



Support and Compatibility Matrix

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Cloud Service Automation Software Setup

This document provides an overview of the setup requirements for HPE Cloud Service Automation (CSA) Version 4.60. The CSA software package contains the following:

Marketplace Portal (service catalog interface)

CSA Cloud Service Management Console (administrative and operational control interface)

CSA Cloud Controller (core solution software)

CSA Cloud Platform

Integrated OO 10.50

CSA Documentation

HPE Software product documentation can be found at <https://softwaresupport.hp.com/>

Sign in with your HPE Passport credentials and select **Manuals** from the Dashboards menu. Use the search and filter functions to find documentation, whitepapers, and other information sources. To access the full set of CSA documentation, refer to the [Cloud Service Automation Documentation Library](#) (HPE Passport required).

Content Capsules

Capsules are the new delivery format to create and share Cloud Service Automation product content. They contain all the required artifacts to enable a use case or integration such as CSA service designs, OO content packs and any additional auxiliary files such as JSPs, scripts, and jars. Capsules are now offered at the time of product installation or can be downloaded from the Live Network portal. Each capsule contains documentation that explains its compatibility with the CSA platform as well as its direct provider/environment dependencies. Capsules are released often to address the need to support new technologies and new functionalities. Content capsules obtained from the product Installer are stored in the `CSA_HOME/Tools/CSLContentInstaller/` folder.

Out-of-the-box content (OOTB) obtained from the product Installer or directly from Live Network will carry its own release notes and compatibility dependencies. For a complete set of supported content, please visit Live Network portal: <https://hpln.hp.com/>. Access to this site is restricted to customers with an active HPE support agreement ID (SAID) for Cloud Service Automation and an HPE Passport. For more sample service designs and sample resource offerings, see your HPE Professional Services Representative.

To find the content catalog for a product, go to [Live Network](#), select the product with the content you require, such as Cloud Service Automation (CSA), and then click the **Content Catalog** tab.

Notes:

Cloud Service Automation Content Catalog is available on Live Network at this location: <https://hpln.hp.com/node/143/contentfiles>

Cloud Service Automation Content SDK is available at: <https://hpln.hp.com/contentoffering/hp-csa-content-sdk>

Operations Orchestration Content is available on Live Network at this location: <https://hpln.hp.com/node/21/contentfiles>

CSA Minimum System Requirements

Minimum Hardware Requirements for the CSA Application Server and CSA DB Server

	CSA Application Server	CSA DB
CPU	4 CPU, 3.0 GHz	8 CPU, 3.0 GHz
RAM	8 GB	16 GB
Hard Drive	20 GB	50 GB

CSA Application Server and CSA DB server can be deployed on a virtual machine. It is recommended that they are on different virtual machines, however. Please make sure to reserve CPU and memory resources exclusively for CSA on a virtual machine, so that the product can function with reasonable throughput. The installation requires a minimum of 7GB of free disk space on the target installation directory.

CSA Software Coexistence Statement

CSA executes as a web application in a JBoss 8 application server container. CSA is supported on either a physical server or virtual server.

CSA Coexistence Support

CSA Mode	Support
CSA (non-FIPS mode)	CSA is supported when running concurrently with other software products on the same physical or virtual server.
CSA (FIPS mode)	When configured in a FIPS compliant mode, the JBoss application server must be dedicated to CSA and the JRE instance referenced by CSA must be exclusively dedicated.

CSA IPv6 - B Support

Hewlett-Packard Software is committed to providing support of the network Internet Protocol version 6 (IPv6) level B for our enterprise software products and solutions. CSA supports installation on hosts implementing dual-stack (IPv4/IPv6) transport. CSA can deploy Cloud Server Services using network Internet Protocol version 6 (IPv6).

CSA Network Transport Support

Product	Support
CSA	CSA is supported for installation on the platforms listed below when configured for dual IPv4/IPv6 transport. CSA can communicate over both IPv4 and IPv6 transport. See CSA Supported Platforms .

CSA CAC Support

CAC is not supported on when CSA is deployed in an HA environment and in a deployment environment where a Proxy Server is configured in front of CSA Controller.

