



Support for OPC DA, A&E, and UA, plus Modbus/TCP, file transfers, and tcp/udp sockets



**Datasheet** 



Process control networks and their critical assets are usually isolated from other networks in an effort to protect them from cyberattack and to protect the sensitive data they contain. Extracting useful data in a controlled fashion from a protected network can prove to be a challenge.

Usually, rules are added to an existing firewall, or a next generation firewall (NGFW) is put into place to facilitate the data transfer. However, any firewall can ultimately be compromised. NetWall was designed to resolve your data extraction needs while at the same time protecting your networks in a way that firewalls never can.

#### THE SOLUTION

NetWall unidirectional security gateway for IT and OT is a high-speed, hardware and software solution that enforces data replication in only one direction.

It creates a secure network segment when installed, shielding and isolating critical assets and sensitive networks from cyberattack and misuse.

At the same time, NetWall supports real-time file and data replication outside the electronic perimeter to corporate business systems such as ERP, MES, PLM, PIM and others.

NetWall can securely transfer control system data, logfiles, database records and other pertinent data to IT data centers, security operations centers (SOCs) and cloud-based data storage.

NetWall's OPC UA support means that popular SCADA systems which use OPC UA as one of their core transport options, such as Inductive Automation's IGNITION platform, can now be replicated unilaterally between server nodes, with full fidelity of the entire schema and zero risk of controls being inserted from the destination network.

## **Key Features & Benefits for Corporate IT**

- Creates an isolated, trusted network segment with a verifiable electronic security perimeter
- Ensures that malware or unauthorized probing and reconnaissance efforts have no chance of entering the segment
- Provides high-speed throughput to replicate data to the external destination segment
- Assures guaranteed delivery without consuming available bandwidth
- Lowers maintenance cost through one platform that can grow with your needs via software licensing
- Delivers budget-friendly lower cost, averaging ~30% less than competing solutions

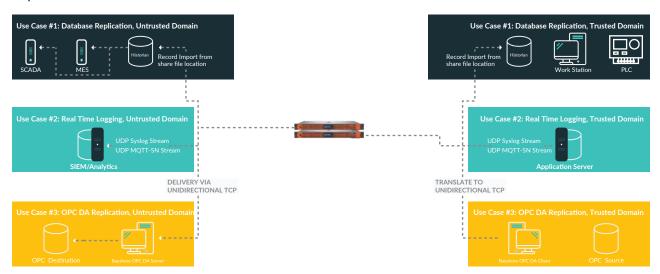
# **Key Features and Benefits for Operations Technology (OT)**

- Prevents disruption to plant operations through isolating critical assets and processes
- Automates the delivery of key plant data securely to outside, untrusted destinations for business intelligence, analytics and decision-support
- Increases protection of OT assets without increasing workload for plant teams
- Provides network information to corporate IT one-way for analysis and integration without impacting operations

### **NetWall REFERENCE DEPLOYMENT ARCHITECTURE**

#### Simplified Use Cases for NetWall

**Event Logging** 



### **TECHNICAL SPECIFICATIONS**

PRODUCT DESCRIPTION		
Туре	NetWall NUMBERCHONAL SECURITY CATERVAY FOR IT AND OT	
NetWall Small (50 mbit/sec)	Part # NWAPP-SM	
NetWall Medium (100 mbit/sec)	Part # NWAPP-MD	
NetWall Large (1 gb/sec)	Part # NWAPP-LG	
Description	Unidirectional security gateway (hardware and software) - product comes as a pair of systems, 2 19" 1U Rack Mounted servers (2U total), So PowerEdge 240 systems. Includes PCIe cards and data link cable Includes PCIe. security dongles and management console. Product is delivered "appliance style" with software preconfigured and loaded onto the systems. Field upgradable by software licensing.	
Platform	Dell PowerEdge 240 (or equivalent)	
CPU	Xeon E-2224 CPU @ 3.4GHz	
RAM	8GB DDR4	
Storage	1TB SATA, 7200 RPM	
Server-to-Server Communication	1 x PCI Express Gen 2 card (in each server) and 1m PCIe serial cable connecting both servers	
ADDITIONAL INCLUDED INTERFACES		
USB Interface	1 USB socket on each platform to connect approved USB storage device	
Network Interface	2 10/100/1000 Mbps Network Interface Controller (NIC) ports	
PCIe card	Each NetWall component server has a system with PCIe card and they are connected via an included data link cable.	
SOFTWARE		
OS	Hardened Debian / GNU Linux OS	
Management Console	Bayshore NetWall Management Console	Windows 7 SP1 or higher
Diagnostics	LEDs (power, mode, fault, etc)	
Secure Management	Security Dongles	

NetWall reports all events and errors to a filterable Windows event log

OPERATOR APPLICATION SUPPORT		
Server Replications	Native support for real time OPC DA, OPC AE, Modbus, OPC UA, and others	
Database Export Replications	Oracle, MySQL, MS SQL and more	
File Transfers	Native unidirectional file transfer via Windows or FTP shares	
Unidirectional TCP or UDP Sockets	Syslog, SNMP Traps, MQTT-SN, UDP streaming video, other UDP-based IoT applications	
PERFORMANCE		
Data transfer rate	License defined: 50 mbit/sec, 100mb/sec, and 1 gigabit/sec Field upgradeable by software license	
Concurrent sessions	Unlimited, subject to max overall throughput defined by license	
Redundancy	Coming feature	
POWER		
Power Supply	250W	
Voltage	100-240VAC, auto ranging	
Power Consumption	300W per NetWall system	
AMBIENT CONDITIONS		
Temperature	Storage: -40 to +149 deg F / -40 to +65 deg C Operating: +50 to +95 deg F / 10 to 35 deg C	
Humidity	Storage: 5 - 95% Relative Humidity Operating: 10 to 80% Relative Humidity	
APPROVALS		
Declaration of Conformity	CE, FCC, EN 61131, C-Tick, EN 60950	
IEC-62443 Certification	Approved, 62443-4-1; SVV-1, SVV-2, SVV-3a, SVV-3b, SVV-3c, SVV-4, SVV-5	
Common Criteria and FIPS	Scheduled and being prepared for formal submission	
RELIABILITY		
MTBF	87,648 hours for System overall (10 yrs) SATA	
Warranty	See Support, Warranty is included	
CONSTRUCTION		
Dimensions (WxHxD) (2 units)	W:19in / 482.6mm x H: 3.5"(2U) / 88.89mm x D: 22.6in / 584.2mm	
Weight	2 units @ 27lb / 12.2kg each	
Mounting	2 x 1U Rack Mounted	
ANNUAL SUPPORT MAINTENANCE		
Part # NWSM-Support	NetWall Small Annual Support, Year 2 & beyond, incl support/updates/HW warranty	
Part # NWMD-Support	NetWall Medium Annual Support, Year 2 & beyond, incl support/updates/HW warranty	
Part # NWLG-Support	NetWall Large Annual Support, Year 2 & beyond, incl support/updates/HW warranty	

