

India Telecom News

<http://indiatelecomnews.com/?p=1800>

Lippis Test Results Show Extreme Networks as the Fastest Switch Vendor for Cloud and Mobile Network Markets

Written by admin on 21 November 2011



Ethernet Everywhere™ Extreme Networks, Inc. has announced the results of independent performance tests by Lippis Reports for its cloud switch. The BlackDiamond X8 switch, part of Extreme Networks Open Fabric, tested 3-10X faster than any core Ethernet switch in its form factor, and had the lowest latency and best power efficiency per port — critical attributes in carrier and enterprise data centers, Cloud-based storage and HPCC — according to independent tests run by Ixia at its iSimCity labs.

“The BlackDiamond X8 shattered all performance records with superior bandwidth, lossless performance and extremely low latency, making it the best-in-class choice for high-performance networks,” said Nick Lippis, principal analyst for The Lippis Report. “I commend Extreme Networks for designing such a remarkable product.”

The BlackDiamond X8 Open Fabric switch offers the highest 10GbE and 40GbE port density to seamlessly support up to 768 wire-speed 10GbE connected servers in 1/3 of a 42 RU rack or 2,304 servers in a rack. It offers the capacity to send the entire contents of the Apple App Store in about 2 seconds (Based on 500,000 active apps x 5.0 megabytes = 2.3 terabytes).

BlackDiamond X8 Test Highlights:

- Lowest average latency of 2.3 microseconds for Layer 2 traffic.
- Up to half the power consumption of competitors. 8.1 Watts per 10GbE port at 1/3 loading, estimated to be 5 Watts per 10GbE port at full loading.
- 100% throughput with 0 packet loss as a percentage of line-rate across all 256-10GbE and 24-40GbE ports.

Ultra-Low Latency

Extreme Networks BlackDiamond X8 was tested across all 256 ports of 10GbE and 24 ports of 40GbE. Its latency was the best tested yet of competing core switches, with cut-through latency

ranging impressively from a low average of 2.32 microseconds for 64 byte frames, to a high average of 12.755 microseconds at 9216 byte frames for Layer 2 network traffic.

Energy Efficiency

The BlackDiamond X8 tested with the best energy efficiency per port (Watts/10GbE port) and highest TEER (Telecommunications Energy Efficiency Ratio) value observed for core switches. Its WattsATIS/port is 8.1 and TEER value is 117. While these results are the lowest Watts/10GbE port and highest TEER values observed for core switches, the BlackDiamond X8's actual Watts/10GbE port is even lower. The Lippis Report estimates approximately 5 Watts/10GbE port when fully populated with 768 10GbE or 192 40GbE ports. During the Lippis/Ixia test, the BlackDiamond X8 was only populated to a third of its port capacity yet was equipped with power supplies, fans, and management and switch fabric modules for full port density population. All other core switches tested by Lippis/Ixia ranged from 11 to 17.5 WattsATIS/port.

Lossless Throughput of 10 and 40GbE

As part of the Lippis/Ixia testing, the BlackDiamond X8 switch featuring an Ethernet-based fabric for the cloud, demonstrated 100% throughput as a percentage of line rate across 256-10GbE and 24-40GbE ports. Not a single packet was dropped while the BlackDiamond X8 switch was presented with enough traffic to populate its 256-10GbE and 24-40GbE ports at line rate simultaneously for L2/L3 traffic flows; a first in these Lippis/Ixia tests. The BlackDiamond X8 also demonstrated 100% of aggregated forwarding rate as percentage of line rate during congestion conditions. A single 10GbE port was flooded at 150% of line rate. The BlackDiamond X8 also demonstrated 100% aggregated throughput for IP multicast traffic with latencies ranging from a 2.87 microseconds at 64 byte packet to 11.5 microseconds at 9216 byte packets.

(Courtesy: NetEvents)