CSA Supported Platforms

Note: To use an Oracle database with CSA, you must download Oracle JDBC drivers:

- For Oracle 11g R2 JDBC drivers, go to:
<http://www.oracle.com/technetwork/database/enterprise-edition/jdbc-112010-090769.html>
- For Oracle 12c R1 JDBC drivers, go to:
<http://www.oracle.com/technetwork/database/features/jdbc/default-2280470.html>

CSA requires **ojdbc7.jar** (or **ojdbc6.jar**), and **orai18n.jar** to be downloaded and stored in a common directory prior to product installation.

Microsoft Windows 2012 R2 Standalone

	Supported	Recommended *
Operating System	Microsoft Windows Server 2012 R2 Standard	Microsoft Windows Server 2012 R2 Standard
	.NET Framework v3.5 ⁽¹⁾	.NET Framework v3.5 ⁽¹⁾ - Required
Middleware	Oracle JRE 8 OpenJDK JRE 8	OpenJDK JRE 8
Microsoft SQL Database	Microsoft SQL Server 2012	Microsoft Enterprise SQL Server 2012 SP2

	Supported	Recommended *
Oracle Database ⁽²⁾ (3)	Oracle Database 11g R2 Standard Edition	Oracle 12c R1 Enterprise Edition
	Oracle Database 11g R2 Enterprise Edition	
	Oracle Database 11g R2 Enterprise RAC	
	Oracle Database 12c R1 Standard Edition	
	Oracle Database 12c R1 Enterprise Edition	
	Oracle Database 12c R1 RAC	
Postgres Database	PostgreSQL Server 9. x 64-bit	
<p>* Recommended indicates the specific software version used for solution testing by CSA.</p> <p>(1) Enable .NET Framework 3.5, on Windows 2012 R2, even if you have a higher version of .NET framework installed on the system</p> <p>(2) Pluggable Data Base is not supported</p> <p>(3) Usage of Oracle Data Guard is transparent to CSA and hence can be considered as supported for CSA 4.6.</p>		

Microsoft Windows 2012 R2 High Availability

	Supported	Recommended *
Operating System	Microsoft Windows Server 2012 R2 Standard	Microsoft Windows Server 2012 R2 Standard
	.NET Framework v3.5 ⁽¹⁾	.NET Framework v3.5 ⁽¹⁾ - Required
Middleware	JBoss Application Clustering (Wildfly 8.2.0 embedded)	
	Oracle JRE 8 OpenJDK JRE 8	OpenJDK JRE 8
	Apache HTTP server version httpd - 2.4 ⁽²⁾	Apache HTTP server version httpd - 2.4 ⁽²⁾
	F5 BIG IP LTM 11.X	F5 BIG IP LTM 11.31
Microsoft SQL Database	Microsoft SQL Server 2012	Microsoft Enterprise SQL Server (Always On with JDBC driver) 2012 SP2
Oracle Database ⁽³⁾ (4)	Oracle Database 11g R2 Enterprise RAC	
	Oracle Database 12c R1 RAC	
<p>* Recommended indicates the specific software version used for solution testing by CSA.</p> <p>(1) Enable .NET Framework 3.5, on Windows 2012 R2, even if you have a higher version of .NET framework installed on the system</p> <p>(2) Apache does not support CAC.</p> <p>(3) Pluggable Data Base is not supported</p> <p>(4) Usage of Oracle Data Guard is transparent to CSA and hence can be considered as supported for CSA 4.6.</p>		

Microsoft Windows 2012 R2 FIPS 140-2

	Supported	Recommended *
Operating System	Microsoft Windows Server 2012 R2 Standard	Microsoft Windows Server 2012 R2 Standard
	.NET Framework v3.5 ⁽¹⁾ Required	.NET Framework v3.5 ⁽¹⁾ Required
Middleware	Oracle JRE 8	Oracle JRE 8
	Java Cryptography Extension (JCE) Unlimited Jurisdiction Policy Files 8	Java Cryptography Extension (JCE) Unlimited Jurisdiction Policy Files 8

	Supported	Recommended *
	IPv6 Endpoint Configuration	
Microsoft SQL Database	Microsoft SQL Server 2012	Microsoft Enterprise SQL Server 2012 SP2
<p>* Recommended indicates the specific software version used for solution testing by CSA.</p> <p>(1) Enable .NET Framework 3.5, on Windows 2012 R2, even if you have a higher version of .NET framework installed on the system</p> <p>Note:</p> <ul style="list-style-type: none"> • CSA Supports SSL connections to either MSSQL or Oracle databases. For FIPS configurations with strong encryption enabled, CSA supports SSL connections to MSSQL databases only. • CSA supports the configuration of IPv6 endpoints for communication with both the Marketplace Portal and the Cloud Service Management Console. • Global Search Feature not supported in FIPS mode • Usage of Oracle Data Guard is transparent to CSA and hence can be considered as supported for CSA 4.6. 		

