



Mellanox Firmware Tools (MFT) for VMware Readme

Rev 2.7.1

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1 Overview

This is the README for Rev 2.7.1 of the **Mellanox Firmware Tools (MFT)** package for VMware.

1.1 Package Tools

The following is a list of the available tools in the package, together with a brief description of what each tool performs. The tools apply to single Switch Systems or adapter cards, but not to clusters.

Table 1 - Mellanox Firmware Tools (MFT) Available Tools

flint	This tool burns a firmware binary image or an expansion ROM image to the Flash device of a Mellanox network adapter/bridge/switch device. It includes query functions to the burnt firmware image and to the binary image file.
mstdump	Dumps device internal configuration registers. The dump file can be used by Mellanox Support for hardware troubleshooting purposes.

1.2 Supported Operating Systems and Platforms

MFT is supported on the following platforms: x86_64.

Table 2 - VMware Operating Systems and Platforms

Operating System	Kernels
ESXi	5.0 ¹
	5.1
	5.5

1. OSES that are not tested

2 Changes and New Features

2.1 Changes in Version 2.7.1

This is the initial version of this release.

3 Known Issues

Table provides a list of known bugs and limitations in regards to this release of the Mellanox Firmware Tools.

Table 3 - Known Bugs and Limitations

	Tool	Issue	Description	Workaround	To be Fixed on
1	All	mst cr device non functional	The mst cr device is not functional on ESXi. When running it, the following message is received: "You cannot access the HW configurations by mt4099_pci_cr0 device in ESXi"	Use conf device instead	Future Release

4 How To

4.1 How to Install MFT in VMware

1. Download the MFT for VMware vib package from:
www.mellanox.com > Products > Adapter IB/VPI SW > Firmware Tools
2. Install the package. Run:

```
esxcli software vib install -v mlnx-mft-2.7.1-1.vib
```

- *To uninstall the package:*

```
esxcli software vib remove -n tools-mlnx-mft
```

4.2 How to Install and Load the mst Driver in VMware

- *To install the mst driver:*

1. Download the latest mst driver from:
www.mellanox.com > Products > Adapter IB/VPI SW > Firmware Tools
2. Install the mst driver.

```
esxcli software vib install -d <mst driver package>
```

Example

```
esxcli software vib install -d MLNX-MST-ESX-2.0.0.0.zip
```

- *To load the mst driver.*

```
vmkload_mod mst
```

Once loaded, the mst devices can be located at: /dev/mt*

- *To unload the mst driver.*

```
vmkload_mod -u mst
```

4.3 How to Run flint in VMware

- *To burn firmware using flint:*

```
/opt/mellanox/bin/flint -d <device> -i <firmware image> -qq -y b
```

Example

```
/opt/mellanox/bin/flint -d /dev/mt4099_pciconf0 -i /tmp/image.bin -qq -y b
```

- *To query firmware using flint:*

```
/opt/mellanox/bin/flint -d <device> q
```

Example

```
/opt/mellanox/bin/flint -d /dev/mt4099_pciconf0 q
```

4.4 How to Run mstdump in VMware

- *To collect the register's dump:*

```
/opt/mellanox/bin/mstdump <device>
```

Example

```
/opt/mellanox/bin/mstdump /dev/mt4099_pciconf0
```