



# Cisco TEO—Process Automation Guide for Cloud

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### **Preface**

Cisco TEO automation pack files are a collection of Tidal Enterprise Orchestrator (TEO) processes (workflows) authored by subject matter experts that work out-of-the-box to automate best practices for a particular technology. The automation pack files also include configuration objects that are used in the processes, such as variables, categories, target groups and knowledge base articles.

The Cisco TEO automation packs for Cloud provide the content to support Cloud orchestration. This guide provides information on importing and using the following Cloud automation packs that ship with TEO:

Automation Pack Name	Description
Cloud Common	Contains objects shared across all cloud content.
Cloud newScale Service Catalog	Contains all processes and objects required to integrate newScale Service Catalog with cloud content.
Cloud Physical Server Automation	Contains the infrastructure related processes for creating and managing physical machines.
Cloud Virtual Server Automation	Contains the infrastructure related processes for creating and managing virtual machines.
Cloud Service Orchestration	Contains processes for orchestrating fulfillment of cloud service requests.

# **Organization**

This guide includes the following sections:

Chapter 1	Importing Automation Packs	Provides instructions for installing the automation pack during or after the initial installation of TEO.
Chapter 2	Configuring Cloud Environment	Provides instructions for configuring the CloudGovernor database, and importing, deploying and configure newScale Service Catalog.
Chapter 3	Understanding the Automation Pack Content	Provides information on the objects included in the automation packs.
Chapter 4	Getting Started Using the Automation Pack	Provides information on creating the objects for using the content in the automation packs (runtime user, targets, task rules, extended target properties and global variables).
Chapter 5	Managing the Cloud Processes	Provides information on using the processes that ship with the automation pack.
Chapter 6	Using the Cloud Activities	Provides information on defining the activities (atomic processes) that ship with the Cloud Common automation pack.
Appendix A	Cloud Operations	Provides information about tasks you may need to perform on a daily or less frequent basis for efficient cloud operations.

### **Conventions**

This guide uses the following conventions:

Convention	Indication
<b>bold</b> font	Commands and keywords and user-entered text appear in <b>bold</b> font.
italic font	Document titles, new or emphasized terms, and arguments for which you supply values are in <i>italic</i> font.
[ ]	Elements in square brackets are optional.
{x   y   z }	Required alternative keywords are grouped in braces and separated by vertical bars.
[x y z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
courier font	Terminal sessions and information the system displays appear in courier font.
< >	Nonprinting characters such as passwords are in angle brackets.
[ ]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.



Means reader take note.



Tip

Means the following information will help you solve a problem.



Caution

Means *reader be careful*. In this situation, you might perform an action that could result in equipment damage or loss of data.



Timesave

Means the described action saves time. You can save time by performing the action described in the paragraph.



Means *reader be warned*. In this situation, you might perform an action that could result in bodily injury.

### **Product Documentation**

#### **Documentation Formats**

Documentation is provided in the following electronic formats:

- Adobe® Acrobat® PDF files
- Online help

You must have Adobe® Reader® installed to read the PDF files. Adobe Reader installation programs for common operating systems are available for free download from the Adobe Web site at www.adobe.com.

#### **Guides and Release Notes**

You can download the product documentation in PDF format from the product CD.

#### **Online Help**

Online help is available and can be accessed using the following methods:

- Click the **Help** button on any dialog box box in the application to open the help topic in a pane to the right of the dialog box box.
- In the Tidal Enterprise Orchestrator console:
  - Click the Help Pane tool on the toolbar to open the help topic in a pane to the right of the console results pane.
  - Click **Help** on the menu bar.

### **Open Source License Acknowledgements**

Licenses and notices for open source software used in Tidal Enterprise Orchestrator v2.2 can be found in the *Open Source Licensing Acknowledgements* document on the product CD. If you have any questions about the open source contained in this product, please email external-opensource-requests@cisco.com.

### **Obtaining Documentation and Submitting a Service Request**

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

Subscribe to the *What's New in Cisco Product Documentation* as a RSS feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS Version 2.0.



CHAPTER

# **Importing Automation Packs**

The *Tidal Enterprise Orchestrator Installation and Administration Guide* provides instructions for installing Tidal Enterprise Orchestrator (TEO) and the core components. During the initial installation of TEO, you can choose to import the automation packs, or import them later from within the Console.

This chapter guides you through importing the Cloud automation packs. It includes the following sections:

- Prerequisites, page 1-2
- Accessing the Automation Pack Import Wizard, page 1-3
- Importing the Cloud Common.tap, page 1-5
- Importing the Cloud newScale Service Catalog.tap, page 1-10
- Importing the Common Activities.tap, page 1-13
- Importing the Cloud Physical Server Automation.tap, page 1-15
- Importing the Cloud Virtual Server Automation.tap, page 1-17
- Importing the Cloud Orchestration.tap, page 1-20



It is recommended that you review the system requirements and prerequisites for TEO before importing automation packs. See the Tidal Enterprise Orchestrator Installation and Administration Guide.

