

HP Cloud Service Automation

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Content Installation Guide

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Introduction

HP Cloud Content Capsule Installer provides a unified, graphical interface for installing and updating content for HP Cloud Service Automation (HP CSA) and HP Operations Orchestration. It will lead you through a series of steps to prepare, install, configure, and enable the new content.

The HP Cloud Content Capsule Installer is tested to work with HP CSA and HP Operations Orchestration REST functionality.

Supported products

Component	Supported Version	Recommended Version
HP CSA	4.50	4.50 CSA-INTEGRATIONS - 4.50.0000 is located at <CSA_HOME>\CSAKit-4.5\00 Flow Content\10X CSA-CONFIG - 4.10.0000 is located at <CSA_HOME>\Tools\ComponentTool\contentpacks
HP Operations Orchestration	10.21	OO 10.21.0001 with the following HP Operations Orchestration 10 Standard content packs: oo10-base-cp -1.4.4 oo10-cloud-cp -1.4.0 oo10-hp-solutions-cp -1.4.0 oo10-virtualization-cp -1.4.0 oo10-sa-cp -1.2.1 oo10-sm-cp -1.0.3 Note: Listed above are the current HP OO versions. These will be installed automatically when the user installs the contents. The latest version of HP OO can be download from HPLN . For information about the recommended software versions, see the <i>HP Cloud Service Automation Support Matrix</i> on HP Software Support .
HP Codar	1.50	1.50

List of contents supported for HP CSA 4.50 and HP Operations Orchestration 10.21 are as follows:

- Amazon AWS Integration
- CSA Amazon EC2 Topology
- CSA OpenStack Topology
- CSA Providers Go Active

- CSA Service Manager Integration
- CSA vCenter Topology
- CSA vPV Integration
- HP Matrix Operating Environment Integration
- Monitoring and Configuration Management using vCenter Compute
- OpenStack Content
- Provision JBoss on vCenter Compute
- Provision VLAN using Network Automation
- SA Software Policies Deployment on vCenter Compute
- VMware vCenter Compute

For information about the use cases, see HP Cloud Service Automation Content Pack User Guide on [HP Software Support](#).

You need to enter HP Passport credentials to access the website. Click Dashboards > Manuals. In the Search for Answers text box, enter the document name and click the Search icon. Matching results will be displayed.

Configuration requirements

- You must run the HP Cloud Content Capsule Installer on the server, where you installed HP CSA or HP Codar.
- You must have the Java SE Runtime Environment (JRE) version 7u11 or later installed on the server.
- If you use the Graphical UI, you must ensure that all the required graphics packages are configured on the server.

The HP Cloud Content Capsule Installer is designed to work in graphical and non-graphical environment. A non-graphical (silent/headless-mode) installation process also exists.

For information about silent mode, see the ["Running HP Cloud Content Capsule Installer in silent mode \(headless/unattended mode\)" on page 11](#).

Verify JRE version

You must have the JRE version 1.7 installed on the server, where you run the HP Cloud Content Capsule Installer.

If you have the JRE installed, check your version by entering the following command at a command prompt:

```
java -fullversion
```

Set environment variable (Linux only)

If you are installing on a Linux server, then you must set an environment variable by executing the following command from a console:

```
#export CSA_HOME=<CSA installed path>
```

For example,

```
#export CSA_HOME=/usr/local/hp/csa
```

You must run the HP Cloud Content Capsule Installer from the same shell, where this variable is exported unless it is set as part of the user profile.

Check OO certificate for remote HP Operations Orchestration server

If HP Operations Orchestration is installed on a remote server, then you must ensure that the certificate has been imported to the certStore on the HP CSA server. The certificate for the remote OO server is imported into HP CSA during the installation of HP CSA. You must also test the connection. This is required for the installer to perform process definition with a remote HP Operations Orchestration server.

For information about how to set up the OO certificate, see *HP Cloud Service Automation Installation Guide* at <http://h20230.www2.hp.com/selfsolve/manuals/>. You need to enter HP Passport credentials to access the website. Click **Dashboards > Manuals**. In the **Search for Answers** text box, enter the document name and click the **Search** icon. Matching results will be displayed.

Importing contents using HP CSA Installer or HP Cloud Content Capsule Installer

The following options are available to import HP CSA OOTB contents:

- While installing HP CSA 4.50 or upgrading to HP CSA 4.50, select the **Install additional provider integration service designs, components and content** option. This option invokes the HP Cloud Content Capsule Installer and installs the content automatically.

For information about how to install HP CSA 4.50, which includes installing content, see *HP Cloud Service Automation Installation Guide* on [HP Software Support](#).

