

Waterfall® for ClearSCADA

Secure Integration with Server Replication



- Hardware-enforced unidirectional replication of ClearSCADA servers to corporate networks
- Eliminates cyber threats and risks from online attacks and human errors
- Fully transparent to ClearSCADA database users
- Available 1Gbps connectivity and high availability
- Simplifies NERC-CIP, NIST, ISA, CFATS and other standards compliance
- Common Criteria EAL4+ certified.
- Assessed for security by Idaho National Labs

Overview

Waterfall for the ClearSCADA Historian securely integrates Schneider Electric ClearSCADA systems on industrial networks with users and applications on corporate networks by unidirectionally replicating ClearSCADA server systems.

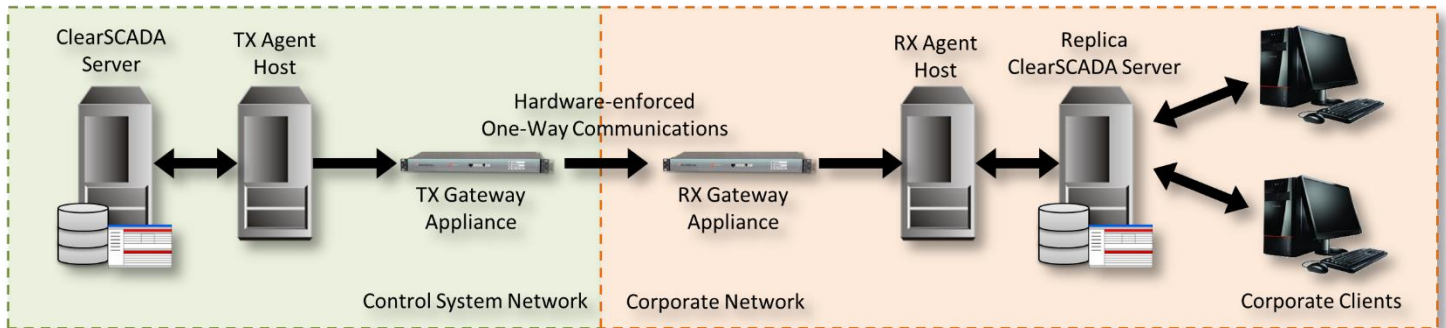
Modern businesses rely on real-time access to real-time, industrial data for functions ranging from predictive maintenance planning and crew scheduling, to just-in-time inventory management and production visibility for end users. Waterfall for ClearSCADA provides access to real-time data, while eliminating the threats to safe and reliable operations which always accompany firewalls.

Stronger than Firewalls: Secure Historian Replication

The Waterfall for ClearSCADA 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. There is no laser in the receive gateway that could send any signal, and there is no optical receiver in the transmit gateway that could receive any signal. No online attack originating on an external network can pass back into a protected network through the gateway hardware.

The Waterfall gateway software subscribes to ClearSCADA database changed events to gather data from servers on an industrial network, sends that data across the Unidirectional Gateway hardware to a business network, and uses the data to populate a replica ClearSCADA server there. Business users and applications use the replica server exclusively.

ClearSCADA 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.



Available Features

- Real-time replication of tags, objects, properties, events, values, and alerts
- Automatic propagation of tag/object structure changes: addition, deletion or property changes
- Complete ClearSCADA database replication
- Single point of database management
- Supports ViewX and WebX ClearSCADA clients
- 1Gbps throughput
- High-availability options: any or all of:
 - ClearSCADA HA on the industrial network,
 - ClearSCADA HA on the corporate network
 - HA Unidirectional Gateway solution
- Support for all ClearSCADA data types and time stamps

Regulatory Compliance and Certification

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.

Evolving Best Practices

Cyber threats only become more sophisticated over time, and so best practices for cyber defenses must evolve as well. Firewalls are software. ISA, DHS, ENISA, NRC, NEI, NERC CIP and other authorities all describe and recommend Unidirectional Security Gateways as stronger, hardware-enforced alternatives to firewalls. Owners and operators are taking this guidance and are increasingly concluding that their workers, their equipment, and the reliability of their critical industrial processes are all too important protect with only software-based security technologies. Unidirectional Security Gateways are stronger than firewalls.

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
---	---	---	---

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

USA	V: +1 (703) 840-5452 F: +1 (703) 840-5401	International	V: +972 3-900-3700 F: +972 3-900-3707	Information: info@waterfall-security.com Sales: sales@waterfall-security.com
------------	--	----------------------	--	---

Intellectual property notice: Waterfall's products are covered by patents granted in the US and other countries and by other pending patent applications in the US and other countries. Please see <http://waterfall-security.com/company/legal> for further details. "Waterfall", the Waterfall Logo, "Stronger than Firewalls", "One Way to Connect" and "FLIP" are registered trademarks of Waterfall Security Solutions Ltd. All other trademarks mentioned above are the property of their respective owners. Waterfall reserves the right to change the content at any time without notice. Waterfall makes no commitment to update content and assumes no responsibility for any mistakes in this document. Proprietary Information – Copyright © 2016 Waterfall Security Solutions Ltd. All Rights Reserved.