HardwareWall®

1U3L Tactical Secure Data Transfer System
A Raise-The-Bar Solution

Not subject to U.S. Export Administration Regulations (EAR) (15 C.F.R. Parts 730-774) or
U.S. International Traffic in Arms Regulations (ITAR), (22 C.F.R. Parts 120-130)

Current Environment

The Department of Defense, Intelligence Community, other government agencies, security, and law enforcement operations critically depend on the secure and timely sharing of data, while analysts and decision makers demand integrated technologies that employ the latest techniques for data collection, analysis, and retrieval. This data often resides across various domains and at different levels of classification, thus impeding operational fidelity and visibility. Further, adversarial cyber capabilities continue to advance, severely threatening the confidentiality, integrity, and availability of these missions.

Solution: HWW-1U-3L-3 Tactical Appliance

Designed by The Boeing Company, the HardwareWall® 1U3L "1U Prime" Tactical Appliance is an off-the-shelf cross domain solution that combines security, speed, ruggedness, and reliability, with ease of integration and modularity. It supports high to low, low to high and bidirectional transfer within and between multiple security domains — Top Secret, Secret, and Unclassified. HardwareWall® systems enabling bi-directional and near-real-time transfer of data among TS/SCI systems and unclassified systems. HardwareWall® provides customers with a reliable, highly-capable, secure, and robust solution at a low total cost of ownership.

Best-in-Class Security Protection

Boeing collaborates with the CDS community to deliver solutions on the cutting edge of security compliance. HardwareWall® complies with the National Cross-Domain Solutions Management Office (NCDSMO) Raise-the-Bar (RTB) requirements far beyond standard RMF controls. HardwareWall® is the first CDS to undergo lab testing and approval against officially-released RTB requirements receiving one of the best ratings ever. Boeing provides customers longer lasting accreditations, an extensive body of evidence, and reduced costs. HardwareWall® combines physical one-way transfer and hardware isolation between all nodes, mandatory access control, data labeling, content review, RAIN (Redundant, Always Invoked, Independent, and Non-bypassable) filters, and multiple proxies to protect our customers' most important missions and stay ahead of emerging threats. The system also supports backwards compatibility to help customers reach RTB compliance.

Ultra-Fast Performance and Flexibility

HardwareWall® supports a variety of protocols and data types in various classified and unclassified formats (including XML, imagery, and more) with new ones being added constantly. 1U Prime leverages 10Gbps fiber connections between different domains with optimized software for improved throughput, enabling the HardwareWall® to achieve some of the highest raw transfer speeds and lowest latencies in the industry—winning multiple independent transfer speed comparisons using actual customer use-cases.

Versatility: Built for extreme environments

HardwareWall® has been independently tested to meet or exceed MIL-STD-810G, MIL-STD-461G, DO-160G, and TEMPEST standards for maximum protection against shock, vibration, salt fog, humidity, extreme temperatures, and EMC enabling deployment in the harshest environments. This highly-compact system features a ruggedized chassis made from a lightweight aluminum alloy (6061 T6) that weighs in at 17lb, is 16 inch deep, fits in a 1U rack mount, and has numerous mounting options that support SWaP-constrained scenarios such as military aircraft, Humvees, and UUVs. This frees up valuable space and weight for other mission capabilities while making it easier and safer to handle. The use of miniaturized and removable solid-state drives supercharges data transfer speeds and enhances flexibility of servicing classified drives in between missions. High speed, low power, reduced weight, and size all combine to provide industry leading secure transfer of critical mission data.

Key Features:

Part Number	HWW-1U-3L-3 "HERO"
Chassis	Custom Ruggedized
Electronics	COTS
Max AC Power (W)	192
Compact Form Factor	1U rack mount
H x W x D (inches)	1.75 x 19 x 16
Weight (lbs.)	16.4 unit, 17 w/mounting
Circular Military Connectors	Yes
Operating Temperature (C)	-40 to +60
Humidity	5% to 95%
Operational Shock (G)	40
Non-Operational Shock (G)	75
DO-160 Certification	Yes
TEMPEST Certification	Yes
MIL-STD-461	Yes
MIL-STD-810	Yes
Architecture	x86_64
Operating System	Redhat Enterprise Linux
SELinux	Yes
Number of Domains	3
Number of Nodes	6, 2 per Domain
Networks per Domain	4 (10/100/1000 Mbps)
CPU Count	Six Intel® Atom C3708 (8 Core)
Removable Drives	Yes
Hard Drive Type	2X SLIM SATA Pack, 3-packs
Hard Drive Count	6, 2 per pack
Internal Fiber Connections	Yes (10 Gbps)
Management Interface	Video Graphics Array (VGA), Serial, Ethernet, USB
PL-Support	3, 4 or 5 (SABI/TSABI)
Protocol Support	Available upon request. Same as Enterprise form factor.
Remote Tasking	Yes