For information about how to upgrade to HP CSA 4.50, which includes installing content, see *HP Cloud Service Automation Upgrade Guide* on [HP Software Support](#).

- If you skip the step to install contents while installing HP CSA 4.50 or upgrading to HP CSA 4.50, you can manually install the contents using HP Cloud Content Capsule Installer.

To run HP Cloud Content Capsule Installer, go to `CSA_HOME/Tools/CSLContentInstaller/`

Note: To search for documents, you need to log on to HP Software Support using your HP Passport credentials.

On the Home page, go to Dashboard > Manuals. Select the product (for example, Cloud Service Automation). In the Search for Answers field, enter the search criteria, and then click the Search icon. Matching results will be displayed.

Download HP Content Pack Installer from HPLN

- Go to [HPLN](#).
- On the Home page, click **Cloud Service Automation Solutions > Content Catalog > Core Content for Cloud Service Automation > Downloads**.
- Click **Content Capsules**.

Download the HP Cloud Content Capsule Installer available in the folder.

Verifying HP Cloud Content Capsule Installer

If you have downloaded the HPLN version of the HP Cloud Content Capsule Installer, verify that it is the latest available version.

To verify the version of the installer, perform the following steps:

1. Execute the installer from the command line with the `-version` as input. If the installer fails to handle this command-line argument flag properly, the version that you have downloaded is not the latest.
2. View the title bar for the installer. The installer title bar must display the current version of the installer.
3. Open the help screen with `-?` or `-h` or `-help` option for available options to execute using this installer.

Running HP Cloud Content Capsule Installer

To launch the HP Cloud Content Capsule Installer, complete the following steps:

1. Log on to the server as root or as a user with administrator privileges.
2. Open a command prompt.
3. Navigate to the location, where the installer executable is saved.
4. Double-click the `CapsuleInstaller.jar` file or enter the following command:

```
java -jar CapsuleInstaller.jar
```

The installer will be launched.

Running HP Cloud Content Capsule Installer in silent mode (headless/unattended mode)

You can also launch the installer without the UI via the `-silent` flag.

To run the installer in silent mode:

1. Log on to the server as root or as a user with administrator privileges.
2. Open a command prompt.
3. Navigate to the location, where the installer executable is saved.
4. Ensure that the `silent_install.xml` file is in the same directory as the jar-file installer.

The `silent_install.xml` file is bundled with the `CapsuleInstaller.zip` file.

5. Open the `silent_install.xml` file with an editor.
6. Modify the following XML elements:
 - a. Provide the absolute path of the `<capsule-pack-download>.zip` file.
 - b. If this installation is requesting only HP Operations Orchestration, set the following XML element to true:

```
<installtype oonly="true">
```

- c. Update the necessary XML elements for HP Operations Orchestration and HP CSA credentials.
- d. Provide appropriate HP Operations Orchestration engine file and database properties file names.

If you provide only the file names, the file names are searched for within the HP CSA installation Tools directory.

If you provide absolute paths, the absolute path is used as the location of the files.

For information about generic silent installation mode XML file, see "[Appendix A: Generic silent installation mode XML file](#)" on page 23.

7. Save the changes to the `silent_install.xml` file.
8. Execute the following command:

```
java -jar CapsuleInstaller.jar -silent
```

This deploys all of the available content from the content pack using the `silent_install.xml` file.

If the file name is other than `silent_install.xml`, then the file name must be added after the `-silent` flag.

```
java -jar CapsuleInstaller.jar -silent <silent_file_name>
```

Running HP Cloud Content Capsule Installer in HP CSA High Availability Cluster mode

While installing HP CSA Installer, the HP Cloud Content Capsule Installer will be invoked on all nodes of HP CSA High Availability (HA) setup.

For example, if you want to explicitly install any OOTB content on the existing HA Setup, then run the HP Cloud Content Capsule Installer in the standalone mode.

