Cloud Without Compromise

High Density 1GbE through 400GbE Ethernet Switch System Family
Mellanox provides the **Highest Performance Open Ethernet switch systems** at port speeds ranging from 1GbE through 400GbE, enabling Data Centers, Cloud Computing, Storage, Web2.0 and High Performance Computing applications to operate with maximum functionality at scale.

The Mellanox Spectrum® Open Ethernet family includes a broad portfolio of fixed form factor switches, ranging from 16 through 128 ports and with speeds from 1Gb/s to 400Gb/s, allowing the construction of purpose-built data centers at any scale with any desired blocking ratio. This enables network and data center managers to design and implement a cost-effective switch fabrics based on the “pay-as-you-grow” principle. Thus a fabric consisting of a few servers can gradually expand to include hundreds of thousands of servers.

Incorporating SDN attributes, the Mellanox Ethernet solution rewards the data center administrator with tools that provide a clean, simple and flexible view, and orchestration capabilities for the infrastructure. The result is an easily accessible framework that provides the data center applications with utmost elasticity.

Accompanied by Mellanox NEO® Networking Orchestrator, as well as the world’s fastest network interface cards, interconnect modules and cables, Mellanox provides a complete end-to-end Ethernet solution that scales to perform at the highest level.

### Benefits

**Cloud Native Infrastructure**
- Leaf/Spine architectures that easily scale up to 10K+ nodes in 2 tiers
- Best in class VXLAN
- Automation with best of breed tools including Ansible, Chef, Puppet, and SaltStack
- OpenStack Neutron Integration
- Hyperconverged Infrastructure Integration (Nutanix)
- Turnkey Data Center Interconnect solutions with VXLAN

**Storage or Machine Learning Interconnect**
- Fair, high bandwidth, low latency and bottleneck free data path
- Robust RDMA over converged Ethernet (RoCE) transport for NVMe-OF or GPUDirect
- Mellanox NEO based orchestration and seamless integration with various storage solutions
- Built-in telemetry with What Just Happened (WJH)

**Choice of Software**
- Mellanox Onyx™, Cumulus®, Linux, SwitchDev, Microsoft SONiC, and more
Mellanox specializes in designing advanced silicon and systems to accelerate software-defined data centers (SDDC). Mellanox Spectrum switches support rich features while concurrently delivering the highest performance for the most demanding workloads.

The SN3000 and SN2000 series offers three modes of operation:

- Preinstalled with Mellanox Onyx™, a home-grown operating system utilizing common networking user experiences and an industry standard CLI.
- Preinstalled with Cumulus Linux, a revolutionary operating system, taking the Linux user experience from servers to switches and providing a rich routing functionality for large scale applications.
- Bare metal including ONIE image ready to be installed with the aforementioned or other ONIE-mounted operating systems.

A CLOUD WITHOUT COMPROMISE

PERFORMANCE WITHOUT COMPROMISE
- Fully shared packet buffer provides fair and high bandwidth datapath
- Intelligent congestion management that enables robust RoCE transport
- Adaptive flowlet routing to maximize link utilization

FEATURES WITHOUT COMPROMISE
- Single pass VXLAN routing and bridging
- 10X better VXLAN scale
- Hardware based NAT
- MPLS/IPv6 Segment Routing

VISIBILITY WITHOUT COMPROMISE
- Hardware based sub-microsecond buffer tracking and data summarization
- Granular and contextual visibility with What Just Happened (WJH)
- Streaming and Inband telemetry

SCALE WITHOUT COMPROMISE
- Massive Layer-2/Layer-3 and ACL scale
- Large scale flow counters
## SN2000 SERIES

### SN2010
- **Connectors**: 18xSFP-28 25GbE + 4xQSFP-28 100GbE
- **100GbE Ports**: 4
- **50GbE Ports**: 8
- **40GbE Ports**: 4
- **25GbE Ports**: 34
- **10GbE Ports**: 34
- **Height**: 1RU
- **Switching Capacity [Tb/s]**: 1.7
- **FRUs**: --
- **PSU Redundancy**: ✓
- **Fan Redundancy**: ✓
- **CPU**: x86
- **Power Consumption [W]**: 57
- **Wire Speed Switching [Bpps]**: 1.26

### SN2100
- **Connectors**: 16xQSFP-28 100GbE
- **100GbE Ports**: 16
- **50GbE Ports**: 32
- **40GbE Ports**: 16
- **25GbE Ports**: 64
- **10GbE Ports**: 64
- **Height**: 1RU
- **Switching Capacity [Tb/s]**: 3.2
- **FRUs**: --
- **PSU Redundancy**: ✓
- **Fan Redundancy**: ✓
- **CPU**: x86
- **Power Consumption [W]**: 94.3
- **Wire Speed Switching [Bpps]**: 2.38

### SN2700
- **Connectors**: 32xQSFP-28 100GbE
- **100GbE Ports**: 32
- **50GbE Ports**: 64
- **40GbE Ports**: 32
- **25GbE Ports**: 128
- **10GbE Ports**: 128
- **Height**: 1RU
- **Switching Capacity [Tb/s]**: 6.4
- **FRUs**: PS and fans
- **PSU Redundancy**: ✓
- **Fan Redundancy**: ✓
- **CPU**: x86
- **Power Consumption [W]**: 150
- **Wire Speed Switching [Bpps]**: 4.76

### SN2410
- **Connectors**: 48xSFP-28 25GbE + 8xQSFP-28 100GbE
- **100GbE Ports**: 8
- **50GbE Ports**: 16
- **40GbE Ports**: 32
- **25GbE Ports**: 16
- **10GbE Ports**: 16
- **Height**: 1RU
- **Switching Capacity [Tb/s]**: 4
- **FRUs**: PS and fans
- **PSU Redundancy**: ✓
- **Fan Redundancy**: ✓
- **CPU**: x86
- **Power Consumption [W]**: 165
- **Wire Speed Switching [Bpps]**: 2.97

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### SN2010 SN2100 SN2700 SN2410

<table>
<thead>
<tr>
<th>General Specs</th>
<th>SN2010</th>
<th>SN2100</th>
<th>SN2700</th>
<th>SN2410</th>
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For detailed information on features, compliance, and compatibility, please see each product’s specific product brief.

**WARRANTY INFORMATION**

Mellanox switches come with a one-year limited hardware return-and-repair warranty, with a 14 business day turnaround after the unit is received. For more information, please visit the Mellanox Technical Support User Guide.

**ADDITIONAL INFORMATION**

Support services including next business day and 4-hour technician dispatch are available. For more information, please visit the Mellanox Technical Support User Guide. Mellanox offers installation, configuration, troubleshooting and monitoring services, available on-site or remotely delivered. For more information, please visit the Mellanox Global Services web site.

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