You must also have your cloud environment installed and configured prior to importing the automation packs. See Prerequisites.

# **Prerequisites**

Prior to importing the Cloud automation packs and configuring the TEO cloud content, it is recommended that you have the following servers installed and configured.

Table 1-1 Cloud Content Prerequisites

Server	Quantity	Description
Tidal Enterprise Orchestrator	1 or more	In a multiple TEO server environment one server will serve as the request manager. The request manager will receive all requests from newScale and route it to the appropriate TEO server for processing. Each newScale request includes the organizational unit (OU) to which the request belongs. The OU is used to determine which TEO server will own the request.
		In a single TEO server environment, the request manager will route the request to itself.
newScale RequestCenter	1	A web-based self-service portal for requesting services.
VMware vCenter (required for virtual provisioning)	1 or more	Each newScale request includes the organizational unit (OU) to which the request belongs. The OU is used to determine which vCenter server will own the virtual server.
Cisco UCS Manager (required for physical provisioning)	1 or more	Each newScale request includes the organizational unit (OU) to which the request belongs. The OU is used to determine which UCS Manager server will own the physical server.
Microsoft SQL Server	1	Used to host the Cloud Governor database. It can be shared with the TEO server database.
Tidal Server Provisioner	1	Used for bare metal provisioning.

# **Accessing the Automation Pack Import Wizard**

You use the Automation Pack Import Wizard to import the automation packs (tap files). You can either open the wizard immediately after installing TEO or from within the Console.

#### **Opening the Import Wizard After Running Setup Wizard**

Step 1 After running the Setup wizard to install the product, ensure that the Launch automation pack import wizard now check box is checked before closing the wizard.

The Select Automation Packs dialog box displays the available automation packs. All automation packs are checked by default.

- Step 2 Ensure that the following check boxes are checked and then click **OK** to launch the Automation Pack Import Wizard:
  - Core (checked by default)
  - Common Activities (dependency)
  - Cloud Common
  - Cloud newScale Service Catalog
  - Cloud Physical Server Automation
  - Cloud Virtual Server Automation
  - Cloud Service Orchestration



Note

See the Tidal Enterprise Orchestrator Installation and Administration Guide for instructions on importing and configuring the Core components for the product.

Proceed to Importing the Cloud Common.tap, page 1-5.

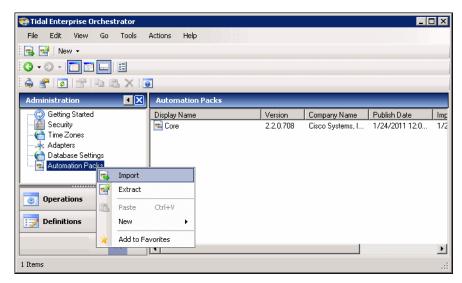
### **Opening the Import Wizard from Console**

You can open the Automation Pack Import Wizard from within the Console after installing the product. When importing automation packs from within the Console, you must re-open the Automation Pack Import Wizard for each automation pack that you are importing.

Because the Cloud automation packs have a dependency on the Common Cloud automation pack, you must import this automation pack first.

**Step 1** In the Administration workspace on the Console, click **Automation Packs** in the navigation pane.





- **Step 2** Use one of the following methods to open the Automation Pack Import Wizard:
  - In the navigation pane, right-click **Automation Packs** and choose **Import**.
  - On the Menu bar, choose **Actions** > **Import**.
- **Step 3** On the Windows Open dialog box, select the **Cloud Common.tap** file and click **Open** to launch the Automation Pack Import Wizard.

Proceed to Importing the Cloud Common.tap, page 1-5.

### Importing the Cloud Common.tap

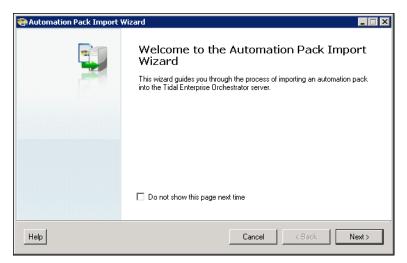
The Cloud Common automation pack imports the content that is shared by all Cisco Cloud automation packs. During the import, the following tasks are performed:

- Creates a web target for the local TEO server
- Extracts the SQL script for creating the Cloud Governor Database
- Configures the TEO task rule for cloud incident default assignments

The Automation Pack Import Wizard guides you through importing the automation packs. If you opened the Automation Pack Import Wizard from the Setup Completed panel, the wizard will guide you through importing each automation pack.