To do this, modify the `silent_install.xml` file with the Host name as HA server host name and port as 8444 on all the nodes.

```
<?xml version="1.0" encoding="UTF-8"?>
<install>
  <contentpack bundled="false"> <!-- Value "false" will load the capsule pack path as mentioned in "content
    <contentpath>/usr/local/hp/csa/Tools/CSLContentInstaller/csa-ootb-content-04.50.000.zip</contentpath>
  </contentpack>
  <installtype oonly="false" forceImportBlueprints="false" /> <!-- Value "false" will import Service Desig
  Value "true" will deploy only the OO contents. forceImportBlueprints Value "true" will force import bluepri
  <machine>
    <csa>
      <host>csa45ha.cd1.local</host>
      <port>8444</port>
      <user>admin</user>
      <password>cloud</password>
    </csa>
    <oo>
      <host>external-oo1020.cd1.local</host>
      <port>8443</port>
      <user>admin</user>
      <password>cloud</password>
    </oo>
  </machine>
  <ooenginefilename>/usr/local/hp/csa/Tools/ProcessDefinitionTool/CslHPOOInput.xml</ooenginefilename>
  <dbpropertiesfilename>/usr/local/hp/csa/Tools/ProcessDefinitionTool/config.properties</dbpropertiesfilena
</install>
```

Verify HP CSA instance information

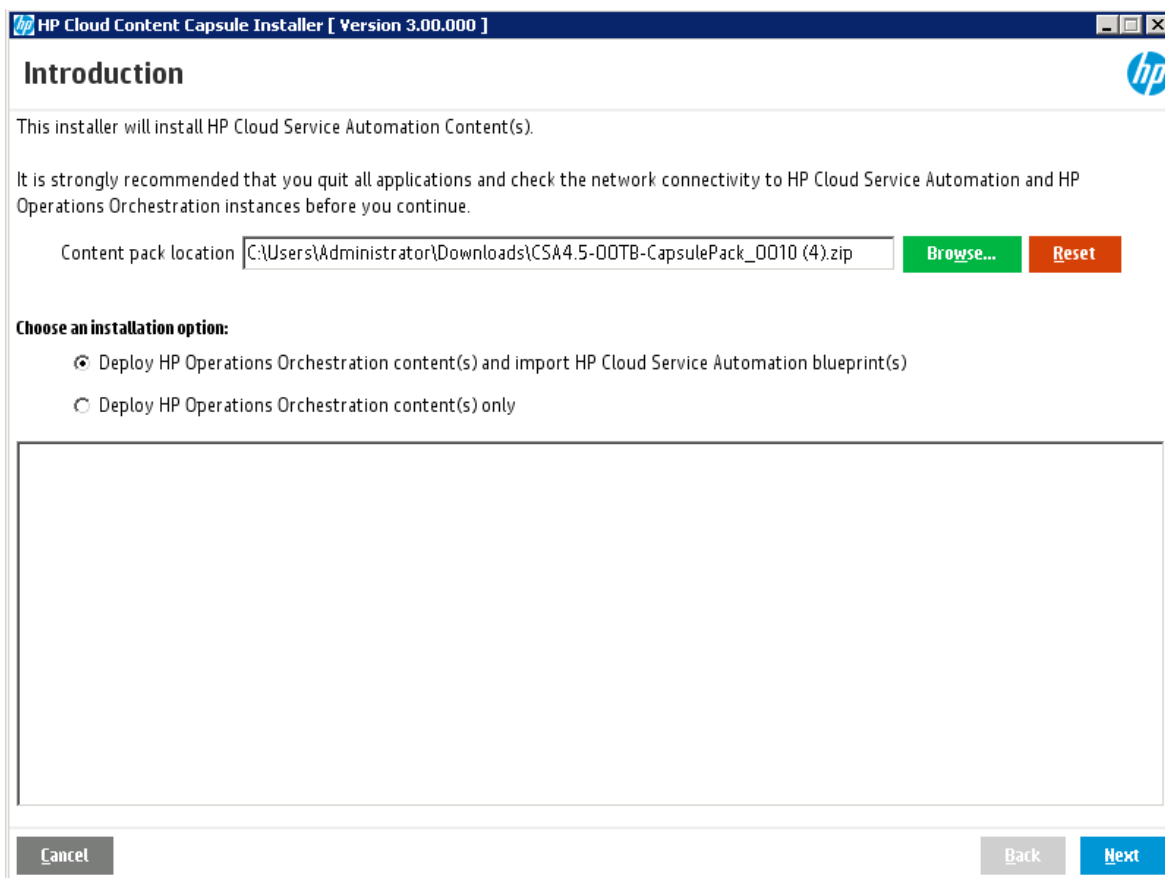
The HP Cloud Content Capsule Installer attempts to automatically detect information for the local HP CSA and its HP Operations Orchestration instances. You must provide the correct user name and password.

User interface of HP Cloud Content Capsule Installer

On the Introduction screen, the installation option selected by default is to import content to HP Operations Orchestration and import service designs into HP CSA.

If you want to import only content in HP Operations Orchestration, you can select Deploy HP Operations Orchestration content(s) only.

To select the contents, click the **Browse** button and navigate to the content capsule folder.



Select the contents, and then click **Next**.

