# waterfall

# WATERFALL FOR IEC 60870-5-104

## SECURE ENTERPRISE MONITORING OF IEC 60870-5-104 DEVICES

Industrial enterprises frequently need enterprise-wide access to data from devices supporting the IEC 60870-5-104 industrial communications protocol. Connecting enterprise networks to IEC 5-104 devices through firewalls is high risk, however, as all connections through firewalls introduce attack opportunities. The Waterfall for IEC 60870-5-104 connector enables industrial networks to replicate industrial devices to enterprise networks, without risk to the safe and continuous operation of industrial networks.

The 5-104 connector securely emulates 5-104 PLCs, RTUs and other 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.

The Waterfall for IEC 60870-5-104 connector 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 IEC 60870-5-104

Secure, real-time unidirectional replication of IEC 60870-5-104 devices to external SCADA and enterprise networks

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

Eliminates all remote attacks and malware propagation from external networks

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

External users and applications interact normally with accurate, timely replicas of IEC 60870-5-104 devices

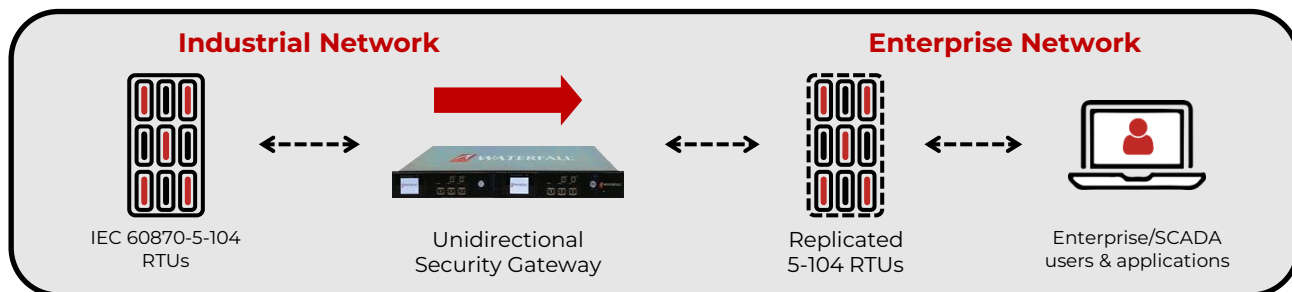Power     Oil & Gas     Rail     Facilities     Water     Manufacturing     Government

# WATERFALL FOR IEC 60870-5-104



**Industrial Network**

IEC 60870-5-104 RTUs

Unidirectional Security Gateway

**Enterprise Network**

Replicated 5-104 RTUs

Enterprise/SCADA users & applications

The Waterfall for IEC 60870-5-104 connector is part of the Waterfall Unidirectional Security Gateway family of products. The connector polls RTUs and other 60870 devices on industrial networks in real time, sends that data across the Unidirectional Gateway hardware, and emulates the 5-104 devices to enterprise users and applications, such as enterprise historians.

Replica 5-104 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. IEC 60870-5-104 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:

» Real-time replication of IEC 5-104 protective relays, RTUs, IEDs, and other IEC 5-104 equipment

» Replicates many IEC 5-104 devices on a single host

» Supports both IEC 5-104 master and slave replication

» Supports all IEC 5-104 data types and point types

» 1-10 Gbps throughput standard & High Availability options

» DIN-Rail option

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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.