

# WAN OPTIMIZATION FOR A SUPERIOR USER EXPERIENCE

Blue Coat MACH5 300/600/900/9000

Blue Coat MACH5 delivers the application performance needed to create an exceptional user experience. A cornerstone product of the Blue Coat Performance Center, MACH5 combines optimization features such as protocol acceleration, compression, and caching to dramatically improve the performance of file transfers, backups, email, databases, video, and cloud applications. And MACH5 is uniquely able to deliver this performance across an IPv4 or IPv6 environment. MACH5 deploys at the network core and at the branch to assure that every user, everywhere experiences the application performance they expect.

## Acceleration

- **Protocol Optimization:** Accelerate application performance by mitigating the penalties that latency imposes on inefficient protocols or applications originally architected for the LAN and running on the WAN
- **Object Caching:** Dramatically accelerate web application and workflows that depend on centrally-stored files by delivering remote content locally in the branch
- **Byte Caching:** Reduce the effects of latency, and significantly reduce bandwidth consumption for repetitive data elements, even across disparate applications, transmitted over the WAN
- **Compression:** Reduce the effect of latency, and reduce bandwidth consumption for any compressible data transiting the WAN
- **Bandwidth Management:** Ensure productivity by prioritizing enterprise-critical data flows over bulk-data or recreational traffic
- **Video Optimization:** Stream splitting, video pre-population and video caching can save up to 99.99% of bandwidth

- **Mobile User Optimization:** Productivity enhancement for mobile and home users with Blue Coat ProxyClient™

## Application Acceleration

### Support for multiple protocols

- HTTP, CIFS, SSL, FTP, Encrypted MAPI, MAPI, P2P, MMS, RTMP, RTMPE, RTSP, QuickTime, SCPS, TCP-Tunnel, DNS
- Provide LAN-like application performance to remote users and branch offices
- Deliver outstanding performance for streaming audio, video and other rich media applications
- Bandwidth management on all acceleration services
- Accelerate live and on-demand rich media, as well as SSL-encrypted traffic
- Control encrypted traffic for all users and applications inside and outside the enterprise
- Reduce recurring network bandwidth costs with multiple levels of compression and content caching

## Performance & Reliability – SGOS

### Platform highlights:

- Secure object-based operating system with small footprint
- High-speed caching with advanced object pipelining and adaptive refresh
- Built-in pass-through network card, compression services, bandwidth management and SSL off loading

### Network functionality including:

- Active/Active bridging support using virtual IP addressing for failover and remote installations
- Completely transparent when tunneling applications between appliances, maintaining IP and port information for traffic management
- Native support for advanced clustering for near limitless scalability, without additional load balancing appliances
- Routing configurations for gateway, route tables, RIP, DNS, and WCCP, with support for asymmetric routing of application delivery tunnels

- Health checks performed on a forwarding host or external servers to verify status and availability of device
- View & submit service requests via the Blue Coat management interface
- Send snapshots (trace files) to Blue Coat Support Services for faster resolution

## Manageability – Policy Processing Engine

### Powerful management interface

- Web-based management interface
- Optional command line interface
- Alerting via SNMP, SMTP and logging administrative events

### Content Policy Language (CPL)

- Create custom text-based policies to address unique policy requirements
- Definable triggers and actions for policy definition

## Extended Management with Director

- Distribute, backup, restore policy files for multiple ProxySG appliances
- Manage policies by device, group, or region
- Job scheduling/job status reporting

## Management & Control of ProxyClient

- Configure, provision and maintain global deployment of ProxyClient
- Upgrade client versions seamlessly with auto version detection and update

## Visibility – Management Reporting

### Default logging

- HTTP, HTTPS, CIFS, Encrypted MAPI, MAPI, FTP, TCP-Tunnel, P2P, ICP, Windows Media, Real Media, QuickTime, DNS
- Global log file limits and upload sizing
- Client upload settings and scheduling