On the **License Agreement** screen, select **I ACCEPT the terms and conditions**, and then click **Next**.

Once a viable content zip file is found, the Content support matrix information window opens. This window displays the supported content versions for HP Operations Orchestration and HP CSA.

The **Content support matrix information** window displays the HP CSA and HP Operations Orchestration versions installed in your setup. The Content Capsule you downloaded determines the versions displayed in the Installer UI.

Adding resources

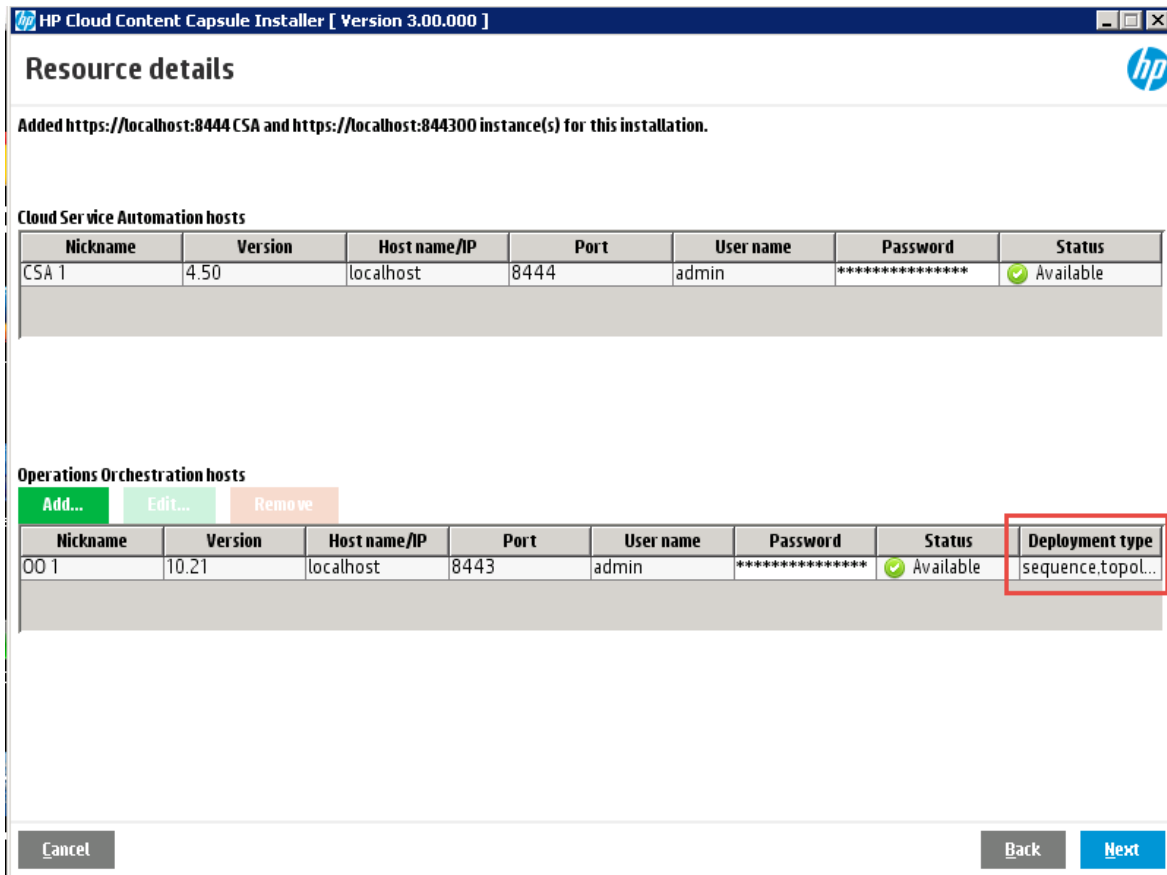
If you import both HP Operations Orchestration flow content and HP CSA service designs, the **HP Cloud Service Automation details** window opens.

The window displays the details about the HP CSA instance that is installed on the user's server. Except Password, all the information on the window such as Nickname, Hostname/IP, and Port are prepopulated. You can also modify the displayed details, if required. Enter the password, and then click **Authenticate HP CSA** to continue.

