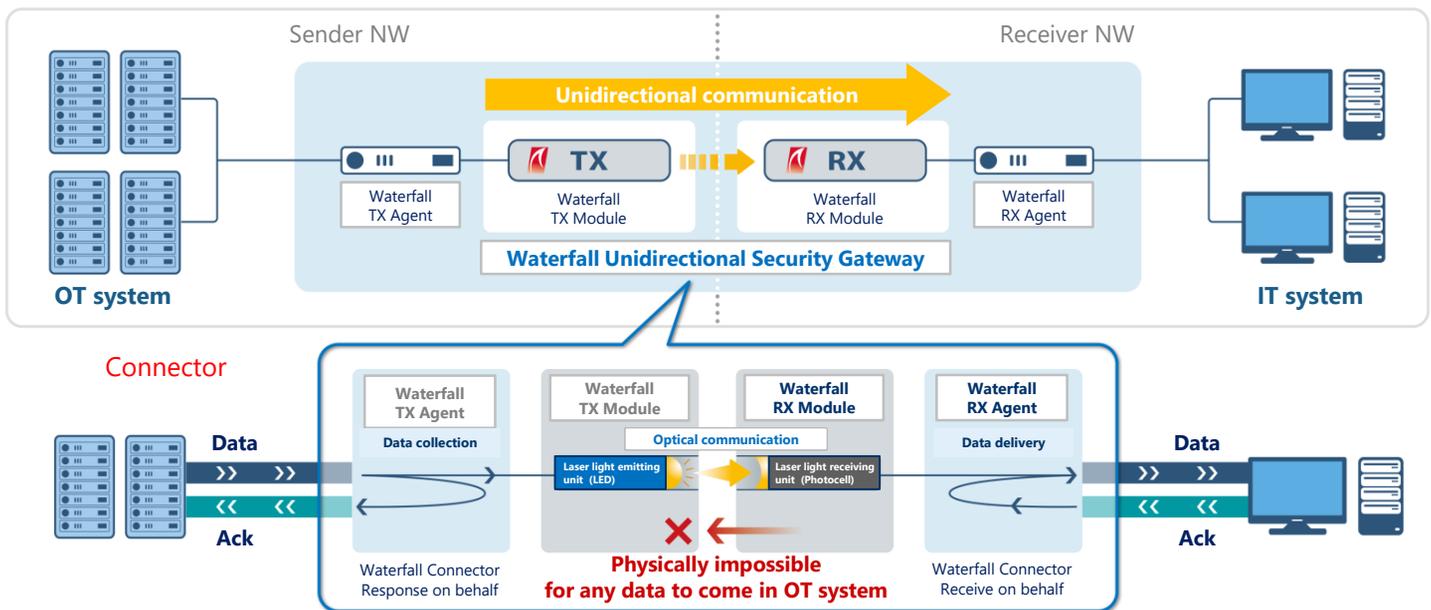
Waterfall Unidirectional Security Gateway

Waterfall Unidirectional Security Gateways enable secure IT/OT integration, disciplined control, and real-time industrial network monitoring.

Features

- Ensures data flow in one direction only, from ICS network to the IT network, Providing high protection from remote cyber threats.
- Supports various kind of applications and protocols.
- Introduced more than 1,000 sites.

Critical infrastructure such as Nuclear power, Electric power, Oil & Gas, Chemical, etc.



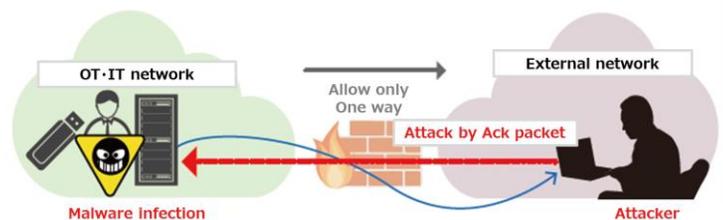
Why unidirectional communication required ?

Issues of Firewall

- In one way communication by firewall, it has risks that will be attacked by Ack packet.
- Vulnerability of Firewall products and configuration mistakes by human error.

Regulations

- Unidirectional communication for critical infrastructure is required and recommended in some security regulations and guidelines.
- NRC-RG 5.71 (Nuclear Regulatory Commission - Regulatory Guide) requires unidirectional communication for high security network.



Requirement of unidirectional communication by NRC-RG 5.71

Waterfall Appliance

WF-500S

- 1U appliance model combining TX module and RX module for various configuration.
- Supports high availability(HA) configuration.
- Separated model is also available (WF-500SPLIT).



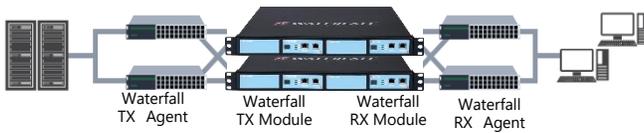
WF-500C

- All in one appliance model consisting of 4 components; TX and RX modules, and TX and RX agent software servers.
- Simple and compact model (only 1U).
- Sender unit and receiver unit are separated internally.



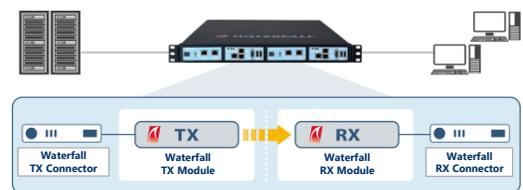
System configuration

HA configuration by WF-500S



- Improve reliability by making appliance and connector server redundant.

Single configuration by WF-500C



- Only required 1U space.

Supported protocols of Waterfall Agent Software

Industrial protocols

- OPC, DNP3, ICCP, Modbus, etc.

Industrial applications & historians

- OSisoft PI
- SQLServer, Oracle, MySQL, Postgres, SAP, etc.

IT monitoring applications

- Log transfer, SNMP, SYSLOG, SIEMs, etc.

File transfer

- File transfer, Folder mirroring, Remote folder(CIFS)
- FTP/TFTP/SFTP/FTPS/RCP

Connectors

- UDP, TCP/IP, SMTP
- NTP, Multicast Ethernet, etc.

Remote access

- Remote Screen View, etc.

Waterfall Appliance Specifications

	WF-500S	WF-500C
Network Interface	1000BASE-T x2	1000BASE-T x2
Power supply	100 - 240V	
Dimensions (WxDxH)mm	428 x 253 x 44 (1U) ※Not include rack mount kit	435 x 760 x 44 (1U) ※Not include rack mount kit
Weight	4.1kg	8.0kg
Remark	※Required server for Agent software (2 units).	※Include Sender(TX) and Receiver(RX) appliance and Agent software server (2 units).

- For sale, correct use, thoroughly read the Instructions on handling and operation before use.
- The information in this catalog is subject to change without notice.
- Products, numerical information, and descriptions in this catalog are current as of October, 2020.

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