Allot Virtual Editions

Service Gateway Virtual Edition

Flexible, Agile, and Scalable Delivery of Virtualized Network Services

The Allot Service Gateway (SG) is a powerful and field-proven service delivery platform, providing a single point of integration in thousands of CSP and enterprise networks. The Allot SG powers the Allot Smart solution suite, capable of generating actionable intelligence as well as providing tools that enable CSPs to optimize, innovate, and capitalize on every service opportunity. The Allot Service Gateway Virtual Edition (SG-VE) plays the same role as the SG, and can be deployed in a virtualized or telco cloud environment. It provides a high-performance service delivery framework and is built to power Allot Smart services as virtual network functions (VNFs) that operate seamlessly and consistently across.

Core or Edge-based networks, Allot Service Gateways support the full range of Software Packaging, from PNF (Physical Network Function), through VNF (Virtualized Network Function), and all the way to fully containerized CNF (Cloud-native Network Function). All options drive service innovation and the highest possible QoE. The Service Gateway Virtualized Edition (SG-VE) runs on VMware ESXi and RedHat KVM hypervisors.

Benefits

- **Increased deployment agility**

  Deploy Allot's Layer-2 to Layer-7 Application visibility, policy control, charging, and security services wherever they will be most effective - at customer premises, network core, network edge (MEC), cloud data center, or small-scale remote locations.

- **Time-To-Market (TTM) acceleration**

  Accelerate time-to-market (TTM) by instantiating Allot's market-leading VAS services – managed from a virtualized service chaining framework, pre-integrated with your Cloud (e.g. Gi-LAN) and MEC requirements.

  - Seamless service integration with zero user-plane downtime
    Easily onboard and manage third-party VAS, avoid destabilizing your Gi-LAN/N6 internet access, and support selective traffic steering to Enterprise-grade and monetization services.

- **Telco Cloud compatibility & Elastic service delivery**

  Allot SG-VE is fully compatible with your existing Allot deployments, with ETSI NFV and Telco Cloud architectures, giving you absolute flexibility as you plan expansions and new service projects. on top of this, Allot SG-VE capacity, performance, and functionality are Elastic – e.g. support horizontal scale out – allowing you to adapt to dynamic service demand.

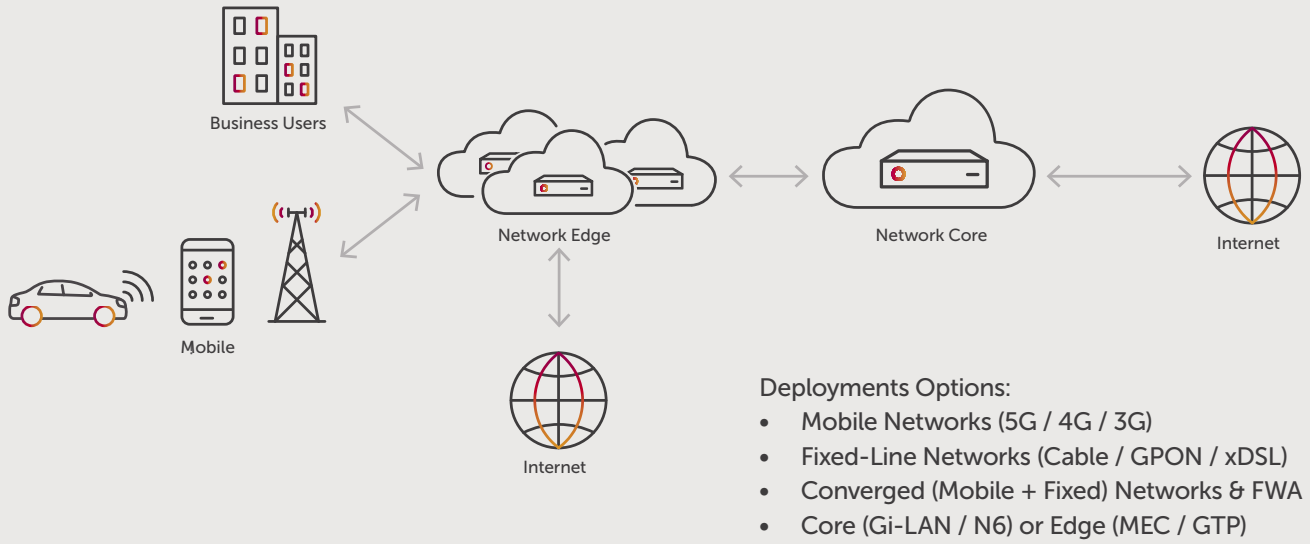
Single Point of Service(s) Integration

When developing the SG-VE, Allot re-architected its software components to comply with industry standards, adhering the following best-practices:

- Control and User Plane Separation (CUPS) Life Cycle Management (LCM) with integration to leading NFV-MANO orchestrators
- Continuous Integration / Continuous Delivery (CI/CD) to streamline and accelerate Software development and delivery processes

Deployment Flexibility

Allot's Service Gateway Virtual Edition range of deployment options, enable CSPs to enjoy the same granular visibility and control of network, service, user, and device traffic, ensuring delivery of optimal QoE, regardless of deployment mode.



