

# Unified Fabric Manager® Software

Extend to Managing Scale-Out Data Center Networks

Unified Fabric Manager® (UFM®) is a powerful platform for managing scale-out computing environments. UFM enables data center operators to efficiently provision, monitor and operate the modern data center fabric.

UFM eliminates the complexity of fabric management, provides deep visibility into traffic and optimizes fabric performance.

## Scale-Out Fabric Management with Unified Fabric Manager

Today's data centers require advanced management platforms that help maximize the utilization of the underlying infrastructure, and optimize the health and performance of the applications running on it.

UFM eliminates the complexity that traditionally comes with fabric management. It provides deep visibility into fabric traffic and health and makes the needed correlation between the fabric and the services it provides.

## Fabric Visibility & Control

UFM includes an advanced granular monitoring engine that provides real time access to health and performance, switch and host data, enabling:

- Real-time identification of fabric-related errors and failures
- Insight into fabric performance and potential bottlenecks
- Preventive maintenance via granular threshold-based alerts
- SNMP traps and scriptable actions
- Correlation of monitored data to application/service level enabling quick and effective fabric analysis

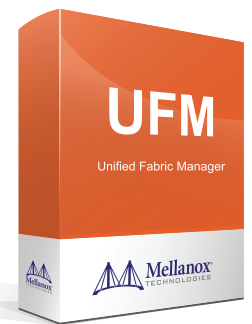
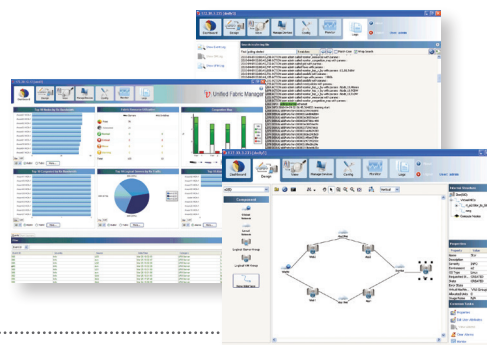
## Solve Traffic Bottlenecks

Fabric congestion is difficult to detect when using traditional management tools, resulting in unnoticed congestion and fabric underutilization. UFM's unique congestion tracking feature quickly identifies traffic bottlenecks and congestion events spreading over the fabric. This feature enables accurate problem identification and quick resolution of performance issues:

- Quickly identifies traffic issues, topology inefficiencies or non-optimal node placement
- Allows the administrator to improve fabric topology and configuration
- Enables increased performance and higher fabric utilization

## Ease Fabric Deployment and Operations

UFM's central management console reduces the effort and complexity involved with bring-up and the day-by-day fabric maintenance tasks.



## HIGHLIGHTS

- Reduces complexity of fabric management
- Provides in-depth visibility into traffic and health information
- Eliminates fabric congestion and hot spots
- Supports SDN programmable fabrics
- Generates preventive maintenance and "soft degradation" alerts
- Quickly troubleshoots any connectivity problem
- Integrates and streamlines fabric information into your IT systems

This significantly lowers downtime and makes UFM the ultimate management tool for the most demanding data center environments.

- UFM’s advanced Fabric Health diagnostic tools enable the user to get a clear picture of fabric and link health across the fabric and greatly smoothens deployment and maintenance windows.
- UFM’s asset management capabilities enable effective tracking of fabric devices and ports, from the smallest to the largest 10Ks node clusters.
- Group operations such as switch firmware updates are enabled via a single mouse click.
- Failovers are handled seamlessly and are transparent to both the user and the applications running on the fabric.

**The SDN Approach**

While other tools are device-oriented and involve local device logic, UFM uses an SDN architecture together with a service oriented approach to manage the fabric.

- UFM’s intelligent end-to-end fabric policy engine correlates application defined needs to the underlying physical infrastructure and enables programmable configuration of routing policy, connectivity, and QoS across the fabric.
- UFM uses Mellanox advanced silicon capabilities to effectively control “managed” as well as “externally managed” devices in a central, programmable manner.
- UFM’s monitoring engine enables correlation of the monitored data and fabric events to the logical layer, providing the end-user valuable business-oriented information about the fabric in an easy to consume way.

UFM’s SDN Model advantages:

- Detaching of the fabric logic from the local device logic – enabling high flexibility in device deployment
- Quick policy changes and quick remediation
- Easy integration in cloud and dynamic environments which require service oriented logic
- High level of SLA tracking and alerting

**Integration with Existing Data Center Management Tools**

UFM provides an open and extensible object model to describe data center infrastructure and conduct all relevant management actions. UFM’s API enables integration with leading job schedulers, cloud and cluster managers.

**SPECIFICATIONS**

**UFM SOFTWARE PRE-REQUISITES**

- UFM Server
  - x86\_64
  - 4-core CPU Minimum
  - 4GB RAM Minimum
  - 20GB Available Disk Space Minimum
  - HCA: Mellanox ConnectX®-3, ConnectX-3 Pro, ConnectX-4 and Connect-IB®
  - RedHat, CentOS, SLES - See release notes for full matrix support

**MANAGED DEVICES**

- UFM manages all Mellanox QDR, FDR and EDR products

**MANAGED HOSTS**

- Architecture: x86\_64, Itanium, PowerPC
- OFED 1.5.3 and above
- HCA: Mellanox ConnectX-3, ConnectX-3 Pro, ConnectX-4 and Connect-IB

**ORDERING INFORMATION**

- UFM is licensed per managed fabric node
- For more details please visit Mellanox.com

Ordering Part Number	Description
S_W-00133	UFM Advanced License For 1 Managed Node



350 Oakmead Parkway, Suite 100, Sunnyvale, CA 94085  
 Tel: 408-970-3400 • Fax: 408-970-3403  
[www.mellanox.com](http://www.mellanox.com)