

Waterfall for GE Proficy HMI/SCADA - iFIX

Stronger than Firewalls: Secure Integration with Server Replication



Highlighted Features

- Comprehensive, secure, real-time, unidirectional replication of GE Proficy HMI/SCADA data to business servers
- Eliminates cyber threats and risks from online attacks and human errors
- 1Gbps connectivity option available
- Capable of meeting High Availability design solutions
- Simplifies NERC-CIP, NRC, NIST, CFATS and other regulatory compliance
- Common Criteria EAL4+ certified.
- Assessed for security by Idaho National Labs

Overview

Waterfall for the GE Proficy HMI securely integrates iFIX systems on industrial networks with users and applications on corporate networks by unidirectionally replicating GE SCADA Server systems without exposing the process network to cybersecurity threats that always accompany bidirectional communications technologies such as firewalls.

Stronger than Firewalls: Secure Historian Replication

The Waterfall for GE iFIX is part of the Waterfall Unidirectional Gateway family of products. The gateways are a combination of hardware and software. The transmit gateway hardware contains a laser, and the receive gateway hardware contains a photocell. A fiber-optic cable links the two hardware units. As a result, the transmit gateway can send data to the receive gateway, but the receive gateway cannot send anything back. No online attack originating on an external network can pass back into a protected network through the gateway hardware.

The Waterfall gateway software queries GE Proficy iFIX servers on an industrial network for data, sends that data across the Unidirectional Gateway hardware to a business network, and uses the data to populate a replica iFIX server there. Business users and applications use to the replica servers exclusively. The replica servers are maintained as faithful, synchronized replicas of the original servers on the industrial network. The replicas are so faithful that corporate network users are often unaware that they are using replica servers.

In addition, business users can issue complex, costly queries against the replica database without fear of slowing down critical systems on the industrial control network.

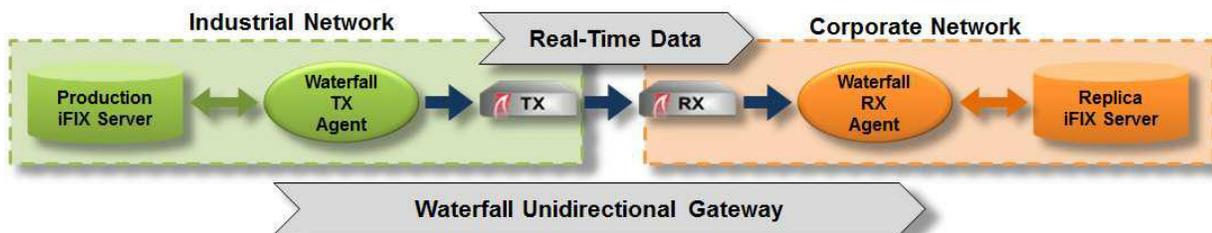
GE Proficy HMI/SCADA Unidirectional Replication

The replication process uses Waterfall's patented, hardware-based security technology. The gateway hardware protects critical assets absolutely from network threats and attacks originating on external networks. The technology stops network malware, blocks advanced remote-control attacks and insider attacks, and prevents business network errors and omissions from putting critical networks at risk. Unidirectional replication improves security, improves reliability, simplifies regulatory compliance and provides on-line access to a true replica of the production iFIX servers.

Waterfall for GE Proficy HMI/SCADA agents communicate directly with the Proficy HMI/SCADA - iFIX servers to allow real-time streaming of new and updated operational information to the replica server. The replication solution provides business users with the similar visibility into critical networks as critical-network users enjoy. High-fidelity server replication means business users often see no changes in access procedures or configurations after installing the replica. With Waterfall's solution, business users can safely take advantage GE Proficy HMI and SCADA data to reduced waste, improve quality, reduce time-to-market and increase profitability.

Every aspect of the iFIX database is replicated, including adding/ deleting tags, run time modifications, alarm generation, alarm acknowledgement and database contents. Waterfall for GE Proficy HMI/SCADA to support all iFIX projects from very small to very large deployments. The replication solution supports all types of data access, from end user analytics to IT-focused operations management, MES systems, and ERP systems.

Waterfall's management applications enable straightforward product installation as well as real-time monitoring of availability and performance. Comprehensive diagnostics include real time alarms that alert the user of fault conditions via email, SNMP traps, Syslog, filesystem logging and Windows logging.



Specifications

Network Interfaces:

10/100 Base-T or 1000BaseT
Weight: 3.86 lbs./ 1.75 Kg

Dimensions:

19"/ 482 mm (W), 1U/ 43.5mm
 (H), 10"/ 253 mm (D)

Temperature:

Operating: 32°-122° F / 0°-50° C
 Storage: 14°-158° F / -10°-70° C

Humidity Range:

0-95% at 113° F/ 45° C,
 non-condensing

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 only unidirectional solution to pass a cyber-security assessment by Idaho National Labs.

For further information and quotes, please contact us or visit our website: www.waterfall-security.com

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