Red Hat Enterprise Linux (RHEL)

	Supported	Recommended *
Operating System	RHEL 6.3 or above within the 6.x series 64-bit	RHEL 6.7 64-bit
Middleware	Oracle JRE 8 OpenJDK JRE 8	OpenJDK JRE 8
Microsoft SQL Database	Microsoft SQL Server 2012	Microsoft Enterprise SQL Server 2012 SP2
Oracle Database ^{(1) (2)}	Oracle Database 11g R2 Standard Edition Oracle Database 11g R2 Enterprise Edition Oracle Database 11g R2 Enterprise RAC Oracle Database 12c R1 Standard Edition Oracle Database 12c R1 Enterprise Edition Oracle Database 12c R1 RAC	Oracle Database 12c R1 Enterprise Edition
Postgres Database	PostgreSQL Server 9. x 64-bit	PostgreSQL Server 9.4 64-bit
<p>* Recommended indicates the specific software version used for solution testing by CSA.</p> <p>(1) Pluggable Data Base is not supported</p> <p>(2) Usage of Oracle Data Guard is transparent to CSA and hence can be considered as supported for CSA 4.6.</p>		

Red Hat Enterprise Linux (RHEL) High Availability

	Supported	Recommended *
Operating System	RHEL 6. 3 or above within the 6.x series 64-bit	RHEL 6.7 64-bit
Middleware	JBoss Application Clustering Oracle JRE 8 OpenJDK JRE 8 Apache HTTP server version httpd - 2. 4.10 version 1.2.6**	JBoss Application Clustering OpenJDK JRE 8 Apache HTTP server version httpd - 2. 4.10 version 1.2.6**

	Supported	Recommended *
	F5 BIG IP LTM 11.X	F5 BIG IP LTM 11.31
Microsoft SQL Database	Microsoft Enterprise SQL Server 2012 SP2	
Oracle Database ^{(1) (2)}	Oracle 11g R2 Enterprise RAC	
	Oracle 12c R1 Enterprise RAC	
Postgres Database	PostgreSQL Server 9. x 64-bit	PostgreSQL Server 9.4 64-bit
<p>* Recommended indicates the specific software version used for solution testing by CSA.</p> <p>** Apache does not support CAC</p> <p>(1) Pluggable Data Base is not supported</p> <p>(2) Usage of Oracle Data Guard is transparent to CSA and hence can be considered as supported for CSA 4.6.</p>		

Browser Support

Cloud Service Management Console and Marketplace Portal Browser Support
<p>Supported Browsers</p> <ul style="list-style-type: none"> Microsoft® Internet Explorer 11 or higher <ul style="list-style-type: none"> Requires http://support.microsoft.com/kb/2496898 to be installed on the browser machine for displaying the Indian currency sign in proper format Google Chrome 44 or higher Mozilla Firefox 40 or higher
<p>Additional Browser Support Information</p> <ul style="list-style-type: none"> For Cloud Service Management Console only: Requires Adobe Flash Player 12 or higher.

Screen Resolution

The following screen resolutions are recommended for CSA 4.60:

- Marketplace Portal: minimum screen resolution of 1024x768 (Recommended: 1280x1024).
- CSA Cloud Service Management Console: minimum screen resolution of 1280x1024.

Integrated Process Execution Engine (Operations Orchestration)

IMPORTANT: CSA 4.60 requires Operations Orchestration 10.22 to support new capabilities, such as topology service designs. Customers using the older supported versions of Operations Orchestration (OO) cannot use topology service designs. OO 9.07 or higher versions support sequenced service designs.

For content pack requirements, go to: [Operations Orchestration Support Requirements](#).

Operations Orchestration Support

Product	Supported***	Recommended *	Sequenced Support	Topology Support
Operations Orchestration Platform and OO Studio	9.07 **		✓	
	10.22 or higher within the 10.2x family, 10.5x	10.5	✓	✓

Product	Supported***	Recommended *	Sequenced Support	Topology Support
<p>* Recommended indicates the specific software version used for solution testing by CSA.</p> <p>** Only on upgrades.</p> <p>***Requires the use of the corresponding CSA Integration Packs, Content Capsules, and CSA Patches as required. For details, see the SSO Integration Catalog article for this integration: https://softwaresupport.hp.com/km/KM01695116</p>				

Codar Upgrade

Codar is available for upgrade from a CSA 4.60 installation, working with existing CSA functionality to facilitate continuous delivery automation.

