



# Mellanox UEFI for ConnectX<sup>®</sup>-4 / ConnectX<sup>®</sup>-4 Lx / ConnectX<sup>®</sup>-5 Release Notes

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Rev 14.12.24

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## Release Update History

*Table 1 - Release Update History*

Release	Date	Description
Rev 14.12.24	April 12, 2017	Initial release of this UEFI version for ConnectX-4/ConnectX-4 Lx/ConnectX-5 adapter cards.

# 1 Overview

Mellanox UEFI Network driver is compliant to UEFI specification version 2.5 and allows boot over network via PXE (Preboot eXecution Enviroment). This network driver allows remote boot over Infiniband or Ethernet, or Boot over iSCSI (Bo-iSCSI) in UEFI mode, together with supporting SecureBoot standard.

## 1.1 Supported Adapter Cards and Firmware

*Table 2 - Supported Adapter Cards and Firmware*

Adapter Cards	Firmware Version
ConnectX-5 Ex	16.19.1200
ConnectX-5	16.19.1200
ConnectX-4 Lx	14.18.2000
ConnectX-4	12.18.2000

## 1.2 Supported Tools (MFT)

*Table 3 - Supported Tools (MFT)*

Tools	Version
MFT (Mellanox Firmware Tools)	4.6.0

## 1.3 Package Contents

UEFI packages contain UEFI rom files per device type.



## 2 Changes and New Features in Rev 14.12.24

*Table 4 - Changes and New Features*

Category	Description
<b>Networking</b>	Ethernet only: The MTU value is set to 1500 upon driver bring up.
<b>General</b>	Updated the supported EFI version to 2.6.

### 2.1 Unsupported Functionality/Features

The following are the unsupported functionalities/features in UEFI.

- ARM 32-bit and 64-bit

### 2.2 Installed UEFI APIs (Protocols)

The following are the lists of UEFI APIs (protocols) installed over UEFI:

- Driver handle:
  - EFI Component name Protocol
  - EFI Component name 2 Protocol
  - EFI Diagnostics Protocol
  - EFI Diagnostics 2 Protocol
  - EFI Driver Health Protocol
- PCI controller handle:
  - EFI Driver binding protocol (driver start, stop, supported) installed by system UEFI on handle
- Port handle (child handle to PCI controller handle, one handle per port):
  - EFI Device Path Protocol
  - EFI Network Interface Identifier Protocol (UNDI)

### 3 Known Issues

The following is a list of general limitations and known issues of the various components of this UEFI release.

**Table 5 - Known Issues**

Internal Ref.	Description
798073	<p><b>Description:</b> UEFI driver is not supported on Supermicro X9DEW (BIOS version 3.0c).</p> <p><b>WA:</b> N/A</p> <p><b>Keywords:</b> BIOS, Supermicro X9DEW</p>
-	<p><b>Description:</b> Burning the UEFI driver will remove the Flexboot driver (Legacy BIOS driver) from the firmware.</p> <p><b>WA:</b> N/A</p> <p><b>Keywords:</b> UEFI burning, Flexboot</p>

## 4 Bug Fixes History

*Table 6 - Fixed Bugs List*

Internal Ref.	Description
-	<b>Description:</b> Fixed an issue which limited the Number of Virtual Functions Supported to 126 after restore to default.
	<b>Keywords:</b> Number of Virtual Functions Supported
	<b>Discovered in Release:</b> 14.11.28
	<b>Fixed in Release:</b> 14.12.20
-	<b>Description:</b> Fixed Hii ExtractConfig to handle <ConfigHdr> without <BlockName>
	<b>Keywords:</b> Hii ExtractConfig
	<b>Discovered in Release:</b> 14.10.16
	<b>Fixed in Release:</b> 14.11.28
827564	<b>Description:</b> Enabled a persistent virtual MAC reboot.
	<b>Keywords:</b> MAC reboot
	<b>Discovered in Release:</b> 14.10.16
	<b>Fixed in Release:</b> 14.11.28

## 5 Changes and New Feature History

*Table 7 - Changes and Fixes History*

Category	Description
<b>Rev. 14.12.20</b>	
<b>Adapter Cards</b>	[Beta] Added support for ConnectX-5/ConnectX-5 Ex adapter cards.
<b>Boot performance</b>	Boot performance improvements. Enabled post Tx doorbell using UAR.
<b>Rev. 14.11.28</b>	
<b>Boot</b>	Enabled booting with non default pkey in InfiniBand mode
	Added boot to target configuration
<b>Platform to driver protocol</b>	Added the option to return <code>EfiPlatformConfigurationActionUnsupportedGuid</code> in case the GUID is not supported
<b>Driver Health</b>	Updated the DriverHealth behavior to comply with the UEFI spec
<b>Diagnostics protocol</b>	Deprecated Extented Diagnostics (return unsupported)
<b>Rev. 14.10.16</b>	
<b>Boot over IPv4 and IPv6</b>	Enabled network boot via PXE over IPv4 and IPv6
<b>Device Diagnosis</b>	Enables the driver to run self diagnostics tests via Diagnostics protocol
<b>Firmware Management</b>	Enables the driver to manage firmware using Firmware Management Protocol (FMP)
<b>Secure Boot</b>	The UEFI driver is signed and complied with SecureBoot standard

## 6 Verification

This version of the UEFI passed UEFI SCT version 2.4B.

### 6.1 SCT Known Issues

- DriverModelTest\AdapterInformationProtocolTest 5.5.11.1.2
- DriverModelTest\AdapterInformationProtocolTest 5.5.11.3.2
- NetworkSupportTest\SimpleNetworkProtocolTest 5.11.1.8.3