

PacketShaper S200/S400/S500

Improve Network Efficiency with Visibility and Control

Introduction

Your business demands high performance and high efficiency from your network. Cloud, mobile and video applications drive unprecedented levels of bandwidth demand that can damage the performance of mission critical applications. Symantec PacketShaper helps enterprises to control bandwidth cost, deliver a superior user experience and align network resources with business priorities. It is a cloud-connected WAN and internet appliance that provides visibility into applications and web content on your network, along with powerful application-level policy management. A core element of Symantec Network Performance Optimization solutions, PacketShaper is integrated with the Symantec Global Intelligence Network for real-time traffic discovery and classification of hundreds of applications and tens of millions of websites. It is an indispensable tool that network administrators rely on to effectively manage their network efficiency and application performance.

Visibility

Your network and applications need to run at the speed of your business. But before you can optimize application performance, you need an accurate picture of your network traffic. The PacketShaper delivers full visibility by automatically classifying network traffic by application and content category. Integration with Microsoft Active Directory provides group- and user-based traffic views to help you understand who consumes the most bandwidth on the network. This unmatched visibility into network traffic gives you deep insights that can guide your policies and control of network traffic.

In addition, PacketShaper offers application-intelligent Layer 7+ visibility that integrates with the Symantec Global Intelligence Network to provide real-time content categorization. In addition to reporting on network and application utilization and performance, the PacketShaper 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 management for web-connected applications such as Cloud applications, social media, recreational video, and audio/video communication. All web content requested by users is automatically categorized under more than 80 logical headings, such as Collaboration, Games and Social Networking. This level of 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.

It tracks the bandwidth consumed by applications and web content categories, the response time of key applications by network and server delay, and key stats such as 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 before problems occur.

Control

PacketShaper does more than just identification and classification; it provides powerful QoS tools to protect preferred applications and web content categories while containing the impact of undesirable traffic. To maintain high network efficiency and high performance for business-critical applications traffic must be segmented and prioritized. Control should be built on visibility, so that network administrators can partition traffic and prioritize it by its relevant values to your business. Network administrators may want to restrict recreational video or BYOD downloads to a small but reasonable portion of network bandwidth so it neither impacts important business applications nor incurs the wrath of sports enthusiasts (including vice presidents and senior directors) or BYOD-driven employees. For example, you can exert the following QoS controls with the PacketShaper:

- Improve user experience by guarantying bandwidth to latency-sensitive applications such as VoIP, video conferencing, and virtual desktops.

- Protect performance of key business applications via bandwidth allocation and prioritization over non-essential traffic.
- Allow access to social network sites such as Facebook and YouTube, but limit their bandwidth impact on the network.
- Guarantee per-flow bandwidth and automatically enforce appropriate transfer rates with patented rate control technology for systems at the far end of the network to deliver bidirectional QoS.
- Protect the best, contain the rest: align network usage with your business priorities based on applications and content.

Monitoring

With the visibility and control provided by PacketShaper, your network is running at its optimal efficiency. But it is always a good idea to monitor your network activities regularly and make appropriate adjustments if necessary.

The real-time dashboard monitoring tool, part of the PacketShaper offering, provides you with immediate intelligence about what is consuming your network bandwidth and how your network bandwidth is being utilized. The dashboard enables you to see which applications or users are consuming the most bandwidth and how much of your available network bandwidth is being consumed at any given moment. The dashboard updates every few seconds, giving you real-time visibility into the status of the traffic on your network.