## Custom logging and trace files

- Selectable fields/text/log formats

### Statistics

- Bandwidth Gain
- HTTP/HTTPS/FTP history
- Streaming history
- Resources

### SNMP Support

- Trap settings, community strings

## Aggregate logs with Blue Coat Reporter™

- Reporter dashboard - intuitive console that provides a “drill-down” overview of web activity
- 50+ pre-defined reports track user activity, security risks, and web traffic performance
- Secure browser access/role-based viewing
- Provides real-time reporting with continuous log uploads from one or more ProxySG appliances

LICENSE TYPE	ACCELERATION EDITION	PROXY EDITION
CIFS acceleration	Yes	Yes
Windows Media optimization	Yes	Yes
Real Media optimization	Yes	Yes
QuickTime optimization	Yes	Yes
Adobe Flash optimization	Option	Option
Bandwidth Management	Yes	Yes
DNS proxy	Yes	Yes
HTTP acceleration	Yes	Yes

LICENSE TYPE	ACCELERATION EDITION	PROXY EDITION
SSL acceleration	Yes	Yes
Encrypted MAPI /MAPI acceleration	Yes	Yes
Telnet proxy	No	Yes
ICAP Services	No	Yes
Netegrity SiteMinder	No	Yes
Oblix COREid	No	Yes
Peer-To-Peer	No	Yes

LICENSE TYPE	ACCELERATION EDITION	PROXY EDITION
User Authentication	No	Yes
Onbox Content Filtering (3rd Party or BCWF)	No	Yes
Offbox Content Filtering (e.g. Websense)	No	Yes
Instant Messaging (AOL, Yahoo, and MSN)	No	Free
SSL Termination/Proxy	Yes	Yes

	SG300 SERIES			SG600 SERIES			SG900 SERIES			SG9000 SERIES				
	300-5	300-10	300-25	600-10	600-20	600-35	900-10B	900-20	900-30	900-45	900-55 <sup>6</sup>	9000-20B	9000-30	9000-40
<b>Recommended Capacity</b>														
Throughput	2Mbps	2Mbps	6Mbps	6Mbps	12Mbps	25Mbps	45Mbps	90Mbps	155Mbps	200Mbps	310Mbps	310Mbps	622Mbps	1000Mbps
Connections	500 <sup>1</sup>	500	1,000	1,000	2,000	4,000	6,000	9,000	15,000	20,000	36,000	24,000	60,000	100,000

