

# WATERFALL FOR MODBUS

## SECURE ENTERPRISE MONITORING OF MODBUS DEVICES

Industrial enterprises frequently need enterprise-wide access to data from devices supporting the Modbus industrial communications protocol. Connecting enterprise networks to Modbus devices through firewalls is high risk, however, as all connections through firewalls introduce attack opportunities. Waterfall for Modbus enables industrial networks to replicate industrial devices to enterprise networks, without risk to the safe and continuous operation of industrial networks.

The Waterfall for Modbus software securely emulates Modbus PLCs and devices to enterprise networks. Enterprise users and applications can access the replica devices normally and bi-directionally without risk to the original industrial network. The Waterfall unidirectional hardware physically prevents any attack or malicious command from reaching the protected Modbus devices, enabling businesses to leverage operations data throughout their enterprises without exposing operations networks to cyber risk.

Waterfall for Modbus 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 MODBUS



Secure, real-time unidirectional replication of Modbus devices to enterprise networks



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



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



Eliminates all remote attacks and malware propagation from external networks



Enterprise users and applications interact normally with accurate, timely replicas of Modbus devices on enterprise networks



Power



Pipelines



Rail



Water

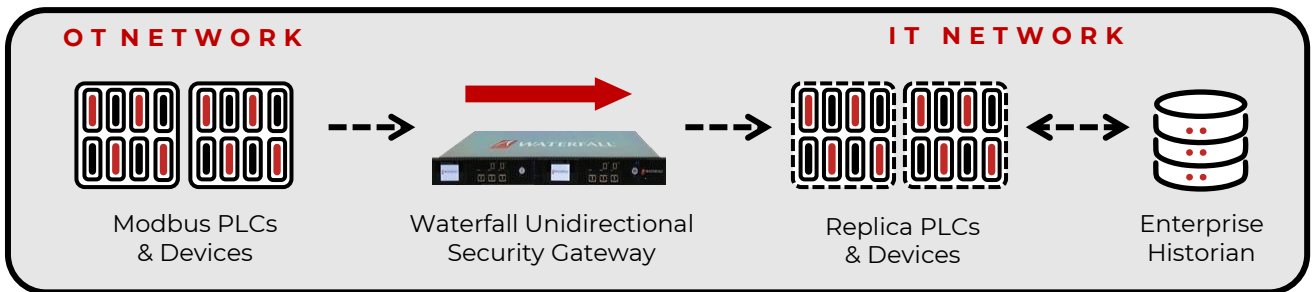


Facilities



Manufacturing

## WATERFALL FOR MODBUS



The Waterfall for Modbus connector is part of the Waterfall Unidirectional Security Gateway family of products. The connector polls PLCs and devices on industrial networks in real time, sends that data across the Unidirectional Gateway hardware, and emulates the Modbus devices to enterprise users and applications, such as enterprise historians.

Replica Modbus devices are maintained as a faithful, real-time emulations of the original devices on the industrial network. Enterprise users and applications work with the replicas as if they were the original, industrial devices. Unidirectional replication improves not only security, but performance as well. Users can poll the replicas without fear of slowing down or impairing the operation of critical systems on the industrial control network. Modbus replication provides enterprise-wide access to industrial data without the need to provide access to industrial devices and networks, securing the safety and reliability of the protected network with hardware-enforced measures. The gateway hardware makes it physically impossible for attacks to flow from the enterprise network towards the industrial network, eliminating any threats of online attacks, malware or human errors.

## FULLY- FEATURED & ROBUST SUPPORT:

- » Supports large numbers of Modbus devices and scales to very large Modbus deployments
- » Supports both Modbus master and slave replication
- » 1-10 Gbps throughput standard & High Availability options
- » Fully compliant with the official Modbus over TCP/IP standard and the 32-bit extension
- » Supports all Modbus request types and data types including Modbus Plus

[INFO@WATERFALL-SECURITY.COM](mailto:INFO@WATERFALL-SECURITY.COM)

[WWW.WATERFALL-SECURITY.COM](http://WWW.WATERFALL-SECURITY.COM)

### 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)