

# Waterfall® for SMTP

## Safe, Secure Electronic Mail Replication



- Hardware-enforced unidirectional electronic mail transfers
- Fully transparent to electronic mail users and servers
- Eliminates cyber threats and risks from online attacks and human errors
- High availability and 1Gbps options
- Simplified NERC-CIP, NRC, NIST, CFATS and other regulatory compliance
- Common Criteria EAL4+ certified. Assessed for security by Idaho National Labs

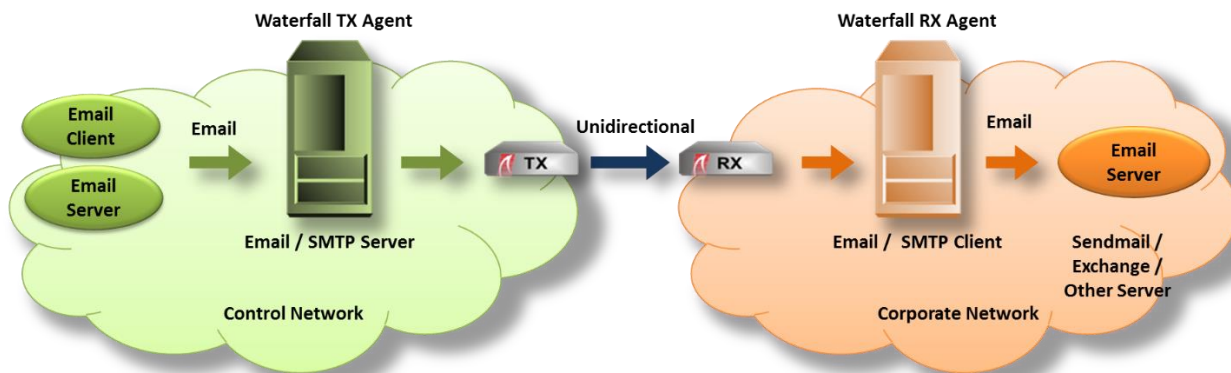
### Overview

Waterfall for SMTP integrates industrial networks with business networks and with business applications without putting the safety and reliability of the industrial networks at risk.

Modern businesses rely on real-time access to industrial data, log files and alerts, many of which are routinely supplied by industrial control systems using electronic mail. Waterfall for SMTP provides a path for controlled flows of electronic mail out of industrial networks, without introducing the threats to safe and reliable operation that always accompany firewalls.

### Waterfall for SMTP Unidirectional Replication

Waterfall for SMTP is part of the Waterfall Unidirectional Gateway family of products. The gateways are a combination of hardware and software. The Transmit Module contains a laser, and the Receive Module contains a photocell. A fiber-optic cable links the two modules. As a result, the Transmit Module can send data to the Receive Module, but the Receive Module cannot send anything back. There is no laser in the Receive Module that could send any signal, and there is no optical receiver in the Transmit Module that could receive any signal. No online attack originating on an external network can pass back into a protected network through the gateway hardware.



### How does it work?

Waterfall for SMTP provides a standard SMTP/electronic mail server on a protected industrial network. The mail server receives electronic mail from mail clients, email-aware industrial systems and other electronic mail servers on the industrial network. The optional Application Data Control policy engine can apply policy rules to all email in transit. For example, rules can have the policy engine scan the message with an anti-virus engine, raise alerts if certain data or keywords are present, edit email contents or destinations, or block certain kinds of mail from leaving the industrial network entirely.

### Highlighted Unique Features

Waterfall for SMTP supports a wide variety of features:

- Real-time replication of email
- High availability option
- 100 Mbps and 1Gbps options
- Compatible with all email clients and servers
- Modular, flexible, scalable, user-serviceable hardware
- Waterfall software supports Windows and Linux

### Application Data Control (Optional)

Adds the ability to:

- Raise alerts or block email when keywords or other characteristics are found
- Edit email in transit
- Add or remove attachments
- Change or filter email addresses
- Scan email or attachments for viruses
- Call out to encryption and other tools

### Regulatory Compliance and Certifications

No misconfiguration of Unidirectional Gateway replication software can impair the security provided by the gateway hardware. This results in dramatically reduced perimeter operating costs and costs of compliance with NERC-CIP, NRC, CFATS, NIST, ISA-SP99 and other standards, guidance, and regulations.

The gateway solution is certified Common Criteria EAL4+, resistant to high attack potential. Waterfall's Unidirectional Gateways are the only unidirectional solution assessed by Idaho National Labs.

### Which Networks Are Expendable?

The difference between control networks and IT networks is, not surprisingly, control. Compromised control and protection systems can destroy physical equipment and introduce costly downtime. Conventional IT/firewall security is appropriate for IT systems, but physical equipment cannot be "restored from backup." All software can be hacked, including firewalls, which is why best-practice advice recommends Unidirectional Security Gateways for industrial control systems.

***Which of our equipment, networks and sites are expendable enough to protect with only firewalls?***

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