



Mellanox UEFI for ConnectX[®]-4 / ConnectX[®]-4 Lx / ConnectX[®]-5 Release Notes

Rev 14.14.22

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Release Update History

Table 1 - Release Update History

Release	Date	Description
Rev 14.14.22	October 29, 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	16.21.1000
ConnectX-5	16.21.1000
ConnectX-4 Lx	14.21.1000
ConnectX-4	12.21.1000

1.2 Supported Tools (MFT)

Table 3 - Supported Tools (MFT)

Tools	Version
MFT (Mellanox Firmware Tools)	4.8.0

1.3 Package Contents

UEFI packages contain UEFI rom files per device type.

2 Changes and New Features in Rev 14.14.22

Table 4 - Changes and New Features

Category	Description
Client Identifier	Added support for client_identifier option (option 61) in InfiniBand mode.
HII menu	Added the option to Enable/Disable HII Configuration via mlxconfig.

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

4 Bug Fixes History

Table 6 - Fixed Bugs List

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

5 Changes and New Feature History

Table 7 - Changes and Fixes History

Category	Description
Rev. 14.13.24	
Secure Firmware Update	Integrated the MFT package to support Secure Firmware Update image.
HII menu	Added HII Power Configuration menu.
Rev. 14.12.24	
Networking	Ethernet only: The MTU value is set to 1500 upon driver bring up.
General	Updated the supported EFI version to 2.6.
Rev. 14.12.20	
Adapter Cards	[Beta] Added support for ConnectX-5/ConnectX-5 Ex adapter cards.
Boot performance	Boot performance improvements. Enabled post Tx doorbell using UAR.
Rev. 14.11.28	
Boot	Enabled booting with non default pkey in InfiniBand mode
	Added boot to target configuration
Platform to driver protocol	Added the option to return EfiPlatformConfigurationActionUnsupportedGuid in case the GUID is not supported
Driver Health	Updated the DriverHealth behavior to comply with the UEFI spec
Diagnostics protocol	Deprecated Extented Diagnostics (return unsupported)
Rev. 14.10.16	
Boot over IPv4 and IPv6	Enabled network boot via PXE over IPv4 and IPv6
Device Diagnosis	Enables the driver to run self diagnostics tests via Diagnostics protocol
Firmware Management	Enables the driver to manage firmware using Firmware Management Protocol (FMP)
Secure Boot	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