Deployments Options:

- Mobile Networks (5G / 4G / 3G)
- Fixed-Line Networks (Cable / GPON / xDSL)
- Converged (Mobile + Fixed) Networks & FWA
- Core (Gi-LAN / N6) or Edge (MEC / GTP)

Beyond Control-Plane Integration

In 3GPP Networks, the SG-VE fulfills the intelligent 3GPP Traffic Detection Function (TDF) and Policy and Charging Enforcement Function (PCEF), enabling you to leverage Allot's superior traffic identification and classification, to enrich the PCRF Network policy decisions, , and to augment your network monetization capabilities by with online and offline charging systems (OCS / CHF / OFCS) when offering application-aware service plans.

Centralized Management

Allot NetXplorer and Allot Subscriber Management Platform (SMP) software work in harmony to provide a central vantage point for network-wide configuration and management of all Allot platforms and services, including Allot SG-VE (Service Gateway Virtual Edition). Allot VNFs make it easy to spin up and provision Virtual Editions on demand (aka VNF scale-out), and scale-down the Virtual Edition and return it to your license pool for future use. Virtual Edition license pools (based on number of CPU/core processors required) are available in various increments.

Environment & Deployment

Allot Service Gateway Virtual Edition supports popular virtualization platforms, enabling easy public or private cloud deployment. Performance specifications are calculated based on virtual cores, assuming an Intel® Xeon® processor with DPDK/SR-IOV available. Actual throughput performance will be affected by underlying hardware (included SGVE NICs spec and line-rate capacity), hypervisor configurations, software licenses, and enabled policies.policies.

	Allot Service Gateway Virtual Edition				
Product Name	**SG-VE-04**	**SG-VE-08**	**SG-VE-16**	**SG-VE-32**	**SG-VE-48**
Virtual CPUs (threads)	4	8	16	32	48
Virtual RAM	10 GB	20 GB	40 GB	80 GB	135 GB
Virtual Storage	100 GB	100 GB	100 GB	100 GB	100 GB
Deployment mode	BITW*** / NHR**	BITW/NHR	BITW/NHR	BITW/NHR	BITW/NHR
Hypervisor					
VMware ESXi / vSphere	VMware ESXi / vSphere 6.7				
Linux KVM	Red Hat RHEL 7.9 (9.2 on roadmap)				
Cloud OS (CMS)					
OpenStack	RHOS 16 (based on OpenStack Train)				
VMware	VMware vCloud 8				
AWS	AWS IaaS				
Guest Operating System					
CentOS	Linux CentOS 7.9, 64-bit x86 (Oracle Linux 9.2 roadmap)				
Template					
Template format	QCOW2, VMDK				
Template size	4.2GB QCOW2, 6.1GB VMDK				

Note:
vCPU specs assume Hyper-Threading Enabled.
** - NHR = Next Hop Route deployment
*** - BITW = Bump In The Wire deployment

Product Specifications:

Parameter	SG-VE-04	SG-VE-08	SG-VE-16	SG-VE-32	SG-VE-48
Real traffic BW (Gbps) *	4	12	24	48	72
CER (Connections Establishment Rate)	12k	36k	72k	144k	216k
NOC (Number of Connections)	2M	8M	16M	32M	48M
Registered subscribers	20k	480k	960k	1.9M	2.88M
Max total records (VC + conv) per 30s	160k	1.3M	2.6M	5.2M	7.8M
Max total records (VC + conv) per 300s	320k	2.6M	5.2M	10.4M	15.6M
Http wildcard URLS (Websafe)	14k	14k	14k	160M	160M
Https wildcard URLS (Websafe)	7k	7k	7k	15M	15M

* achieved while Allot's DPI Engine is active

Note: Actual performance may vary depending upon network conditions (such as packet size, DL/UL ratio, session establishment rate, etc.), the actual configuration of the Service Gateway, and enabled features (QoS, Steering, DDoS, etc.).

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