

Lab Testing Summary Report

May 2011
Report SRT110509

Product Category:

Next Generation Firewalls

Vendor Tested:



Products Tested:

SuperMassive E10800

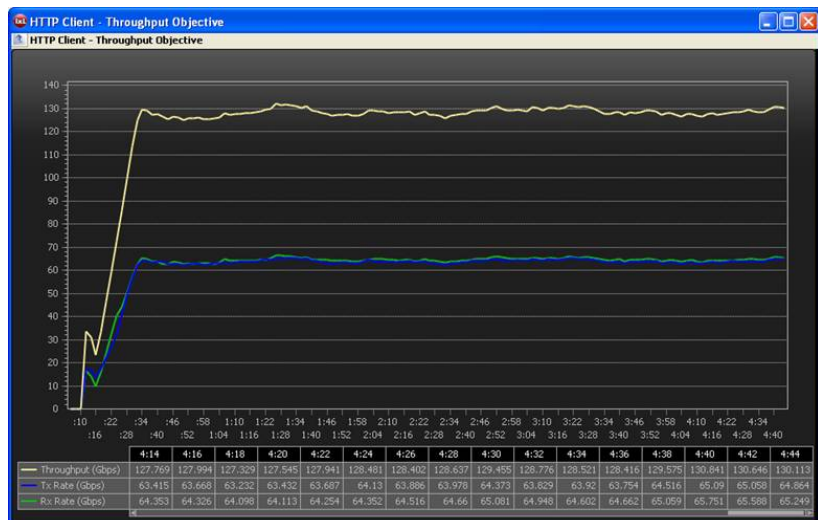


Key findings and conclusions:

- SuperMassive E10800 4-node cluster delivers application layer throughput of 130Gbps
- Multi-core architecture of up to 96 cores per unit for a total of 384 cores in a 4-node cluster delivers security service scalability for large enterprise to service provider deployments
- Advanced clustering provides redundancy
- Designed-in energy efficiency provides outstanding Gbps/watt performance

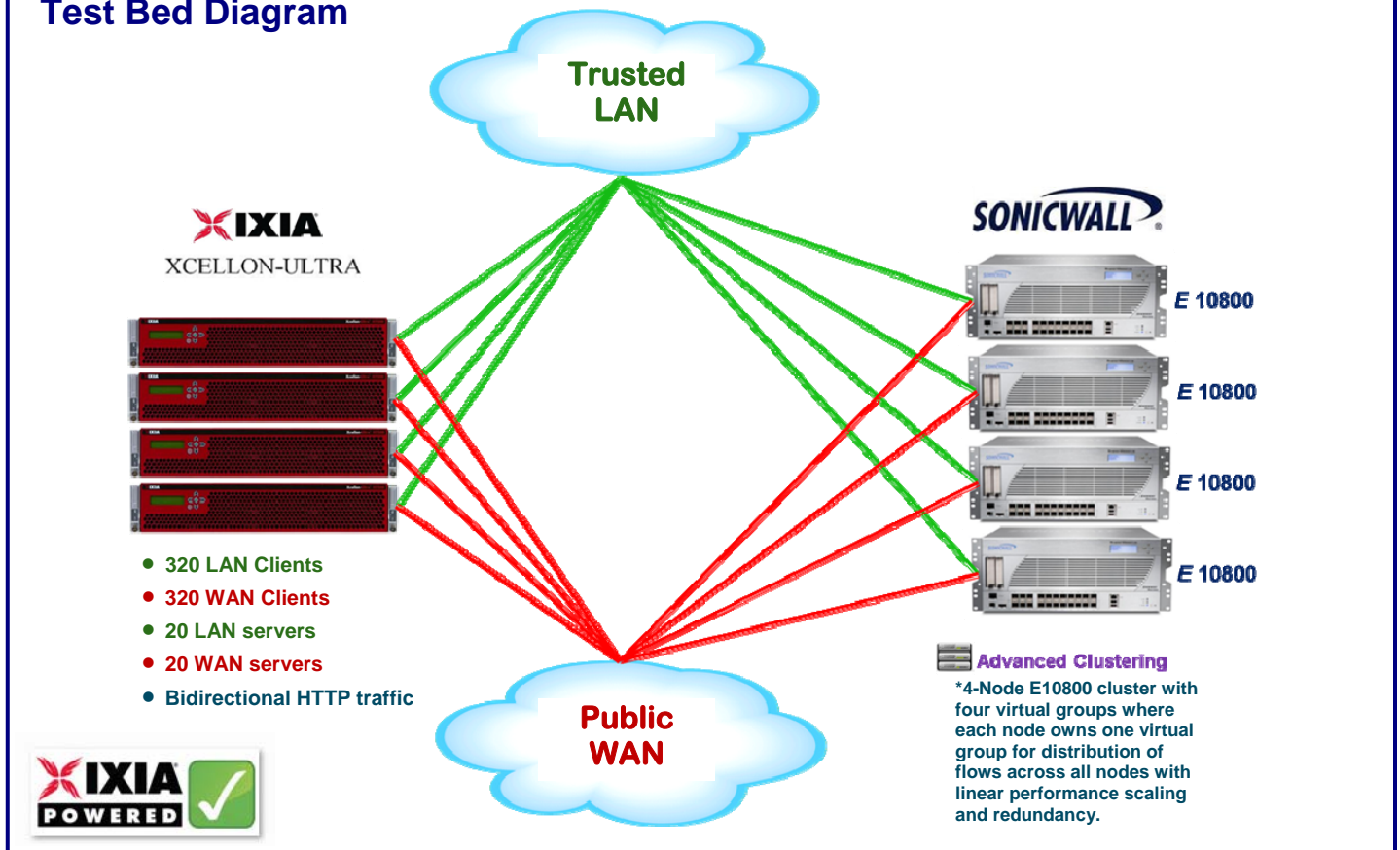
SonicWall engaged Miercom to validate the performance of their SuperMassive E10800 next-generation firewall appliance in an advanced clustering configuration. The E10800 is a highly scalable solution designed to provide redundant, deep security at multi-gigabit speeds to deployment scenarios ranging from enterprise to institutional, government and service provider. The E10800 achieves this performance through the use of a multi-core architecture of up to 384 cores, and a full suite of available Deep Packet Inspection (DPI) services, including IPS/IDS, Gateway Anti-virus and Anti-spyware, and Web content and URL filtering. For this testing, we verified the ability of the E10800 to provide over 130Gbps of application layer throughput. The E10800 met our expectations, delivering 130Gbps of HTTP Web traffic in a 4-node cluster handling 40 emulated servers and 640 emulated clients split between WAN and LAN zones. See *Figure 1*. For more information on the test bed topology, refer to the *How We Did It* section on the following page of this report.

