M6100 Managed Switch: Resilient Wire Speed Performance

Miercom has tested dozens of L2 and L3 switches over the years. Many of them excel at some aspects of standard switch testing –throughput, latency, resiliency, and so on. The modular M6100 switch from NETGEAR, however, excelled at all of them. Packed with various plug-in switch modules – hot swappable, we applied full bi-directional traffic via the Ixia XG12 multislot test system to all of the 1 and 10 Gigabit Ethernet ports on the switch.

What We Measured

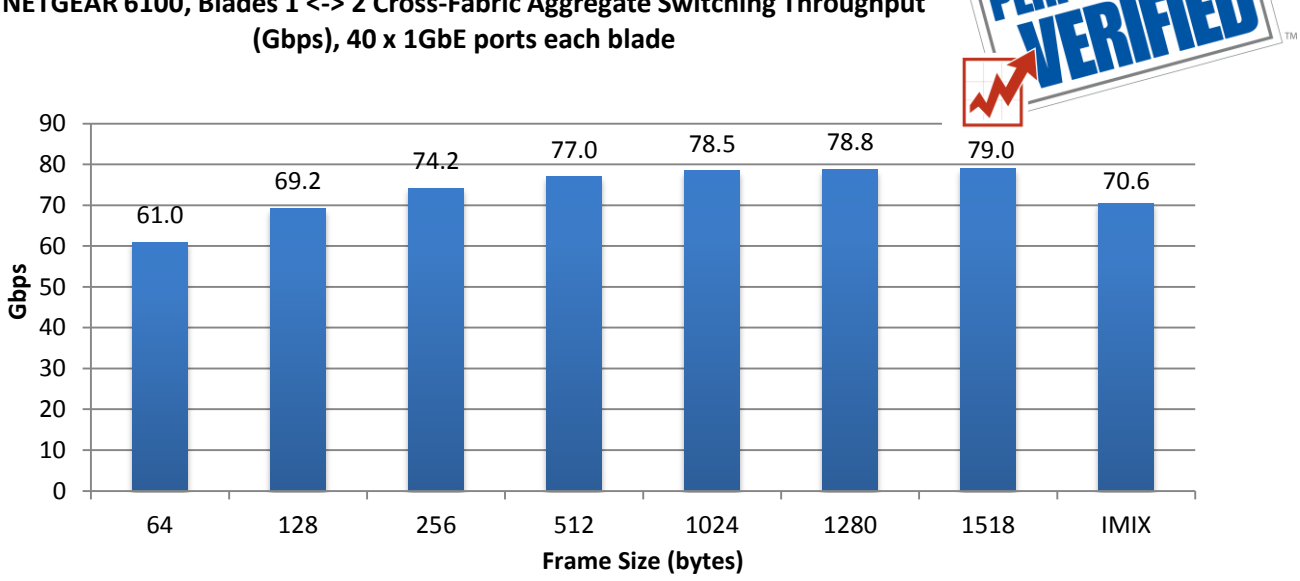
Many tests and metrics were applied to the M6100:

- Throughput between port pairs, and for full-mesh and multicast traffic flows – both on the individual switch modules and between modules across the chassis' backplane.
- Latency, as above, between port pairs, and for full-mesh and multicast flows, on switch modules ad across the chassis backplane.
- Resiliency and high-availability tests.

Key Findings

Tests showed that NETGEAR's M6100 switch delivers:

- Wire-speed throughput with no data loss. In all the scenarios tested, L2 and L3 traffic between ports is supported at wire-speed.
- Low latency. Traffic experiences impressively low latency. All tested scenarios exhibited average latency well within normal limits.
- High availability. Hot blade-swapping has no impact on active traffic. Failure of a redundant power-supply has no impact on active data flows. Also, failure of a link in a Link Aggregation Group yields minimal loss and traffic is rerouted to a surviving link in less than a millisecond.



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