

ACCELERATOR 1610

AN ALL-IN-ONE WAN OPTIMIZATION SOLUTION
FOR SYSTEM INTEGRATORS

SIX REASONS TO SAY “YES” TO EXPAND’S 1610 ACCELERATOR

1. Flexible Form-Factor

Expand delivers its leading WAN optimization technology on the PC104 standard, enabling WAN Optimization in the world’s hardest to reach and most demanding locations. No moving parts, consolidated power and cooling, and a compact fully-embedded hardware solution

2. Best-in-Class Satellite Optimization

The Expand solution delivers the industry’s best performing PEP (Performance Enhancing Proxy) TCP/IP acceleration, developed by NASA, in combination with full-featured WAN Optimization features. The result is the world’s best Satellite optimization solution

3. Proven, Measurable Impact

Expand solutions consistently deliver bandwidth increases of 100% and 400% (with peaks over 1,000%)

4. Transparent Operations

Expand’s solution optimizes traffic transparently without tunneling, simplifying integration into your networking infrastructure while also preserving investments in other systems

5. Application-centric

Traditional optimization solutions are about the network — the Expand solution is about what really matters: the applications

6. All IP Traffic

Many Wan Optimization solutions narrowly focus on only a portion of TCP-based traffic. Expand optimizes non-TCP traffic (UDP, etc.), as well as difficult interactive applications such as Citrix and Terminal Services. non-TCP traffic (UDp, etc.), as well as difficult interactive applications such as Citrix and Terminal Services

Good things don’t only come in large packages. In fact, in today’s global and mobile network environments flexibility, performance, and form-factor are key. Expand continues to deliver the world’s most flexible WAN Optimization technology on the efficient PC104+ form-factor. Full-featured and holistic WAN Optimization implemented in the customized PC104+ communications enclosure, enabling WAN optimization virtually anywhere on the globe.

About the Accelerator 1610

The 1610 Accelerator for system integrators:

- Fits all compliant PC104+ hardware enclosures
- Maximum compressed bandwidth of up to 1 Mbps
- Maximum optimization bandwidth of up to 6 Mbps
- Up to 10 connected remote Accelerators
- 32,000 concurrent TCP sessions
- 512 KB of RAM – No moving parts

Small Form Factor – PC104+

The Accelerator 1610 delivers flexibility and scalability in an extremely functional form factor. Ideal for integration into mobile communications packages which utilize the PC104 stack, the Accelerator 1610 provides standards-based TCP Acceleration (SCPS), Compression and Quality of Service performance enhancements that optimize and condition wide area networks.

Network Agnostic

Ideal for all SATCoM environments, the Expand solution overcomes network challenges frequently encountered in dynamic bandwidth and dynamic latency networks, such as BGAN, INMARSAT, and MF-TDMA allowing for the use of all subscribed bandwidth and additional throughput gains enabled by Expand’s best of breed byte-level caching and compression.



Productivity and Performance

All Expand solutions are designed with productivity, cost reduction and simplicity in mind. For end users, productivity increases as application performance reliably improves. By providing a simple and integrated solution, Expand enables IT to more efficiently manage the application infrastructure—reducing servers and other appliances while delivering a holistic network view.

Transparent Operations

Many WAN Optimization solutions tunnel between appliances, blocking information needed by monitoring solutions (e.g., NetFlow) or security implementations such as firewalls and ACLs. Expand optimizes traffic transparently without tunneling.

All IP Traffic

Most WAN Optimization solutions are focused on a portion of TCP-based traffic. Expand’s IP optimization engine not only optimizes non-TCP (UDP, etc.) traffic, but will also optimize the difficult interactive applications based on TCP such as Citrix, Terminal Services or RDP and VDI.

Holistic WAN Optimization

Expand delivers a holistic platform of integrated services — WAN Optimization, Acceleration, Management & Visibility, and Security — addressing WAN performance issues while also aligning with your key business drivers.

