



Installation Notes

Table of contents

Supported Devices

Supported NVIDIA Externally Managed Switches

Supported NVIDIA Internally Managed Switches

System Requirements

Bare Metal Deployment Requirements

Docker Installation Requirements

UFM Server Resource Requirements per Cluster Size

UFM GUI Client Requirements

MFT Package Version

UFM SM Version

UFM NVIDIA SHARP Software Version

Used Ports by UFM Server

Software Update from Prior Versions

Supported Devices

Supported NVIDIA Externally Managed Switches

Type	Model	Latest Tested Firmware Version
NDR switches	<ul style="list-style-type: none">MQM9790	31.2021.4036
HDR switches	<ul style="list-style-type: none">MQM8790	27.2012.4036
EDR switches	<ul style="list-style-type: none">SB7790SB7890	15.2010.4402

Supported NVIDIA Internally Managed Switches

Type	Model	Latest Tested OS Version
NDR switches	<ul style="list-style-type: none">MQM9700	MLNX-OS 3.11.4002 NVOS 25.01.4000
HDR switches	<ul style="list-style-type: none">MQ8700MCS8500TQ8100-HS2FTQ8200-HS2F	MLNX-OS 3.11.4002
EDR switches	<ul style="list-style-type: none">SB7700SB7780SB7800CS7500CS7510CS7520	MLNX-OS 3.10.4400

System Requirements

Bare Metal Deployment Requirements

Platform	Type and Version
OS (Relevant for Standalone and High-Availability deployments)	64-bit OS: <ul style="list-style-type: none"> • RedHat 8 • RedHat 9 • Ubuntu 20.04 • Ubuntu 22.04
CPU ^(a)	x86_64
HCAs	<ul style="list-style-type: none"> • NVIDIA ConnectX®-5 with Firmware 16.19.1200 and above • NVIDIA ConnectX®-6 with Firmware 20.24.1000 and above • NVIDIA ConnectX®-7 with Firmware 28.33.1014 and above • NVIDIA Mezzanine Board with Four ConnectX-7 ASICs for Multi-GPU Connectivity (CEDAR) with Firmware 28.36.0394 and above • NVIDIA BlueField with Firmware 24.33.900 and above • NVIDIA BlueField-2 with Firmware 24.33.900 and above • NVIDIA BlueField-3 with Firmware 32.36.3058 and above
OFED ^(b)	<ul style="list-style-type: none"> • MLNX_OFED 5.X • MLNX_OFED23.x • MLNX_OFED24.x

Note

^(a) CPU requirements refer to resources consumed by UFM. You can also dedicate a subset of cores on a multicore server. For example, 4 cores for UFM on a 16-core server. ^(b) For supported HCAs in each MLNX_OFED version, please refer to MLNX_OFED Release Notes.

^(c)UFM v6.15.0 is the last version to support NVIDIA ConnectX-4 adapter cards

(i) Note

For running SHARP Aggregation Manager within UFM, it is recommended to use MLNX_OFED-5.4.X version or newer.

(i) Note

Installation of UFM on minimal OS distribution is not supported.

(i) Note

UFM does not support systems in which NetworkManager service is enabled.

Before installing UFM on RedHat OS, make sure to disable the service.

Docker Installation Requirements

UFM Docker Container is supported on the standard docker environment (engine).

The following operating systems were tested with Docker Container (as standalone container):

Component	Type and Version
Supported OS	<ul style="list-style-type: none"> • RHEL8 • RHEL9 • Ubuntu18.04 • Ubuntu20.04 • Ubuntu22.04

Note

For UFM Docker Container installation in HA mode, please refer to [Bare Metal Deployment Requirements](#) for the list of operating systems and kernels which support HA.

UFM Server Resource Requirements per Cluster Size

Fabric Size	CPU Requirements*	Memory Requirements	Disk Space Requirements	
			Minimum	Recommended
Up to 1000 nodes	4-core server	4 GB	20 GB	50 GB
1000-5000 nodes	8-core server	16 GB	40 GB	120 GB
5000-10000 nodes	16-core server	32 GB	80 GB	160 GB
Above 10000 nodes	Contact NVIDIA Support			

UFM GUI Client Requirements

The platform and GUI requirements are detailed in the following tables:

Platform	Details
Browser	Edge, Internet Explorer, Firefox, Chrome, Opera, Safari
Memory	<ul style="list-style-type: none">• Minimum: 8 GB• Recommended: 16 GB

MFT Package Version

Platform	Details
MFT	Integrated with MFT version mft-4.28.0-95

UFM SM Version

Platform	Type and Version
SM	UFM package includes SM version 5.19.0

Note

Assuming the SM is connected to the production cluster, it can handle any events (IB traps) coming from the fabric that is being built; such events should not affect the routing on the production cluster. If events occurred in the production cluster, the routing could be changed.

However, NVIDIA recommends isolating fabric sections to allow faster bring-ups, **faster troubleshooting and misconfiguration avoidance** that can cause routing errors. Isolation provides clearer

SM and CollectX logs, avoiding warnings/errors from masking real production issues.

UFM NVIDIA SHARP Software Version

Platform	Type and Version
NVIDIA® Scalable Hierarchical Aggregation and Reduction Protocol (SHARP)™	UFM package includes NVIDIA SHARP software version 3.7.0

Used Ports by UFM Server

For a list of ports used by the UFM Server for internal and external communication, refer to [Appendix – Used Ports](#).

Software Update from Prior Versions


The installer detects versions previously installed on the machine and prompts you to run a clean install of the new version or to upgrade while keeping user data and configuration unchanged.

The upgrade from previous versions maintains the existing database and configuration, allowing a seamless upgrade process.

Info

Upgrading UFM Enterprise software version is supported up to two previous GA software versions (GA -1 or -2). For example, if you wish

to upgrade to UFM Enterprise v6.17.0, it is possible to do so only from UFM Enterprise v6.16.0 or v6.15.0.

 **Note**

Due to a possible conflict, SM and SHARP installed by the MLNX_OFED must be uninstalled. The installation procedure will detect and print all MLNX_OFED packages that must be removed.

© Copyright 2024, NVIDIA. PDF Generated on 06/06/2024