



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 8](#)
- [Storage Array Interoperability Matrix, page 9](#)
- [Related Documentation, page 10](#)
- [Obtaining Documentation and Submitting a Service Request, page 10](#)

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(1).

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), 4.1(1b), 4.1(3a) | Note 7 |
| UCS 6120XP 20-port Fabric Interconnect | Cisco | MDS 91xx, 92xx | 3.3(1c), 3.3(2), 4.1(1b), 4.1(3a) | 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, v6.2.0c | 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, v6.2.0c | Note 7 |
| UCS 6120XP 20-port Fabric Interconnect | Brocade | DCX-4S | v6.2.0c | Note 7 |
| UCS 6120XP 20-port Fabric Interconnect | McData | Support removed for all switch models | | Note 14 |

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 | 36 | Note 1 |
| UCS B200 M1 Blade Server | Microsoft | Windows Server 2003 R2 x86 SP2 | 36 | Note 1 |
| UCS B200 M1 Blade Server | Microsoft | Windows Server 2003 x64 SP2 | 36 | Note 1 |
| UCS B200 M1 Blade Server | Microsoft | Windows Server 2003 R2 x64 SP2 | 36 | Note 1 |

| UCS Blade Server | Vendor | Operating System Version | BIOS/Boot Code | Notes |
|--------------------------|-----------|---------------------------------------|----------------|--------|
| UCS B200 M1 Blade Server | Microsoft | Windows Server 2008 x64 SP1 w/Hyper-V | 36 | Note 1 |
| UCS B200 M1 Blade Server | Red Hat | Enterprise Linux 4.8 64bit | 36 | |
| UCS B200 M1 Blade Server | Red Hat | Enterprise Linux 5.3 64bit | 36 | Note 2 |
| UCS B200 M1 Blade Server | Novell | SUSE Linux Enterprise Server 11 64bit | 36 | |
| UCS B200 M1 Blade Server | Oracle | VM server release 2.1.5 64bit | 36 | |
| UCS B200 M1 Blade Server | VMware | ESX 3.5 Update 4 | 36 | |
| UCS B200 M1 Blade Server | VMware | vSphere 4 | 36 | |
| UCS B200 M1 Blade Server | VMware | vSphere 4i | 36 | |

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 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 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 Blade Server | Vendor | Adapter Model | Operating System | Adapter Driver | Adapter Firmware | Adapter Boot Code / BIOS | Notes |
|--------------------------|--------|--|--|------------------|------------------|--------------------------|-------------|
| UCS B200 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 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 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 B200 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 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 Blade Server | Cisco | LSI Logic SAS1064E PCI-Express Fusion-MPT | VMware vSphere 4 & 4i | 4.00.37.00.23vmw | 01.28.03.00 | 06.28.00.00 | |
| UCS B200 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 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 Blade Server | Cisco | UCS 82598KR-CI | Microsoft Windows Server | 1.0.48.1 | | 2.1.11 | Note 11, 12 |

| UCS Blade Server | Vendor | Adapter Model | Operating System | Adapter Driver | Adapter Firmware | Adapter Boot Code / BIOS | Notes |
|--------------------------|--------|--|--|----------------|------------------|--------------------------|-----------------------|
| | | 10-Gigabit Ethernet Adapter | 2008 x64 w/Hyper-V | | | | |
| UCS B200 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 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 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 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 Blade Server | Cisco | UCS 82598KR-CI 10-Gigabit Ethernet Adapter | VMware vSphere 4 & 4i | 1336_NETQNAPI | | 2.1.11 | Note 11, 12 |
| UCS B200 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 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 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 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 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 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 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 B200 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 Blade Server | Cisco | UCS M71KR-Q QLogic Converged Network Adapter | Microsoft Windows Server 2003 R2 x64 | 9.1.7.36 | 4.04.04 | 2.02 | 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 Blade Server | Cisco | UCS M71KR-Q QLogic Converged Network Adapter | Microsoft Windows Server 2003 R2 x86 | 9.1.7.36 | 4.04.04 | 2.02 | Note 6, 8, 9, 12, 13 |
| UCS B200 M1 Blade Server | Cisco | UCS M71KR-Q QLogic Converged Network Adapter | Microsoft Windows Server 2008 x64 w/Hyper-V | 9.1.7.36 | 4.04.04 | 2.02 | Note 6, 8, 9, 12, 13 |
| UCS B200 M1 Blade Server | Cisco | UCS M71KR-Q QLogic Converged Network Adapter | Novell SUSE Linux Enterprise Server 11 64bit | 8.02.01.03.11.04-9 | 4.04.05 | 2.02 | Note 6, 8, 12, 13 |
| UCS B200 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 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 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 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 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 11 64bit | 4.1a33 | |
| UCS M71KR-Q QLogic Converged Network Adapter | Qlogic | SANSurfer | Microsoft Windows Server 2003 R2 x64 | 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 2003 R2 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 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 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 | Supported; Refer to the Storage Vendor's support list | Note 6, 7 |
| NetApp | Supported; Refer to the Storage Vendor's support list | Note 3, 6, 7 |
| HDS | 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 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>

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.