**Step 1** On the Welcome panel, click **Next**.

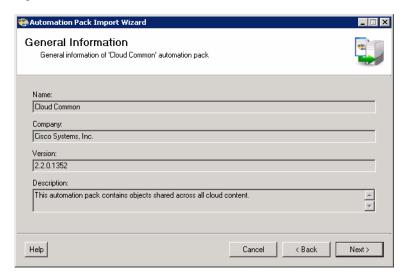
Figure 1-2 Welcome to the Automation Pack Import Wizard





If you do not want to display the Welcome panel the next time the wizard is opened, check the **Do not show this page next time** check box.

Figure 1-3 General Information—Cloud Common



**Step 2** On the General Information panel, review the information about the automation pack.

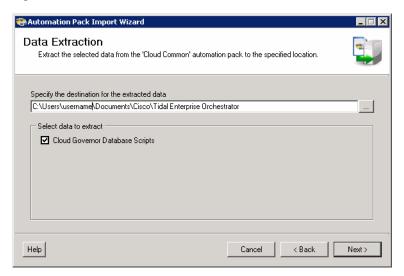


If you launched the Automation Pack Import Wizard from the Console, you can disable all the imported processes during the import process by checking the **Disable all imported processes** check box. If you disable all the imported processes, you will need to manually enable the processes in the Console before they can execute. *See* Enabling a Process, page 5-4.

This check box does not display if you launched the wizard from Setup.

Step 3 Click Next to continue.

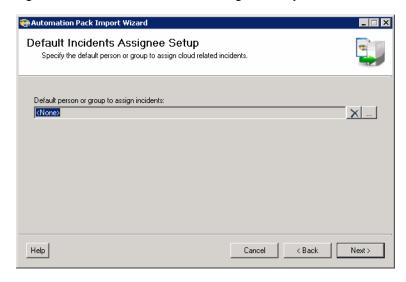
Figure 1-4 Data Extraction—Cloud Common



Use the Data Extraction panel to specify the destination where the Cloud Governor Database Scripts will be extracted. These scripts are used to create the Cloud Governer database.

- **Step 4** On the Data Extraction panel, accept the default location or click the **Browse** tool to specify a new destination.
- **Step 5** In the Select data extract area, verify that the check box is checked for the data to be extracted.
- Step 6 Click Next.

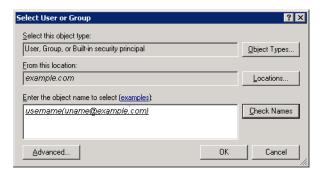
Figure 1-5 Default Incidents Assignee Setup—Cloud Common



Use the Default Incidents Assignee Setup panel to specify the default person who should be assigned Cloud-related incidents.

Step 7 Click the Browse tool to specify the user.

Figure 1-6 Select User or Group



- **Step 8** On the Select User or Group dialog box, click **Location** and choose the location from which the user will be selected.
- Step 9 In the text box, enter the user name and click Check Names.If the name is found, the box will be populated with the appropriate email address.
- **Step 10** Click **OK** to close the Select User or Group dialog box.
- Step 11 On the Default Incidents Assignee Setup panel, click Next.

Tidal Enterprise Orchestrator Web Service Configure Tidal Enterprise Orchestrator Web Service Web Service Settings ☐ Enable secure Web Service (HTTPS) HTTPS port: 61526 HTTPS authentication mechanism: T ▼ Enable non-secure Web Service (HTTP) HTTP port: 61527 ÷ HTTP authentication mechanism: Basic • Help < Back Cancel Next>

Figure 1-7 Tidal Enteprise Orchestrator Web Service—Cloud Common

**Step 12** Check the check box for the type of web service that will be used to connect to the TEO web service target:

Field	Description
Enable secure Web Service (HTTPS)	Check this check box to configure the authentication for the HTTP endpoints and then specify the port and authentication mechanism.
Enable non-secure Web Service (HTTP)	Check this check box to unencrypt the HTTP endpoints and then specify the port and authentication mechanism.
	Note For Cloud content, non-secure Web Service (HTTP) and Basic authentication is required.
HTTPS or HTTP Port	Enter or verify the port for the TEO web target.
HTTPS or HTTP authentication mechanism	Choose the appropriate authentication for the web service:
	Basic—Standard method for providing a user name and password to the authentication mechanism
	• Digest—Requires parties that seek to authenticate to provide their knowledge of secret keys.
	Ntlm—Authentication protocol used on networks that include systems running the Windows operating system and on stand-alone systems.

Step 13 Click Next.

