



Hardware and Software Interoperability Matrix

This document provides interoperability matrices for Cisco Unified Computing System components and configurations that have been tested and validated by Cisco, by Cisco partners, or both. Use this document as a reference for supported hardware and software.

This document contains the following sections:

- [Audience, page 1](#)
- [Fibre Connectivity Switch Interoperability Matrix, page 1](#)
- [Operating System Interoperability Matrix, page 2](#)
- [Adapters Interoperability Matrix, page 3](#)
- [Adapter Utilities Interoperability Matrix, page 9](#)
- [Storage Array Interoperability Matrix, page 11](#)
- [Related Documentation, page 12](#)
- [Obtaining Documentation and Submitting a Service Request, page 12](#)

Audience

This document is designed for use by Cisco TAC, sales, support engineers, professional service partners, and systems administrators responsible for the design and deployment of the Unified Computing System in the data center environment.

The content of this document is updated on a regular basis. The current version of this document applies to the B Series servers in Cisco Unified Computing System Release 1.0(2).

Fibre Connectivity Switch Interoperability Matrix

Table 1 lists fibre connectivity switches that support the Unified Computing System Fabric Interconnect module.

Table 1: Fibre Connectivity Switch

UCS Fabric Interconnect	Vendor	Fibre Connectivity Switch Model	Switch Firmware	
UCS 6120XP 20-port Fabric Interconnect	Cisco	MDS 95xx	3.3(1c), 3.3(2), 3.3(4), 4.1(1b), 4.1(3a), 4.2(1a)	Note 7
UCS 6120XP 20-port Fabric Interconnect	Cisco	MDS 91xx, 92xx	3.3(1c), 3.3(2), 3.3(4), 4.1(1b), 4.1(3a), 4.2(1a)	Note 7
UCS 6120XP 20-port Fabric Interconnect	Brocade	300, 5100, 5300, DCX	v6.1.0c, v6.1.0f, v6.1.0h, v6.1.0j, v6.1.2b, v6.2.0c, v6.2.1	Note 7
UCS 6120XP 20-port Fabric Interconnect	Brocade	4100, 4900, 48000, 5000, 7500	v5.3.1b, v5.3.2, v6.0.0c, v6.0.1a, v6.1.0c, v6.1.0f, v6.1.0h, v6.1.0j, v6.1.2b, v6.2.0c, v6.2.1	Note 7
UCS 6120XP 20-port Fabric Interconnect	Brocade	DCX-4S	v6.2.0c, v6.2.0g, v6.2.1	Note 7
UCS 6120XP 20-port Fabric Interconnect	McData	Support removed for all switch models		Note 16

Operating System Interoperability Matrix

Table 2 lists the operating systems that the Unified Computing System Blade Servers support.

Table 2: Operating System

UCS Blade Server	Vendor	Operating System Version	BIOS/Boot Code	Notes
UCS B200 M1 Blade Server	Microsoft	Windows Server 2003 x86 SP2	1.1.36-103	Note 1
UCS B200 M1 Blade Server	Microsoft	Windows Server 2003 R2 x86 SP2	1.1.36-103	Note 1
UCS B200 M1 Blade Server	Microsoft	Windows Server 2003 x64 SP2	1.1.36-103	Note 1

