



Hewlett Packard
Enterprise

Cloud Service Automation

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 4.80. 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 10.70

CSA Documentation

HPE Software product documentation can be found at <https://softwaresupport.hpe.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, publish and share CSA content. Each capsule contains all the required artifacts such as CSA service offerings, service designs, OO content packs and any additional auxiliary files such as JSPs, scripts, and jar files. PDF documentation is also available and embedded in each capsule and explains capsule support matrix, software dependencies. Capsules are released often to address the need to support new technologies and new functionalities.

You have few options when it comes to deploying capsules in your CSA environment.

- (1) At installation time, Administrator can select a set of capsules that should be deployed.
- (2) At any time, you can visit HPE Live Network, download capsules and use the CSA Content SDK to deploy them manually. Refer to the Content SDK documentation for more information.
- (3) At any time, from the CSA Management Console, connect to the Content Store and deploy your capsules automatically. Read the CSA help for more information about the Content Store or the *CSA Configuration Guide* for more information setting up the Content Store.

Note: Content capsules obtained from the product Installer are stored in the CSA_HOME/Tools/CSLContentInstaller/ folder.

For a complete set of capsules, please visit HPE Live Network at <https://hpln.hpe.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 the HPE Live Network, select the product with the content you require, such as Cloud Service Automation (CSA).

Resources:

- Cloud Service Automation Content Catalog is available on HPE Live Network at this location: <https://hpln.hpe.com/product/cloud-service-automation/content>
- Cloud Service Automation Content SDK is available at: <https://hpln.hpe.com/contentoffering/hp-csa-content-sdk>
- Operations Orchestration Content is available on HPE Live Network at this location: <https://hpln.hpe.com/product/operations-orchestration/content>

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 Monitor with CO Support

HPE Cloud Optimizer (CO) 3.01 integration is required for the CSA Monitor functionality to be realized.

SAML 2.0 Support

CSA as a service provider can be configured to support SAML (Security Assertion Markup Language) v2.0 by configuring the Identity Provider endpoint. See the *CSA Configuration Guide* for additional information.

CSA IPv6 - B Support

Hewlett Packard Enterprise 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. Apache does not support CAC.

CSA Supported Platforms

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 SQL Server 2014	Microsoft Enterprise SQL Server 2012 SP3
Oracle Database ⁽²⁾	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	

	Supported	Recommended *
	Oracle Database 12c R1 Enterprise Edition	
	Oracle Database 12c R1 RAC	
Postgres Database	PostgreSQL Server, 9.4.x, 9.5.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>		

Microsoft Windows 2012 R2 High Availability

	Supported	Recommended *
Operating System	Microsoft Windows Server 2012 R2 Standard	Microsoft Windows Server 2012 R2 Standard
	.NET Framework 3.5 ⁽¹⁾	.NET Framework 3.5 ⁽¹⁾ - Required
Middleware	JBoss Application Clustering (Wildfly 8.2.0 embedded)	
	Oracle JRE 8 OpenJDK JRE 8	OpenJDK JRE 8
Microsoft SQL Database	Microsoft SQL Server 2012 Microsoft SQL Server 2014	Microsoft Enterprise SQL Server (Always On with JDBC driver) 2012 SP2
Oracle Database ⁽²⁾	Oracle Database 11g R2 Enterprise RAC Oracle Database 12c R1 RAC	
Postgres Database	PostgreSQL Server 9.4.x, 9.5.x 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>		

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
	IPv6 Endpoint Configuration	
Microsoft SQL Database	Microsoft SQL Server 2012 Microsoft SQL Server 2014	Microsoft Enterprise SQL Server 2012 SP3
<p>* Recommended indicates the specific software version used for solution testing by CSA.</p>		

	Supported	Recommended *
(1) Enable .NET Framework 3.5, on Windows 2012 R2, even if you have a higher version of .NET framework installed on the system		
Note:		
<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. The Global Search feature is not supported in FIPS mode. 		

