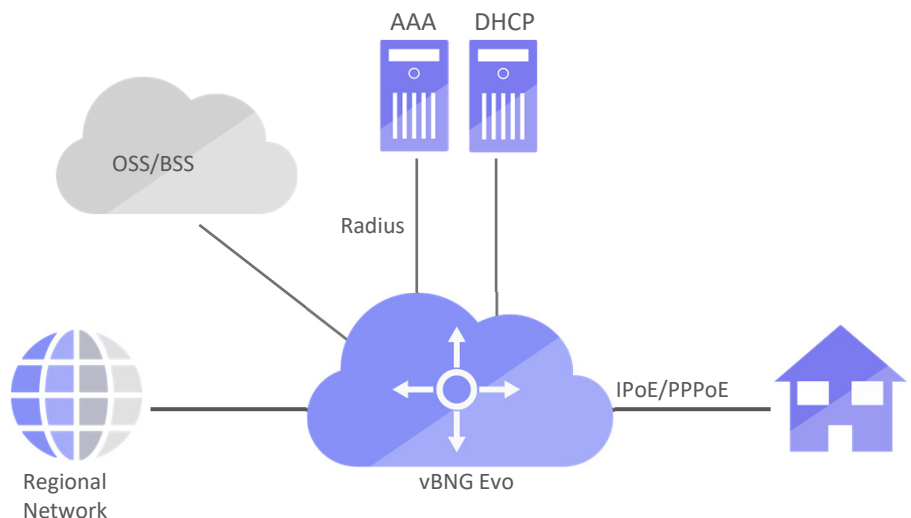


FEATURES

- **Built for the Cloud:** The CommScope vBNG Evo was built from the ground up, in a container-based virtualization framework.
- **Centralized/Distributed Data Planes with Automatic Scaling:** vBNG Evo offers separation of control and data planes and is designed for redundancy and multi-dimensional scaling, so service providers have assurance, service agility, and faster time to market.
- **Disaggregation of Network Functions:** Not only are control and data planes separated, but the data plane can also be distributed to remote silos, giving service providers the ability to flexibly centralize or distribute functions as needed.
- **Industry Leading Throughput:** Deliver high throughput performance with HQoS and Accounting enabled per session, dynamically scalable to terabits per second.
- **Advanced Subscriber Management:** Features include per subscriber Hierarchical QoS and policy-based routing.

The CommScope® Virtualized Broadband Network Gateway (vBNG Evo) provides advanced subscriber management and routing capabilities in a virtualized solution that enables the elastic scaling and service agility today's dynamic Internet services environment requires. Built from the ground up as a cloud-native solution for container-based cloud networks, vBNG Evo delivers the performance, scaling, and flexibility needed to address the greater diversity of wireless access and FTTH broadband demands. Through a unique design that disaggregates network functions, streamlines packet flows, enables independent and dynamic scaling of control and data planes, the CommScope vBNG Evo delivers superior throughput in both centralized and distributed architectures.



Customers who choose vBNG Evo can expect full BNG functionality, from a cloud-native virtualized solution.

- IPoE and PPPoE access methods providing IPv4 and IPv6 connectivity to the internet or BNG MPLS-VPNs.
- L2TP LAC and LNS for wholesale broadband connectivity.
- Dynamic template-based configuration of subscriber sessions.
- RADIUS-based authentication, authorization, and accounting per session. Change-of-Authorization for dynamic services.
- Layer 2/Layer 3 edge routing for IPv4 and IPv6 unicast and multicast.
- Hierarchical QoS for subscriber traffic with traffic shipping and rate limiting for traffic management.
- Routing VRF support for both unicast and multicast with MPLS.
- CLI, SNMP, and NETCONF/YANG for management.
- Lawful intercept support per session.
- Wi-Fi® Access Gateway
- Integrated CGNAT to reduce the number of public IPv4 addresses required

