Waterfall’s Unidirectional Security Gateways Integration with SilentDefense

Full visibility and control over industrial network assets and traffic, while thoroughly protecting industrial networks from unauthorized access

Highlights

- The most advanced and mature ICS/SCADA network monitoring and situational awareness platform, SilentDefense, provides visibility into network assets and communications.

- Its passive, non-intrusive analysis of industrial network communications enables real-time detection of threats to operational continuity.

- Unidirectional Security Gateways provide industrial networks with absolute protection against attacks originating from external networks.
Waterfall Security Solutions and Forescout have partnered to protect critical industrial control system (ICS) networks from the most advanced cyber threats. The joint solution seamlessly integrates Forescout’s SilentDefense solution with Waterfall’s Unidirectional Security Gateways. This integration enables industrial network operators to monitor the activity, status and threats to their networks, while physically preventing external network attacks from reaching and threatening industrial control systems. The result is full visibility and control over industrial network assets and traffic, while thoroughly protecting critical systems.

The Challenge

Threats to operational continuity originate from external networks as well as from within control networks, and range from advanced cyber attacks to system misuse, malfunction and misconfigurations. Whether the threat is internal or external, malicious or unintentional, it most often results in faulty, undesirable or destructive ICS/SCADA network messages. To defend our control networks, it is imperative that we monitor network and process operations, to detect these dangerous messages.

Central management and visibility of control network activity and security monitoring have many advantages, but also introduce risks. Central visibility requires that communication links between corporate and industrial networks be established, to enable the reporting of threats and intelligence from distributed sites to a central location. Protecting these communication links with traditional firewall technology does not guarantee protection of the industrial networks. Firewalls are software, with all the vulnerabilities that accompany software, and every communication path through a firewall that permits information to leave an industrial network also permits attacks to leak back into those networks. So, while it is essential to enable central visibility and prompt detection of cyber threats, it is also crucial to utilize advanced protection technology to preserve the security of industrial control networks.

Unidirectional Security Gateways

Waterfall Unidirectional Security Gateways are a combination of hardware and software. The gateway hardware is physically able to transmit information in only one direction, into the sensitive, protected network. The gateway physically prevents any signal or message at all from entering critical control networks from less-trusted networks. Unidirectional Security Gateway software replicates industrial servers and emulates industrial devices. Users and applications on the external IT network can query the replicas and be confident of receiving prompt, accurate information pushed from the industrial network.
Unidirectional Security Gateway software integrates with Forescout’s SilentDefense to provide seamless, secure visibility into critical networks and their assets. Waterfall’s Unidirectional Security Gateways are trusted all over the world to secure control networks for a wide variety of industries, including power generation, transmission and distribution, as well as many oil & gas, water treatment, rail system and other applications.

**SilentDefense**

With installations worldwide, SilentDefense is the most advanced and mature ICS/SCADA network monitoring and situational awareness platform. SilentDefense passively analyzes industrial network communications, provides visibility into critical assets and their activity, and detects operational problems and cyber security threats at their earliest stage. It features a combination of over 800 built-in ICS-specific threat indicators with patented anomaly-based detection technology, to identify in real-time known risks and threats as well as the most advanced and unknown cyber attacks. SilentDefense is deployed in a matter of hours, and thanks to its automated, out of the box detection engines, instantly delivers actionable results. Users can easily visualize and investigate asset and threat information on the platform’s user-friendly web interface, which provides interactive views such as network maps, communication graphs and widgets, and detailed alert visualizations.

**Unidirectional Security Gateways & SilentDefense**

Together, Waterfall and Forescout enable safe, comprehensive, central visibility and monitoring of the most sensitive of industrial networks. Operators can feel confident that the transfer of industrial network activity into the corporate network for monitoring and analysis is 100% secure with the Forescout and Waterfall solution.
Benefits of the Integration

- Forescout’s SilentDefense empowers industrial operators with unrivaled visibility, threat detection capability and understanding of their networks and processes.
- SilentDefense features asset inventory and network mapping, visual network analytics, network and process anomaly detection and industry-specific threat libraries.
- SilentDefense natively integrates with all major SIEM solutions, authentication servers and industrial firewalls.
- Waterfall Unidirectional Security Gateways prevent the propagation of any virus, denial-of-service (DOS) attack or targeted attack, no matter how sophisticated, from reaching an industrial network.
- Waterfall’s security gateways integrate seamlessly with industrial systems, providing hardware-enforced, plug-and-play replacement functionality for industrial firewalls.

Waterfall Security Solutions is the global leader in industrial cybersecurity technology. Waterfall products, based on its innovative unidirectional security gateway technology, represent an evolutionary alternative to firewalls. The company’s growing list of customers includes national infrastructures, power plants, nuclear plants, oil and gas facilities, refineries, manufacturing plants, utility companies, and many more. Deployed throughout North America, Europe, the Middle East and Asia, Waterfall products support the widest range of leading industrial remote monitoring platforms, applications, databases and protocols in the market.

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