

HP CloudSystem built on ConvergedSystem 700x Compatibility Chart

Abstract

This document provides the hardware, firmware, and software requirements for the purpose of planning, installing or maintaining the HP CloudSystem built on ConvergedSystem 700x.



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Revision history

| Published | Changes | Document version |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| May 2014 | Changes HP CloudSystem software version to 8.02 | 764279-003 |
| April 2014 | Changes HP CloudSystem software version to 8.01 Changes HP Onboard Administrator to version 4.12 Changes HP Service Pack for ProLiant (SPP) to version 2014.02.0(B) | 764279-002 |
| April 2014 | Initial release | 764279-001 |

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1 Overview

HP delivers the HP CloudSystem built on ConvergedSystem 700x as a collection of appliances and a converged system platform. All HP CloudSystem solutions include factory integration for a Starter Kit and optional Expansion Kits, with hardware, software, and licensing provided through HP CloudSystem Foundation and HP CloudSystem Enterprise.

HP has tested and fully supports only the hardware components, firmware versions, and software versions listed in this document as part of the HP CloudSystem built on ConvergedSystem 700x. The HP CloudSystem solution combines hardware, software, and firmware from other HP offerings, such as HP CloudSystem software, HP OneView, and HP Insight Control. Although the Individual HP offerings might include additional compatibility when used in other circumstances, this document lists only those components and versions that are supported by these offerings as part of the HP CloudSystem solution.

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- △ **CAUTION:** HP requires that you use the specific firmware and software versions listed in this document together as part of the HP CloudSystem built on ConvergedSystem 700x to ensure complete solution component compatibility and full functionality. Using other version levels, including later revisions of individual components, can result in operational issues. Always see the latest version of this document, available from HP website at <http://www.hp.com/go/CloudSystem/solution/docs>.
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Versioning

HP CloudSystem solution versions are identified by major.minor.update.revision; for example, version 8.0.2.0.

2 HP CloudSystem built on ConvergedSystem 700x components

The HP CloudSystem Foundation or HP CloudSystem Enterprise solution packages consist of the following components:

- Hardware
 - (1 to 3) HP CloudSystem Management Kit — Managing Appliance Server Hosts (MASH)
 - (1) HP CloudSystem Starter Kit, including:
 - (1) HP – BladeSystem c-Class Platinum enclosure
 - (2 or more) Virtual Connect FlexFabric modules
 - Redundant Onboard Administrator
 - Standard power and cooling options
 - (0 or more) HP CloudSystem Expansion Kits
 - (2 or more) Gen8 server blades
 - HP 3PAR storage, included in the order or customer provided HP 3PAR SAN
 - Network infrastructure, included in the order or customer provided
- Software
 - HP CloudSystem software
 - HP OneView
 - HP Insight Control server provisioning
 - Virtualization Software (see [Table 2 \(page 8\)](#))
- Services
 - HP CloudSystem Solution Installation and Startup service
 - HP CloudSystem Matrix Installation and Startup service (when you select HP Matrix OE instead of HP OneView)

For current information about the HP CloudSystem solution components, see *HP CloudSystem built on ConvergedSystem 700x QuickSpecs*:

<http://www.hp.com/go/quickspecs>

3 HP CloudSystem built on ConvergedSystem 700x supported hardware

Enclosures

HP recommends the HP BladeSystem c7000 Platinum Enclosure.

- ① **IMPORTANT:** For proper airflow and cooling, fill any empty interconnect bays with blanks.

The BladeSystem c7000 Platinum enclosure provides all the power, cooling, and I/O infrastructure needed to support modular server, interconnect, and storage components today and throughout the next several years. The enclosure is 10U high and holds up to 16 server and/or storage blades, plus optional redundant network and storage interconnect modules. It includes a shared, 5 Tbps high-speed NonStop mid-plane for wire-once connectivity of server blades to network and shared storage. Power is delivered through a pooled-power backplane, and power input flexibility is provided with choices of single-phase, 3-Phase AC input, and 48V DC input.

