Service Gateway 9000 Series

Delivering Complete Network Intelligence

Visibility, Control, and Security for the Enterprise

Network service performance and application delivery assurance are critical to user satisfaction and business success.

The Allot Service Gateway 9000 (SG-9000) series enables your IT, network and security teams to assure and protect network services and application delivery.

Seamlessly integrated into enterprise networks, the SG-9000 provides centralized traffic management and QoE based application control for high levels of user satisfaction, network hygiene, a reduced attack surface, and bot and DDoS mitigation for higher levels of protection.

Together with business analytics, the SG-9000 enables you to see and understand everything that is happening on your company network. As a result, you can act faster and more decisively to make any size network operate better, faster, and more safely.

With terabit performance the SG-9000 can be placed at central network junctions, providing visibility, control and security across the WAN, datacenter LAN and Internet.

These multi-service platforms enable medium and large enterprises, MSPs, datacenter and cloud service providers to ensure that the network is optimized to best meet business requirements.

Benefits

- Assures and protects network service and application delivery
- Empowers informed, data-driven decisions with business analytics (e.g., making infrastructure investments and upgrades where and when they are needed)
- Allows you to know and control everything that is on your network
- Provides control of recreational traffic and prevents abuse of corporate resources

- Identifies and solves problems before they escalate with real-time traffic monitoring for increased operational efficiency
- Identifies and manages apps and devices that create potential security risks
- Delivers high capacity for demanding environments; up to 2 Tbps in a cluster
- Supplies high-density 1/10/40/100 Gigabit Ethernet connectivity
- Easy installation and pay-as-you-grow scalability

allot See. Control. Secure.

Accurate Traffic Visibility and Policy Control

The SG-9000 Dynamic Actionable Recognition Technology (DART) engine, provides granular visibility of application, user, device, quality-of-experience (QoE), and network topology traffic. Our extensive signature library accurately identifies hundreds of applications and protocols and supports user-defined signatures for home-grown web applications. Frequent and automated updates to the signature library keep Allot Service Gateways up-to-date with the latest applications and internet developments, ensuring accurate traffic detection and classification. Moreover, Allot's flexible and powerful policy editor makes it easy to prioritize business-critical apps and enforce real-time Quality of Service (QoS).

Encrypted Traffic Classification

With superior traffic classification, Allot appliances proactively learn and adapt to the changing tactics of traffic encryption widely used by internet services and data privacy applications. From heuristic analysis of IP flow behavior to peer learning and predictive DPI, Allot's synergistic range of inspection methods provides and accurate recognition of encrypted traffic, even during peak loads.

Maintaining Network Hygiene

In the era of BYOD, shadow IT, and the use of unsanctioned apps, security is a major concern for IT staff. The Allot SG-9000 series allows you to monitor recreational and risky traffic that can compromise enterprise business apps. For example, you can prevent network abuse in the following ways:

- Allocate quotas for employees to limit the downloading of subscriber VOD, such as Netflix
- Deny the use of private VPNs that can be used to circumvent security controls
- Deny the running of peer-to-peer apps that pose a liability for pirated content and can introduce malware with "license-free" software
- Identify apps, such as crypto-mining, that possibly indicate a compromised server or abuse of corporate resources.

Collecting Network Data Records

From their vantage point on your network, Allot Service Gateway platforms collect and export a rich variety of high-resolution usage and performance data, including real-time activity per user, per application, per device, per VoIP & video session, per web session, and more. Network data records may be exported in standard formats to business intelligence systems, such as Allot ClearSee Network Analytics and other systems, such as SIEM systems for further security analysis. Furthermore, datacenter and cloud service providers can validate network SLAs in addition to providing analytics as a service. Frequency and triggers for data record export are configurable parameters, providing ready access to critical usage data. Network data records are configurable and easily customized by Allot Data Science Services for any destination or use case requirements.

Single Point of Service Integration

In addition to industry-leading DPI-based visibility and control, the Allot SG-9000 series supports the growing portfolio of value-added services from Allot, including:

- Allot NetworkSecure (Web security)
- Allot ServiceProtector (DDoS protection and anti-bot)
- Allot ContentProtector (URL filtering)

The platform also supports real-time traffic steering to third-party applications or virtualized services with seamless service chaining. As a single point of integration for these services, Allot helps you minimize interoperability and service integration issues to facilitate fast and efficient service rollout.

Efficient Performance

Allot SG 9000 series appliances pack rich functionality into efficient, small- footprint components. High-density 1/10/40/100 Gigabit Ethernet connectivity and scalable design allow the IT department to keep pace with the demand for high- quality network-based services in a cost-efficient manner.

Supports SME to Large Enterprises

As a scalable family of DPI-based multi-service platforms, Allot Service Gateway Appliances can accommodate both small and large-sized enterprise networks.