UCS Blade Server	Vendor	Operating System Version	BIOS/Boot Code	Notes
UCS B200 M1 Blade Server	Microsoft	Windows Server 2003 R2 x64 SP2	1.1.36-103	Note 1
UCS B200 M1 Blade Server	Microsoft	Windows Server 2008 x64 SP1 w/Hyper-V	1.1.36-103	Note 1
UCS B200 M1 Blade Server	Microsoft	Windows Server 2008 R2 x64 w/Hyper-V	1.1.36-103	Note 1
UCS B200 M1 Blade Server	Red Hat	Enterprise Linux 4.8 64bit	1.1.36-103	
UCS B200 M1 Blade Server	Red Hat	Enterprise Linux 5.3 64bit	1.1.36-103	Note 2
UCS B200 M1 Blade Server	Novell	SUSE Linux Enterprise Server 10.3 64bit	1.1.36-103	
UCS B200 M1 Blade Server	Novell	SUSE Linux Enterprise Server 11 64bit	1.1.36-103	
UCS B200 M1 Blade Server	Oracle	VM server release 2.1.5 64bit	1.1.36-103	
UCS B200 M1 Blade Server	Sun	Solaris 10 05/09	1.1.36-103	
UCS B200 M1 Blade Server	VMware	ESX 3.5 Update 4	1.1.36-103	
UCS B200 M1 Blade Server	VMware	vSphere 4	1.1.36-103	
UCS B200 M1 Blade Server	VMware	vSphere 4i	1.1.36-103	

Adapters Interoperability Matrix

Table 3 lists the network adapters that the Unified Computing System Blade Servers support.

Table 3: Adapters

UCS Blade Server	Vendor	Adapter Model	Operating System	Adapter Driver	Adapter Firmware	Adapter Boot Code / BIOS	Notes
UCS B200 M1 and B250 M1 Blade Server	Cisco	LSI Logic SAS1064E PCI-Express Fusion-MPT	Microsoft Windows Server 2003 R2 x64	1.29.3.0	01.28.03.00	06.28.00.00	Note 10
UCS B200 M1 and B250 M1 Blade Server	Cisco	LSI Logic SAS1064E PCI-Express Fusion-MPT	Microsoft Windows Server 2003 R2 x86	1.29.3.0	01.28.03.00	06.28.00.00	Note 10
UCS B200 M1 and B250 M1 Blade Server	Cisco	LSI Logic SAS1064E PCI-Express Fusion-MPT	Microsoft Windows Server 2008 x64 w/Hyper-V	1.29.3.0	01.28.03.00	06.28.00.00	
UCS B200 M1 and B250 M1 Blade Server	Cisco	LSI Logic SAS1064E PCI-Express Fusion-MPT	Microsoft Windows Server 2008 R2 x64 w/Hyper-V	1.30.4.0	01.28.03.00	06.28.00.00	
UCS B200 M1 and B250 M1 Blade Server	Cisco	LSI Logic SAS1064E PCI-Express Fusion-MPT	Novell SUSE Linux Enterprise Server 10.3 64bit	3.04.07_suse	01.28.03.00	06.28.00.00	
UCS B200 M1 and B250 M1 Blade Server	Cisco	LSI Logic SAS1064E PCI-Express Fusion-MPT	Novell SUSE Linux Enterprise Server 11 64bit	4.00.43.00suse	01.28.03.00	06.28.00.00	
UCS B200 M1 and B250 M1 Blade Server	Cisco	LSI Logic SAS1064E PCI-Express Fusion-MPT	Red Hat Enterprise Linux 4.8 64bit	3.12.29.00rh	01.28.03.00	06.28.00.00	

UCS Blade Server	Vendor	Adapter Model	Operating System	Adapter Driver	Adapter Firmware	Adapter Boot Code / BIOS	Notes
UCS B200 M1 and B250 M1 Blade Server	Cisco	LSI Logic SAS1064E PCI-Express Fusion-MPT	Red Hat Enterprise Linux 5.3 64bit	3.04.07	01.28.03.00	06.28.00.00	Note 2
UCS B200 M1 and B250 M1 Blade Server	Cisco	LSI Logic SAS1064E PCI-Express Fusion-MPT	VMware ESX 3.5 U4	2.6.48.18 vmw	01.28.03.00	06.28.00.00	
UCS B200 M1 and B250 M1 Blade Server	Cisco	LSI Logic SAS1064E PCI-Express Fusion-MPT	VMware vSphere 4 & 4i	40037.0023vmw	01.28.03.00	06.28.00.00	
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS 82598KR-CI 10-Gigabit Ethernet Adapter	Microsoft Windows Server 2003 R2 x64	1.6.9.0		2.1.11	Note 11, 12
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS 82598KR-CI 10-Gigabit Ethernet Adapter	Microsoft Windows Server 2003 R2 x86	1.6.9.0		2.1.11	Note 11, 12
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS 82598KR-CI 10-Gigabit Ethernet Adapter	Microsoft Windows Server 2008 x64 w/Hyper-V	1.0.48.1		2.1.11	Note 11, 12
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS 82598KR-CI 10-Gigabit Ethernet Adapter	Microsoft Windows Server 2008 R2 x64 w/Hyper-V	2.0.2.15		2.1.11	Note 11, 12
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS 82598KR-CI 10-Gigabit Ethernet Adapter	Novell SUSE Linux Enterprise	2.0.34.3-NAPI		2.1.11	Note 11, 12