Virtual Broadband Network Gateway – vBNG Evo

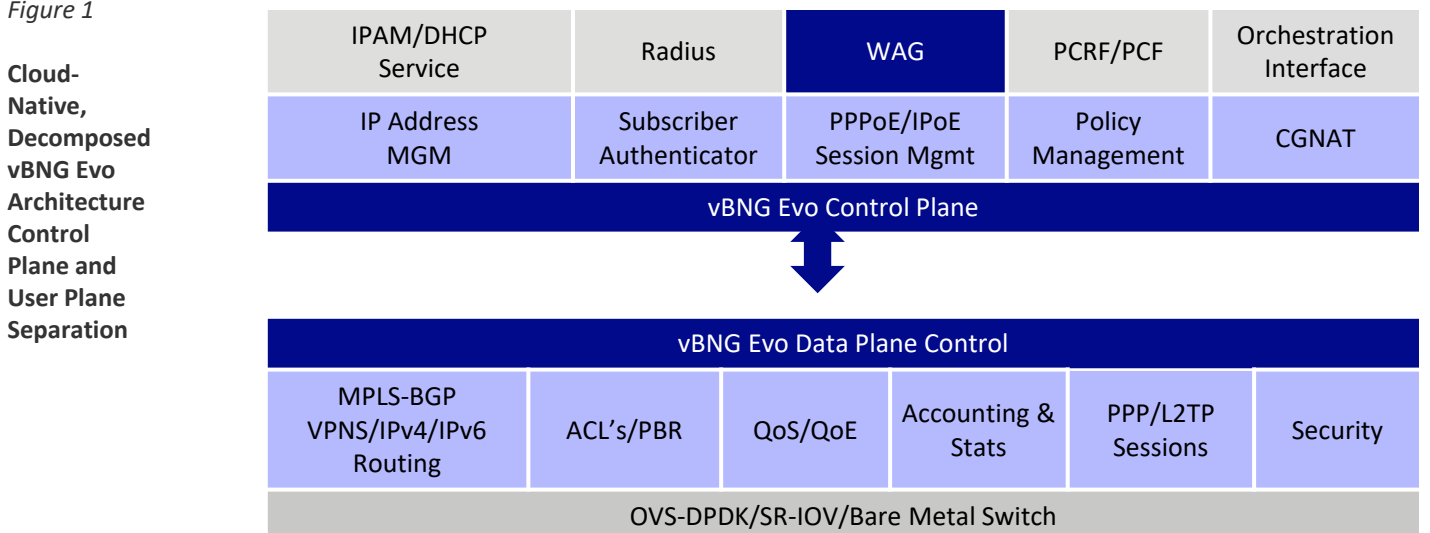
The CommScope vBNG Evo gives service providers key benefits in the race to attract and retain high-speed data customers:

- Network simplification: reduced equipment requirements by replacing multiple legacy Broadband Remote Access Server (BRAS) and BNG chassis with vBNG Evo from CommScope
- Network flexibility: independent, dynamic scaling of control and data planes and, uniquely, the ability to distribute the data planes closer to the subscribers.
- Service agility: increased control over and ability to differentiate the user experience with elastic scaling, per-subscriber QoS, policy-based routing, captive portals, and DHCP relay.
- Automatic Scaling of Data Planes based on number of subscribers or throughput.

Control and Data Plane Separation

The vBNG Evo software architecture separates control and data plane functions and decomposes those functions, as shown in *Figure 1* below. This enables not only independent scaling, but also the flexibility to put the control plane and data plane where they make the most sense—on the same server in the data center/CO, different servers, or even in different locations (e.g., the data plane can be distributed closer to the end user). The API between the control and data plane works in any of these scenarios.