- **Capacity:** The 9000 series can support up to 9 million active users (concurrently attached and active) and 144 million concurrent IP flows
- **Maximum Connectivity:** up to 40 x 1/10 Gigabit Ethernet or up to 8 x 40/100 Gigabit Ethernet
- **Throughput:** up to 300 Gbps in a single platform, and up to 2 Tbps of aggregate throughput in a seamless cluster configuration
- **Central Management** and configuration by Allot Gateway Manager
- Allot Service Gateways are also available in NFV-compliant virtual editions. For more information, please consult with your Allot representative, or visit www.allot.com

Efficient Clustering

Allot maintains accurate Layer-7 visibility and control of user-application traffic across multiple platforms even when asymmetric upstream and/or downstream IP flows are processed by different appliances. Clustering utilizes dedicated interfaces with very low synchronization traffic overhead.

Technical Specifications

	Allot SG-9008	Allot SG-9100 V2	Allot SG-9500 Configuration A	Allot SG-9500 Configuration B
Capacity *				
Throughput per Platform	8 Gbps	50 Gbps	140 Gbps	140 Gbps
Throughput per Cluster of 8 devices	60 Gbps	350 Gbps	1 Tbps	1 Tbps
Number of Connections / Flows	2,250,000 / 4,5000,000	12,000,000 / 24,000,000	36,000,000 / 72,000,000	36,000,000 / 72,000,000
Number of registered Users / Subscribers	270,000	1,500,000	4,500,000	4,500,000
Number of Static Lines / Pipes / Virtual Channels	512 / 5,000 / 15,000	512 / 5,000 / 15,000	512 / 5,000 / 15,000	512 / 5,000 / 15,000
Number of Active Lines / Pipes / Virtual Channels	10,512 / 250,000 / 500,000	10,512 / 1,000,000 / 2,000,000	10,512 / 3,000,000 / 6,000,000	10,512 / 3,000,000 / 6,000,000
Standards				
Ethernet Interfaces	8 ports of 1 GE Copper (RJ45)	16 ports of 1GE/10GE (SFP+) 1GBASE-LX/SX 1 GE Copper (RJ45) 10GBASE-SR/LR	24 ports of 1GE/10GE (SFP+) 1GBASE-LX/SX 1 GE Copper (RJ45) 10GBASE-SR/LR	8 ports of 1GE/10GE (SFP+) 1GBASE-LX/SX 1 GE Copper (RJ45) 10GBASE-SR/LR 4 ports of 100 GE QSFP28
Management	2 x 1 Gigabit Ethernet (Copper)	2 x 1 Gigabit Ethernet (Copper)	2 x 10 Gigabit Ethernet or 2 x 1 Gigabit Ethernet	2 x 10 Gigabit Ethernet or 2 x 1 Gigabit Ethernet
Networking Standards				
Tunnel and Encapsulation Support	Including L2TP v1/2, MPLS, PPPoE, GRE, GTP, 6rd, Teredo, SNAP, DS-Lite/MAP-E			
IP Version	IPv4, IPv6			
Access Technology Support	2G, 3G, 4G/LTE, CDMA, DOCSIS, WiMAX, DSL, FTTx, PON			
Product Options				
Network Analytics	Real-time/Long-Term Monitoring and Reporting			
High Availability	Active redundancy (1:1, 1+1), Bypass			
Asymmetric Traffic Control	Yes			
Physical Characteristics				
Form Factor	1U 19" rack mount	2U 19" rack mount	2U 19" rack mount	2U 19" rack mount
Size	4.29 x 43.46 x 70.7 cm	8.7 x 44.5 x 72 cm	8.73 x 4.45 x 73.02 cm, without Bezel	8.73 x 4.45 x 73.02 cm, without Bezel
Weight	13.04 kg	20 kg	19.5 kg	17.7 kg
Power (PSU input/output)	100 to 120 VAC, 200 to 240 VAC, 500W 1979 BTU/hr (at 100 VAC), 1911 BTU/hr (at 200 VAC), 1965 BTU/hr (at 240 VDC) for China only	Dual Hot Plug 100 to 127 VAC, 200 to 240 VAC 750 W 3357 BTU/hr (at 100VAC) 3269 BTU /hr (at 200VAC) 3269 BTU /hr (at 240 VDC) for China only	Dual Hot Plug, Redundant 100/240VAC or -48VDC, efficiency of up to 94%, Energy star, 80PLUS, 800W 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China only	Dual Hot Plug, Redundant 100/240VAC or -48VDC, efficiency of up to 94%, Energy star, 80PLUS, 800W 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China only
Operating Temperature/ Environment	10° to 35°C (50° to 95°F), Relative humidity (%RH) 8% to 90%	10°C to 35°C (50°F to 95°F), Relative humidity (%RH) 8% to 90%	10°C to 35°C (50°F to 95°F), Relative humidity (%RH) 8% to 90%	10°C to 35°C (50°F to 95°F), Relative humidity (%RH) 8% to 90%

* Throughput values in this document were measured in the Allot lab under specific use cases and settings.
Actual throughput and performance metrics depend on enabled features, policy configuration, traffic mix, and other deployment characteristics.