UCS Blade Server	Vendor	Adapter Model	Operating System	Adapter Driver	Adapter Firmware	Adapter Boot Code / BIOS	Notes
			Server 10.3 64bit				
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS 82598KR-CI 10-Gigabit Ethernet Adapter	Novell SUSE Linux Enterprise Server 11 64bit	1.3.30-k2		2.1.11	Note 11, 12
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS 82598KR-CI 10-Gigabit Ethernet Adapter	Red Hat Enterprise Linux 4.8 64bit	1.3.18-k4		2.1.11	Note 11, 12
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS 82598KR-CI 10-Gigabit Ethernet Adapter	Red Hat Enterprise Linux 5.3 64bit	1.3.18-k4		2.1.11	Note 2, 11, 12
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS 82598KR-CI 10-Gigabit Ethernet Adapter	VMware ESX 3.5 U4	1.3.31.6		2.1.11	Note 11, 12
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS 82598KR-CI 10-Gigabit Ethernet Adapter	VMware vSphere 4 & 4i	1336_NEIQNAPI		2.1.11	Note 11, 12
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-E Emulex Converged Network Adapter	Microsoft Windows Server 2003 R2 x64	7.2.20.006	2.80a4	5.03a8	Note 6, 8, 10, 12, 13
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-E Emulex Converged Network Adapter	Microsoft Windows Server 2003 R2 x86	5.2.20.006	2.80a4	5.03a8	Note 6, 8, 10, 12, 13

UCS Blade Server	Vendor	Adapter Model	Operating System	Adapter Driver	Adapter Firmware	Adapter Boot Code / BIOS	Notes
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-E Emulex Converged Network Adapter	Microsoft Windows Server 2008 x64 w/Hyper-V	7.2.20.006	2.80a4	5.03a8	Note 6, 8, 10, 12, 13
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-E Emulex Converged Network Adapter	Microsoft Windows Server 2008 R2 x64 w/Hyper-V	7.2.20.006	2.80a4	5.03a8	Note 6, 8, 10, 12, 13, 14
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-E Emulex Converged Network Adapter	Novell SUSE Linux Enterprise Server 10.3 64bit	8.2.0.48.2p	2.80a4	5.03a8	Note 6, 8, 12, 13
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-E Emulex Converged Network Adapter	Novell SUSE Linux Enterprise Server 11 64bit	8.2.8.14	2.80a4	5.03a8	Note 6, 8, 12, 13
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-E Emulex Converged Network Adapter	Red Hat Enterprise Linux 4.8 64bit	8.0.16.46	2.80a4	5.03a8	Note 6, 8, 12, 13
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-E Emulex Converged Network Adapter	Red Hat Enterprise Linux 5.3 64bit	8.2.0.33.3p	2.80a4	5.03a8	Note 2, 6, 8, 12, 13
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-E Emulex Converged Network Adapter	VMware ESX 3.5 U4	7.4.0.41-00001	2.80a4	5.03a8	Note 6, 8, 9, 12, 13

