

netElastic vBNG Reaches 1 Tbps

Enabling Greater Connectivity with Virtual Broadband Network Gateways



Solution Overview: Broadband Network Gateways (BNGs) are a critical part of Internet infrastructure, aggregating data traffic between multiple homes to provide access to the ISP's core network services and out to the Internet. However, BNGs typically require expensive, specialized hardware. To overcome this challenge, netElastic has leveraged the maturity of network functions virtualization to enable their Virtual Broadband Network Gateway (vBNGs). This pioneering solution offers a scalable, flexible, and cost-effective solution that utilizes commercial-off-the-shelf (COTS) hardware, while still achieving high-speed performance. It provides subscriber management services and supports various BNG access features, including protocol support and traffic policing. With software-defined networking (SDN) architecture, the vBNG separates the control plane and data plane functions, allowing both to be scaled independently, providing maximum deployment flexibility and improved network control. Through their partnership with Intel, netElastic was able to achieve a 46% gen-over-gen improvement in throughput and performance.¹

Business Outcomes



Higher Performance: Leveraging Intel® Xeon® Scalable processors, vBNG achieves 1 Terabit of throughput with a highly optimized data plane and patented packet processing techniques.



Scale Easily: netElastic vBNG is highly scalable, flexible, and can handle high-speed networks, enabling ISPs to meet the growing demands of users.



Improve Cost-Effectiveness: Utilizing x86 servers reduces costs by up to 70% compared to proprietary hardware alternatives.²

Key Features

- Subscriber management
- Broad protocol support
- Deployment flexibility
- Single pane of glass view

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- [netElastic Website](#)
- [White Paper: netElastic vBNG Reaches 1 Tbps Throughput in Tests with Intel](#)

1. [White Paper: netElastic vBNG Reaches 1 Tbps Throughput in Tests with Intel](#), June 2023 2. netElastic Internal Estimate, [netElastic Website](#)

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