NOTE: HP Intelligent Series Racks with location discovery service enable tracking of new installations and equipment moves. Using the location discovery service requires both the HP BladeSystem c7000 G2 Platinum Enclosure and an Intelligent Series rack with a location discovery kit.

Managing Appliance Server Host

Order the HP CloudSystem Management (CS700x) Kits with the Starter Kit, or use a functionally equivalent server from existing inventory. HP CloudSystem Management (CS700x) Kits include the following:

- HP ProLiant DL360p Gen8 Server
 - (2) Intel® Xeon® E5-2650v2 Processor (2.6GHz/8-core/20MB/95W)
 - 128GB (8 x HP 16GB Dual Rank x4 PC3-14900R (DDR3-1866) Registered CAS-13 DIMM)
 - 2.4TB (8 x 300GB)
 - 82Q
 - 331T
 - 554FLR
 - DVD-ROM
 - (2) HP 750W Common Slot Platinum Plus Hot Plug Power Supply (94% Efficient)
 - HP iLO Management Engine

HP ProLiant c-Class server blades

Table 1 HP CloudSystem built on ConvergedSystem 700x supported server blades

| Server generation | Server model |
|--------------------------|--------------------------------|
| HP ProLiant Gen8 Servers | HP ProLiant BL420c Gen8 Server |
| | HP ProLiant BL460c Gen8 Server |
| | HP ProLiant BL465c Gen8 Server |

Table 1 HP CloudSystem built on ConvergedSystem 700x supported server blades *(continued)*

| Server generation | Server model |
|-------------------|----------------------------------------------|
| | HP ProLiant BL660c Gen8 Server (full-height) |

Converged Network Adapters

HP supports the following network mezzanine adapters for server blades used in this version of the HP CloudSystem solution:

- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10GB 2-port 554 FLB Adapter

Virtual Connect

Supports only HP Virtual Connect FlexFabric 10Gb/24-Port Modules

HP 3PAR Flat SAN Storage

Order the HP 3PAR StoreServ storage as part of the starter kit, or use functionally equivalent HP 3PAR storage from existing inventory. The HP CloudSystem solution supports the HP 3PAR OS 3.1.2 MU3 revision on the following HP 3PAR products:

- HP 3PAR StoreServ 7000 Storage
 - HP 3PAR StoreServ 7200 Storage
 - HP 3PAR StoreServ 7400 Storage
- HP 3PAR StoreServ 10000 Storage
 - HP 3PAR StoreServ 10400 Storage
 - HP 3PAR StoreServ 10800 Storage
- HP 3PAR T-Class
 - HP 3PAR T400 Storage
 - HP 3PAR T800 Storage
- HP 3PAR F-Class
 - HP 3PAR F200 Storage
 - HP 3PAR F400 Storage

4 HP CloudSystem built on ConvergedSystem 700x supported software

HP CloudSystem built on ConvergedSystem 700x includes the following managing appliances and software. You can activate only those products for which you have purchased licenses. The HP Matrix Operating Environment (HP Matrix OE) is available only with HP CloudSystem Enterprise.

- HP OneView 1.05
- HP Insight Control server provisioning 7.3.1
- HP CloudSystem software 8.02
 - Base appliance (creates other appliances)
 - SDN controller
 - Network nodes
 - Proxy appliance (for vCenter)
 - Enterprise appliance (Enterprise only)
- Virtualization software options (see [Table 2 \(page 8\)](#))
- HP Matrix OE 7.3.1 (Enterprise only)
- Virtual Connect Enterprise Manager (VCEM) 7.3.1 (Enterprise only)

NOTE: HP Matrix OE and VCEM are Windows software. When selecting Enterprise licenses, customers can choose HP OneView or VCEM licensing for managing HP BladeSystem c-Class Server Blades, c7000 Enclosures and Virtual Connects. If you select VCEM, HP Matrix OE and VCEM are installed together on a Windows Server separate from the Managing Appliance Server Hosts.