The following license types are available:

- CSA permanent license only.
- Codar permanent license only.

If you install CSA, you must add a CSA permanent license first; if you install Codar, you must install a Codar license first. After you apply a base license, you can add an upgrade license, if desired.

In case of existing CODAR 1.0/1.5 a new CODAR license needs to be applied upon upgrading to CODAR 1.6

Upgrade Licensing Requirements

Existing installation	Upgrading to Codar 1.5 or CSA 4.6
CSA 4.2	Upgrade to CSA 4.6 using CSA 4.6 installer, then install Codar 1.6 license
CSA 4.5 with Codar 1.0/1.5 license	Upgrade to CSA 4.6 using CSA 4.6 installer (no need to install Codar license)
CSA 4.5	Upgrade to CSA 4.6 using CSA 4.6 installer, then install Codar 1.6 license
CSA 4.2 with Codar 1.0 license	Upgrade to CSA 4.6 using CSA 4.6 installer (no need to install Codar license)
Codar 1.0	Upgrade to Codar 1.6 using Codar 1.6 installer, install CSA 4.6 license to upgrade to CSA 4.6
Codar 1.0 with CSA 4.2 license	Upgrade to CSA 4.6 using CSA 4.6 installer (no need to install CSA license)
Codar 1.5	Upgrade to Codar 1.6 using Codar 1.6 installer, install CSA 4.6 license to upgrade to CSA 4.6
Codar 1.5 with CSA 4.2/4.5 license	Upgrade to CSA 4.6 using CSA 4.6 installer (no need to install CSA license)

For more information, see the Codar System and Software Support Matrix and other documentation at <https://softwaresupport.hp.com/>

Integration Compatibility

The integrations below have been demonstrated with CSA 4.60 and are supported by the corresponding product teams. Please review each product's release notes and contact the appropriate HPE product support team for details.

Solution Versions for the CSA Requiring OO Integration

Product	Supported	Recommended (1)	Sequenced Support	Topology Support
Chef Server Enterprise (2)	11.0.11 or 12.1	11.0.11 or 12.1		✓
Server Automation (SA) Ultimate Edition	9.x with embedded DMA		✓	

Product	Supported	Recommended (1)	Sequenced Support	Topology Support
	10.x with standalone DMA 10.x	10.21 with standalone DMA 10.30	✓	✓
Puppet	3.62 or 3.73	3.73		✓
VMware® vCenter Operations Manager (3)	4.x, 5.x, 6.0 (3)	5.5	✓	✓

(1) Recommended indicates the specific software version used for solution testing by HP CSA.

(2) Chef Server can be downloaded from <http://www.getchef.com/chef/install/> HP CSA 4.60 Integration with Chef is supported on Chef Server installed on Ubuntu 12.04 and CentOS 6.4. CSA supports deployment of Chef Cookbooks and recipes on virtual machines running the CentOS or Ubuntu operating systems.

(3) VMware® vCenter 6.0 requires OO 10.50 Content Packs show under [HP OO Support Requirements](#).

Solution Versions for the CSA Not Requiring OO Integration

Product	Supported	Recommended (1)
ArcSight Logger	5.x, 6.x	6.1
Asset Manager (2)	9.41 and Cloud Billing Package 2.2	9.41 and Cloud Billing Package 2.2
Enterprise Maps	3.00	
IT Executive Scorecard (3)	IT Executive Scorecard 9.5 Patch 04 Windows 2008R2 when Patch 4 is available	
Operations Bridge	Premium 2015.06	

(1) Recommended indicates the specific software version used for solution testing by CSA.

(2) This integration does not support Topology Service Designs; however, it does support Sequence Service Designs.

(3) IT Executive Scorecard gets vCenter Cost information directly from vCenter Chargeback Manager.

Upgrades from Previous Releases

IMPORTANT:

- 1) If users have Codar ONLY then use Codar installer.
- 2) CSA 4.6 Supports Windows 2008 only for an installation path to Windows 2012

Supported Upgrades

CSA Releases	Upgrade y/n?	For More Information
4.2 to 4.6	yes	See the CSA Upgrade Guide for platform and content upgrades.
4.5 to 4.6	yes	See the CSA Upgrade Guide for platform and content upgrades.

