

Open Ethernet. Flexibility, Performance and Easy Management.

Highlights

- > Maximized data center connectivity and ROI through density, scale and performance
- > Predictable performance through best-in-industry buffering and microburst absorption
- > Innovative NVIDIA® Cumulus™ network operating system (NOS) unlocks web-scale automation
- > Increased efficiency, scale and functionality with concurrent VXLAN and RoCE support
- > Superior buffer architecture resulting in zero packet loss
- > NVIDIA® Mellanox® What Just Happened® —faster and easier network monitoring, troubleshooting, and problem resolution
- > Fair and predictable performance for all ports, packets, and speeds

ETHERNET SWITCHES OPTIMIZED FOR HIGH PERFORMANCE, AI, CLOUD, AND ENTERPRISE-CLASS SYSTEMS

“As applications have grown increasingly complex, optimizing the interconnect fabric is now more crucial to system performance than ever before. The combination of NVIDIA Mellanox ConnectX adapters in our Lenovo ThinkSystem servers, connected via Spectrum Ethernet Switches, creates a reliable, high-speed fabric solution that brings modern applications to life.”

— **Scott Tease**, General Manager, HPC & AI Lenovo Data Center Group, Lenovo

Accelerating Ethernet networking and storage

Lenovo and NVIDIA® Mellanox® Spectrum® Ethernet switch offerings are the most advanced in the market. Optimized for high-performance, AI, cloud, and enterprise operations, Mellanox Spectrum switches are tailored for top-of-rack, storage clusters, spine, and super-spine deployment. With 1 to 400 gigabits per second (Gb/s) connectivity and a fully shared buffer to support fair bandwidth allocation, each switch provides predictable, low latency, and optimized traffic flow prioritization technology.

Lenovo offers the Mellanox Spectrum switches as part of its enterprise solutions, including private and hybrid cloud, hyperconverged infrastructure, Microsoft Azure, and SAP HANA.

Additionally, Lenovo ThinkAgile products support Mellanox Spectrum switches to provide top-of-rack and rack-to-rack connectivity. The lineup includes:

- > Lenovo ThinkAgile SXM for Microsoft Azure Stack for hybrid cloud
- > Lenovo Solutions for SAP HANA and Intelligent Insights

What Just Happened® Advanced Telemetry

What Just Happened—the most beneficial and useful Ethernet switch telemetry technology on the market—provides real-time visibility and actionable details on abnormal network behavior, for the fastest and easiest network monitoring, troubleshooting and problem resolution.

NVIDIA Cumulus Advanced Ethernet Operating System

NVIDIA Cumulus™ Linux is the industry’s most innovative open network operating system (NOS), allowing you to automate, customize, and scale your data center network. Designed for the modern data center, it delivers a new level of flexibility and scalability. Affordably build, and efficiently operate, your network like the world’s largest data center operators, and unlock web-scale networking for businesses of all sizes. The Lenovo and NVIDIA Mellanox Spectrum offering is for NVIDIA Cumulus Linux only.

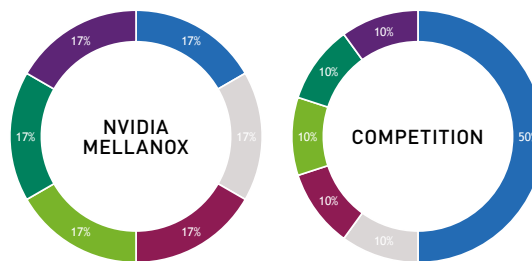
SWITCH	DESCRIPTION	PORTS/SPEED	RU
AS4610-54T	> Gigabit Ethernet Layer 3 switch ideal for top-of- rack management or IPMI switch	48X 1GbE RJ45 + 4X 10GbE SFP+	1RU
SN2010	> Ideal storage and hyperconverged switch	18X 10/25GbE SFP28 + 4X 40/100GbE QSFP28	1 RU 1/2 19" width
SN2410B	> ToR switch with 10G server and 100G uplink ports	48X 10GbE SFP28 + 8X 100GbE QSFP28	1RU
SN2410	> ToR switch with 10/25G server and 100G uplink ports	48X 10/25GbE SFP28 + 8X 100GbE QSFP28	1RU
SN3700C	> 100GbE ToR switch with up to 128 ports with breakout cables	> 32X 100GbE QSFP28 or > 64X 50GbE QSFP28 or > 128X 25GbE SFP28	1RU

Why NVIDIA Mellanox Spectrum Ethernet Switches?