Web browser

The HP CloudSystem solution supports Microsoft Internet Explorer 10 for overall operation. You can complete the HP CloudSystem Enterprise installation using Microsoft Internet Explorer, Chrome, or Mozilla Firefox.

Virtualization software

The HP CloudSystem solution supports the deployment of virtual machines to the following hypervisors:

Table 2 Virtualization software for MASH and Compute nodes

| Virtualization software | Managing Appliance Server Host | Compute nodes |
|------------------------------------|--------------------------------|---------------|
| Red Hat KVM 6.4 | | √ |
| VMware ESXi 5.0 Update 3 | √ | √ |
| VMware vSphere (ESXi) 5.1 Update 2 | √ | √ |
| VMware vSphere (ESXi) 5.5 | | √ |

Operating systems

HP CloudSystem Enterprise supports many providers including HP CloudSystem Foundation, HP Matrix OE, and VMware vCenter. As shown in [Table 2 \(page 8\)](#), HP CloudSystem Foundation

supports ESX and KVM. HP Matrix OE provides support as shown in the *HP Insight Management Support Matrix*. See specifics for HP Matrix OE 7.3.1 in the *HP Insight Management Support Matrix* at <http://www.hp.com/go/InsightControl/docs>. Consult the support matrices for any other providers present in your environment to verify hypervisor and operating system support.

5 HP CloudSystem built on ConvergedSystem 700x supported firmware and drivers

This chapter provides enclosure and server firmware and driver information for ProLiant server blades. The HP CloudSystem solution firmware and driver definition consists of:

- ProLiant firmware and drivers from the HP Service Pack for ProLiant (SPP) 2014.02.0(B), located at <http://www.hp.com/go/spp/download>. Unless otherwise indicated, all versions are in the HP 2014.02.0(B) SPP.

For a list of SPP release contents for ProLiant:

1. Go to <http://www.hp.com/go/spp>.
2. Under HP SPP, **SPP Documentation**.
3. Under HP Smart Update, select **HP SPP 2014.02.0(B)** and then click **HP Service Pack for ProLiant 2014.02.0(B) Contents Report**.

The HP CloudSystem solution firmware and driver definition also includes hotfixes to the SPP shown below. Otherwise, HP does not recommend updating individual firmware or drivers. For updated firmware and driver release sets, always see the information on the HP CloudSystem Compatibility website:

<http://www.hp.com/go/CloudSystem/solution/docs>

Table 3 Firmware and drivers

| Component | Foundation and Enterprise |
|----------------------------------------|--------------------------------------------|
| HP SPP | 2014.02.0(B) |
| HP BladeSystem Onboard Administrator | 4.12 |
| HP Integrated Lights Out 4 | 1.4 |
| HP BladeSystem c-Class Virtual Connect | 4.10 (use VC 4.10b to update) ¹ |

¹ The VC firmware package contains the specific firmware images for the various Interconnect modules and automatically updates the firmware on these modules when it is flashed. For Interconnect module-specific firmware version information, see the VC firmware release notes at <http://www.hp.com/go/vcdocs>.

6 Support and other resources

Contacting HP

Information to collect before contacting HP

Be sure to have the following information available before you contact HP:

- SAID (if applicable) and/or Serial Number of the HP BladeSystem c7000 Platinum Enclosure of HP CloudSystem Starter (CS700x) Kits or HP CloudSystem Expansion (CS700x) Kits
- Software product name
- Hardware product model number
- Operating system type and version
- Applicable error message
- Third-party hardware or software
- Technical support registration number (if applicable)

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- ① **IMPORTANT:** When you call for support, be sure to mention that this is a configuration of HP CloudSystem built on ConvergedSystem 700x. Each HP BladeSystem c7000 Platinum Enclosure serial number identifies it as a kit participating in an HP CloudSystem built on ConvergedSystem 700x installation.
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How to contact HP

Use the following methods to contact HP technical support:

- See the Contact HP Worldwide website for contact options:
<http://www.hp.com/go/assistance>
- Use the Contact hp link on the HP Support Center website:
<http://www.hp.com/go/hpsc>
- In the United States, call 1-800-334-5144 to contact HP by telephone. This service is available 24 hours a day, 7 days a week. For continuous quality improvement, conversations might be recorded or monitored.