Automation Pack Import Wizard

Default Web Service Credentials
Specify default credentials for Tidal Enterprise Orchestrator Web Service

Specify the runtime user information for your connection to Tidal Enterprise Orchestrator Web Service:

Domain:

Domain

User name:
username

Password:

Figure 1-8 Default Web Service Credentials—Cloud Common

**Step 14** Use this panel to specify the credentials for connecting to the TEO web service target:

Cancel

Field	Description
Domain	Enter the domain name assigned to the user account that is used to connect to the TEO web service target.
User name	Enter the user name for the user account that is used to connect to the TEO web service target.
Password	Enter the user account password for the user account that is used to connect to the TEO web service target.

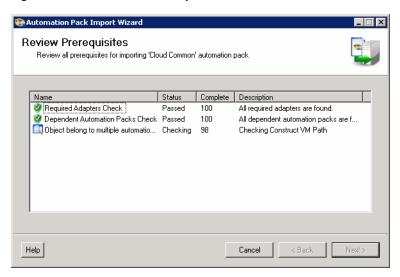
< Back

Next>

#### Step 15 Click Next.

Help

Figure 1-9 Review Prerequisites—Cloud Common



The Review Prerequisites panel displays the prerequisites for the automation pack being imported. The green check mark indicates that the prerequisite was found on the computer.

The red X indicates that the prerequisite was not found on the computer. When this occurs, the import process is stopped and cannot continue until all prerequisites have been met.

If all prerequisites are passed, the wizard automatically continues to the next panel.



If you opened the Automation Pack Import Wizard from the Setup Completed panel, the wizard displays the General Information panel (Figure 1-11 on page 1-11) for the next automation pack.

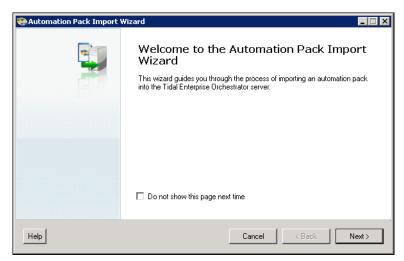
**Step 16** After the objects have been imported, review the information on the Completing the Automation Pack Import Wizard panel to verify that it is correct and then click **Close** to close the wizard.

# Importing the Cloud newScale Service Catalog.tap

If you are importing the automation packs from within the Console, you must re-open the Automation Pack Import Wizard to import the Cloud newScale Service Catalog automation pack.

- **Step 1** Use one of the following methods to open the Import Automation Pack Wizard:
  - In the navigation pane, right-click **Automation Packs** and choose **Import**.
  - On the Menu bar, choose **Actions > Import**.
- Step 2 On the Windows Open dialog box, select the Cloud newScale Service Catalog.tap file and click Open to launch the Automation Pack Import Wizard.

Figure 1-10 Welcome to the Automation Pack Import Wizard

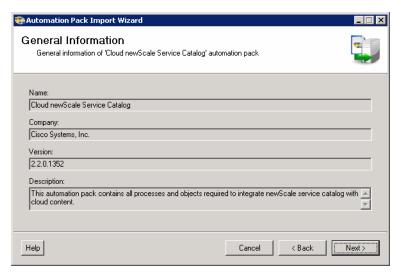




If you do not want to display the Welcome panel the next time the wizard is opened, check the **Do not show this page next time** check box.

**Step 3** On the Welcome panel, click **Next**.

Figure 1-11 General Information—Cloud newScale Service Catalog



**Step 4** On the General Information panel, review the information about the automation pack.

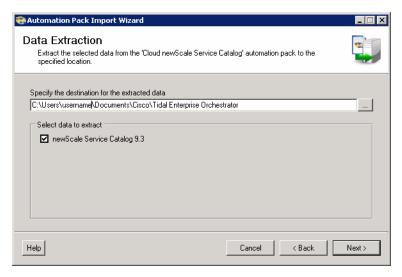


If you launched the Automation Pack Import Wizard from the Console, you can disable all the imported processes during the import process by checking the **Disable all imported processes** check box. If you disable all the imported processes, you will need to manually enable the processes in the Console before they can execute. *See* Enabling a Process, page 5-4.

This check box does not display if you launched the wizard from Setup.

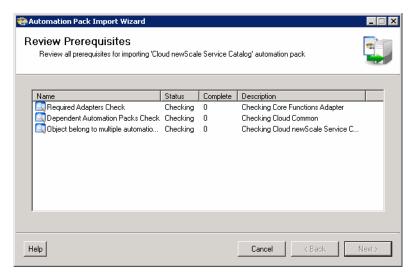
Step 5 Click Next to continue.

Figure 1-12 Data Extraction—Cloud newScale Service Catalog



Use the Data Extraction panel to specify the destination where the newScale Service Catalog will be extracted.