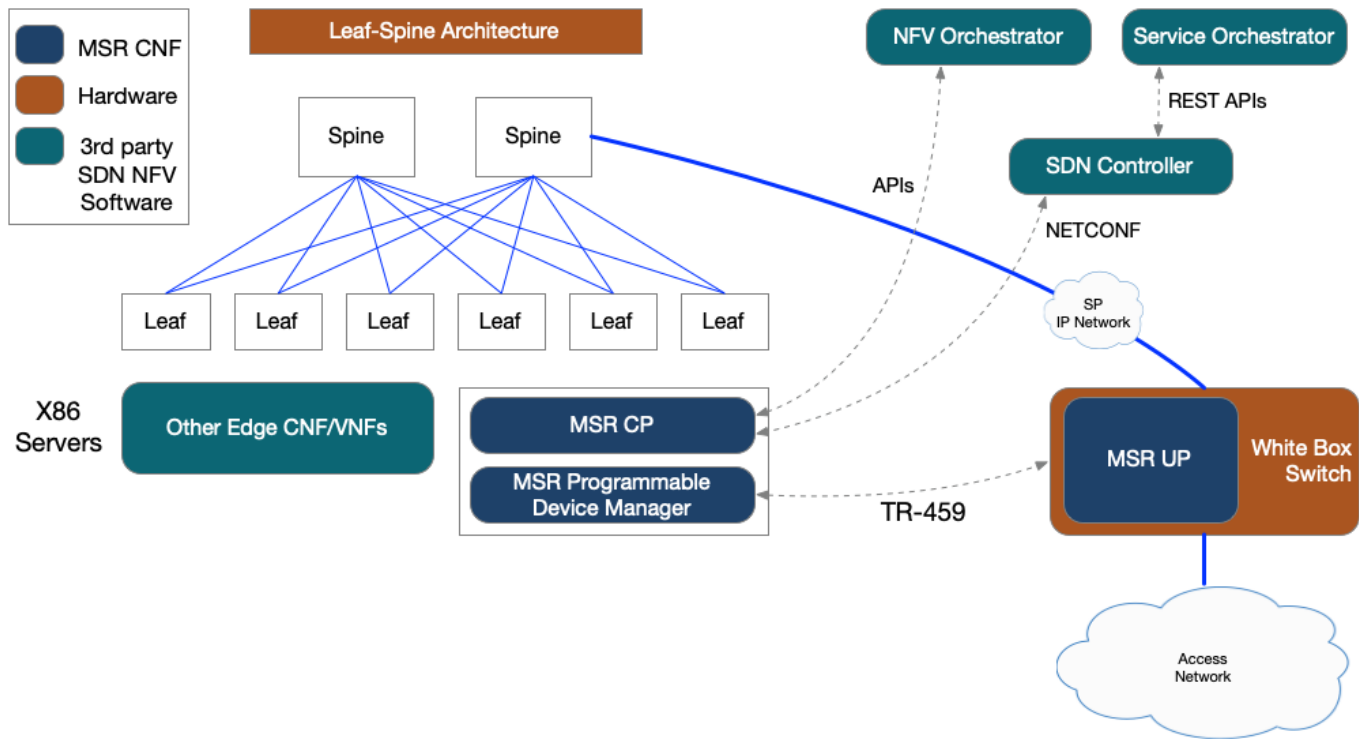
Figure 1



Distributed Data Planes with Centralized Control Plane

The CommScope vBNG Evo disaggregated architecture allows the data planes to be distributed to remote central offices closer to the subscriber location. The control plane is centralized at a data center or regional central office. The system operates as one logical BNG instance while still provided the benefits of low latency and fast access to content enabled by distributed data plane processing. CommScope supports full redundant control and planes for 5-9s service enablement to business and residential subscribers. *Figure 2* below shows the network topology for the distributed architecture.

