

VISIBILITY AND OPTIMIZATION FOR NETWORKED TRAFFIC

Blue Coat PacketShaper

Blue Coat PacketShaper is a cloud-connected WAN and internet appliance that provides visibility into applications and web content on your network, along with powerful application-level QoS policy management. A core element of the Blue Coat Performance Center, PacketShaper is integrated with Blue Coat WebPulse™ to provide real-time traffic discovery and classification of hundreds of applications, millions of websites, and billions of web pages. With this intelligence, managers can configure bandwidth caps for disruptive applications and content, reserve bandwidth for key operational applications, or guarantee fair allocation of bandwidth across virtual desktop users.

Critical applications need to move at the speed of business. With PacketShaper, you can monitor and control application performance – even web-connected applications – while managing the increasing volume of web traffic based on content categories.

Monitoring

Before you can optimize application performance, you need an accurate picture of network traffic. The Monitoring Module, which delivers the core functionality of PacketShaper, automatically classifies and measures network traffic by application and – in the case of web traffic – by content category. Integration with Microsoft Active Directory provides a user-based view of traffic to help administrators understand who is driving traffic on their networks. This unmatched visibility into network traffic gives you the insight of a probe but with far more sophistication. PacketShaper offers application-intelligent Layer 7+ visibility that integrates with WebPulse, the collaborative defense providing real-time content categorization. In addition to reporting on network and application utilization and

performance, the Monitoring Module validates common protocols and tracks what happens to each connection established by any application.

As the proportion of web-based traffic continues to increase, PacketShaper provides invaluable management of web-connected applications such as SaaS, Social Media, recreational video, and audio/video communication. All web content requested by users is categorized under logical headings such as Collaboration, Games, and Social Networking. This latest advance in web content control and web threat visibility helps you assess the impact of recreational traffic, security threats such as malware and phishing, and undesirable content that can raise legal and compliance concerns.

Once traffic has been identified, PacketShaper monitors performance – over 100 stats per application class – in real time. PacketShaper tracks the bandwidth consumed by applications and web content categories, the response times of key applications by network and server delay, and key stats like TCP health, efficiency and retransmissions to aid

in troubleshooting. PacketShaper also powers targeted packet traces for use with protocol analysis tools.

Real-time performance metrics include mean opinion score (MOS), jitter, delay, and loss for voice and video conferencing traffic over RTP. All these capabilities can integrate into your performance management environment, providing intelligent thresholds and alerts when problems are about to occur.

Identify and classify applications, web content, and web threats. Monitor performance in real time and gather the evidence you need to solve performance issues.

Shaping

PacketShaper does more than just monitor and measure. The Shaping Module provides powerful QoS tools to protect preferred applications and web content categories while containing the impact of undesirable traffic. With PacketShaper, you can:

- Guarantee bandwidth to latency-sensitive applications such as voice, video and virtual desktops.

- Allow access to social network sites like Facebook, but limit bandwidth to games like Farmville.
- Control the impact of acceptable (but lower priority) web traffic on business-critical applications.
- With patented TCP rate control, the Shaping Module can guarantee per-flow bandwidth and automatically enforce appropriate transfer rates for computers at the far end of the network to deliver bidirectional QoS.

- Protect the best, contain the rest. Align network content with your priorities by speeding up or slowing down applications and web content categories.

Compression

Some types of network traffic make inefficient use of available bandwidth. By optimizing traffic in real time, the Compression Module instantly increases WAN capacity, improving application performance and user response

times. Using a symmetric, application-intelligent architecture, the Compression Module identifies compressible traffic and applies the appropriate compression technology, increasing capacity from two to four times, reducing bandwidth usage, and minimizing WAN latency.

- Reclaim wasted bandwidth from existing physical links. Enhance the user experience.