**Figure 1: SonicWALL SuperMassive E10800
Throughput Performance**



Application traffic HTTP throughput performance at scale for a four-node cluster with four virtual groups is shown.

Test Bed Diagram



How We Did It

The test bed was configured with four WAN groups and four LAN groups. 320 clients and 20 servers each were established for the LAN and WAN network zones. An Ixia Xcellon-Ultra XT80 was used to create the stateful traffic flows between clients and servers.

The SonicWALL SuperMassive E10800 was configured in a four-node cluster with four virtual groups. Each node owns one virtual group for distribution of flows across all nodes. Each SuperMassive E10800 was running SonicOS 6.0.0.11.

Traffic flows were generated with the Ixia (www.ixiacom.com) Xcellon-Ultra XT80 appliance and running IxOS 6.10.750.1 and IxLoad 5.15.168.72. We used IxLoad to generate the HTTP traffic to the NSA E10800. A scalable solution for testing converged multiplay services and application delivery platforms, IxLoad emulates data, voice, and video subscribers and associated protocols for performance testing.

The extreme capacity and security acceleration of Xcellon-Ultra was designed to flexibly adapt to, and fully support, next-generation data center convergence trends. The Xcellon-Ultra leverages cutting-edge, multi-core processors, hardware encryption, and the highest 10GE density to generate realistic application traffic at the extreme scales required for secure data center networks. These features enable the Xcellon-Ultra to validate the performance of a wide range of networking devices and services, including ADCs, Web application servers, application-aware firewalls and security platforms.

The tests in this report are intended to be reproducible for customers who wish to recreate them with the appropriate test and measurement equipment. Miercom recommends customers conduct their own needs analysis and testing specifically for the expected environment for the product deployment before making a product selection. Current or prospective customers interested in repeating these results may contact reviews@miercom.com if you wish to receive assistance from Miercom professional services to conduct these tests.

Miercom Performance Verified

SonicWALL SuperMassive E10800 next-generation firewall delivers outstanding scalability for deployment scenarios ranging from large enterprise to service provider customers.

The SuperMassive E10800 forwarded 130Gbps of stateful traffic throughput in an advanced clustering configuration.

SonicWALL demonstrated class-leading performance, scalability, and redundancy with the new SuperMassive E10800 next-generation firewall.



SuperMassive E10800
Next-Generation Firewall



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Miercom's private test services include competitive product analyses, as well as individual product evaluations. Miercom features comprehensive certification and test programs including: [Certified Interoperable](#), [Certified Reliable](#), [Certified Secure](#) and [Certified Green](#). Products may also be evaluated under the [NetWORKS As Advertised](#) program, the industry's most thorough and trusted assessment for product usability and performance.



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