UCS Blade Server	Vendor	Adapter Model	Operating System	Adapter Driver	Adapter Firmware	Adapter Boot Code / BIOS	Notes
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-E Emulex Converged Network Adapter	VMware vSphere 4 & 4i	8.2.0.30.49vmw	2.80a4	5.03a8	Note 6, 8, 12, 13
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-Q QLogic Converged Network Adapter	Microsoft Windows Server 2003 R2 x64	9.1.8.17	4.04.04	2.02	Note 6, 8, 9, 12, 13
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-Q QLogic Converged Network Adapter	Microsoft Windows Server 2003 R2 x86	9.1.8.17	4.04.04	2.02	Note 6, 8, 9, 12, 13
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-Q QLogic Converged Network Adapter	Microsoft Windows Server 2008 x64 w/Hyper-V	9.1.8.17	4.04.04	2.02	Note 6, 8, 9, 12, 13
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-Q QLogic Converged Network Adapter	Microsoft Windows Server 2008 R2 x64 w/Hyper-V	9.1.8.17	4.04.04	2.02	Note 6, 8, 9, 12, 13, 14
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-Q QLogic Converged Network Adapter	Novell SUSE Linux Enterprise Server 10.3 64bit	8.03.00.10.1094k4	4.04.09	2.02	Note 6, 8, 12, 13
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-Q QLogic Converged Network Adapter	Novell SUSE Linux Enterprise Server 11 64bit	8.02.01.03.11.04k9	4.04.05	2.02	Note 6, 8, 12, 13

UCS Blade Server	Vendor	Adapter Model	Operating System	Adapter Driver	Adapter Firmware	Adapter Boot Code / BIOS	Notes
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-Q QLogic Converged Network Adapter	Red Hat Enterprise Linux 4.8 64bit	8.02.09.02.04.08-d	4.04.09	2.02	Note 6, 8, 12, 13
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-Q QLogic Converged Network Adapter	Red Hat Enterprise Linux 5.3 64bit	8.02.00.06.05.03-k	4.04.05	2.02	Note 2, 6, 8, 12, 13
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-Q QLogic Converged Network Adapter	VMware ESX 3.5 U4	7.95.-vm0	4.04.06	2.02	Note 6, 8, 12, 13
UCS B200 M1 and B250 M1 Blade Server	Cisco	UCS M71KR-Q QLogic Converged Network Adapter	VMware vSphere 4 & 4i	8.02.01-k1-vmw38	4.04.09	2.02	Note 6, 8, 12, 13

Adapter Utilities Interoperability Matrix

Table 4 lists the adapter utilities that the Unified Computing System adapters support.

Table 4: Adapter Utility

UCS adapters	Vendor	Adapter Utility Version	Operating System	Version	Notes
UCS M71KR-E Emulex Converged Network Adapter	Emulex	HBAnyware	Microsoft Windows Server 2003 R2 x64	4.1a35	
UCS M71KR-E Emulex Converged Network Adapter	Emulex	HBAnyware	Microsoft Windows Server 2003 R2 x86	4.1a35	

UCS adapters	Vendor	Adapter Utility Version	Operating System	Version	Notes
UCS M71KR-E Emulex Converged Network Adapter	Emulex	HBAnyware	Microsoft Windows Server 2008 x64 w/Hyper-V	4.1a35	
UCS M71KR-E Emulex Converged Network Adapter	Emulex	HBAnyware	Red Hat Enterprise Linux 4.8 64bit	4.0a38	
UCS M71KR-E Emulex Converged Network Adapter	Emulex	HBAnyware	Red Hat Enterprise Linux 5.3 64bit	4.0a31	
UCS M71KR-E Emulex Converged Network Adapter	Emulex	HBAnyware	Novell SUSE Linux Enterprise Server 10.3 64bit	4.1a36	
UCS M71KR-E Emulex Converged Network Adapter	Emulex	HBAnyware	Novell SUSE Linux Enterprise Server 11 64bit	4.1a33	
UCS M71KR-Q QLogic Converged Network Adapter	Qlogic	SANSurfer	Microsoft Windows Server 2003 x64	V5.0.1 build 46	
UCS M71KR-Q QLogic Converged Network Adapter	Qlogic	SANSurfer	Microsoft Windows Server 2003 x86	V5.0.1 build 46	
UCS M71KR-Q QLogic Converged Network Adapter	Qlogic	SANSurfer	Microsoft Windows Server 2008 x64 w/Hyper-V	V5.0.1 build 46	