Figure 1-13 Review Prerequisites—Cloud newScale Service Catalog



The Review Prerequisites panel displays the prerequisites for the automation pack being imported. The green check mark indicates that the prerequisite was found on the computer.

The red X indicates that the prerequisite was not found on the computer. When this occurs, the import process is stopped and cannot continue until all prerequisites have been met.

If all prerequisites are passed, the wizard automatically continues to the next panel.



If you opened the Automation Pack Import Wizard from the Setup Completed panel, the wizard displays the General Information panel (Figure 1-15 on page 1-14) for the next automation pack.

**Step 6** After the objects have been imported, review the information on the Completing the Automation Pack Import Wizard panel to verify that it is correct and then click **Close** to close the wizard.

### **Importing the Common Activities.tap**

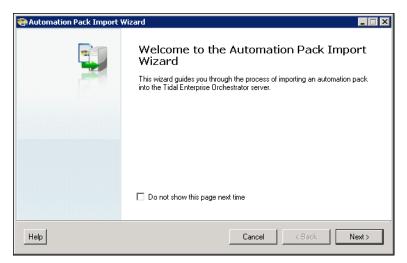
If you are importing the automation packs from within the Console, you must re-open the Automation Pack Import Wizard to import the Common Activities automation pack.



This automation pack must be installed prior to installing the Cloud Physical Server Automation automation pack.

- **Step 1** Use one of the following methods to open the Import Automation Pack Wizard:
  - In the navigation pane, right-click Automation Packs and choose Import.
  - On the Menu bar, choose **Actions** > **Import**.
- Step 2 On the Windows Open dialog box, select the Common Activities.tap file and click Open to launch the Automation Pack Import Wizard.

Figure 1-14 Welcome to the Automation Pack Import Wizard

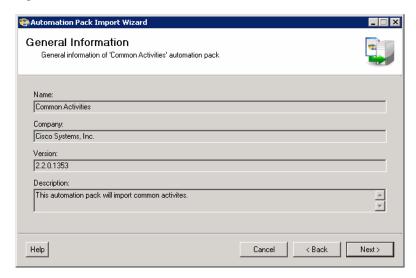




If you do not want to display the Welcome panel the next time the wizard is opened, check the **Do not show this page next time** check box.

**Step 3** On the Welcome panel, click **Next**.

Figure 1-15 General Information—Common Activities



**Step 4** On the General Information panel, review the information about the automation pack.

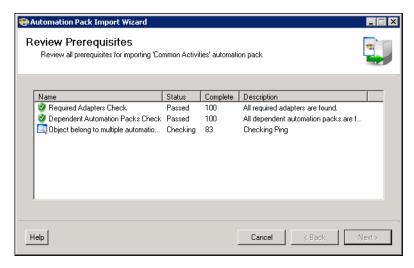


If you launched the Automation Pack Import Wizard from the Console, you can disable all the imported processes during the import process by checking the **Disable all imported processes** check box. If you disable all the imported processes, you will need to manually enable the processes in the Console before they can execute. *See* Enabling a Process, page 5-4.

This check box does not display if you launched the wizard from Setup.

Step 5 Click Next to continue.

Figure 1-16 Review Prerequisites - Common Activities



The Review Prerequisites panel displays the prerequisites for the automation pack being imported. The green check mark indicates that the prerequisite was found on the computer.

The red X indicates that the prerequisite was not found on the computer. When this occurs, the import process is stopped and cannot continue until all prerequisites have been met.

If all prerequisites are passed, the wizard automatically continues to the next panel.



If you opened the Automation Pack Import Wizard from the Setup Completed panel, the wizard displays the General Information panel (Figure 1-18 on page 1-16) for the Microsoft Windows Server automation pack.

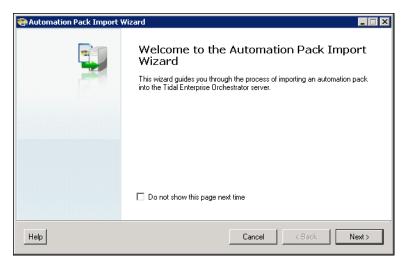
Step 6 After the objects have been imported, review the information on the Completing the Automation Pack Import Wizard panel to verify that it is correct and then click Close to close the wizard.

# Importing the Cloud Physical Server Automation.tap

If you are importing the automation packs from within the Console, you must re-open the Automation Pack Import Wizard to import the Cloud Physical Server Automation automation pack.

- **Step 1** Use one of the following methods to open the Import Automation Pack Wizard:
  - In the navigation pane, right-click Automation Packs and choose Import.
  - On the Menu bar, choose **Actions** > **Import**.
- Step 2 On the Windows Open dialog box, select the Cloud Physical Server Automation.tap file and click Open to launch the Automation Pack Import Wizard.

