Cisco UCS CNA M72KR-Q QLogic Converged Network Adapter

Cisco Unified Computing System Overview

The Cisco 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, multi-chassis platform in which all resources participate in a unified management domain.

Product Overview

The Cisco® UCS CNA M72KR-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 high-performance connectivity for SAN and LAN traffic. One Cisco UCS M72KR-Q can do the work of a discrete Fibre Channel host bus adapter (HBA) and Ethernet network interface card (NIC). This convergence means fewer cables, fewer switches, less power consumption, reduced cooling, and unified LAN and SAN management.

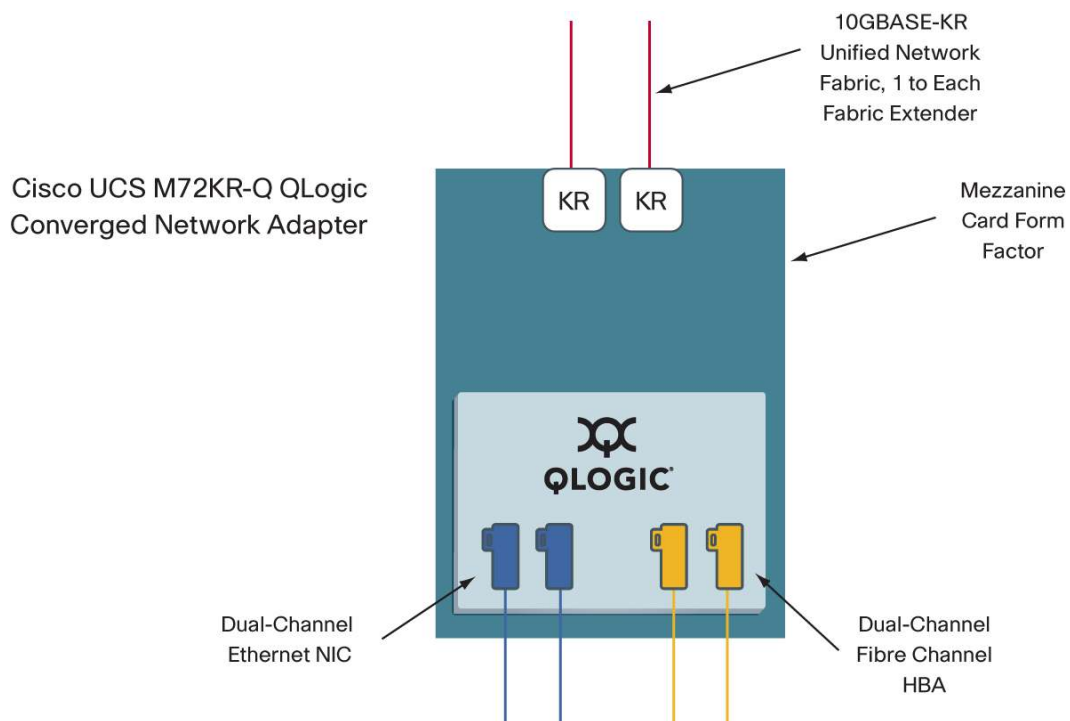**Figure 1.**   Cisco UCS CNA M72KR-Q QLogic Converged Network Adapter

Features and Benefits

The Cisco UCS M72KR-Q provides both 10 Gigabit Ethernet and 8-Gbps Fibre Channel functions using drivers from QLogic:

- Risk mitigation through compatibility with current QLogic adapter-based SAN environments and drivers
- Full hardware offload for FCoE protocol processing reduces system CPU utilization for I/O operations, which leads to faster application performance and higher levels of consolidation in virtualized systems
- 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 M72KR-Q QLogic Converged Network Adapter Architecture

Table 1.   Features and Benefits

Feature	Benefit
QLogic Fibre Channel controller application-specific integrated circuits (ASICs)	Allows customers to use existing QLogic HBA software and drivers for storage
Unified I/O	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
Network architecture	Provides redundant path to fabric interconnect using dual 10 Gigabit Ethernet ports to the fabric carrying both Fibre Channel and Ethernet traffic
Unified management	Through Cisco UCS Manager, automatically discovers blades and the mezzanine cards on the blades
Support for lossless Ethernet	Uses priority flow control (PFC) and IEEE 802.3x Pause to enable FCoE as part of the Cisco unified fabric

Table 2. Product Specifications

Feature	Specification
Standards	IEEE: 802.3ae (10Gbps Ethernet), 802.1q (VLAN), 802.3ad (Link Aggregation), 802.1p (Priority Encoding), 802.3x (Flow Control), 802.3ap (KX/KX4), IEEE 1149.1 (JTAG), IPv4 Specification (RFC 791), IPv6 Specification (RFC 2460), TCP/UDP Specification (RFC 793/768), ARP Specification (RFC 826) SCSI-3 Fibre Channel Protocol (SCSI-FCP), Fibre Channel Tape (FC-TAPE) profile, SCSI Fibre Channel Protocol-2 (FCP-2), Second Generation FC Generic Services (FC-GS-2), Third Generation FC Generic Services (FC- GS-3) , FCoE and FIP (FC-BB-5)
Components	QLogic ASIC
Ports	2x 10 Gigabit Ethernet and mezzanine connectors
Connectivity	1000BASE-BX and Cisco Unified Computing System mid-plane
Performance	• 250,000 IOPS per port
Network Management	Cisco UCS Manager v1.3.1 or later
Physical Dimensions	Length = 7.25 in. (18.4 cm) Width = 3.65 in. (9.3 cm)
Power dissipation	• 4.5 watts (typical)
Inlet operating temperature range	50 to 95°F (10 to 35°C)

System Requirements

The Cisco UCS CNA M72KR-Q mezzanine card is designed for use only on Cisco UCS B-Series Blade Servers. Each half width server including the Cisco UCS B200 M1and M2 and UCS B230 M1 supports one mezzanine adapter, and each full width server including the Cisco UCS B250 M1 or M2 and UCS B440 M1 supports up to two adapters. The adapter is 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 application-specific circuits (ASICs,) integrated management, and standard computing components.

For More Information

For more information about the Cisco UCS CNA M72KR-Q Q-Logic Converged Network Adapter, visit http://www.cisco.com/en/US/products/ps10265/index.html or contact your local Cisco representative.

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Printed in USA

C78-623738-00   09/10