

Windows Driver Installation

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For Windows, download and install the latest WinOF-2 for Windows software package available via the NVIDIA website at: <u>WinOF-2 webpage</u>. Follow the installation instructions included in the download package (also available from the download page).

The snapshots in the following sections are presented for illustration purposes only. The installation interface may slightly vary, depending on the operating system in use.

Software Requirements

Description	Package
Windows Server 2022	
Windows Server 2019	
Windows Server 2016	
Windows Server 2012 R2	MLNX_WinOF2- <version>_All_x64.exe</version>
Windows 11 Client (64 bit only)	
Windows 10 Client (64 bit only)	
Windows 8.1 Client (64 bit only)	

Note: The Operating System listed above must run with administrator privileges.

Downloading WinOF-2 Driver

To download the .exe file according to your Operating System, please follow the steps below:

- 1. Obtain the machine architecture.
 - 1. To go to the Start menu, position your mouse in the bottom-right corner of the Remote Desktop of your screen.
 - 2. Open a CMD console (Click Task Manager-->File --> Run new task and enter CMD).
 - 3. Enter the following command.

echo %PROCESSOR_ARCHITECTURE% Image: Note On an x64 (64-bit) machine, the output will be "AMD64".

- 2. Go to the WinOF-2 web page at: <u>https://www.nvidia.com/en-us/networking/</u> > Products > Software > InfiniBand Drivers (Learn More) > Nvidia WinOF-2.
- 3. Download the .exe image according to the architecture of your machine (see <u>Step</u> <u>1</u>).

The name of the .exe is in the following format: MLNX_WinOF2-<version>_<arch>.exe.

i Note

Installing the incorrect .exe file is prohibited. If you do so, an error message will be displayed.For example, if you install a 64bit .exe on a 32-bit machine, the wizard will display the following (or a similar) error message: "The installation package is not supported by this processor type. Contact your vendor"

Installing WinOF-2 Driver

The snapshots in the following sections are for illustration purposes only. The installation interface may slightly vary, depending on the used operating system.

This section provides instructions for two types of installation procedures, and both require administrator privileges:

• <u>Attended Installation</u> An installation procedure that requires frequent user intervention. • <u>Unattended Installation</u> An automated installation procedure that requires no user intervention.

Attended Installation

The following is an example of an installation session.

- 1. Double click the .exe and follow the GUI instructions to install MLNX_WinOF2.
- 2. **[Optional]** Manually configure your setup to contain the logs option (replace "LogFile" with the relevant directory).

MLNX_WinOF2_<revision_version>_All_Arch.exe /v"/l*vx [LogFile]"

3. **[Optional]** If you do not want to upgrade your firmware version (i.e., MT_SKIPFWUPGRD default value is False).

MLNX_WinOF2_<revision_version>_All_Arch.exe /v" MT_SKIPFWUPGRD=1"

4. **[Optional]** If you do not want to install the Rshim driver, run.

MLNX_WinOF2_<revision_version>_All_Arch.exe /v" MT_DISABLE_RSHIM_INSTALL=1"

(j) Note

The Rshim driver installanion will fail if a prior Rshim driver is already installed. The following fail message will be displayed in the log:

"ERROR!!! Installation failed due to following errors: MlxRshim drivers installation disabled and MlxRshim drivers Installed, Please remove the following oem inf files from driver store: <oem inf list>" 5. **[Optional]** If you want to skip the check for unsupported devices, run.

MLNX_WinOF2_<revision_version>_All_Arch.exe /v" SKIPUNSUPPORTEDDEVCHECK=1"

6. Click Next in the Welcome screen.



7. Read and accept the license agreement and click Next.



8. Select the target folder for the installation.



- 9. The firmware upgrade screen will be displayed in the following cases:
 - If the user has an OEM card. In this case, the firmware will not be displayed.
 - If the user has a standard NVIDIA® card with an older firmware version, the firmware will be updated accordingly. However, if the user has both an OEM card and a NVIDIA® card, only the NVIDIA® card will be updated.

Firmware Upgrade			E
Upgrade the HCA's firmware version Upgrading the firmware version will r	(Recommended). eboot your machi	ne.	
Note: One or more of your HCA adapter upgrading to a newer firmware ve support driver's capabilities.	s has an old firmw rsion to enable im	vare version. We rec proved functionality	commend 7 and
InstallShield	< Back	Next >	Cancel

10. Select a Complete or Custom installation, follow <u>Step a</u> onward.

Setup Type Choose the set	up type that best suits your needs.
Please select a	setup type.
○ <u>C</u> omplete	All program features will be installed. (Requires the most disk space.)
© Custom	Choose which program features you want installed and where they will be installed. Recommended for advanced users.
InstallShield	< <u>B</u> ack <u>N</u> ext > Cancel

- 1. Select the desired feature to install:
 - Performances tools install the performance tools that are used to measure performance in user environment
 - Documentation contains the User Manual and Release Notes
 - Management tools installation tools used for management, such as mlxstat
 - Diagnostic Tools installation tools used for diagnostics, such as mlx5cmd
- 2. Click Next to install the desired tools.

