

Waterfall for OSIsoft PI®

Cyber Security Solution for OSIsoft PI® Server Replication



- Secure, unidirectional replication of PI server
- Information flow towards the industrial network is physically impossible
- Eliminates cyber threats and risks
- Assists in achieving NERC, NIST, CFATS and other regulatory compliance
- Benchmarked together with OSIsoft
- Comprehensive replication of PI data to the corporate PI server
- Easy and simple to install and maintain.

General

Waterfall for OSIsoft PI®, a Unidirectional Security Gateway, comprehensively addresses utilities' needs to maximize utilization of the PI server across the organization while maintaining absolute cyber-security of the mission critical assets and achieving regulatory compliances.

Features and Benefits

The Waterfall for OSIsoft PI incorporates the Waterfall One-Way™, a patent technology consisting of hardware based unidirectional fiber optic link. It replicates, in real time, a Master PI server, located in the industrial network, to a Replica PI server located at the corporate network.

Designed specifically for secure unidirectional information flow, the Waterfall for OSIsoft PI preserves the industrial network segregation and protects the utilities' critical assets by eliminating any threats of cyber-attack, incoming viruses or human errors originating from external networks.

The replication process is fully transparent to the PI system users, and has no effect on the Master PI server. The Replica PI server retains the data and functionalities of the master PI server. Thus, the users can access and utilize the Replica PI server in the same way they did with the Master PI server and without changing working procedures.

Due to the growing concern of the North-American authorities regarding the vulnerability of the Industrial networks, Waterfall for OSIsoft PI provides a solid foundation for achieving NERC-CIP, NIST, CFATS and other regulations compliance.

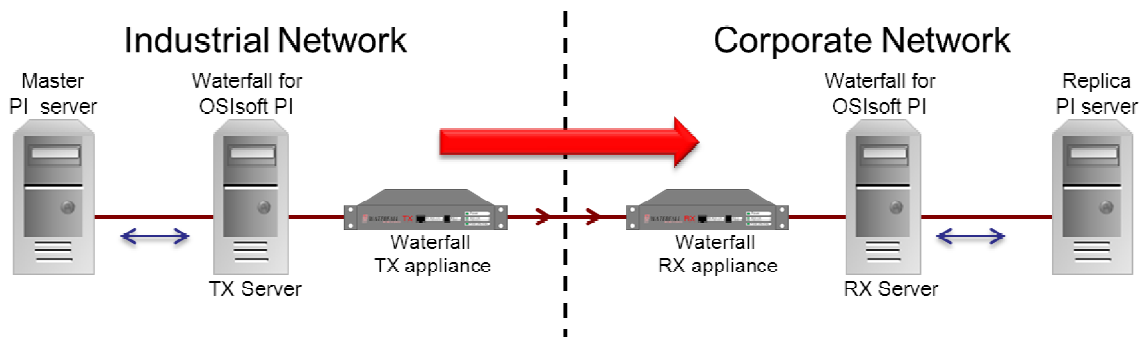
Waterfall for OSIsoft PI was benchmarked together with OSIsoft and Waterfall Security Solutions to ensure perfect compatibility and superior performance. It communicates directly with the OSIsoft PI server to allow real-time streaming of PI information. It enables Waterfall for OSIsoft PI to support PI installations of any size, including large PI servers consisting of hundreds of thousands of tags.

The Waterfall for OSIsoft PI provides comprehensive real-time replication of the Master PI server:

- Supports replication of tags, tags' attributes, events, values and alerts
- Every change in the tags' database is replicated
- Supports Automatic Point Synchronization (APS)
 - Automatic propagation of tag structure changes - addition, deletion or attribute changes
- Supports Numeric, Digital, String and Timestamp tag types.

The Waterfall for OSIsoft PI empowers the PI user to control the replication process. It enables filtering based on tag names and user pre-defined attributes and alerting following predefined snapshot thresholds.

Installing and monitoring the Waterfall for OSIsoft PI is done using configuration and monitoring applications. These applications enable fast and easy installation, as well as monitoring of performances. Comprehensive diagnostics include real time alarms that alert the user of fault conditions via email, SNMP, log file, PI tags and the Waterfall's monitoring console.



Specifications

Network Interfaces:	10/100 Base-T or 1000BaseT	Power	Single or Dual PS , 100-240V AC, 50-60Hz,
Network Connector:	Ethernet: RJ45 (CAT5)	Power consumption:	7W
Management:	Configuration and monitoring applications	Dimensions:	482 mm [19"] (W), 43.5mm [1U] (H), 253 mm (D) Rack-mount unit
Alarms:	User defined	Weight:	1.75 Kg
Status Indication LEDs:	Power (Orange) – Power operating correctly Network (Green) – Ethernet port is connected Fiber One-Way (Green) – Optical link data is active	Temperature:	Operating: 0° C to 50° C Storage: -10° C to 70° C
		Humidity Range:	0 to 95% at 45° C, non-condensing