

## Cisco UCS M71KR-Q QLogic Converged Network Adapter



### Cisco Unified Computing System Overview

The Cisco<sup>®</sup> Unified Computing System is a next-generation data center platform that unites compute, network, storage access, and virtualization into a cohesive system designed to reduce total cost of ownership (TCO) and increase business agility. The system integrates a low-latency, lossless 10 Gigabit Ethernet unified network fabric with enterprise-class, x86-architecture servers. The system is an integrated, scalable, multichassis platform in which all resources participate in a unified management domain.

### Product Overview

The Cisco UCS M71KR-Q QLogic Converged Network Adapter (CNA) is a QLogic-based Fibre Channel over Ethernet (FCoE) mezzanine card that provides connectivity for Cisco UCS B-Series Blade Servers in the Cisco Unified Computing System.

Designed specifically for the Cisco UCS blades, the adapter provides a dual-port connection to the midplane of the blade server chassis. The Cisco UCS M71KR-Q uses an Intel 82598 10 Gigabit Ethernet controller for network traffic and a QLogic 4-Gbps Fibre Channel controller for Fibre Channel traffic, all on the same mezzanine card. The Cisco UCS M71KR-Q presents two discrete Fibre Channel host bus adapter (HBA) ports and two Ethernet network ports to the operating system (Figure 1).

**Figure 1.** Cisco UCS M71KR-Q QLogic Converged Network Adapter



## Features and Benefits

The Cisco UCS M71KR-Q provides both 10 Gigabit Ethernet and 4-Gbps Fibre Channel functions using drivers from QLogic (Figure 2), providing:

- Risk mitigation through compatibility with current QLogic adapter-based SAN environments and drivers
- Reduced TCO through consolidation of LAN and SAN traffic over the same mezzanine card and fabric, reducing the overall number of network interface cards (NICs), HBAs, cables, and switches
- Integrated management with Cisco UCS Manager

**Figure 2.** Cisco UCS M71KR-Q QLogic Converged Network Adapter Architecture

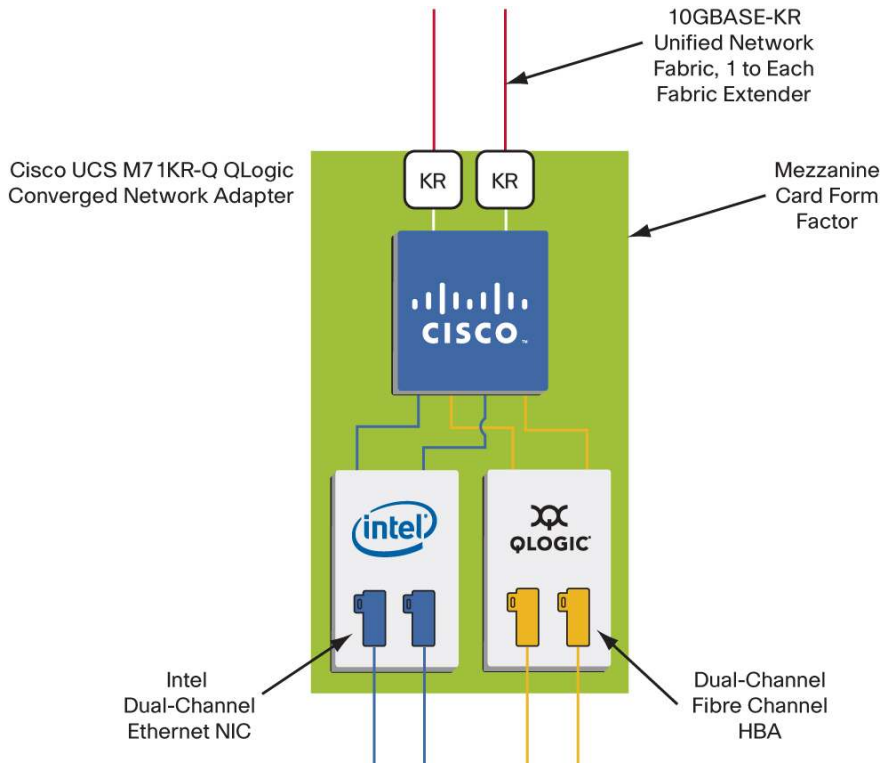


Table 1 summarizes the features and benefits of the Cisco UCS M71KR-Q.

