



**Hewlett Packard**  
Enterprise

# HPE Codar

Software Version: 1.60

## System and Software Support Matrix

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## Codar software setup

This document provides an overview of the setup requirements for Hewlett Packard Enterprise Codar. The Codar software package contains the following:

- Codar Cloud Service Management Console (administrative and operational control interface)
- Codar Cloud Controller (core solution software)
- Codar Cloud Platform
- Integrated HPE 00 10.50

## Codar documentation

HPE Software product documentation can be found at [softwaresupport.hp.com](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.

For more information or to track updates for all Codar documentation, refer to the Codar Documentation List (HPE Passport required).

## Content Capsules

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

Out of the box content obtained from the product Installer or directly from Live Network will carry their own release notes and compatibility dependencies. For a complete set of supported content, please visit Live Network web site: <https://hpln.hp.com/> Access to this site is restricted. HP customers must have an active HPE support agreement ID (SAID) for Codar and an HPE Passport sign-in to access the data on this site. 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 website](#) and select the product with the content you require, such as Project CODAR. Click the **Content Catalog** tab.

### Note:

Codar Content Catalog is available on Live Network at the following location:  
<https://hpln.hp.com/node/19368/contentfiles>

Cloud Service Automation Content Catalog is available on Live Network at the following location:

<https://hpln.hp.com/node/143/contentfiles>

Cloud Service Automation Content SDK is available on Live Network at the following location:

<https://hpln.hpe.com/contentoffering/hp-csa-content-sdk>

Operations Orchestration content is available on Live Network at the following location:

<https://hpln.hp.com/node/21/contentfiles>

## Codar server system requirements

Hardware requirements for the Codar application server and database server

	Codar application server	Codar database server
CPU	4 CPU, 3.0 GHz	8 CPU, 3.0 GHz
RAM	8 GB	16 GB
Hard drive	20 GB	50 GB

The application and database servers can be deployed on a virtual machine; however, it is recommended that they are on different virtual machines. It is important to reserve CPU and memory resources exclusively for Codar on a virtual machine so that the product can function with reasonable throughput.

## IMPORTANT – Codar deployment guidelines

HPE strongly recommends that you install the Codar database server on a physical server, and not on a virtual machine, to get good response from Codar. If you choose to deploy the Codar (one or more nodes with the Management Console) on a virtual machine, you must reserve CPU and memory resources exclusively for Codar, so that the product can function with reasonable throughput. Use the guidelines below for resource reservation for an Codar instance with the following load characteristics:

**CPU:** 4 CPUs, 3.0 GHz per CPU

**Memory:** 8 GB

This configuration for Codar application server can support the following load:

Six simultaneous provisioning requests

30 subscriptions generated per hour

Service components in design processed < 120 per hour

Total REST API call-back from Operations Orchestration to Codar for single VM provision of < 18

For higher loads, you may need a system with more hardware resources or additional Codar nodes in a cluster. Please refer to the Codar Configuration Guide and High Availability Guide for additional details.

## Codar IPv6 – B support

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

### Codar network transport support

<b>Codar</b>	Codar is supported for installation on the platforms listed below when configured for dual IPv4/IPv6 transport. Codar can communicate over both IPv4 and IPv6 transport. See " <a href="#">Codar supported platforms</a> " below
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## Codar supported platforms

To use an Oracle database with Codar, 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>

Codar requires `ojdbc6.jar` and `ora118n.jar` to be downloaded and stored in a common directory prior to product installation.

### Microsoft Windows 2012 R2 standalone

	Supported	Recommended *
<b>Operating System</b>	Microsoft Windows Server 2012 R2 Standard	Microsoft Windows Server 2012 R2 Standard
	.NET Framework v3.5 <sup>1</sup>	.NET Framework v3.5 <sup>1</sup> - Required
<b>Middleware</b>	<ul style="list-style-type: none"> <li>Oracle JRE 8</li> <li>OpenJDK JRE 8</li> </ul>	OpenJDK JRE 8
<b>Microsoft SQL Database</b>	Microsoft SQL Server 2012	Microsoft Enterprise SQL Server 2012 SP2
<b>Oracle Database<sup>2</sup></b>	<ul style="list-style-type: none"> <li>Oracle 12c R1 Standard Edition</li> <li>Oracle 12c R1 Enterprise Edition</li> <li>Oracle 12c R1 Enterprise RAC</li> <li>Oracle 11g R2 Standard Edition</li> <li>Oracle 11g R2 Enterprise Edition</li> </ul>	Oracle 12c R1 Enterprise Edition

	<ul style="list-style-type: none"> <li>Oracle 11g R2 Enterprise RAC</li> </ul>	
<b>PostgreSQL Database</b>	PostgreSQL Server 9. x 64-bit	
<p>* Recommended indicates the specific software version used for solution testing by Codar</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 Database not supported</p>		