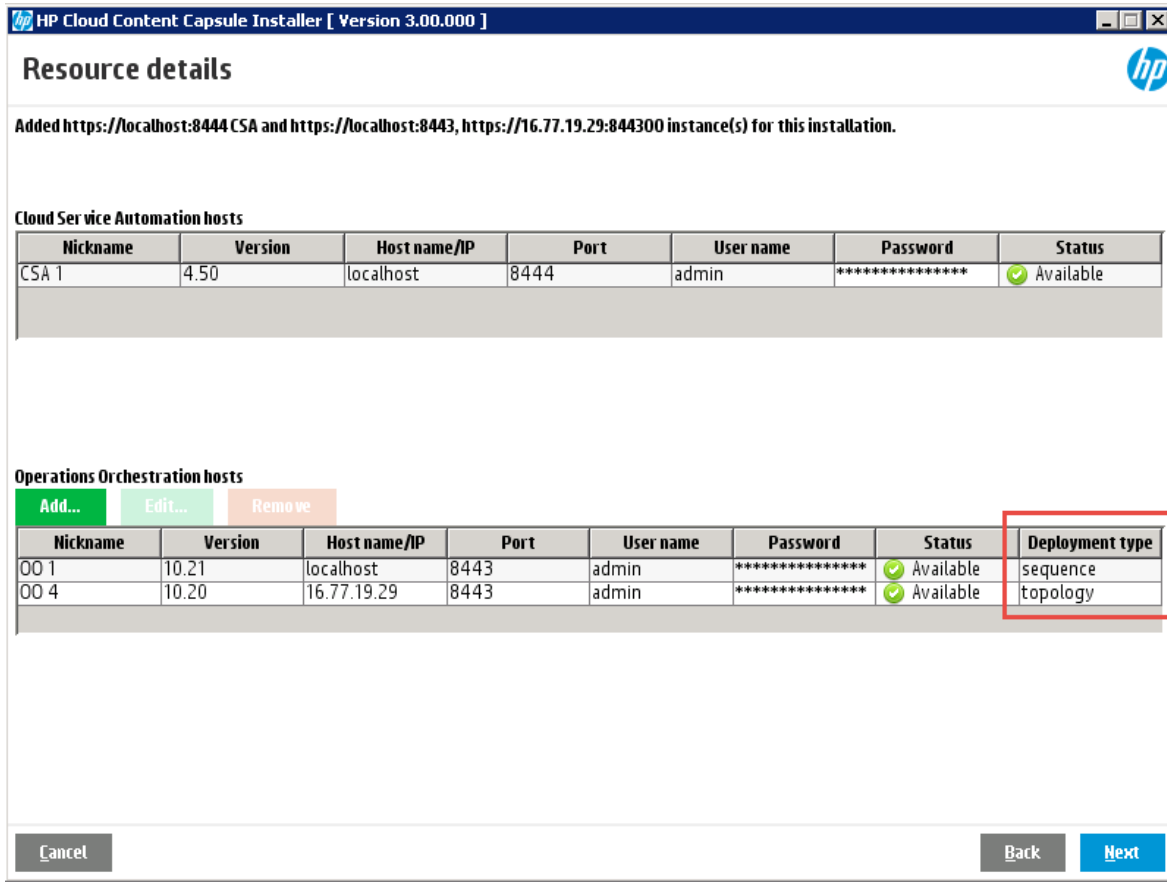
After authenticating the HP CSA and its HP Operations Orchestration instances, the **Resource details** window is displayed. Here, you can add as many HP Operations Orchestration instances as needed.

Based on the OO, the Resource details window displays an additional column, **Deployment Type**. Deployment types are sequence and topology.

If both the OOs are pointing to the same host, you will see the Deployment Type as sequence, topology.



If you have added more than one OO and they both point to different hosts, the deployment type will be shows as in the following figure.



Topology content support

HP Cloud Content Capsule Installer 3.00 supports topology content deployment. Now, the installer auto detects the HP OO used by the topology content. Topology content reads the OO information from the `csa.properties` file located in `<CSA_HOME>\<JBOSS_HOME>\standalone\deployments\csa.war\WEB-INF\classes`.

Prerequisites

Uncomment the OO details in `csa.properties` in HP CSA to support Topology jar deployment to HP OO.

If you select topology content for deployment, the HP Content Pack Installer must run in the HP CSA 4.50 host.

```
# Common Criteria END
OOS_URL=https://localhost:8443
OOS_USERNAME=admin
OOS_PASSWORD=ENC (QE4RCa41gvMY9fmYuZohTg==)
```


Topology design has components embedded within and when deployed using the HP Cloud Content Capsule Installer, it deploys the designs and the corresponding components to HP CSA. OO jars which are dependent on topology design are deployed under OO central with deployment type as topology. OO details are read from `csa.properties` file. Similarly, the OO jars used by sequence designs get deployed to the OO central with deployment type sequence.

To add HP OO instances, click the **Add** button under HP Operations Orchestration hosts.

