MLNX-OS®

Switch-based Management System for InfiniBand/VPI

MLNX-OS® is an InfiniBand switch-based fabric software tool that enables the management and configuration of Mellanox-based InfiniBand switches and gateways, providing optimal performance for cluster computing, enterprise data centers (EDC) and cloud computing.

The fabric management capabilities ensure the highest fabric performance while the chassis management ensures the longest switch up time. With MLNX-OS running on Mellanox’s InfiniBand/VPI switches and gateways, IT managers will see a higher return on their compute as well as infrastructure investments through higher CPU productivity due to higher network throughput and availability.

SWITCH CHASSIS MANAGEMENT

Mellanox’s advanced chassis management software provides all the parameters and information IT managers will need, including port status with event and error logs, graphical CPU load display, graphical fan speed over time display, power supply voltage alarms, graphical internal temperature display with alarm notification, and more. These chassis management capabilities will ensure low switch maintenance and high network availability.

FABRIC MANAGEMENT

MLNX-OS fabric management provides reliable and scalable management solutions for cluster and data center fabrics. Its modular design integrates the subnet manager (SM) with advanced features simplifying cluster bring up and node initialization through automatic discovery and configuration. The performance monitors measure the fabric characteristics to ensure the highest effective throughput. Fabric Management is differentiated into basic, advanced and expert modes where support for various routing algorithms, QoS attributes and fabric topologies are included.

HIGHLIGHTS

- Embedded Subnet Manager (SM)
- Reliable and scalable architecture supporting up to 2048 nodes
- Accelerated fabric design and installation
- “Out of the box” experience
- In-band and out-band support for standalone or remote configuration with secure access
- Hardware monitoring and alarms
- Quality of Service based on traffic type and service levels
- CLI, SNMP, WebUI and JSON user interfaces
- ZTP
- SDK access through Docker container

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1 For illustration only. Actual products may vary.
Mellanox Management Solution

Cluster Tools, Configuration Files, Scripts, Verification and Management Tools

FABRIC MANAGEMENT
Mellanox Subnet Manager
Performance/Provisioning

CHASSIS MANAGEMENT
System Configuration
Port Management
Parameter Monitoring

InfiniBand cluster with Mellanox HCAs
Mellanox Managed Switches
Ethernet Network
Remote Management Node
Out-band Diagnosis Interface
Block Storage
File Storage

Figure 2. MLNX-OS Solution

MELLANOX ADVANTAGE

Mellanox Technologies is a leading supplier of end-to-end servers and storage connectivity solutions to optimize data center performance and efficiency. Mellanox InfiniBand adapters, switches, and software are powering Fortune 500 data centers and the world’s most powerful supercomputers. The company offers innovative solutions that address a wide range of markets including HPC, enterprise, mega warehouse data centers, cloud computing, Internet and Web 2.0.