Figure 1-17 Welcome to the Automation Pack Import Wizard



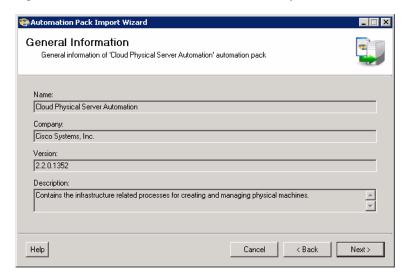


Note

If you do not want to display the Welcome panel the next time the wizard is opened, check the **Do not show this page next time** check box.

**Step 3** On the Welcome panel, click **Next**.

Figure 1-18 General Information — Cloud Physical Server Automation



**Step 4** On the General Information panel, review the information about the automation pack.

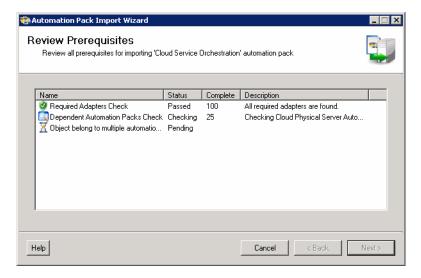


If you launched the Automation Pack Import Wizard from the Console, you can disable all the imported processes during the import process by checking the **Disable all imported processes** check box. If you disable all the imported processes, you will need to manually enable the processes in the Console before they can execute. *See* Enabling a Process, page 5-4.

This check box does not display if you launched the wizard from Setup.

**Step 5** Click **Next** to continue.

Figure 1-19 Review Prerequisites — Cloud Physical Server Automation



The Review Prerequisites panel displays the prerequisites for the automation pack being imported. The green check mark indicates that the prerequisite was found on the computer.

The red X indicates that the prerequisite was not found on the computer. When this occurs, the import process is stopped and cannot continue until all prerequisites have been met.

If all prerequisites are passed, the wizard automatically continues to the next panel.

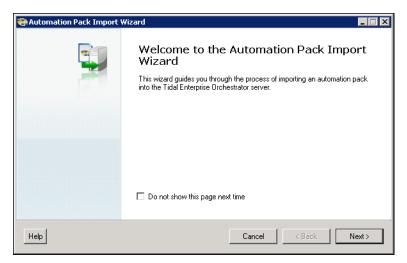
Step 6 After the objects have been imported, review the information on the Completing the Automation Pack Import Wizard panel to verify that it is correct and then click **Close** to close the wizard.

### Importing the Cloud Virtual Server Automation.tap

If you are importing the automation packs from within the Console, you must re-open the Automation Pack Import Wizard to import the Cloud Virtual Server Automation automation pack.

- Step 1 Use one of the following methods to open the Import Automation Pack Wizard:
  - In the navigation pane, right-click Automation Packs and choose Import.
  - On the Menu bar, choose **Actions > Import**.
- Step 2 On the Windows Open dialog box, select the Cloud Virtual Server Automation.tap file and click Open to launch the Automation Pack Import Wizard.

Figure 1-20 Welcome to the Automation Pack Import Wizard

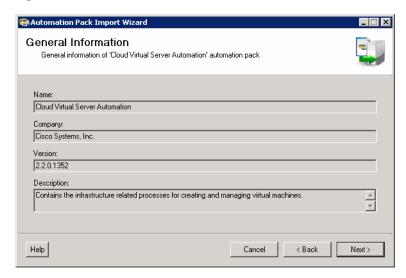




If you do not want to display the Welcome panel the next time the wizard is opened, check the **Do not show this page next time** check box.

Step 3 On the Welcome panel, click Next.

Figure 1-21 General Information — Cloud Virtual Server Automation



**Step 4** On the General Information panel, review the information about the automation pack.

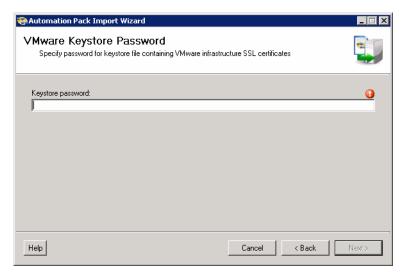


If you launched the Automation Pack Import Wizard from the Console, you can disable all the imported processes during the import process by checking the **Disable all imported processes** check box. If you disable all the imported processes, you will need to manually enable the processes in the Console before they can execute. *See* Enabling a Process, page 5-4.

This check box does not display if you launched the wizard from Setup.

