Compatibility Matrix for Cisco UCS Director Express for Big Data, Release 1.0

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This document provides information regarding the physical and virtual devices and software supported by Cisco UCS Director Express for Big Data. The information has been segmented into different functional areas and is organized by vendor within each functional area.

This document contains the following sections:

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Overview

Cisco UCS Director Express for Big Data provides a single touch solution that automates deployment of Big Data infrastructure and provides a single management pane across both physical infrastructure and Hadoop software. It supports key Hadoop distributions including Cloudera, MapR, and Hortonworks.

Note Support for Hortonworks is not available in Cisco UCS Director Express for Big Data, Release 1.0, and it is planned for a future release.

Cisco UCS Director Express for Big Data delivers end-to-end automation of Hadoop cluster deployment that allows you to spin up and expand clusters on-demand. Configuration of the physical infrastructure, which includes compute, internal storage, network, and installation of operating system, Java packages, Hadoop along with provisioning of Hadoop services are handled automatically with minimal user input. This is achieved through the innovative Cisco UCS service profiles wherein both the physical infrastructure and Hadoop configuration are incorporated into a Hadoop cluster deployment profile.

Requirements

This section includes the following topics:

Cisco UCS Director Express for Big Data 1.0

Cisco UCS Director Express for Big Data is a self-contained virtual machine that can be imported into, and run within a VMware vSphere environment. Cisco UCS Director Express for Big Data is packaged and delivered to the end-user in the Open Virtualization Format (OVF) for deployment on VMware vSphere. Depending on the hosting virtualization platform (For example, VMware vSphere), download and import the appropriate Cisco UCS Director Express for Big Data format.

Table 1 outlines the minimum system requirements for Cisco UCS Director Express for Big Data.

Table 1 Cisco UCS Director Express for Big Data Minimum Requirements

Resource	Minimum Requirements
vCPUs	4
Memory	4 GB (8 GB recommended)
Hard disk	100 GB

Note It is recommended that you reserve 8 GB of memory and 2000 MHz of CPU resources for Cisco UCS Director Express for Big Data.

Cisco UCS Director Express for Big Data Baremetal Agent 5.0

The Cisco UCS Director Express for Big Data Baremetal Agent is a separate virtual machine appliance that works in conjunction with the Cisco UCS Director Express for Big Data appliance to provide additional supporting services necessary in a PXE boot environment. These functions include services such as Dynamic Host Control Protocol (DHCP), Hypertext Transfer Protocol (HTTP) and Trivial File Transfer Protocol (TFTP).

Table 2 outlines the minimum system requirements for the Cisco UCS Director Express for Big Data Baremetal Agent.

Table 2 Cisco UCS Director Express for Big Data Baremetal Agent Minimum Requirements

Resource	Minimum Requirements
vCPUs	2
Memory	3 GB
Hard disk	40 GB

Cisco Server Support

Table 3 shows Cisco UCS Director Express for Big Data compatibility with Cisco UCS hardware and software. This table does not reflect the compatibility between Cisco UCS hardware and software. For information regarding Cisco UCS compatibility, see the Cisco UCS hardware and software interoperability matrices for the appropriate release.

Note All Cisco UCS Director Express for Big Data functionality may not be available across all supported Cisco UCS software versions. Certain features may not be available in older versions of Cisco UCS software.

Table 3 Cisco UCS Hardware and Software Support

Components	Supported Models	Supported Software	
		From Version	To Version
Cisco UCS Manager	Software	Cisco UCS Infrastructure Bundle and Cisco UCS Manager Software Bundle, Release 2.1	Cisco UCS Infrastructure Bundle and Cisco UCS Manager Software Bundle, Release 2.2(2c)
Cisco UCS 6200 Series Fabric Interconnects	6248UP 6296UP	Cisco UCS Infrastructure Bundle and Cisco UCS Manager Software Bundle, Release 2.1	Cisco UCS Infrastructure Bundle and Cisco UCS Manager Software Bundle, Release 2.2(2c)
Cisco UCS 5000 Series Chassis	5108	Cisco UCS Infrastructure Bundle and Cisco UCS Manager Software Bundle, Release 2.1	Cisco UCS Infrastructure Bundle and Cisco UCS Manager Software Bundle, Release 2.2(2c)

Table 3 Cisco UCS Hardware and Software Support (continued)

Components	Supported Models	Supported Software	
		From Version	To Version
Cisco UCS 2000 Series FEX Modules	2232PP 10GigE	Cisco UCS Infrastructure Bundle and Cisco UCS Manager Software Bundle, Release 2.1	Cisco UCS Infrastructure Bundle and Cisco UCS Manager Software Bundle, Release 2.2(2c)
Cisco UCS C-Series Rack-Mount Servers (Managed by Cisco UCS Manager)	C240 M3	Cisco UCS C-Series Rack-Mount Server Software Bundle, Release 2.1	Cisco UCS C-Series Rack-Mount Server Software Bundle, Release 2.2(2c)

Supported RAID Controllers

Table 4 shows the supported RAID controller options, and cable requirements. See *Cisco UCS C240 M3 Server Installation and Service Guide* for more information.

- LSI Nytro MegaRAID 8110-4i Considerations, page 4

Note This server supports up to two PCIe-style RAID controllers. Do not mix controller types in the server.

Note The SAS expander is required for the SFF 24-drive option and the LFF 12-drive option.

Table 4 Cisco UCS C240 RAID Options

Controller	Style	Maximum Drives	SCPM	Required Cables
Cisco LSI MegaRAID SAS 9266CV-8i	PCIe	• SFF/Expander: 24 Internal • LFF/Expander: 12 Internal	SCPM (SuperCap power module)	• 24 drives, SFF/expander: (kit pair CSC-CABLE6) • 12 drives, LFF/expander: (kit pair UCSC-CABLE4)
Cisco LSI MegaRAID SAS 9271CV 8i	PCIe	• SFF/Expander: 24 Internal • LFF/Expander: 12 Internal	SCPM (SuperCap power module)	• 24 drives, SFF/expander: (kit pair CSC-CABLE6) • 12 drives, LFF/expander: (kit pair UCSC-CABLE4)
Cisco UCS Nytro MegaRAID 8110-4i 200GB	PCIe	• SFF/Expander: 24 Internal • LFF/Expander: 12 Internal	SCPM (SuperCap power module)	• 24 drives, SFF/expander: (kit pair CSC-CABLE6) • 12 drives, LFF/expander: (kit pair UCSC-CABLE4)

LSI Nytro MegaRAID 8110-4i Considerations

The following are the restrictions on using the LSI Nytro MegaRAID 8110-4i card support in this server:

- This card is not supported with the SFF 16-drive direct-connect backplane version of the server.

- This card is supported only in slot 3 of the server.
- This card is supported only in dual-CPU configurations.
- This card is supported only with hard disk drives (not solid state drives).
- This card cannot coexist with any installed GPU card.
- This card cannot coexist with multiple RAID controllers.

Baremetal Operating System Support

Cisco UCS Director Express for Big Data in conjunction with the Cisco UCS Director Express for Big Data Baremetal Agent supports only RHEL 6.2/6.4 variants in Baremetal provisioning workflows.

Supported Hadoop Distributions

Cisco UCS Director Express for Big Data supports the following Hadoop distributions:

- Cloudera 5.0.1
- MapR 3.1.1

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see *What's New in Cisco Product Documentation* at: http://www.cisco.com/c/en/us/td/docs/general/whatsnew/whatsnew.html.

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