Red Hat Enterprise Linux (RHEL)

	Supported	Recommended *
Operating System	RHEL 6.3 or above within the 6.x series 64-bit RHEL 7.0 or above within the 7.x series 64-bit	RHEL 7.2 64-bit
Middleware	Oracle JRE 8 OpenJDK JRE 8	OpenJDK JRE 8
Microsoft SQL Database	Microsoft SQL Server 2012 Microsoft SQL Server 2014	Microsoft Enterprise SQL Server 2012 SP3
Oracle Database ⁽¹⁾	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 9.4.x, 9.5.x 64-bit	PostgreSQL Server 9.5 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>IMPORTANT: Before installing CSA on Linux, ensure that bzip2 data compressor is installed in the Linux machine.</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 7.0 or above within the 7.x series 64-bit	RHEL 7.2 64-bit
Middleware	JBoss Application Clustering	JBoss Application Clustering

	Supported	Recommended *
	Oracle JRE 8 OpenJDK JRE 8	OpenJDK JRE 8
Microsoft SQL Database	Microsoft Enterprise SQL Server 2012 SP2 Microsoft SQL Server 2014	
Oracle Database ⁽¹⁾	Oracle 11g R2 Enterprise RAC	
	Oracle 12c R1 Enterprise RAC	
Postgres Database	PostgreSQL Server 9.4.x, 9.5.x 64-bit	PostgreSQL Server 9.5 64-bit

* Recommended indicates the specific software version used for solution testing by CSA.

(1) Pluggable Data Base is not supported

IMPORTANT: Before installing CSA on Linux, ensure that **bzip2** data compressor is installed in the Linux machine.

Browser Support

Cloud Service Management Console and Marketplace Portal Browser Support

Supported Browsers

- Microsoft® Internet Explorer 11 or higher
 - Requires the update to be installed on the browser machine for displaying the Indian currency sign in proper format. For update instructions, see <http://support.microsoft.com/kb/2496898>
- Google Chrome 49 or higher
- Mozilla Firefox 45 or higher

Additional Browser Support Information

- For Cloud Service Management Console only: Requires Adobe Flash Player 12 or higher.
- Future versions of browsers are supported, subject to the browser's backward-compatibility.

Screen Resolution

The following screen resolutions are recommended for CSA 4.80:

- 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)

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

Operations Orchestration Support

Product	Supported ⁽²⁾	Recommended ⁽¹⁾	Sequenced Support	Topology Support
Operations Orchestration Platform and OO Studio	OO 10.50 or higher within the 10.5x, 10.6x, 10.7x families	OO 10.7	✓	✓
CloudSlang and Web Designer	1.0.0	1.0.0	✓	✓**

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

(2) 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>

3. **For topology, you need to follow certain guidelines mentioned in the [Topology Components Guide](#).

IMPORTANT: Before installing CSA on Linux, ensure that **bzip2** data compressor is installed in the Linux machine.

CSA Upgrade

CSA is available for upgrade from a CSA 4.70 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 1.6, a new Codar license needs to be applied upon upgrading to Codar 1.8. The Codar 1.7 license works with Codar 1.8.

Upgrade Licensing Requirements

Existing installation	Upgrading to Codar 1.8 or CSA 4.80
CSA 4.7	Upgrade to CSA 4.80 using CSA 4.80 installer, then install Codar 1.8 license
CSA 4.7 with Codar 1.7 license	Upgrade to CSA 4.80 using CSA 1.8 installer (no need to install Codar license)

Existing installation	Upgrading to Codar 1.8 or CSA 4.80
Codar 1.7	Upgrade to Codar 1.8 using Codar 1.8 installer, install CSA 4.80 license to upgrade to CSA 4.80
Codar 1.7 with CSA 4.7 license	Upgrade to CSA 4.80 using CSA 4.80 installer (no need to install Codar 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 4.80 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.