UCS adapters	Vendor	Adapter Utility Version	Operating System	Version	Notes
UCS M71KR-Q QLogic Converged Network Adapter	Qlogic	SANSurfer	Microsoft Windows Server 2008 R2 x64 w/Hyper-V	V5.0.1 build 46	
UCS M71KR-Q QLogic Converged Network Adapter	Qlogic	SANSurfer	Red Hat Enterprise Linux 4.8 64bit	V5.0.1 build 55	Note 4
UCS M71KR-Q QLogic Converged Network Adapter	Qlogic	SANSurfer	Red Hat Enterprise Linux 5.3 64bit	V5.0.1 build 46	Note 2, 5
UCS M71KR-Q QLogic Converged Network Adapter	Qlogic	SANSurfer	Novell SUSE Linux Enterprise Server 10.3 64bit	V5.0.1 build 46	
UCS M71KR-Q QLogic Converged Network Adapter	Qlogic	SANSurfer	Novell SUSE Linux Enterprise Server 11 64bit	V5.0.1 build 46	

Storage Array Interoperability Matrix

Table 5 lists the storage array models that the Unified Computing System adapters support.

Table 5: Storage Array

Vendor	Storage Array Model	Notes
EMC	Some Models Supported; Refer to the Storage Vendor's support list	Note 6, 7
NetApp	Some Models Supported; Refer to the Storage Vendor's support list	Note 3, 6, 7
HDS	Some Models Supported; Refer to the Storage Vendor's support list	Note 6, 7

Vendor	Storage Array Model	Notes
All Others	See Vendor Support List for equivalent supported PCIe adapters	Note 6, 8

**Note**

- 1 Requires Intel 55xx chipset drivers from download.intel.com
- 2 RHEL 5.3 requires updating to errata kernel 2.6.18-128.1.6 or newer due to advisory RHSA-2009:0326
- 3 SSI Mode Only
- 4 V5.0.1 build 46 is not supported on this OS
- 5 V5.0.1 build 55 is not supported on this OS
- 6 Non-default adapter settings are typically required by storage vendors and found on their support list
- 7 Multiple array and switch models supported with UCS by the storage vendor are on their support list
- 8 Fiber Channel Storage that supports equivalent adapters and drivers is supported by UCS. UCS M71KR-E is equivalent to Emulex LP2100x, UCS M71KR-Q is equivalent to Qlogic QLE804x
- 9 Driver not included in OS image. Download from Cisco or OS vendor and install driver to enable device access
- 10 Driver included in OS image should be updated. Download from Cisco or OS vendor and install driver to enable device access
- 11 iSCSI Storage that supports equivalent adapters and driver is supported by UCS. UCS 82598KR-CI is equivalent to Intel 82598EB 10 Gigabit Ethernet Controller
- 12 iSCSI Boot is not supported
- 13 Refer to the UCS 82598KR-CI 10-Gigabit Ethernet Adapter for the supported Ethernet driver on this Converged Network Adapter
- 14 Supported driver is not yet signed
- 15 Patch 120536-16 required, see Solaris HCL
- 16 Support REMOVED for these products due to unresolved technical issues

Related Documentation

Links to the latest versions of related Cisco documentation are available in the *Cisco UCS Documentation Roadmap*, located at:

<http://www.cisco.com/go/unifiedcomputing/b-series-doc>

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