The on-box reports and the optional central reporting solution give insights into the way critical business services and applications perform across a network. These reporting solutions use application information collected by the PacketShaper to monitor the quality of application delivery and help to set performance goals. Administrators can use the reported application and network information to effectively manage network performance and optimize user experience for their WAN, Internet links and cloud applications. With PacketShaper and these powerful reports, you will be able to:

- Gain insights into application and user behaviors to identify potentially risky and inappropriate activities
- Improve the performance and efficiency of business-critical services and processes
- Set control policies that dynamically optimize your network infrastructure
- Improve critical application performance and user experience
- Monitor network performance and measure against SLA and expectations
- Protect your infrastructure investment and minimize unnecessary network resource waste

PacketShaper S-Series ¹	S200						S400				S500		
	10ML	50ML	100ML	100MH	250MH	500MH	250MH	500MH	1GH	2GH	2GH	5GH	10GH
Maximum Capacity													
Link Speed with Shaping ²	10Mbps	50Mbps	100Mbps	100Mbps	250Mbps	500Mbps	250Mbps	500Mbps	1Gbps	2Gbps	2Gbps	5Gbps	10Gbps
IP Flows (TCP) ³	5K	100K	100K	200K	275K	350K	275K	350K	1,000K	1,000K	1,000K	1,500K	2,000K
IP Flows (UDP)	2.5K	50K	50K	100K	150K	200K	150K	200K	500K	500K	500K	1,000K	2,000K
Classes	512	1K	1K	2K	3K	5K	3K	5K	7.5K	10K	10K	10K	10K
Dynamic partitions	1K	2.5K	2.5K	5K	7.5K	10K	7.5K	10K	15K	20K	20K	35K	55K
Static partitions	512	1K	1K	2K	3K	5K	3K	5K	5K	10K	10K	10K	10K
Shaping Policies	512	1K	1K	2K	3K	5K	3K	5K	7.5K	10K	10K	10K	10K
Max Matching Rules	2K	5K	5K	5K	7.5K	10K	7.5K	10K	15K	25K	25K	25K	25K
Matching Rules per Class	250	1K	1K	1K	1K	1K	1K	1K	1K	1K	1K	1K	1K
IP Hosts	7.5K	25K	25K	75K	200K	350K	200K	350K	450K	550K	550K	575K	600K
Max AD Groups	50	100	100	200	225	250	225	250	250	250	250	250	250
System													
Available Slots	1 Full Height						1 Full Height / 1 Half Height				2 Full Height / 2 Half Height		
Network I/O Modules (with Bypass Capacity)	4 x 10/100/1000Base-T 4 x 1000Base-F, SX ⁴ 4 x 1000Base-F, LX ⁴						4 x 10/100/1000Base-T 4 x 1000Base-F, SX ⁴ 4 x 1000Base-F, LX ⁴ 2 x 10GBase-T 2 x 10GBase-F, LR 2 x 10GBase-F, SR				4 x 10/100/1000Base-T 4 x 1000Base-F, SX ⁴ 4 x 1000Base-F, LX ⁴ 2 x 10GBase-T 2 x 10GBase-F, LR 2 x 10GBase-F, SR		
Onboard Ports	2x1GbE Copper, Bypass 1x1GbE Copper Management Port						2x1GbE Copper, Bypass 1x1GbE Copper Management Port				1x1GbE Copper Management Port ⁵		
Console Port	1 RS-232 (AT-Compatible) with male DB-9 connector												

¹ Compression and Monitor Only Mode are not offered in the PacketShaper S-Series.
² Not all capacities can be maximized simultaneously
³ PacketShaper can support additional hosts and flows; these figures represent ideal maximum concurrent flows for producing optimal results; numbers are rounded up or down to the nearest thousand.
⁴ Requires one full-height expansion slot.
⁵ No NIC is included in the base system, NIC cards must be added as optional equipment at time of ordering.