Note: For the latest HPE product integration compatibility information, see the SSO Integration Catalog article for the integration: <https://softwaresupport.hpe.com/km/KM01663677>

Cloud Providers integrated through plugins

Product	Supported ⁽³⁾	Recommended ⁽¹⁾	Sequenced Support	Topology Support
Chef Server Enterprise ⁽²⁾	11.0.11 or 12.1 or 12.3 or 12.7	12.7 12.9.1		✓
Server Automation (SA) Ultimate Edition	9.x with embedded DMA		✓	
	SA 10.x with standalone DMA 10.x	SA 10.50 with standalone DMA 10.50	✓	✓
Puppet	3.8 or 4.3	4.3		✓

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

(2) Chef Server can be downloaded from <http://www.getchef.com/chef/install/> (3rd party link as courtesy only and subject to change; see vendor documentation for current information.) The HPE CSA 4.80 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) Requires the use of the corresponding CSA Integration Packs, Content Capsules, and Patches for the integrated products as required. For details, see the SSO Integration Catalog article for the integration. For example, for SA: <https://softwaresupport.hpe.com/km/KM01695434>, and for Chef: <https://softwaresupport.hpe.com/km/KM01695542>.

Other CSA-HPE Cloud Product integrations

Product	Supported	Recommended ⁽¹⁾
ArcSight Logger	ArcSight Logger 5.x, 6.x	ArcSight Logger 6.1
Asset Manager (AM) ⁽²⁾	AM 9.41 and Cloud Billing Package 2.2	AM 9.41 and Cloud Billing Package 2.2
Cloud Optimizer	CO 3.01	CO 3.01

Product	Supported	Recommended ⁽¹⁾
Enterprise Maps (EM)	EM 3.20	
IT Business Analytics (ITBA)	ITBA 10.00 with CP4 ITBA 10.10	ITBA 10.10
OMI Monitoring Automation	OMI 12.12	
Propel	Propel 2.2	

(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.

Upgrades from Previous Releases

IMPORTANT: If users have Codar ONLY then use Codar installer.

Supported Upgrades

CSA Releases	Upgrade y/n?	For More Information
CSA 4.6 to 4.80	yes	See the CSA Upgrade Guide for platform and content upgrades.
CSA 4.7 to 4.80	yes	See the CSA Upgrade Guide for platform and content upgrades.

Reference Websites and Downloads

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
OO 10.7x	oo10-base-cp-1.9.0.jar
	oo10-cloud-cp-2.1.0.jar
	oo10-hpe-solutions-cp-1.10.0.jar
	oo10-virtualization-cp-1.9.1.jar
	oo10.50-csa-integrations-cp-4.70.0000.jar
	oo10-sa-cp-1.3.0.jar
	oo10-sm-cp-1.0.3.jar

Server Automation/Operations Orchestration Content

Server Automation Release	OO release	OO - SA Content
SA 10.x-10.2x	OO 10.7	oo10-sa-cp-1.2.2.jar

Service Manager/Operations Orchestration Content

Service Manager (SM) Release	OO release	OO - SM Content
SM 9.40	OO 10.7	oo10-sm-cp-1.0.3

Language Support

Documentation

Deliverable	Japanese	Simplified Chinese	French	German	Spanish	Korean	Arabic	Hebrew	Italian	Brazilian Portuguese	Dutch	Russian	Danish
Online Help (CSA)	No	No	No	No	No	No	No	No	No	No	No	No	No
Online Help (MPP)	No	No	No	No	No	No	No	No	No	No	No	No	No
Concepts Guide	No	No	No	No	No	No	No	No	No	No	No	No	No
Installation Guide	No	No	No	No	No	No	No	No	No	No	No	No	No

Deliverable	Japanese	Simplified Chinese	French	German	Spanish	Korean	Arabic	Hebrew	Italian	Brazilian Portuguese	Dutch	Russian	Danish
Release Notes	No	No	No	No	No	No	No	No	No	No	No	No	No

Product User Interface

Deliverable	Japanese	Simplified Chinese	French	German	Spanish	Korean	Arabic	Hebrew	Italian	Brazilian Portuguese	Dutch	Russian	Danish
User Interface (CSA)	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No
User Interface (MPP)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

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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.

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