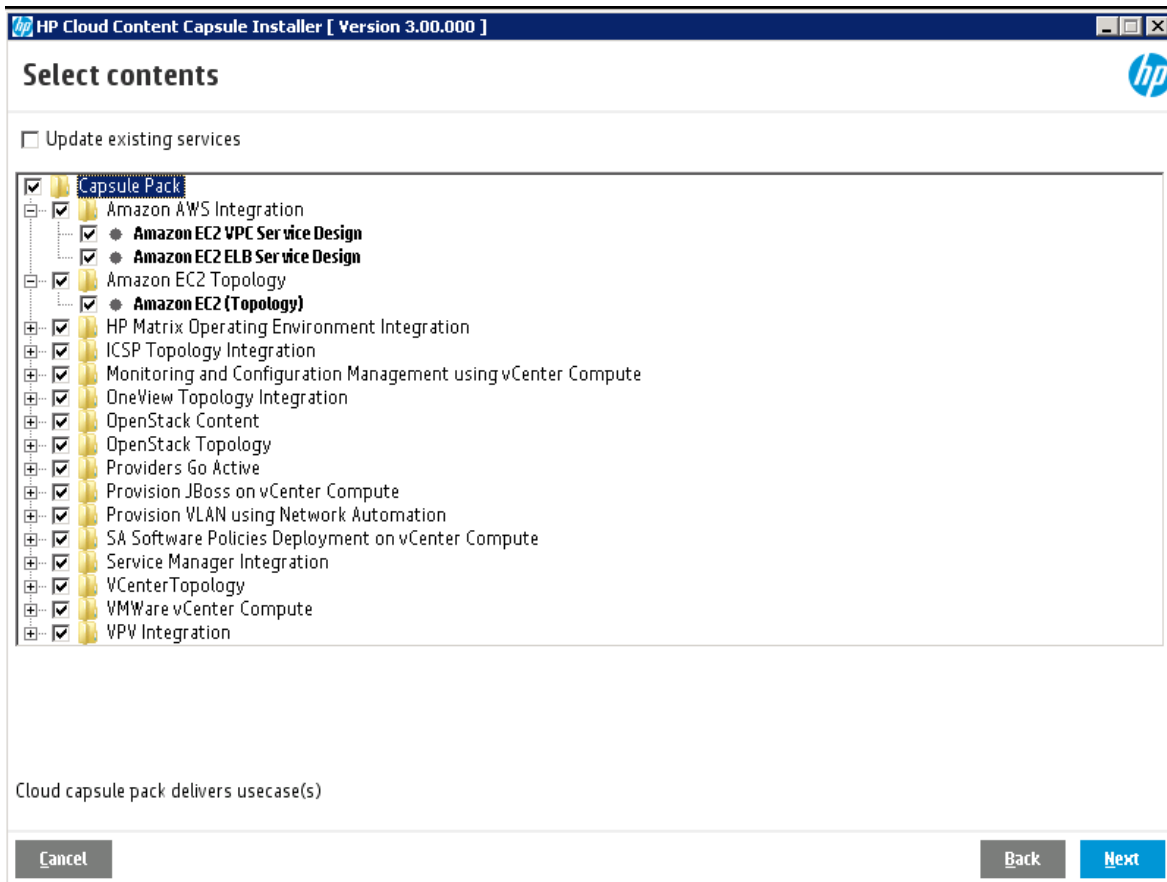
Note: The versions displayed in the Resource details window may vary depending on your environment.

After adding the required instances, click **Next** to continue with the installation.

The **Select contents** window opens.

Selecting contents

You can select contents from the Select contents window. To select and install all the available components at one time, select the **Capsule Pack** check box. This automatically selects all the items.



HP Cloud Content Capsule Installer supports the option to update existing services.

To update services, select the content and check the **Update existing services** check box. If service designs are already deployed on HP CSA, the installer updates the service designs.

In the Silent mode, a tag 'forceImportBlueprints' is defined to enable the force import option of service designs.

Note: The update existing services option is only valid for service designs and not for OO jars.

Click the plus sign (+) next to the content to view the available service designs associated with the selected integration being installed. You can install the service designs required for a particular integration.

Associated integration flow components for HP Operations Orchestration are automatically selected for installation to match the requested service designs.

A short description of the selected content will be displayed at the bottom of the window.

Note: Based on the version of the downloaded content pack, the available content packs displayed on the Select contents screen may be different in your environment.

Installing content

After selecting the content or contents to install, click **Next**.