**Step 5** Click **Next** to continue.

Figure 1-22 VMware Keystore Password—Cloud Virtual Server Automation



**Step 6** Enter a password to be used to access the VMware keystore and then click **Next**.

Review Prerequisites
Review all prerequisites for importing 'Cloud Virtual Server Automation' automation p

Name
Status Complete Description
Required Adapters Check Pending
Dependent Automation Packs Check Pending
Object belong to multiple automatio... Pending
Help

Cancel CBack Next>

Figure 1-23 Review Prerequisites—Cloud Virtual Server Automation

The Review Prerequisites panel displays the prerequisites for the automation pack being imported. The green check mark indicates that the prerequisite was found on the computer.

The red X indicates that the prerequisite was not found on the computer. When this occurs, the import process is stopped and cannot continue until all prerequisites have been met.

If all prerequisites are passed, the wizard automatically continues to the next panel.

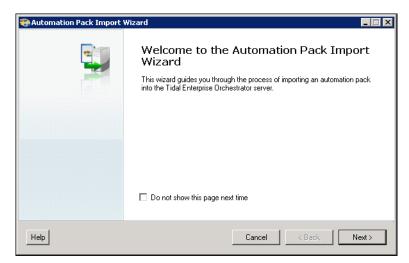
Step 7 After the objects have been imported, review the information on the Completing the Automation Pack Import Wizard panel to verify that it is correct and then click **Close** to close the wizard.

# **Importing the Cloud Orchestration.tap**

If you are importing the automation packs from within the Console, you must re-open the Automation Pack Import Wizard to import the Cloud Orchestration automation pack.

- **Step 1** Use one of the following methods to open the Import Automation Pack Wizard:
  - In the navigation pane, right-click **Automation Packs** and choose **Import**.
  - On the Menu bar, choose **Actions** > **Import**.
- **Step 2** On the Windows Open dialog box, select the **Cloud Orchestration.tap** file and click **Open** to launch the Automation Pack Import Wizard.

Figure 1-24 Welcome to the Automation Pack Import Wizard

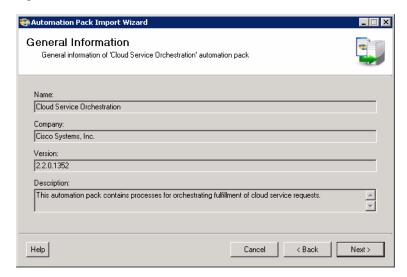




If you do not want to display the Welcome panel the next time the wizard is opened, check the **Do not show this page next time** check box.

Step 3 On the Welcome panel, click Next.

Figure 1-25 General Information—Cloud Orchestration



**Step 4** On the General Information panel, review the information about the automation pack.

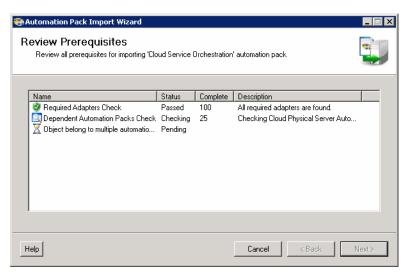


If you launched the Automation Pack Import Wizard from the Console, you can disable all the imported processes during the import process by checking the **Disable all imported processes** check box. If you disable all the imported processes, you will need to manually enable the processes in the Console before they can execute. *See* Enabling a Process, page 5-4.

This check box does not display if you launched the wizard from Setup.

#### **Step 5** Click **Next** to continue.

Figure 1-26 Review Prerequisites—Cloud Orchestration

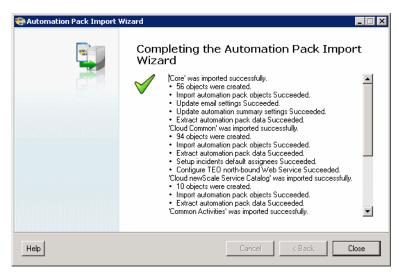


The Review Prerequisites panel displays the prerequisites for the automation pack being imported. The green check mark indicates that the prerequisite was found on the computer.

The red X indicates that the prerequisite was not found on the computer. When this occurs, the import process is stopped and cannot continue until all prerequisites have been met.

If all prerequisites are passed, the wizard automatically continues to the next panel.

Figure 1-27 Completing the Automation Pack Import Wizard



Step 6 After the objects have been imported, review the information on the Completing the Automation Pack Import Wizard panel to verify that it is correct and then click Close to close the wizard.

### **Refreshing Web Service**

After importing the automation packs, you must refresh the TEO Web Service.

**Step 1** In the TEO Console, click **File > Server Properties** to open the Server Properties dialog box.

Figure 1-28 Server Properties Dialog Box-Web Service Tab



- Step 2 Click the Web Service tab and then click Refresh Web Service.
- **Step 3** Click **OK** to close the dialog box.