Select the p	rogram features you want	installed.		C
Click on an icc	n in the list below to chang Performance Tools Documentation Management tools Diagnostic Tools	e how a feature is in	stalled. Feature Description Install tools used to me performance through b and latency over variou configurations (Network	asure andwidt is k Direct
	Devx_SDK Doca Tools		InfiniBand). This feature requires 44 your hard drive.	404KB or

11. Click Install to start the installation.

Ready to Install the Program The wizard is ready to begin installation			E
Click Install to begin the installation.			
If you want to review or change any of exit the wizard.	your installation	settings, click Back. (Click Cancel to
InstallShield			
	< <u>B</u> ack	<u>I</u> nstall	Cancel

12. In case firmware upgrade option was checked in <u>Step 7</u>, you will be notified if a firmware upgrade is required (see **1**).

Installing The pro	g MLNX_WinOF2 gram features you selected are	being installed.		E
t 🛃	Please wait while the InstallSł take several minutes.	nield Wizard installs M	1LNX_WinOF2. Thi	s may
	Status:			
Ø	Firmware upgrade is required. 1	This may take severa	l minutes.	
InstallShield				
		< <u>B</u> ack	<u>N</u> ext >	Cancel

13. Click Finish to complete the installation.

	InstallShield Wizard Completed
2	The InstallShield Wizard has successfully installed MLNX_WinOF2. Click Finish to exit the wizard.
	Show readme file
	< <u>B</u> ack <u>Finish</u> Cancel

Unattended Installation

(i) Note

If no reboot options are specified, the installer restarts the computer whenever necessary without displaying any prompt or warning to the user.To control the reboots, use the */norestart* or */forcerestart* standard command-line options.

The following is an example of an unattended installation session.

- 1. Open a CMD console-> Click Start-> Task Manager File-> Run new task-> and enter CMD.
- 2. Install the driver. Run:

MLNX_WinOF2-[Driver/Version]_<revision_version>_All_-Arch.exe /S /v/qn

3. **[Optional]** Manually configure your setup to contain the logs option:

MLNX_WinOF2-[Driver/Version]_<revision_version>_All_-Arch.exe /S /v/qn /v"/l*vx [LogFile]"

4. **[Optional]** if you wish to control whether to install ND provider or not (i.e., *MT_NDPROPERTY default value is True*).

MLNX_WinOF2-[Driver/Version]_<revision_version>_All_Arch.exe /vMT_NDPROPERTY=1

5. **[Optional]** If you do not wish to upgrade your firmware version (i.e.,*MT_SKIPFWUPGRD default value is False*).

MLNX_WinOF2-[Driver/Version]_<revision_version>_All_Arch.exe /vMT_SKIPFWUPGRD=1

6. **[Optional]** If you do not want to install the Rshim driver, run.

MLNX_WinOF2_<revision_version>_All_Arch.exe /v" MT_DISABLE_RSHIM_INSTALL=1"

(i) Note

The Rshim driver installanion will fail if a prior Rshim driver is already installed. The following fail message will be displayed in the log:

"ERROR!!! Installation failed due to following errors: MlxRshim drivers installation disabled and MlxRshim drivers Installed, Please remove the following oem inf files from driver store: <oem inf list>"

7. **[Optional]** If you want to enable the default configuration for Rivermax, run.

MLNX_WinOF2_<revision_version>_All_Arch.exe /v"MT_RIVERMAX=1 /I*vx C:\Users\ <user>\log.txt "

8. [Optional] If you want to skip the check for unsupported devices, run/

MLNX_WinOF2_<revision_version>_All_Arch.exe /v" SKIPUNSUPPORTEDDEVCHECK=1"

Firmware Upgrade

If the machine has a standard NVIDIA® card with an older firmware version, the firmware will be automatically updated as part of the NVIDIA® WinOF-2 package installation. For information on how to upgrade firmware manually, please refer to <u>MFT User Manual</u>.

If the machine has a DDA (pass through) facility, firmware update is supported only in the Host. Therefore, to update the firmware, the following must be performed:

- 1. Return the network adapters to the Host.
- 2. Update the firmware according to the steps in the MFT User Manual.
- 3. Attach the adapters back to VM with the DDA tools.

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