Reference Websites and Downloads

For More Information and Download Locations

Product	Support Matrix and System Requirements	For More Information	Downloads
Chef Server		Chef documents	
Operations Orchestration (OO)	Software Support	Software Support	
Puppet		https://puppetlabs.com/ https://docs.puppetlabs.com/ https://learn.puppetlabs.com/	

Operations Orchestration Support Requirements

Operations Orchestration Content

OO Release	Content Pack
9.07.0008	CP 13
10.50	oo10-base-cp-1.6.2.jar
	oo10-cloud-cp-1.6.0.jar
	oo10-hp-solutions-cp-1.6.0.jar
	oo10-virtualization-cp-1.6.0.jar
	oo10.50-csa-integration-cp-4.6.0000.jar
	oo10-sa-cp-1.2.0.001.jar
10.51	oo10-sm-cp-1.0.3.jar
	oo10-base-cp-1.6.2.jar
	oo10-cloud-cp-1.6.0.jar
	oo10-hp-solutions-cp-1.6.0.jar
	oo10-virtualization-cp-1.6.0.jar
	oo10.50-csa-integration-cp-4.6.0000.jar
	oo10-sa-cp-1.2.0.001.jar
oo10-sm-cp-1.0.3.jar	

Server Automation/Operations Orchestration Content

Server Automation Release	OO release	OO - SA Content
9.x	9.07.0008	OO-SAS-9_00-08-ContentInstaller.jar
10.x	9.07.0008	OO-SAS-9_00-10-ContentInstaller.jar
10.x	10.5	oo10-sa-cp-1.2.0.001.jar

Service Manager/Operations Orchestration Content

Service Manager (SM) Release	OO release	OO - SM Content
9.40	9.07	OO_SM_Content_Pack_7_Installer (CP7)
9.40	10.5	oo10-sm-cp-1.0.3

Note: Operations Orchestration Content Pack 9.00.07 JPN if installed on a Japanese language system.

CSA Integration Pack

CSA ships with integration content pack that can be located at CSA_HOME/CSAKit-4.5 folder. This implements operations needed for all type of CSA – OO transactions. This is one of dependent content packs for all content capsules that are shipped with product installer and those on HPE Live Network.

CSA Integration Pack

Content	Location	Supported OO
CSA 4.6 Integration content	CSA_HOME/CSAKit-4.5	10.5x

Language Support

Documentation

CSA Documentation	English	Japanese	Simplified Chinese	French	German	Korean	Italian	Russian	Brazilian Portuguese	Spanish	Dutch	Arabic	Hebrew	Danish
CSA Online Help	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
MPP Online Help	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗
CSA Concepts Guide	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗
CSA Installation Guide	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
CSA Release Notes	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗

Product User Interface

CSA User Interface	English	Japanese	Simplified Chinese	French	German	Korean	Italian	Russian	Brazilian Portuguese	Spanish	Dutch	Arabic	Hebrew	Danish
CSA user interface	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
MPP user interface	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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Documentation updates

The title page of this document contains the following identifying information:

- Software Version number, which indicates the software version.
- Document Release Date, which changes each time the document is updated.
- Software Release Date, which indicates the release date of this version of the software.

To check for recent updates or to verify that you are using the most recent edition of a document, go to the following URL and sign-in or register: <https://softwaresupport.hp.com>.

Select Manuals from the Dashboard menu to view all available documentation. Use the search and filter functions to find documentation, whitepapers, and other information sources.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your Hewlett Packard Enterprise sales representative for details.

Support

Visit the Hewlett Packard Enterprise Software Support Online web site at <https://softwaresupport.hp.com>.

Document Change Notes

Description	Date
Initial release of this document with CSA 4.6 MR.	January 2016
Removed IT Business Analytics (10.0 with CP2) row from the table under Solution Versions for the CSA Not Requiring OO Integration .	February 2016
Added support for OO 10.51 under Integrated Process Execution Engine (Operations Orchestration) and Operations Orchestration Support Requirements .	February 2016
Updated footnote in the OO Support integration table under Integrated Process Execution Engine (Operations Orchestration) .	March 4, 2016
Updated Language Support	May 3, 2016
Updated CSA Supported Platforms for Oracle Data Guard support	September, 2016