Registering for software technical support and update service

HP highly recommends the Proactive Care Personalized Support Option for complex solutions, developed as part of The HP Proactive Care Service offerings.

The Proactive Care Personalized Support option offers:

- A local assigned Account Support Manager to provide collaborative on site technical and operational advice
- An annual support plan aligned to IT priorities
- Twice a year support reviews
- Additional technical services as needed

The Personalized Support option is only available to customers who have Proactive Care Service. For more information about this service, see the HP Proactive Care Services website:

<http://www8.hp.com/us/en/business-services/it-services.html?compURI=1380514#.U3zkzfldWSo>

How to use your software technical support and update service

As HP releases updates to software, the latest versions of the software and documentation are made available to you. The Software Updates and Licensing portal gives you access to software, documentation and license updates for products on your HP software support agreement.

You can access this portal from the HP Support Center:

<http://www.hp.com/go/hpsc>

After creating your profile and linking your support agreements to your profile, see the Software Updates and Licensing portal at <http://www.hp.com/go/hpssoftwareupdatesupport> to obtain software, documentation, and license updates.

Warranty information

HP will replace defective delivery media for a period of 90 days from the date of purchase. This warranty applies to all Insight Management software products.

HP authorized resellers

For the name of the nearest HP authorized reseller, see the following sources:

- In the United States, see the HP U.S. service locator web site:
http://www.hp.com/service_locator
- In other locations, see the Contact HP worldwide web site:
<http://welcome.hp.com/country/us/en/wwcontact.html>

Related documentation

Download the latest versions of manuals and white papers for the HP CloudSystem solution and related products from <http://www.hp.com/go/CloudSystem/solution/docs>.

For HP CloudSystem Software documentation, see <http://www.hp.com/go/CloudSystem/docs>.

For HP OneView documentation, see <http://www.hp.com/go/OneView/docs>.

For HP Insight Control documentation, see <http://www.hp.com/go/InsightControl/docs>.

Typographic conventions

This document uses the following typographical conventions:

| | |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <i>Book title</i> | The title of a book. On the web, this can be a hyperlink to the book itself. |
| Command | A command name or command phrase, for example <code>ls -a</code> . |
| Filename | The name of a file or the path to a file location. |
| Computer output | Information displayed by the computer. |
| Ctrl-x | A key sequence that indicates you must hold down the keyboard key labeled Ctrl while you press the letter <i>x</i> . |
| ENVIRONMENT VARIABLE | The name of an environment variable, for example, <code>PATH</code> . |
| Key | The name of a keyboard key. Return and Enter both refer to the same key. |
| Term | A term or phrase that is defined in the body text of the document, not in a glossary. |
| User input | Indicates commands and text that you type exactly as shown. |
| <i><Replaceable></i> | The name of a placeholder that you replace with an actual value. |
| [] | In command syntax statements, these characters enclose optional content. |

| | |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| { } | In command syntax statements, these characters enclose required content. |
| | The character that separates items in a linear list of choices. |
| ... | Indicates that the preceding element can be repeated one or more times. |
| WARNING | An alert that calls attention to important information that, if not understood or followed, results in personal injury. |
| CAUTION | An alert that calls attention to important information that, if not understood or followed, results in data loss, data corruption, or damage to hardware or software. |
| IMPORTANT | An alert that calls attention to essential information. |
| NOTE | An alert that contains additional or supplementary information. |
| TIP | An alert that provides helpful information. |

7 Documentation feedback

HP is committed to providing documentation that meets your needs. To help us improve the documentation, send any errors, suggestions, or comments to Documentation Feedback (docsfeedback@hp.com). Include the document title and part number, version number, or the URL when submitting your feedback.