The HP Cloud Content Capsule Installer then validates the base OO contents defined in the capsule manifest. Installer compares the available OO jars with the base OOTB jars defined in the manifest. If the available base OO jar version is greater than or equal to the required base jars versions defined in the manifest, the installer allows the user to proceed with the content deployment.

If the base OO jar version is less than the required base jars versions defined in the manifest, an error message is displayed. To proceed, the user need to deploy the correct oo jar versions in OO Central and rerun the installer.

After validating the base OO contents, the **Pre-installation Summary** window is displayed.

The Pre-installation summary window provides the details about the selected service design items, basic information regarding the running system, and the HP Operations Orchestration and HP CSA machines designated for installation.

Click **Install** to begin the deployment process. The deployment process includes the following:

- Deploys HP Operations Orchestration flows.
- Manages communication between HP CSA and HP Operations Orchestration using the Process Definition Tool provided by HP CSA.
- Imports the selected and associated service designs into HP CSA.

The **Installing and configuring content pack(s)** window, which shows the progress of the installation appears.

To view the details of the installation, click the **Click to show details** option. The details include the information about the status of the deployment to HP Operations Orchestration and the installation of service designs to HP CSA.

The HP Operations Orchestration flows are deployed as per the selected contents. If you use the silent installation mode, all the contents are deployed to HP Operations Orchestration. After completing the deployment, the installer copies supplemental information about each piece of deployed content into the `propertysources` directory within the HP CSA installation file system. The `propertysources` directory is located in `<CSA_HOME>/<JBOSS_DIR>/standalone/deployments/csa.war/propertysources`.

After the installation is completed, either successfully or with errors, click the **Next** button. The **Post-installation** summary window opens. The user can view the detailed information about the installation in the installation log, which is available in the installer directory.

To complete the installation process, click the **Finish** button on the Post-installation summary window.

To view the details about the installation, check the `CPInstaller.log` file. The `CPInstaller.log` file is available in the same directory where the installer is downloaded.

Subsequent run log gets appended to the end of the `CPInstaller.log` file with a starting timestamp pointer or marker. If the log file size is greater than 1 MB while starting the execution of `CapsuleInstaller.jar`, the existing log file is renamed with the latest timestamp and a new log file is created in the same location. A command line JVM argument can be used to create the log file in any specified location.

For example, `java -DCCC_INSTALL_LOG_DESTINATION=<OTHER_PATH_TO_GENERATE_LOG_FILE> -jar CapsuleInstaller.jar`

HP Codar Support

HP Cloud Content Capsule Installer 3.00 supports HP Codar content deployment.

The following enhancements are done to the installer to support HP Codar:

- User interface displays HP Codar as a product.
- Installer identifies the licenses applied on HP CSA or HP Codar and allows the user to deploy the content based on licenses.

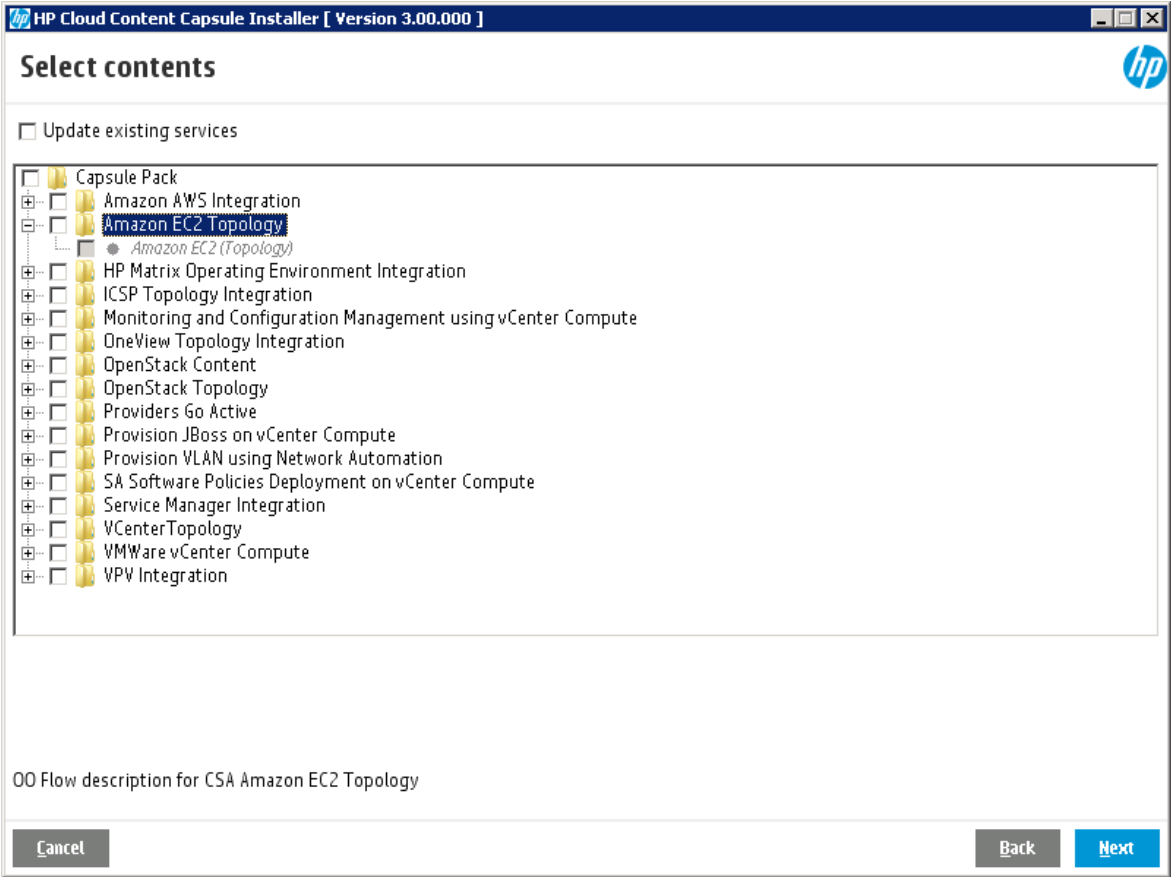
The following table lists the details about license and content deployment:

