

ACCELERATOR 7940

MULTIPLE OPTIMIZATION SERVICES ON ONE APPLIANCE FOR TODAY'S DATACENTERS

SIX REASONS TO SAY "YES" TO EXPAND

1. Based on HP Hardware

Deploy Expand's proven optimization technology while enjoying HP's Integrated Lights Out (i.L.O.) capabilities and redundant RAID 5 storage

2. Comprehensive

Whether the WAN is used to connect file servers, email or business applications, Expand delivers a comprehensive approach to application and protocol acceleration

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. All IP

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

6. Microsoft Compliance

The Expand solution is part of the Microsoft Domain so it can strictly maintain all user and document security and controls

The 7940 accelerator from Expand Networks delivers Expand's industry leading technology on proven HP hardware platforms. Leveraging HP's industrial strength redundancy and lights out capabilities and delivering Expand's most scalable and highest performing appliance ever.

About the Accelerator 7940

The Accelerator 7940 for datacenters is an HP-based appliance that delivers::

- Up to 45 Mbps of compression throughput
- Up To 250 Mbps of TCP acceleration and Layer-7 QoS throughput
- Up to 350 connected remote Accelerators
- Up to 256,000 concurrent TCP sessions
- Up to 1,000 WAFS users
- 1 TB of RAID-5 storage with hot-swap support
- HP's Integrated Lights Out (i.L.O.) management capabilities

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.

The Expand solution works with HSRP/VRRP and WCCP and maintains original protocol headers (IP, TCP, UDP, etc.),

preserving investments in other systems relying on the accuracy of these headers.



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.

Microsoft Compliance

The Expand solution not only works with the Microsoft Domain, it is actually part of the Domain. This allows Expand Accelerators to strictly maintain all user and document security and controls while optimizing performance. Expand's solution is fully compliant with Microsoft's SMB-signing protocol guaranteeing communication authenticity — Expand is the only solution that will accelerate with SMB-signing enabled. In addition, being joined to the domain, Expand provides printing, DHCP, and even WAN-Out services seamlessly, allowing for true server consolidation.

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	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	
Encryption	IPSec, 3DES or AES (AES-128, AES-192 or AES-256) link encryption
AAA	RADIUS (RFC 2138), TACACS+
Performance Specifications	
WAN Speed for Compressed Throughput	2 Mbps – 45 Mbps
WAN Speed for TCP Acceleration and Layer-7 QoS Throughput	2 Mbps – 250 Mbps
Maximum LAN Throughput	1,000 Mbps
Concurrent TCP Sessions	256,000
Hard Drive	8x 146GB SFF SAS 2.5" Hot Plug 8x 146GB SFF SAS 2.5" Hot Plug
Connected Accelerators	350 connections to remote Accelerators
Memory	4GB
Network Transparency	Transparency Mode with complete Layer 3 and Layer 4 header preservation -- no tunnels
Failover	Standards-based with HSRP (RFC-2281) and VRRP (RFC-2338)
Resilience	Switch-to-wire, RAID-5 capabilities, integrated lights-out (ILO 2) capabilities
Max number of Bypass Ports	Dual port copper gigabit Ethernet
Dimensions	1.70 x 16.78 x 27.25 in (4.32 x 42.62 x 69.22 cm)
Weight	39.5 lb (17.92 kg)
Network Interfaces	10/100/1000-T Ethernet (RJ45) with bypass functionality
Power	Redundant Power Supply (hot swappable): Dual Auto-sensing Dual-feed 100-240 VAC, 50-60 Hz, 10A-6A
Power Consumption	400 W (Max)
Temperature	10° to 35° C (50° to 95° F)
Humidity	10 to 90% (non condensing)
Heat Dissipation	1340 BTU (Max)
Safety	EN 60950-1:2001, IEC 60950-1:2001
EMC	Class A - CISPR 22:2005, EN 55022:2006, EN 55024:1998 + A1:2001 + A2:2003, EN 61000-3-2:2000, EN 61000-3-3:1995 + A1:2001

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 7940	350	256,000	45Mbps	250Mbps	100Mbps	Unlimited	1TB RAID 5 *	1000	✓
Accelerator 7930	350	256,000	10Mbps	100Mbps	45Mbps	Unlimited	500GB RAID 5 *	500	✓
Accelerator 6940 / 6950	350	256,000	45Mbps	250Mbps	100Mbps	Unlimited	500GB/500GB RAID 1	1000	✓
Accelerator 6840 / 6850	350	256,000	45Mbps	250Mbps	100Mbps	-	NONE / NONE	-	✓
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 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 Can Only Be Used As A Branch Device For WAFS.

* Hot Swappable Raid 5

** The 1610 accelerator is a PCI04+ compliant device and requires a PCI04+ compliant enclosure for use.