### Microsoft Windows 2012 R2 high availability

	Supported	Recommended *
<b>Operating System</b>	Microsoft Windows Server 2012 R2 Standard	Microsoft Windows Server 2012 R2 Standard
	.NET Framework v3.5 <sup>1</sup>	.NET Framework v3.5 <sup>1</sup> - Required
<b>Middleware</b>	JBoss Application Clustering (Wildfly 8.2.0 embedded)	
	<ul style="list-style-type: none"> <li>Oracle JRE 8</li> <li>OpenJDK JRE 8</li> </ul>	OpenJDK JRE 8
	F5 BIG IP LTM 11.31	F5 BIG IP LTM 11.31
	Apache HTTP Server version httpd - 2.4	Apache HTTP Server version httpd - 2.4
<b>Microsoft SQL Database</b>	Microsoft SQL Server 2012	Microsoft Enterprise SQL Server (Always On with JDBC driver) 2012 SP2
<b>Oracle Database<sup>2</sup></b>	<ul style="list-style-type: none"> <li>Oracle Database11g R2 Enterprise RAC</li> <li>Oracle Database12c R1 Enterprise RAC</li> </ul>	
<p>* Recommended indicates the specific software version used for solution testing by Codar.</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 Database not supported</p>		

### Red Hat Enterprise Linux (RHEL)

	Supported	Recommended *
<b>Operating System</b>	RHEL 6.3 or above within the 6.x	RHEL 6.7 64-bit



	series 64-bit	
<b>Middleware</b>	<ul style="list-style-type: none"> <li>• Oracle JRE 8</li> <li>• OpenJDK JRE 8</li> </ul>	OpenJDK JRE 8
<b>Microsoft SQL Database</b>	Microsoft SQL Server 2012	Microsoft Enterprise SQL Server 2012 SP2
<b>Oracle Database<sup>1</sup></b>	<ul style="list-style-type: none"> <li>• Oracle Database 11g R2 Standard Edition</li> <li>• Oracle Database 11g R2 Enterprise Edition</li> <li>• Oracle Database 11g R2 Enterprise RAC</li> <li>• Oracle Database 12c R1 Standard Edition</li> <li>• Oracle Database 12c R1 Enterprise Edition</li> <li>• Oracle Database 12c R1 RAC</li> </ul>	Oracle 12c R1 Enterprise Edition
<b>PostgreSQL Database</b>	PostgreSQL Server 9. x 64-bit	PostgreSQL Server 9.5 64-bit
<p>* Recommended indicates the specific software version used for solution testing by Codar.</p> <p>(1) Pluggable Database not supported</p>		

### RHEL high availability

	<b>Supported</b>	<b>Recommended*</b>
<b>Operating System</b>	RHEL 6.3 or above within the 6.x series 64-bit	RHEL 6.7 64-bit
<b>Middleware</b>	JBoss Application Clustering	JBoss Application Clustering
	<ul style="list-style-type: none"> <li>• Oracle JRE 8</li> <li>• OpenJDK JRE 8</li> </ul>	OpenJDK JRE 8
	F5 BIG IP LTM 11.31	F5 BIG IP LTM 11.31
	Apache HTTP Server version httpd - 2. 4.10 version 1.2.6	Apache HTTP Server version httpd - 2. 4.10 version 1.2.6
<b>Microsoft SQL Database</b>	Microsoft Enterprise SQL Server 2012 R2 SP2	
<b>Oracle Database</b>	<ul style="list-style-type: none"> <li>• Oracle 12c R1 Enterprise RAC</li> <li>• Oracle 11g R2 Enterprise RAC</li> </ul>	

<b>PostgreSQL Database<sup>1</sup></b>	PostgreSQL Server 9. x 64-bit	PostgreSQL Server 9.5 64-bit
* Recommended indicates the specific software version used for solution testing by Codar. (1) Pluggable Database not supported		

## Browser support

The following browsers are supported:

Supported browser	Recommendation
Microsoft® Internet Explorer 10 or higher	Requires <a href="http://support.microsoft.com/kb/2496898">http://support.microsoft.com/kb/2496898</a> 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	

## Additional browser support information

For Codar Console only: Requires Adobe Flash Player 12 or higher.

## Screen resolution

The minimum recommended screen resolution for the Codar Management Console is 1280x1024.

## HPE Integrated Process Execution Engine (HPE Operations Orchestration)

**Important:** Codar requires Operations Orchestration 10.50 to support capabilities such as topology service designs. Customers using the older supported versions of Operations Orchestration cannot use topology service designs.

For content pack requirements, see "[Operations Orchestration support requirements](#) " on page 13.

### Operations Orchestration support

Product	Supported	Recommended*	Topology Support

Operations Orchestration Platform and OO Studio	10.22 or higher within the 10.2x*** family, 10.50 or higher	10.50	Yes
<p>*Recommended indicates the specific software version used for solution testing by Codar.</p> <p>***Requires the use of the corresponding Codar Integration Packs and Content Capsules..</p>			

## Upgrade from a previous release

The following upgrades are supported.

### Supported upgrades

Codar versions	Upgrade supported?
1.50 to 1.60	Yes
1.00 to 1.60	

See the Codar Upgrade Guide for platform and content upgrade information.