**Table 1.** Features and Benefits

Feature	Benefit
<b>QLogic Fibre Channel controller application-specific integrated circuits (ASICs)</b>	Allows customers to use existing QLogic HBA software and drivers for storage
<b>Unified I/O</b>	Helps reduce TCO by consolidating the overall number of NICs, HBAs, cables, and switches because LAN and SAN traffic run over the same mezzanine card and fabric
<b>Network architecture</b>	Provides redundant path to fabric interconnect using dual 10 Gigabit Ethernet ports to the fabric carrying both Fibre Channel and Ethernet traffic
<b>Unified management</b>	Through Cisco UCS Manager, automatically discovers blades and the mezzanine cards on the blades
<b>Intel 82598 ASIC for Ethernet traffic</b>	Delivers efficient, high-performance Ethernet support
<b>Support for lossless Ethernet</b>	Uses priority flow control (PFC) and IEEE 802.3x Pause to enable FCoE as part of the Cisco unified fabric
<b>Support for Fibre Channel N-port ID virtualization (NPIV) sessions</b>	Support 16 sessions of Microsoft Windows operating systems and 64 for Linux operating systems

## Platform Support and Compatibility

The Cisco UCS M71KR-Q mezzanine card is designed specifically for Cisco UCS B-Series Blade Servers and works in a dedicated environment with Cisco UCS Manager.

Table 2 summarizes the specifications for the Cisco UCS M71KR-Q.

**Table 2.** Product Specifications

Item	Specification
<b>Standards</b>	10 Gigabit Ethernet, IEEE 802.3ae (XAUI), IEEE 802.3, IEEE 802.1Qaz, IEEE 802.1q VLAN support, 1000BASE-BX, jumbo frames up to 16 KB, 1/2/4-Gbps Fibre Channel, and T11 FCoE
<b>Components</b>	Cisco ASIC, QLogic Fibre Channel ASIC, and Intel 82598 ASIC
<b>Ports</b>	2x 10 Gigabit Ethernet and mezzanine connectors
<b>Connectivity</b>	1000BASE-BX and Cisco Unified Computing System midplane
<b>Memory</b>	512-KB receive buffer, 320-KB transmit buffer, 8-KB instruction cache, and 8-KB data cache
<b>Performance</b>	150,000 I/O operations per second (IOPS) per port
<b>Network management</b>	Cisco UCS Manager v1.0.1
<b>Network (or programming or other) interfaces</b>	2x 10 Gigabit Ethernet
<b>Physical dimensions</b>	Length = 7.25 in. (18.4 cm) Width = 3.65 in. (9.3 cm)
<b>Typical power</b>	21 watts (W)
<b>Inlet operating temperature range</b>	50 to 95F (10 to 35°C)

## System Requirements

The Cisco UCS M71KR-Q is a mezzanine card designed to be used only on Cisco UCS B-Series Blade Servers. Each Cisco UCS B200 M1 2-Socket Blade Server supports one mezzanine adapter, and each Cisco UCS B250 M1 2-Socket Extended-Memory Blade Server supports up to two adapters. The adapters are not designed or intended for other purposes.

## Warranty Information

Find warranty information at Cisco.com on the [Product Warranties](#) page.

## Cisco Unified Computing Services

Using a unified view of data center resources, Cisco and our industry-leading partners deliver services that accelerate your transition to a unified computing architecture. Cisco Unified Computing Services help you quickly deploy your data center resources, simplify ongoing operations, and optimize your infrastructure to better meet your business needs. For more information about these and other Cisco Data Center Services, visit <http://www.cisco.com/go/unifiedcomputingservices>.

## Why Cisco?

The Cisco Unified Computing System continues Cisco's long history of innovation in delivering integrated systems for improved business results based on industry standards and using the network as the platform. Recent examples include IP telephony, LAN switching, unified communications, and unified I/O. Cisco began the unified computing phase of our Data Center 3.0 strategy several years ago by assembling an experienced team from the computing and virtualization industries to augment our own networking and storage access expertise. As a result, Cisco delivered foundational technologies, including the Cisco Nexus™ Family, supporting unified fabric and server virtualization. The Cisco Unified Computing System completes this phase, delivering innovation in architecture, technology, partnerships, and services. Cisco is well-positioned to deliver this innovation by taking a systems

approach to computing that unifies network intelligence and scalability with innovative ASICs, integrated management, and standard computing components.

### For More Information

For more information about the Cisco UCS M71KR-Q QLogic Converged Network Adapter, visit <http://www.cisco.com/en/US/products/ps10265/index.html> or contact your local Cisco representative.



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