Mellanox Spectrum switches’ superior buffering capabilities, microburst absorption and predictability provide a clear advantage over competing products. Enjoy increased efficiency with unprecedented scale and functionality with concurrent VXLAN and RoCE support.

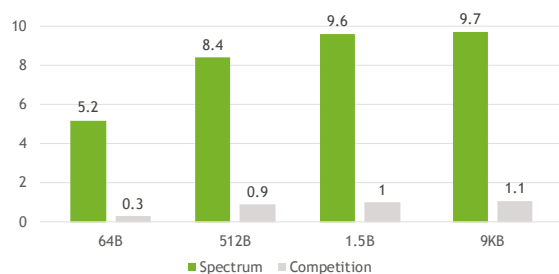
Predictability

Mellanox Spectrum switches provide predictable performance and fair bandwidth allocation. They evenly divide traffic in all scenarios vs the competition where one stream may hog up to half the bandwidth.



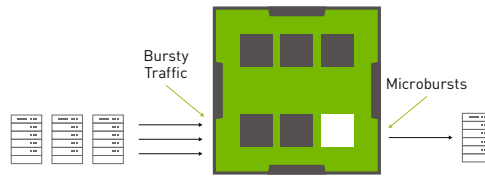
Microburst Absorption

Mellanox Spectrum’s superior shared buffer design enables unmatched resilience to microbursts.



Core-based Buffer Scheme

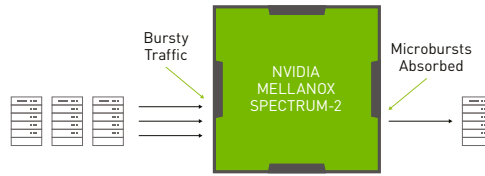
With Mellanox Spectrum, 100% of the fully shared buffers are available to any port that needs to absorb a microburst event.



Core-Based Buffer Scheme

Fully Shared Packet Buffers

A single shared buffer architecture absorbs bursty traffic and prevents microbursts, by ensuring the entire buffer is accessible by all ports.

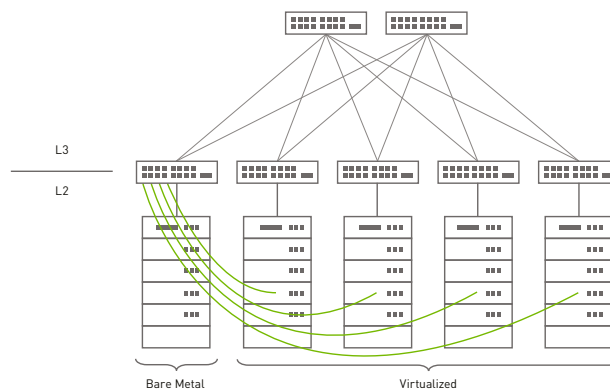


Fully Shared Packet Buffer

Extendable VXLAN

Boost efficiency with unprecedented scale and functionality— leverage concurrent Virtual Extensible LAN (VXLAN) and RDMA over Converged Ethernet (RoCE) support.

- > Low latency
- > High performance
- > Concurrent VXLAN & RoCE
- > Single pass VXLAN routing without loopbacks
- > 10X the scale of competitors
- > -500K+ VXLAN Tunnels
- > -1500K VTEPs



VXLAN EVPN Fabric with NVMe-oF

About Lenovo www.Lenovo.com

Lenovo (HKSE: 992) (ADR: LNVGY) is a US\$50 billion Fortune Global 500 company, with 63,000 employees and operating in 180 markets around the world. Focused on a bold vision to deliver smarter technology for all, we are developing world-changing technologies that create a more inclusive, trustworthy and sustainable digital society. By designing, engineering and building the world's most complete portfolio of smart devices and infrastructure, we are also leading an Intelligent Transformation—to create better experiences and opportunities for millions of customers around the world.

LEARN MORE

To learn more about NVIDIA Mellanox Spectrum Ethernet Switches, visit:
www.mellanox.com/products/ethernet-switches