SERVICE GATEWAY 9900R

Empowering Rapid Deployment of Service Innovation

Efficient roll out of value-added consumer and business services is key to accelerating service adoption and generating new revenue streams.



Allot Service Gateway 9900-R is the most powerful appliance in our SG-9000 series of scalable, DPI-based multiservice platforms whose small footprint is uniquely designed to power the rapid deployment of differentiated services in fixed, mobile and converged data networks and to lower your total cost of ownership.

BENEFITS

- Powerful and cost-efficient multiservice delivery platform
- Small-footprint appliance
- Up to 750 Gbps per appliance1
- High-density 10/100 Gigabit Ethernet connectivity
- Real-time Layer-7 application visibility of encrypted traffic, policy enforcement, charging
- Supports network-based Security VAS
- Deployment and management across any Access Network
- Easy installation and pay-as-you-grow scalability

Features

Single Point of Service Integration

Allot Service Gateway 9900-R (SG-9900-R) powers Allot's growing portfolio of value-added services including:

- Allot NetworkSecure (Security VAS for consumers and businesses)
- Allot DDoS Secure (DDoS protection and anti-bot)
- Allot SmartSentinel (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 Service Gateway 9900-R packs rich functionality in efficient, small-footprint appliances. High-density 10/100 Gigabit Ethernet connectivity and scalable throughput help you keep pace with the demand for high-quality network-based services in a cost-efficient manner.

Future-Proof Scalability

Start small and expand seamlessly with pay-as-you-grow deployment that reduces initial capital outlay and allows operators to respond quickly to market changes.

- Capacity: supports up to 10 million active subscribers (concurrently attached and active), and 160 million concurrent IP flows
- Throughput: up to 750 Gbps in a single platform
- Central Management and configuration by Allot NetXplorer Management system, including full integration with Allot Subscriber Management Platform (SMP)

Encrypted Traffic Classification

Allot's superior traffic classification proactively learns and adapts to the changing tactics of traffic encryption that is widely used by Internet services and data privacy applications. From heuristic analysis of IP flow behavior to peer learning and predictive DPI, Allot's synergy of inspection methods provides highly granular and accurate recognition of encrypted traffic even at maximum speeds and peak loads.

Accurate Traffic Visibility and Policy Control

Allot's Dynamic Actionable Recognition Technology (DART) engine, embedded in the platform, gives you granular visibility of application, user, device, quality-of-experience (QoE) and network topology traffic. Allot's extensive signature library accurately identifies hundreds of Internet applications and protocols, and also supports user-defined signatures. 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 for you to provision and enforce real-time Quality of Service (QoS), steering, metering and charging policy with equal granularity.

Intelligent Policy and Charging Enforcement

Compliance with 3GPP standards enables Allot SG-9900-R to provide intelligent Traffic Detection Function (TDF) and Policy and Charging Enforcement Function (PCEF) in 3G/4G/5G mobile data networks. This allows operators to leverage superior traffic identification and classification to enrich the policy decisions of PCRF elements, and to enhance the charging capabilities of online and offline charging systems (OCS, OFCS).

Collecting Network Data Records

From their vantage point in your network, Allot Service Gateway platforms collect and export a rich variety of high-resolution usage data, including real-time transactions per user, per application, per device, per video session, per VoIP and Instant Messaging 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 operator systems for further manipulation and analysis. Frequency and triggers for data record export are configurable parameters, giving operators ready access to usage data that is critical to their business. Network data records are configurable and easily customized by Allot Data Science Services for any destination or use case requirements.

Technical Specifications

CAPACITY	
Capacity (Throughput and performance metrics depend on enabled features, policy configuration, traffic mix, and other deployment characteristics)	
Throughput per Platform	750 Gbps[1]
Number of Connections / Flows	160,000,000
Number of Subscribers	160,000,000-320,000,000
Connections Establish Rate	1350K
Number of Lines / Pipes / Virtual Channels	512/10,800,000/20,000,000
STANDARDS	
Ethernet Interfaces	16 ports of 100GE (QSFP28): 100GBASE-SR4/LR4 Or 64 ports of 10GE (QSFP+ with breakout cable): 10GBASE - SR/LR Or 8 ports of 100GE (QSFP28) and 32 10GE (QSFP+ with breakout cable), Or Other combination of 10GE and 100GE[2]
Management	4 x 1/10/25 Gigabit Ethernet
NETWORKING STANDARDS	
Tunnel and Encapsulation Support	Including L2TP v1/2, MPLS, PPPoE, GRE, GTP, 6rd, Teredo, SNAP, DS-Lite/MAP-E and others
IP Version	IPv4, IPv6
Access Technology Support	2G, 3G, 4G/LTE, 5G, 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	Standard 2U in 19" rack
Size	8.73 x 44.54 x 67.94 cm (3.44 x 17.54 x 26.75 in), without Bezel
Weight	23 kg (50.70 lbs)
Power (PSU input/output)	AC - 1800W-2200W Flex slot Titanium hot plug redundant power supply[3], DC - 1600W Flex slot -48VDC Hot plug redundant power supply
Operating Temperature/Environment	10°C to 35°C (50°F to 95°F) Relative humidity (%RH) 8% to 90%

Technical Specifications

Bypass Configuration (up to)	Two units, 8 LC-LC MM/SM fiber-optic ports (4 links), or Two units, 16 LC-LC MM/SM fiber-optic ports (8 links), or Two units, 24 LC-6 MTP MM/SM fiber-optic ports (12 links), or Two units, 4 MTP-MTP MM fiber-optic ports (2 links of SR4 100G) Two units, 6 MTP-MTP MM fiber-optic ports (3 links of SR4 100G)
HD-8 Multi-Port Bypass Unit	External 1U 19" rack mount, 2.44kg (5.38lb)
HD-16 Multi-Port Bypass Unit	External 1U 19" rack mount, 2.64kg (5.82lb)
HD-24 Multi-Port Bypass Unit	External 1U 19" rack mount, 2.86kg (6.3lb)
STANDARDS COMPLIANCE	
Safety	UL60950 CE CB

1. Actual throughput and performance metrics depend on enabled features, policy configuration, traffic mix, and other deployment characteristic
2. Roadmap 2025
3. AC power supply redundancy supported only for 200-240V, 100V supported only in non-redundant configuration

Oct 2026

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