WATERFALL®
Stronger Than Firewalls

CYBERSECURITY IN GAMING

PROTECTING OPERATIONAL NETWORKS IN THE GAMING INDUSTRY FROM EVOLVING CYBER THREATS

Customer	North American-based global gaming and hospitality corporation
Customer Requirement	Enable safe and secure monitoring of several enclaves of control-system networks as well as secure integration with an enterprise SIEM.
Waterfall's Unidirectional Solution	Secures both the control system network perimeter from external threats with Unidirectional Security Gateways, enabling safe ICS network monitoring from a central enterprise SIEM.

THE GAMING INDUSTRY IS FACING MODERN CYBER THREATS

With the global casino gaming industry yielding over $100 billion US per year, casinos and hotels in global gaming hubs have become prime targets for cybercriminals. A successful attack could hold gaming infratructure hostage, costing an entertainment firm tens of millions of dollars per day in lost revenues.

THE CHALLENGE

To enable monitoring of different enclaves of operations networks and building systems and without posing risk to the operational networks, and in turn enable a central enterprise SIEM to receive alerts from the operational network intrusion detection system sensors without compromising the operational network.

WATERFALL SOLUTION

Waterfall integrated network intrusion detection security technology with Unidirectional Gateways to provide centralized cross-network monitoring and threat detection, without risk to industrial networks. With Unidirectional Gateways replicating network traffic to the IDS system on the IT side, the enterprise system can include operational network traffic and equipment status in enterprise-wide monitoring, analysis and threat detection.

Each separate operation network PLC with an IT/OT interconnection was separated with a Unidirectional Gateway at the interface boundary.
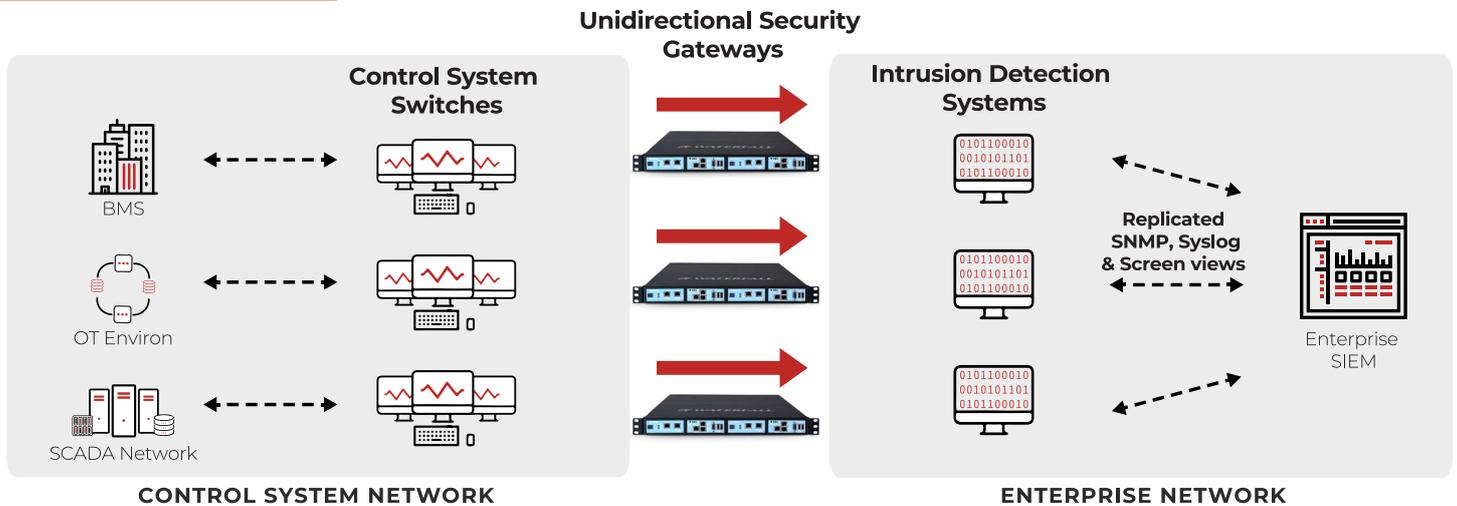
RESULTS & BENEFITS

Security: A Unidirectional Gateway replicating network to an external IT network provides strong assurance that no attack from the IT network can enter the operational network.

Flexibility: Unidirectional Gateways enable IDS sensors to be deployed on IT networks. Sensors on IT networks are more easily accessed, updated and managed than those deployed inside ICS networks.

Performance: Deploying IDS sensors on IT networks means that those sensors can use the full power of the IT network to communicate with a central SOC during security emergencies.

THEORY OF OPERATION

Unidirectional Security Gateways

Control System Switches

Intrusion Detection Systems

BMS

OT Environ

SCADA Network

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Replicated SNMP, Syslog & Screen views

Enterprise SIEM

CONTROL SYSTEM NETWORK

ENTERPRISE NETWORK

Waterfall Unidirectional Security Gateways replace firewalls in industrial network environments, **providing absolute protection to control systems and industrial control networks from attacks emanating from external less-trusted networks**. Waterfall Gateways contain both hardware and software components. The hardware components include a TX Module, containing a fiber-optic transmitter/ laser, and an RX Module, containing an optical receiver, but no laser. The gateway hardware can transmit information from an industrial network to an external network, but is physically incapable of propagating any virus, DOS attack, human error or any cyber attack at all back into the protected industrial network.

The gateways **enable control-system intrusion detection, vendor monitoring, industrial cloud services, and visibility into operations** for modern enterprises and customers. Unidirectional Gateways replicate servers, emulate industrial devices and translate industrial data to cloud formats. Unidirectional Gateway technology represents a plug-and-play replacement for firewalls, without the vulnerabilities and maintenance issues that accompany firewall deployments.

UNIDIRECTIONAL SECURITY GATEWAYS BENEFITS :

» Safe monitoring of control system networks from intrusion detection sensors

» Safe, continuous monitoring of control system intrusion detection sensors from IT networks and central SOCs

» Safe remote supervision of changes to protected systems

» Safe cloud vendor supply chain integration

GLOBAL CYBERSECURITY STANDARDS RECOMMEND UNIDIRECTIONAL SECURITY GATEWAYS

Waterfall Security is the market leader for Unidirectional Gateway technology with installations at critical infrastructure sites across the globe. The enhanced level of protection provided by Waterfall's Unidirectional Security Gateway technology is recognized as best practice by leading industry standards bodies and authorities such as NIST, ANSSI, NERC CIP, the ISA, the US DHS, ENISA and many more.

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ABOUT WATERFALL SECURITY SOLUTIONS

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 expanding portfolio of customers includes national infrastructures, power plants, nuclear plants, offshore oil and gas facilities, rail transport, 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. Please contact: **info@waterfall-security.com**