**Caution:** When you upgrade Codar version 1.0 or 1.50 to 1.60, the Codar license expires. You must manually remove the old license and apply the new Codar 1.6 license. You must contact HPE Customer Support to acquire the new license.

## Adding HPE Cloud Service Automation

Cloud Service Automation (CSA) can be added to an Codar installation, working with existing Codar functionality to facilitate consumer experience through MPP Elements of the Cloud Service Automation core value proposition including the following:

- Sequence based modeling
- Infrastructure as Service (IaaS)
- Consumer experience through MPP
- Various other integrations such as vPV, XS, or ArcSight

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

## Upgrading with Codar and CSA licenses

### Upgrading to Codar 1.60

Existing installation	Upgrade steps
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)
CSA 4.2	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)
CSA 4.5	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)

For more information, see the Cloud Service Automation System and Software Support Matrix and other documentation available at [softwaresupport.hp.com](http://softwaresupport.hp.com).

## Codar integration pack

Codar is shipped with pre-developed content archives, which contain service designs and resource offerings that can be customized for your use. You can import and export this integrated “content” developed for specific Codar applications and adapt it to your business needs. The out-of-the-box integrations shipped with this version of Codar are stored in the CSAKit-4.5 folder.

You can also download integrations at the HPE Live Network website at [hpln.hp.com](http://hpln.hp.com). Access to this site is restricted. HPE customers must have an active HPE support agreement ID (SAID) for Codar and an HPE Passport sign-in to access the data on this site. For more sample service designs and sample resource offerings, see your HPE Professional Services Representative.

Content shipped with the product can be found at:

Content	Location	Supported version of OO
Codar 1.00	CSA_HOME/CSAKit-4.2	10.21
Codar 1.50	<ul style="list-style-type: none"> <li>• CSA_HOME/CSAKit-4.5 and</li> <li>• CSA_HOME/Tools/CSLContentInstaller/</li> </ul>	10.21
Codar 1.60	<ul style="list-style-type: none"> <li>• CSA_HOME/CSAKit-4.5 and</li> <li>• CSA_HOME/Tools/CSLContentInstaller/</li> </ul>	10.5x

# Operations Orchestration support requirements

## Operations Orchestration content

HP Operations Orchestration version	Content packs
10.50	<ul style="list-style-type: none"> <li>oo10-base-cp-1.6.2.jar</li> <li>oo10-cloud-cp-1.6.0.jar</li> <li>oo10-hp-solutions-cp-1.7.0.jar</li> <li>oo10-sa-cp-1.2.0.001.jar</li> <li>oo10-sm-cp-1.0.3.jar</li> <li>oo10-virtualization-cp-1.6.0.jar</li> </ul>

## Integration pack compatibility

The integrations below have been demonstrated with Codar 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 Codar integration pack

Product	Supported	Recommended <sup>(1)</sup>
Amazon Web Services (AWS)	Supported	
Chef Server Enterprise <sup>(2)</sup>	12.1 or 11.3	12.1
Docker	1.8.x or 1.7.x	1.8
Jenkins	1.55x	1.554
Puppet	3.62 or 3.73	3.73
Helion OpenStack	1.10 or 2.0	2.0
HPE Helion Development Platform	1.3	1.3
Server Automation Premium Edition (SAVA)	10.x	10.10
Server Automation (SA) Ultimate Edition	10.x	10.21 with standalone DMA 10.30
SiteScope	11.x	11.31
VMware vCenter Operations Manager <sup>(3)</sup>	4.x, 5.x, 6.x	5.5 or 6.0
Recommended indicates the specific software version used for solution testing by Codar.		

Chef Server can be downloaded from <http://www.getchef.com/chef/install/>. Codar integration with Chef is supported on a Chef server installed on Ubuntu 12.04 and CentOS 6.4. Codar supports deployment of Chef Cookbooks and recipes on VMs running the CentOS or Ubuntu operating systems.

Codar leverages the following features in VMware vCenter:

- Applying a customization specification when cloning a template
- Using a customization specification

## Language support

### Documentation

Codar document	English	Japanese	Simplified Chinese
Codar Online Help	✓	✓	✓
Codar Release Notes	✓	✓	✗
Codar Concepts Guide	✓	✓	✓

### Product User Interface

User Interface	English	Japanese	Simplified Chinese
Codar User Interface	✓	✓	✓

## Reference web sites and downloads

### For more information and download locations

Product	Support matrix and system requirements	For more information	Downloads
Cloud Service Automation (CSA)	<a href="#">HPE Software Support</a>	<a href="#">HPE Software Support</a>	Go to <a href="#">HPE Live Network</a> for downloads provided in addition to out-of-box content.
Codar	This document		
Operations Orchestration (OO)	<a href="#">HPE Software Support</a>	<a href="#">HPE Software Support</a>	

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## **Feedback on System and Software Support Matrix (Codar 1.60)**

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to .

We appreciate your feedback!