Physical Properties	S200	S400	S500
Dimensions and Weight			
Dimensions (L x W x H)	446.3mm x 440.0mm x 43.5mm (17.57in x 17.32in x 1.71in) (chassis only) 454.5mm x 482.6mm x 43.5mm (17.89in x 19.0in x 1.71in) (chassis with extensions) Note: 640mm L (25.81in L) with optional slide rails 1 RU height	572mm x 432.5mm x 42.9mm (22.5in x 17.03in x 1.69in) (chassis only) 643mm x 485.4mm x 42.9mm (25.3in x 19.11in x 1.69in) (chassis with extensions) 1 RU height	710mm x 433.3mm x 87.2mm (27.95in x 17.05in x 3.43in) (chassis only) 812.8mm x 433.4mm x 87.2mm (32in x 17.06in x 3.43in) (chassis with extensions) 2 RU height
Weight (max)	Approx. 7.4 kg (16.4 lbs) +/- 5%	Approx. 12.8 kg (28 lbs) +/- 5%	Approx. 30kg (66.12 lbs) +/- 5%
Operating Environment			
AC Power	100-127VAC @ 6A 200-240V @ 3A, 47-63Hz	Includes one power supply; second redundant and hot swappable power supply optional 100-127VAC @ 8A, 200-240VAC @ 4A, 47-63Hz	Includes dual redundant and hot swappable power supplies 100-240VAC, 50-60Hz, 12-5A
Total Output Power	350 Watts	450 Watts	1100 Watts
Thermal Rating	Typical: 785 BTU/Hr, Max: 1195 BTU/Hr	Typical: 1086 BTU/Hr, Max: 1381 BTU/Hr	Typical: 2598.42 BTU/Hr, Max: 3751 BTU/Hr
Optional DC Power	Not available	Input voltage range: 40.5V - 57V Input Max Current: 22A Total Output Power: 770W	Input voltage range: 40 - 72 VDC Input Max Current: 30A Total Output Power: 1100W
Temperature	5°C to 40°C (41°F to 104°F) at sea level		
Humidity	20 to 80% relative humidity, non-condensing		
Altitude	Up to 3048m (10,000ft)		

PacketShaper Series – S200, S400 and S500

Regulations	Safety	Electromagnetic Compliance (EMC)
International	CB – IEC60950-1, Second Edition	CISPR22, Class A; CISPR24
USA	NRTL – UL60950-1, Second Edition	FCC part 15, Class A
Canada	SCC – CSA-22.2, No.60950-1, Second Edition	ICES-003, Class A
European Union (CE)	CE – EN60950-1, Second Edition	EN55022, Class A; EN55024; EN61000-3-2; EN61000-3-3
Japan	---	VCCI V-3, Class A
Mexico	NOM-019-SCFI by NRTL Declaration	---
Argentina	S Mark – IEC 60950-1	---
Taiwan	BSMI – CNS-14336-1	BSMI – CNS13438, Class A
China	CCC – GB4943.1	CCC – GB9254; GB17625
Australia/New Zealand	AS/NZS 60950-1, Second Edition	AS/ZNS-CISPR22
Korea		KC – RRA, Class A
Russia	CU – IEC 60950-1	GOST-R 51318.22, Class A; 51318.24; 51317.3.2; 51317.3.3
Environmental	RoHS-Directive 2011/65/EU, REACH-Regulation No 1907/2006	
Product Warranty	Limited, non-transferable hardware warranty for a period of one (1) year from date of shipment. Support contracts available for 24/7 software support with options for hardware support.	
Gov't Certifications	For further government certification information please contact DL-BC-GROUP-Federal_Certifications@symantec.com	
More Info	Contact regulatorycompliance@symantec.com for specific regulatory compliance certification questions and support	

About Symantec

Symantec Corporation (NASDAQ: SYMC), the world's leading cyber security company, helps organizations, governments and people secure their most important data wherever it lives. Organizations across the world look to Symantec for strategic, integrated solutions to defend against sophisticated attacks across endpoints, cloud and infrastructure. Likewise, a global community of more than 50 million people and families rely on Symantec's Norton and LifeLock product suites to protect their digital lives at home and across their devices. Symantec operates one of the world's largest civilian cyber intelligence networks, allowing it to see and protect against the most advanced threats. For additional information, please visit www.symantec.com or connect with us on [Facebook](#), [Twitter](#), and [LinkedIn](#).



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