

# WATERFALL FOR AMQP

## SECURE REPLICATION OF ADVANCED MESSAGE QUEUING PROTOCOL

Advanced Message Queuing Protocol (AMQP) is an open Oasis standard messaging protocol that uses message queues to transport data and to connect to a wide range of applications and environments. Sending such messages through industrial firewalls introduces significant risks, as all connections through firewalls introduce attack opportunities. Waterfall for AMQP enables industrial networks to replicate AMQP message queues to enterprise networks, without risk to the safe and continuous operation of industrial networks.

The Waterfall for AMQP connector software securely replicates AMQP broker servers to enterprise networks. Enterprise users access the replicas normally and bidirectionally without risk to the original OT network. The Waterfall for AMQP connector enables businesses to leverage operations data throughout their enterprises without exposing operations networks to cyber risk.

Waterfall for AMPQ is simple to install, with user-friendly, web-based configuration and monitoring tools. Comprehensive diagnostics include real-time alarms that alert users of fault conditions via Syslog, Windows logs, email, SNMP traps, log files and Waterfall's monitoring console.

## BENEFITS OF USING WATERFALL FOR AMQP



Secure, accurate replication of AMQP Brokers



Simple deployment – connector runs entirely in the Unidirectional Gateway with simple web user interface



Elimination of remote control cyberattacks and online malware propagation



Facilitating compliance with NERC CIP, NIST 800-82, ANSSI, IEC 62443 and more



Maximum utilization of AMPQ features



Power



Pipelines



Rail



Water



Facilities



Manufacturing

## WATERFALL FOR AMQP

The Waterfall for AMQP software connector replicates in real-time an AMQP Broker located in the operations network, to a replica AMQP Broker located on the enterprise network. Designed specifically for OT security, Waterfall for AMQP makes inbound data flows, from enterprise to industrial networks, physically impossible. Critical operations assets are now absolutely protected against any threats of remote cyber-attack, incoming viruses, or human errors originating on external networks.

Waterfall for AMQP communicates directly with the AMQP Broker, ensuring the real-time replication of alerts, messages and archived messages. With Waterfall for AMQP, real-time replication is provided for heavy duty AMQP Broker installations with unlimited number of messages. Users can continue to access and utilize the AMQP information originating in the industrial network while supporting business and operational objectives - enterprise-wide - without cyber risk to operations.



## FULLY- FEATURED & ROBUST SUPPORT:

- » Filters AMQP data based on queue manager name and queue name
- » Supports Server (broker) and Client modes on each side of the gateway
- » Supports spoofing of message headers
- » Optional creation of an archive queue that stores a copy of all messages sent to the enterprise network
- » Standard 1-10Gbps connectivity
- » Fully transparent to AMQP users

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### ABOUT WATERFALL

Waterfall Security Solutions' unbreachable OT cybersecurity technologies keep the world running. For more than 15 years, the most important industries and infrastructure have trusted Waterfall to guarantee safe, secure, and reliable operations. The company's growing list of global customers includes national infrastructures, power plants, nuclear generators, onshore and offshore oil and gas facilities, refineries, manufacturing plants, utility companies, and more. Waterfall's patented Unidirectional Gateways and other solutions combine the benefits of impenetrable hardware with unlimited software-based connectivity, enabling 100% safe visibility into industrial operations and automation systems.

Waterfall's products are covered by U.S. Patents 7,649,452, 8,223,205, and by other pending patent applications in the US and other countries. "Waterfall", the Waterfall Logo, "Stronger than Firewalls", "In Logs We Trust", "Unidirectional CloudConnect", and "CloudConnect, and "One Way to Connect" are trademarks of Waterfall Security Solutions Ltd. All other trademarks mentioned above are the property of their respective owners. Waterfall Security reserves the right to change the content at any time without notice. Waterfall Security makes no commitment to update content and assumes no responsibility for any mistakes in this document. Copyright © 2023, Waterfall Security Solutions Ltd. All Rights Reserved. [www.waterfall-security.com](http://www.waterfall-security.com)