	SG300 SERIES			SG600 SERIES			SG900 SERIES					SG9000 SERIES		
System														
Disk Drives	1x250GB SATA	1x250GB SATA	1x250GB SATA	1x250GB SATA	2x250GB SATA	2x250GB SATA	2x1TB SAS	2x1TB SAS	3x1TB SAS	4x1TB SAS	4x2TB SAS	8x1TB SAS	10x1TB SAS	15x1TB SAS
RAM	2GB RAM	2GB RAM	4GB RAM	4GB RAM	4GB RAM	4GB RAM	8GB RAM	8GB RAM	12GB RAM	16GB RAM	32GB RAM	24GB RAM	40GB RAM	64GB RAM
Network Interfaces	(2) integrated 1000 Base-T NICs with bypass, (1) integrated 1000Base-T port for Mgmt; SSL Card			(2) integrated 1000 Base-T NICs with bypass, (1) integrated 1000Base-T port for Mgmt; SSL Card			4 x 1000 Base-T: 1xMgmt, 1xAux, 1 bridged pair (WAN & LAN) with bypass; SSL Card					4 x 1000 Base-T: 1xMgmt, 1xAux, 1 bridged pair (WAN & LAN) with bypass; SSL Card		
							Open Slots 2xPCI-E (1 long/1 short)					Open Slots 3xPCI-E		Open Slots 2xPCI-E
Optional NICs	None			4x1000Base-T (Copper) 4x1000Base-F (Fiber-SX) (no bypass)			4x1000Base-T (Copper/short) 4x1000Base-F (Fiber-SX/long)					4x1000Base-T (Copper), 4x1000Base-F (Fiber) 2x10G (Copper), 2x10G (SR Fiber) <sup>5</sup>		
Physical Properties														
Enclosure	Desk or rack mount (standard rack shelf required for rack mounting)			19" Rack-mountable			19" Rack-mountable					19" Rack-mountable		
Dimensions (LxWxH)	26.4cm x 21.1cm x 4.14cm (10.4in x 8.3in x 1.63in) <sup>2</sup>			39.7cm x 42.7cm x 4.25cm (15.6in x 16.8in x 1.67in) <sup>2</sup>			43.3cm x 59.5cm x 4.3cm (17.0in x 23.4in x 1.69in) <sup>2</sup>					66.7cm x 42.7cm x 17.2cm (26.3in x 16.8in x 6.77in) <sup>2</sup>		
	27.1cm x 21.1cm x 4.14cm (10.7in x 8.3in x 1.63in) <sup>3</sup>			40.6cm x 48.1cm x 4.25cm (16.0in x 18.9in x 1.67in) <sup>3</sup>			48.4cm x 62.3cm x 4.3cm (19.1in x 24.5in x 1.69in) <sup>3</sup>					72.7cm x 48.0cm x 17.2cm (28.6cm x 18.9in x 6.77in) <sup>3</sup>		
Weight	2.6kg (5.7lb)			5.5kg (12.1 lb) <sup>4</sup>		5.7kg (12.6 lb) <sup>4</sup>	18kg (39.7 lbs)					Approx. 40kg (90 lbs.)		
Operating Environment														
Power	AC power 100-240V, 50-60Hz, 0.82A-0.32A			AC power 100-240V, 50-60Hz, 2.16A-0.76A			AC power 100-240V, 50-60Hz, 6.0-3.0A, Redundant power capable					AC power 100-240V, 50-60Hz, 9.0-4.5A, Redundant power, DC power available		
Power Rating	65 Watts			150 Watts			400 Watts					750 Watts		
Thermal Rating	221 BTU/Hr			511.5 BTU/Hr			1364.86 BTU/Hr					3300 BTU/Hr		
Temperature	5°C to 40°C (41°F to 104°F) at sea level			5°C to 40°C (41°F to 104°F) at sea level			5°C to 40°C (41°F to 104°F) at sea level					5°C to 40°C (41°F to 104°F) at sea level		
Humidity	20 to 80% relative humidity, non-condensing			20 to 80% relative humidity, non-condensing			20 to 80% relative humidity, non-condensing					Operating: 20% to 80% relative humidity, non-condensing, Storage: 10% to 90% relative humidity, non-condensing		
Altitude	Up to 3048m (10,000ft)			Up to 3048m (10,000ft)			Up to 3048m (10,000ft)					Operating: Up to 3048 M (10,000 ft) Storage: Up to 12192 M (40,000 ft)		
Regulation														
Safety	IEC60950 (CB Scheme), UL60950 (USA), CSA C22.2 No.60950 (Canada), EN60950 (CE/Europe), CNS14336 (Taiwan), GB4943 (China), MEK60950 (Russia), NOM-019 (Mexico), AS/NZS 60950-1 (Australia/New Zealand)													
Electromagnetic Compliance (EMC)	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													
Product Warranty	Limited, non-transferable hardware warranty for a period of one (1) year from date of shipment. BlueTouch Support contracts available for 24/7 software support and options for hardware support.													
Gov't Certifications	For further government certification information please contact <a href="mailto:Federal_Certifications@bluecoat.com">Federal_Certifications@bluecoat.com</a>													
More Info	<a href="mailto:regulatoryinfo@bluecoat.com">Contact regulatoryinfo@bluecoat.com</a> for specific regulatory compliance certification questions and support													

<sup>1</sup> limited to 10 concurrent users

<sup>2</sup> measurement of chassis only

<sup>3</sup> measurement includes extensions (handles and ears)

<sup>4</sup> weight w/o power cord

<sup>5</sup> 2-port 10G (SR-Fiber) card requires SGOS 6.2 and above

<sup>6</sup> For Use as a data center concentrator box only, not currently supported for WAN Op branch deployment