PACKETSHAPER SERIES	900	1700	3500	7500	12000 12000 ISP ⁴
MAXIMUM CAPACITY					
IP Flows (TCP) ¹	5,000	30,000	40,000	200,000	450,000 900,000
IP Flows (UDP) ¹	2,500	15,000	20,000	100,000	225,000 400,000
Classes	256	512	1,024	1,024	2,048 5,000 / 10,000
Dynamic Partitions	∞	1,024	1,024	10,000	20,000 20,000
Static Partitions	128	256	512	512	2,048 5,000 / 7,500
Shaping Policies	256	512	1,024	1,024	2,048 5,000
Max # of Matching Rules	640	2,562	2,562	5,120	12,288 20,000 / 25,000
IP Hosts ¹	5,000	15,000	20,000	150,000	300,000 540,000
Active Tunnels	10	15	30	100	1,000 N/A
SOFTWARE OPTIONS AND UPGRADES					
Monitoring Only	Yes	Yes	Yes	Yes	Yes
Link Speeds with Shaping Options	512 Kbps 2 Mbps 10 Mbps —	2 Mbps 6 Mbps 10 Mbps 45 Mbps	2 Mbps 6 Mbps 10 Mbps 45 Mbps 100 Mbps	10 Mbps 45 Mbps 100 Mbps 200 Mbps	200 Mbps 500 Mbps 1 Gbps No limit ⁵
Compression ³	2 Mbps	10 Mbps	20 Mbps	45 Mbps	155 Mbps N/A
INTERFACES					
Onboard Ports (Pairs)	Copper: 2x10/100 Mbps	Copper: 1x10/100/1000 Mbps	Copper: 1x10/100/1000 Mbps	Copper: 1x10/100/1000 Mbps	Copper: 1x10/100/1000 Mbps
LAN Expansion Modules	Backup fail-to-wire pair built in	N/A	Up to 2 dual-port modules Copper: 10/100/1000 Mbps Fiber: SFP	Up to 2 dual-port modules Copper: 10/100/1000 Mbps Fiber: SFP	Copper, dual-port (1): 10/100/1000BASE-T or 10GBASE-CX4 Copper, four-port (1): 10/100/1000BASE-T Fiber, dual-port (1): 1000BASE-SX, 1000BASE-LX, 10GBASE-SR, 10GBASE-LR Fiber, four-port (1): 1000BASE-SX or 1000BASE-LX
Out of Band Management	Through backup ports	Yes	Yes	Yes	Yes, + Direct Standby port
Console Port	All have RS-232 (AT-compatible) with male DB-9 connectors				

PACKETSHAPER SERIES	900	1700	3500	7500	12000 12000 ISP ⁴
PHYSICAL PROPERTIES (19 INCH RACK-MOUNTABLE)					
Dimensions (L x W x H)	(9.68 in/24.60 cm) (8.66 in/22.00 cm) (1.75 in/4.45 cm)	(16.97 in/43.1 cm) (17.4 in/44.2 cm) (1.75 in/4.45 cm)	(16 in/40.64 cm) (17.35 in/44.07 cm) (3.5 in/8.89 cm)	(16 in/40.64 cm) (17.35 in/44.07 cm) (3.5 in/8.89 cm)	(27.44 in/69.70 cm) (16.93 in/43.0 cm) (1.69 in/4.30 cm)
Weight	4.50 lbs (2.05 kg)	14 lb (6.35 kg)	18.04 lb (8.18 kg)	20.48 lb (9.29 kg)	36.5 lb (16.5 kg)
POWER					
Power Supply	100/240 VAC; 50/60 Hz, 2 A	100/240 VAC; 50/60 Hz, 2.5 A	100/240 VAC; 50/60 Hz, 2.5 A	100/240 VAC; 50/60 Hz, 2.5 A	100/240 VAC; 50/60 Hz, 6 A
Dual, Redundant Load Sharing	No	No	No	Yes; Hot-swappable	Yes; Hot-swappable
ADDITIONAL FEATURES					
Interoperability	XML, XML and CGI APIs, SNMP MIB, SNMP event traps, HP OpenView, infoVista, CA eHealth, IBM Tivoli, Micromuse Netcool				
Device Management	Console access, Web browser interface, Telnet CLI, SNMP Blue Coat MIB and MIB-II support				
REGULATION					
Safety	IEC60950 (CB Scheme), UL60950 (USA), CSA C22.2 No.60950 (Canada), EN60950 (CE/Europe), CNS14336 (Taiwan), GB4943 (China), MEK60950 (Russia), KSC8305 (Korea), NOM-019 (Mexico), AS/NZS 60950-1 (Australia/New Zealand)				
EMC/EMI	CISPR22/CISPR24 (International), EN55022/EN55024 (CE/Europe), FCC part 15 (USA), ICES-003 (Canada), VCCI V-3 (Japan), AS/ZNS-CISPR22 (Australia/New Zealand), CNS13438 (BSMI), 51318.22/51318.24 (Russia), GB9254/GB17625 (China), EM:KN22/IM:KN24 (Korea). Tested to Class A Emissions for all standards.				
Environmental	RoHS-Directive 2011/65/EU, REACH-Regulation No 1907/2006				
More Info	Contact Regulatoryinfo@bluecoat.com for specific certifications or additional support				

Note: Not all capacity specifications can be maximized simultaneously

¹ PacketShaper can support more hosts and flows; these figures represent ideal maximums for producing optimal results; numbers are rounded up or down to the nearest thousand. These maximums represent concurrent flows.

² No extra partitions are specifically allocated for dynamic partitions. The PS900 has a pool of partitions to be shared between static and dynamic partitions.

³ Refers to post-compressed traffic rates - maximum compressed throughput specifications for PacketShaper are lower when compression is enabled due to the extra processing power required to compress traffic.

⁴ PacketShaper 12000 has a configuration option for ISP loads, which adds capacity for classes and flows but does NOT provide certain features including compression and response time statistics, among others. The higher values shown for PacketShaper 12000 are enabled by an optional license.

⁵ No limit: Typical aggregate throughput (in + out) is 2.5 – 8.0 Gbps, and varies depending on flow rates, average packet size, enabled features, and other factors.