Base product	Topup license applied	Content type in content pack	Content type expected to deploy
HP CSA	CSA	CSA	CSA
	CSA	Codar	Does not allow to deploy
	CSA	CSA+Codar	CSA
	CSA+Codar	CSA	CSA
	CSA+Codar	Codar	Codar
	CSA+Codar	CSA+Codar	CSA and Codar
HP Codar	Codar	CSA	Does not allow to deploy
	Codar	Codar	Codar
	Codar	CSA+Codar	Codar
	Codar+CSA	Codar+CSA	CSA and Codar
	Codar+CSA	Codar	Codar
	Codar+CSA	CSA	CSA

Based on the license applied (CSA or Codar) and the matrix supported by the content, the content packs, displayed on the Select contents screen, will be available or unavailable to the user. Contents that are unavailable to the user appear dimmed on the Select Content screen. An example shown in the following screen.

For example, if the license applied is only CSA, and the content that you are deploying supports both CSA and Codar, then the Codar content will appear dimmed .

Note: In the silent mode, the HP Cloud Content Capsule Installer considers only HP CSA content for deployment. It ignores HP Codar content.



Launching HP Cloud Content Capsule Installer if Java_Home is not defined

1. By default, the HP Cloud Content Capsule Installer checks and expects the JAVA_HOME and path variable set.
2. JAVA_HOME and path variable can point to an external or internal JRE (OpenJRE of HP CSA).
3. By default, the installer checks the external JRE in the path. If not found the JRE, the installer will point to the internal JRE (CSA_HOME/OPENJRE).
4. If the user is not using the external JRE, user can invoke the HP Cloud Content Capsule Installer by setting the OpenJRE to JAVA_HOME and the path to JAVA_HOME/bin in environment variable.

Appendix A: Generic silent installation mode XML file

```
<?xml version="1.0" encoding="UTF-8"?>
<install>
  <contentpack bundled="false"> <!-- Value "false" will load the capsule pack path
as mentioned in "contentpath" -->
    <contentpath>ABSOLUTE_PATH_TO_CAPSULE_PACK_ZIP_FILE</contentpath>
  </contentpack>
  <installtype oonly="false" forceImportBlueprints="false" /> <!-- Value "false"
will import Service Designs along with the OO contents. Value "true" will deploy
only the OO contents. forceImportBlueprints Value "true" will force import
blueprintst-->
  <machine>
    <csa>
      <host>HOST_IP</host>
      <port>CSA_PORT</port>
      <user>CSA_ADMIN_USER</user>
      <password>CSA_ADMIN_PASSWORD</password>
    </csa>
    <oo>
      <host>HOST_IP</host>
      <port>OO_PORT</port>
      <user>OO_ADMIN_USER</user>
      <password>OO_ADMIN_PASSWORD</password>
    </oo>
  </machine>
  <ooenginefilename>HP_OO_INFO_XML_FILE_NAME</ooenginefilename>
  <dbpropertiesfilename>DB_PROPERTIES_FILE_NAME</dbpropertiesfilename>
</install>
```

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