Figure 2



FEATURES

Access Methods	<ul style="list-style-type: none">IPoE/PPPoE sessionsL2TP LAC and LNS for wholesale modelCombination of all access methods on same interfaceConfiguration through dynamic profiles
Authentication/Authorization of Subscriber Sessions	<ul style="list-style-type: none">Authentication/Authorization/Accounting via RADIUS and Gx interfaceIPoE/DHCP (Relay and local server)IPv4 and IPv6 supportWalled GardenPPPoE SessionsRADIUS Change of Authorization (COA)
Traffic Management	<ul style="list-style-type: none">Per subscriber QoSTraffic policing/shaping/rate limitingH-QoSHTTP redirectRR and WFQ schedulingUnicast Reverse Path ForwardingACLs per subscriber
L2/L3/MPLS	<ul style="list-style-type: none">802.ad (QinQ) for 1:1 and N:1 VLAN classificationsLayer 3 routing/OSPF/BGP/RIP/IS-IS/Policy-based routingMPLS (L2 and L3 MPLS VPNs); LAG/LACPPIM-SM/IGMP MLDv2
Management	<ul style="list-style-type: none">Element Management function interfaces with OSS/BSS for provisioning, fault and performance management:CLI, SNMP, NETCONF/YANGLawful Intercept trigger from RADIUS, CLI or SNMPv3
Scaling and Throughput	<ul style="list-style-type: none">Independent scaling of control and data planesData plane scalable to TbpsControl plane scalable from 256,000 to 5 million
Redundancy and High Availability	<ul style="list-style-type: none">Control Plane 1+1 Active/StandbyData Plane N+M Active/Standby
Value Added Applications	<ul style="list-style-type: none">Wi-Fi Access GatewayIntegrated CGNAT to reduce the number of public IPv4 addresses required

ORDERING INFORMATION

Model Name	Item Type	Description
AXC-BNG-BASE-SW	DEIN	LIC BNG Control Plane Base License
AXC-BNG-1K-S	DEIN	LIC 1,000 BNG subscribers
AXC-BNG-10K-S	DEIN	LIC 10,000 BNG subscribers
AXC-BNG-100K-S	DEIN	License for 100,000 BNG subscribers
AXC-BNG-10G-BW	DEIN	Software license for enabling 10G bandwidth downstream and upstream combined.
AXC-BNG-100G-BW	DEIN	Software license for enabling 100G bandwidth downstream and upstream combined.
AXC-BNG-10G-20K-PKG	ZNSK	LIC BNG Pkg 10G BW 20000 SUBS
AXC-BNG-20G-20K-PKG	ZNSK	LIC BNG Pkg 20G BW 20000 SUBS
AXC-BNG-100G-20K-PKG	ZNSK	LIC BNG Pkg 100G BW 20000 SUBS
AXC-BNG-100G-64K-PKG	ZNSK	LIC BNG Pkg 100G BW 64000 SUBS
AXC-BNG-200G-128K-PKG	ZNSK	BNG base package Incl: AXC-BNG-BASE-SW, AXC-BNG-UP-BASE, (1) AXC-BNG-100K-S(1),AXC-BNG-10K-S(2), AXC-BNG-1K-S(8),AXC-BNG-100G-BW(2). Note package includes CGNAT and 1 standby UP
AXC-BNG-400G-256K-PKG	ZNSK	LIC BNG PKG 400G BW 256,000 SUBSCRIBERS
AXC-BNG-40G-BW	DEIN	Software license for enabling 40G bandwidth downstream and upstream combined.
AXC-BNG-500K-S	DEIN	License for 500,000 BNG subscribers
AXC-BNG-CGN-100G-BW	DEIN	LIC 100G CGNAT BW DS and US combined
AXC-BNG-CGN-10G-BW	DEIN	LIC for 10G of vBNG CG-NAT Bandwidth.
AXC-BNG-SGRE-BASE	DEIN	LIC Per UP Soft GRE tunnels Support
AXC-BNG-UP-BASE	DEIN	LIC vBNG UP Base license

RELATED PRODUCTS

XP4202M XGS-PON Remote Optical Line Terminal (R-OLT)

Contact Customer Care for product information and sales:

- United States: 888-944-4357
- International: +1-215-323-2345

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vBNG-DS_RevA