

# Casa Systems Axyom™ Virtualized Broadband Network Gateway (vBNG)

Winning and keeping Internet services customers has never been tougher. Service providers face a range of competition in a business that requires rapid response but is still capital intensive. They need partners who are fast enough to get them ahead of their competition and committed to keeping them there, which is why more and more, leading providers depend on Casa Systems.

Casa's Axyom™ Virtualized Broadband Network Gateway (vBNG) virtualizes the service edge, enabling the elastic scaling and service agility today's dynamic Internet services environment requires. The vBNG supports enhanced subscriber and session management and Layer 2 / Layer 3 edge routing for xDSL or PON access technologies and is delivered on standard hardware, in Casa's Axyom Ultrabroadband Software Framework. The Axyom framework is open-source based, and tailored for carrier networks, whether at the edge or in centralized data center environments. Compatible with RADIUS Authentication, Authorization and Accounting, the vBNG is designed for smooth integration with existing systems.

## Highlights

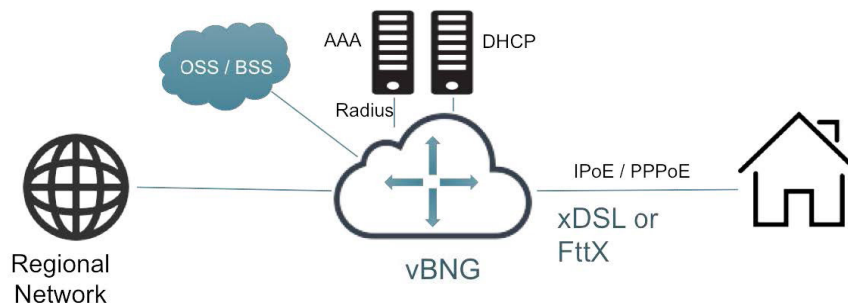
### Independent, Automatic Scaling of Control and Data Planes

The Axyom vBNG is designed for redundancy and multi-dimensional scaling so service providers have both assurance and flexibility

### Industry Leading Throughput up to 80Gbps per RU

### Advanced Subscriber Management

Advanced Subscriber Management features including per subscriber QoS and policy-based routing



## Axyom Virtualized Broadband Network Gateway (vBNG)

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

- Reduced equipment requirements resulting from replacing legacy Broadband Remote Access Server (BRAS) equipment with a virtualized solution
- Increased control over and ability to differentiate the user experience with elastic scaling, per-subscriber QoS, and a full range of subscriber management features
- Robust IP edge routing features, including IPv4 and IPv6 support, policy-based routing, captive portals, and DHCP proxy

Like all of Casa's Axyom solutions, the vBNG benefits from the Casa Virtual Management Controller (VMC) which provides simplified VNF onboarding and life-cycle management, FCAPS-facilitated integration with OSS/BSS systems, northbound interfaces (Open Source MANO and OpenO), and granular service assurance. The VMC also provides service assurance enablement, the capacity to process numerous system and application-level KPIs, and auto-scaling of VNFs to meet application level or infrastructure KPI thresholds.

## Features

<b>Authentication and Authorization of Subscriber Sessions</b>	<ul style="list-style-type: none"> <li>• Authentication/Authorization/Accounting via RADIUS Servers</li> <li>• IPoE/DHCP (Proxy and local server)</li> <li>• IPv4 and IPv6 support</li> <li>• Walled Garden</li> <li>• PPPoE Sessions</li> <li>• RADIUS Change of Authorization (COA)</li> </ul>
<b>Traffic Management</b>	<ul style="list-style-type: none"> <li>• Traffic policing/shaping/rate limiting</li> <li>• H-QoS</li> <li>• HTTP redirect</li> <li>• WFQ and Strict Priority Queuing</li> </ul>
<b>L2/L3/MPLS</b>	<ul style="list-style-type: none"> <li>• 802.1Q / 802.1ad (QinQ)</li> <li>• Layer 3 routing/full suite of Routing Protocols</li> <li>• MPLS (L2 and L3 MPLS VPNs)</li> <li>• LAG/LACP</li> <li>• PIM</li> </ul>
<b>Management</b>	Element Management function interfaces with OSS/BSS for provisioning, fault and performance management: SNMP, NETCONF/YANG
<b>Scaling and Throughput</b>	Up to 80Gbps per 1 RU server