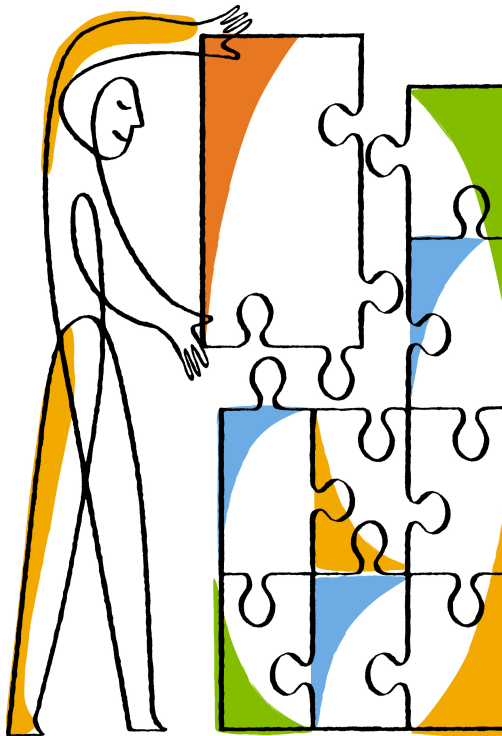




Configuring Cisco Unified Computing Systems for FlashRay Systems



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Configuring Cisco UCS CNAs

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Support for Cisco UCS CNAs

NetApp supports Cisco Unified Computing Systems (UCS) Converged Network Adapters (CNA). To determine if your UCS CNA is supported, see the [NetApp Interoperability Matrix](#).

If you are using NetApp Host Utilities and a UCS-supported CNA, you must make sure that the adapter policy uses the correct settings after you install the host utilities. The adapter policy settings might be different from those listed in the host utilities documentation.

More information for using UCS-supported CNAs for UCS B-Series with NetApp systems is provided in this document, but it is not intended to replace the documentation that Cisco provides for UCS.

What the UCS service profile and adapters do

Each server provisioned in the Cisco UCS is defined by a service profile that is stored in the Cisco UCS 6x00 Series Fabric Interconnects. The profile defines the server's storage and networking characteristics.

When the service profile is deployed to a server, the UCS Manager automatically configures the server, adapters, fabric extenders, and fabric interconnects to match the configuration specified in it. This automated device configuration reduces the number of manual steps required to configure servers, network interface cards (NICs), host bus adapters (HBAs), and LAN and SAN switches.

The UCS also contains Fibre Channel (FC) adapter policies that govern the host-side behavior of the adapter, including how the adapter handles traffic. For example, you can use these policies to change default settings for the following:

- Queues
- FC Port behavior
- FLogi/PLogi information
- Error handling

Fibre Channel over Ethernet (FCoE) end to end support

FCoE support is limited to UCS uplinks. FlashRay controllers support only FC protocol.

VMware/ESX VMDirectPath support

NetApp does not currently support VMDirectPath for use with Cisco UCS in conjunction with any adapter. VMware and Cisco currently consider this feature “experimental.”

Switching modes of the Fabric Interconnect

NetApp supports both End Host Mode (NPort Virtualization or NPV mode) and Fibre Channel Switch Mode. End host mode is the default mode.

In this mode, UCS Fabric Interconnect acts like a server allowing multiple hosts to log in to the upstream fabric. This mode supports Brocade as well as Cisco upstream switches.

Accessing NetApp bug reports related to UCS and SAN

You can use [NetApp Bugs Online](#) to find the most current information about a known bug, or to determine if other bugs have been discovered.

Currently, NetApp has the following public bug reports available at Bugs Online that apply to the Cisco UCS virtual interface card:

- Bug 399473: The Cisco M81KR, 1240, 1280, 1225, and P81E CNAs do not work with Linux Host Utilities 5.x/6.x and the `sanlun fcp show adapter` command.
- Bug 371515: The Windows Host Utilities and ONTAP DSM installer reports appropriate messages when installed on a host with Cisco UCS adapters.

Related topics

[Host platform settings required by FlashRay on page 6](#)

Host platform settings required by FlashRay

Adapter policy settings

Because UCS B-Series (UCS Manager configurations) adapter policies determine the HBA/CNA error-handling settings, you must make sure you have the correct settings in the policy that you use with your NetApp system. These settings apply to servers with UCS Fibre Channel over Ethernet (FCoE) interface cards installed. The table below lists the necessary settings.

NOTE: After you install the Host Utilities, you must verify that the adapter policy uses the settings in this table. If it does not, you must modify the adapter policy settings to match the values in this table.

Cisco FCoE interface card	Host platform	Port down timeout (ms)	Port down IO retry	Link down timeout (ms)
Cisco UCS B-Series M81K/1240/1280 Virtual Interface Card	Windows (2012, 2008)	30000	30	30000
	Red Hat Enterprise Linux, SUSE Linux Enterprise Server, Oracle VM, Citrix XenServer	30000	30	30000
	VMware ESXi	10000	30	30000

For more information on Cisco UCS B-Series service profiles and adapter policies, see the following documents:

- [Understanding Cisco Unified Computing System Service Profiles](#)
- [Create Service Profile for Cisco UCS Blade: Obtaining Cisco UCS drivers and firmware](#)

Drivers and firmware settings

You can also download the [Cisco UCS-supported Adapter/CNA drivers and firmware](#) from the Cisco web site.

NOTE: To determine which drivers and firmware NetApp supports for Cisco UCS, check the [NetApp Interoperability Matrix Tool](#).

In addition, for each Cisco UCS system firmware release listed in the [NetApp Interoperability Matrix](#), NetApp supports only the drivers and firmware posted on Cisco's [Hardware Compatibility List](#) relative to each supported UCS system firmware release.

Related topics

[Support for Cisco UCS CNAs on page 4](#)

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