Allot Service Gateway 9000 Series Appliances

	Allot SG-9008	Allot SG-9100 V2	Allot SG-9500
Availability			
System Redundancy	Redundancy for PSUs and fans (PSU optional on SG-9008)		
Hardware Bypass	Independent, passive bypass unit		
Bypass Configuration (up to two per SG)	8 port copper Bypass Unit	External 1U 19" rack mount, 2.44kg (5.38lb)	
	8 port Single/Multi-Mode Bypass Unit	External 1U 19" rack mount, 2.64kg (5.82lb)	
	16 port Single/Multi-Mode Bypass Unit	External 1U 19" rack mount, 2.86kg (6.3lb)	
	24 port Single/Multi-Mode Bypass Unit	External 1U 19" rack mount	
	4 100Gbps ports Multi-Mode Bypass Unit		
Standards Compliance			
Safety	UL60950		
	CE		
	CB		
EMC (Electromagnetic Compliance)	FCC		
	CE		
	VCC		
Environmental	RoHS, China RoHS		
	WEEE		
	REACH		

Allot Service Gateway 9700

	Allot SG-9700		
Capacity			
Throughput per Platform *	300 Gbps		
Throughput per Cluster *	2 Tbps; up to 10 devices		
Number of Connections / Flows	80,000,000 / 160,000,000		
Number of registered Users / Subscribers	10,000,000		
Number of Static Lines / Pipes / Virtual Channels	512 / 5,000 / 15,000		
Number of Active Lines / Pipes / Virtual Channels	10,512 / 250,000 / 500,000		
Standards			
Ethernet Interfaces	**Configuration A**	**Configuration B**	**Configuration C**
	40 ports of 10GE	**8 ports of 100GE**	**4 ports of 100GE**
	(8QSFP with breakout cables)	(QSFP28):	(QSFP28):
	10GBASE-SR/LR	100GBASE-SR4/LR4	100GBASE-SR4/LR4
		Plus	Plus
		8 ports of 1GE /10GE (SFP+):	**24 ports of 1GE /10GE** (SFP+):
		1GBASE-LX/SX	1GBASE-LX/SX
		1 GE Copper (RJ45)	1 GE Copper (RJ45)
		10GBASE-SR/LR	10GBASE-SR/LR
Management	2 x 10 Gigabit Ethernet or		
	2 x 1 Gigabit Ethernet		
Networking Standards			
Tunnel and Encapsulation Support	Including L2TP v1/2, MPLS, PPPoE, GRE, GTP, 6rd, Teredo, SNAP, DS-Lite/MAP-E		
IP Version	IPv4, IPv6		
Access Technology Support	2G, 3G, 4G/LTE, CDMA, DOCSIS, WiMAX, DSL, FTTx, PON		

* Throughput values in this document were measured in the Allot lab under specific use cases and settings.
  Actual throughput and performance metrics depend on enabled features, policy configuration, traffic mix, and other deployment characteristics.

Allot Service Gateway 9700

	Allot SG-9700		
Product Options			
Network Analytics	Real-time/Long-Term Monitoring and Reporting		
High Availability	Active redundancy (1:1, 1+1), Bypass		
Asymmetric Traffic Control	Yes		
Physical Characteristics			
Form Factor	1U 19" rack mount		
Size	8.73 x 44.54 x 67.94 cm (3.44 x 17.54 x 26.75 in), without Bezel		
Weight	**Configuration A** 18.5 kg	**Configuration B** 17.7 kg	**Configuration C** 18.5 kg
Power (PSU input/output)	Dual Hot Plug, Redundan t 100/240VAC or -48VDC, efficiency of up to 94%, Energy star, 80PLUS 800W 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China only		
Operating Temperature/ Environment	10°C to 35°C (50°F to 95°F) Relative humidity (%RH) 8% to 90%		
Availability			
System Redundancy	Redundancy for PSUs and fans		
Hardware Bypass	Independent, passive bypass unit		
Bypass Configuration (up to two per SG)	**8 port copper Bypass Unit** **HD-8 port Single/Multi-Mode Bypass Unit** **HD-16 port Single/Multi-Mode Bypass Unit** **HD-24 port Single/Multi-Mode Bypass Unit** **4 100Gbps ports Multi-Mode Bypass Unit**		
Standards Compliance			
Safety	UL60950 CE CB		
EMC (Electromagnetic Compliance)	FCC CE VCCI ICES		
Environmental	RoHS, China ROHS WEEE REACH		

allot See. Control. Secure.