Functionality	
WAN Optimization	
Compression	Completely transparent data reduction, caching, and other techniques for all IP traffic, including UDP and interactive TCP (Citrix, RDP, etc.)
QoS	Easy to use inbound and outbound priority and shaping control, with burst-capable bandwidth limits and application keep-alive technology
Acceleration	
Application Optimization	Oracle, SAP, Exchange, Citrix, RDP, Double-Take, Maximo, SnapMirror, MIMIX, BAAN, and all other IP-based applications
Protocol Optimization	SCPS-TP (TCP), HTTP, FTP, ICA, RDP, VoIP and Streaming Protocols
Management & Visibility	
ExpandView	Automatic performance and device monitoring, template-based configuration profiles, and automated device updates
Application & Network Visibility	Automatic discovery of over 400 applications with Layer 7 visibility
Security	
AAA	RADIUS (RFC 2138), TACACS+, IPsec
Performance Specifications	
WAN Speed for Compressed Throughput	64 Kbps -1 Mbps
WAN Speed for TCP Acceleration and Layer-7 QoS Throughput	6 Mbps
Maximum LAN Throughput	100 Mbps
Concurrent TCP Sessions	32,000
Hard Drive	None
Connected Accelerators	Up to 10 connections to remote Accelerators
Memory	512 MB
Network Transparency	Transparency Mode with complete Layer 3 and Layer 4 header preservation -- no tunnels
Fallover	Standards-based with HSRP (RFC-2281) and VRRP (RFC-2338)
Resilience	No moving parts/spinning media
Dimensions	PC-104+ form factor 3.74" x 3.74" (95 mm x 95 mm)
Weight	0.24 lbs (110 g)
Network Interfaces	10/100 BaseT Ethernet (RJ45)
Power	External power supply support
Power Consumption	5V@1.13 A (Max)
Temperature	32-140F (0-60C)
Humidity	5 to 95% (non condensing)

WAN CAPACITY

Product	Connected Accelerators	No. of IP Connections	WAN CAPACITY				Hard Drive Capacity	No. of WAFS Users	Redundant Power Supply
			Compression ¹	Optimization ²	Acceleration ³	WAFS ⁴			
Accelerator 6950	350	256,000	45Mbps	250Mbps	100Mbps	Unlimited	500GB RAID 1	1000	✓
Accelerator 6850	350	256,000	45Mbps	250Mbps	100Mbps	-	-	-	✓
Accelerator 6930	200	128,000	10Mbps	100Mbps	45Mbps	Unlimited	500GB	500	✓
Accelerator 6830	200	128,000	10Mbps	100Mbps	45Mbps	-	-	-	✓
Accelerator 4930	100	64,000	6Mbps	45Mbps	15Mbps	Unlimited	160GB	200 ⁵	Optional
Accelerator 4830	100	64,000	6Mbps	45Mbps	15Mbps	-	-	-	Optional
Accelerator 3930	100	64,000	2Mbps	15Mbps	6Mbps	Unlimited	160GB	50 ⁵	-
Accelerator 3830	100	64,000	2Mbps	15Mbps	6Mbps	-	-	-	-
Accelerator 1610 *	10	32,000	1Mbps	6Mbps	3Mbps	-	-	-	-

¹ Maximum Bandwidth For Monitoring, Layer 7 QoS And Compression.² Maximum Bandwidth For Monitoring Layer 7 QoS And TCP Acceleration (SCPS).³ Expected Bandwidth For A Mixture Of Services Such As TCP Acceleration, Partial Compression, WAFS, Web Caching.⁴ Maximum Bandwidth For Monitoring Layer 7 QoS and WAFS, Limitation Is The Number Of Users And The Physical Connection.⁵ Accelerator 4930 & 3930 Can Only Be Used As A Branch Device For WAFS.

* The 1610 accelerator is a PC104+ compliant device and requires a PC104+ compliant enclosure for use.