You must now configure your cloud environment, including creating the Cloud Governor Database and importing the newScale Service Catalog. Proceed to Chapter 2, "Configuring Cloud Environment."

Importing the Cloud Orchestration.tap



CHAPTER 2

# **Configuring Cloud Environment**

After importing the automation packs, you must create and configure the Cloud Governor Database, and import and deploy the newScale Service Catalog.

The Cloud Governor Database is used to manage the resources in the cloud and how they are used by organizations. When you import the Cloud Common automation pack, the script files necessary for creating the database are extracted to the TEO server.

You must also configure newScale Service Catalog to communicate with TEO. This includes importing the newScale XML files that are extracted during the automation pack import process and deploying in newScale Service Catalog.

This chapter guides you configuring your cloud environment to communicate with TEO. It includes the following sections:

- Creating Cloud Governor Database, page 2-2
- Configuring newScale Service Catalog, page 2-3
- Initializing Your Cloud Environment, page 2-10
- Initiating Service Requests, page 2-12

## **Creating Cloud Governor Database**

This section guides you through creating the Cloud Governor Database. It is recommended that you create the Cloud Governor Database on the same SQL server that hosts the TEO databases.

**Step 1** Navigate to the folder on the TEO server where the Cloud Governor Database script files were extracted. The default location is:

C:\Users\username\Documents\Cisco\Tidal Enterprise Orchestrator\Extracted Data\Cloud Governor Database Scripts

- Step 2 Right-click the CloudGovernor-CreateDB file and choose Open With > Notepad.
- **Step 3** Select all the contents of the file (Ctrl+A), right-click and choose **Copy**.
- Step 4 In Microsoft SQL Server Management Studio, click New Query.
- **Step 5** On the query canvas, right-click and choose **Paste**.



By default, the database files are created in the following location:

C:\Program Files\Microsoft SQL Server\MSSQL10\_50.MSSQLSERVER\MSSQL\DATA

If the path to your database and files is different, modify the default path and file size for the data file and log files to prevent the script from failing.

**Step 6** Click **Execute** on the toolbar to create the CloudGovernor database.

# **Configuring newScale Service Catalog**

You must configure newScale Service Catalog to communicate with TEO. This includes importing and deploying the newScale Service Catalog files that ship with the Cloud newScale Service Catalog automation pack, and then configuring the URL in the agent outbound parameter.

### **Copying Extracted Files**

During the automation pack import process, the following files are extracted to the local drive that was specified in the Data Extraction panel. You can copy these files to your local drive on the server where newScale Service Catalog resides or browse to them from within newScale Service Catalog.

**Step 1** Navigate to the location where the files were extracted during the automation pack import process. By default, the files are copied to the following location on the TEO server:

C:\Users\[username]\Documents\Cisco\Tidal Enterprise Orchestrator\Extracted Data\newScale Service Catalog

- **Step 2** Copy the the following files to a folder on the local drive where newScale is installed:
  - TCO-Foundation.xml
  - TCO-Services-Part1.xml
  - TCO-Services-Part2.xml

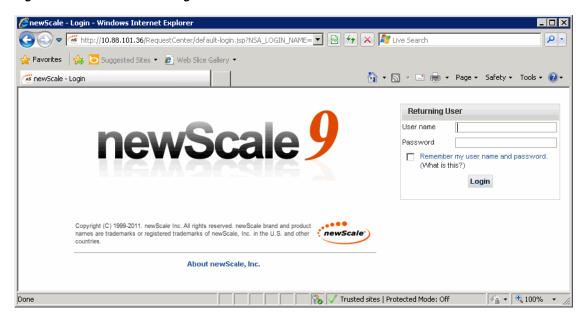
Optionally, you can browse to the newScale server from the TEO server and select the files.

## **Importing Files in newScale Service Catalog**

Perform the following procedure to import and deploy the files in newScale.

**Step 1** Open newScale in your browser (Internet Explorer).

Figure 2-1 newScale Login



**Step 2** In the Returning User login pane, enter your User name and Password in the text fields and then click Login.



**Note** You must log in to newScale as an Administrator.

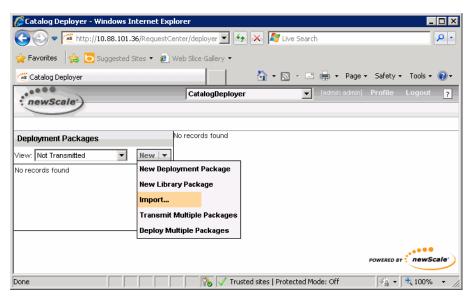
Step 3 On the newScale Home page, select CatalogDeployer in the module drop-down list.

PinewScale RequestCenter: MyServices Home Page - Windows Internet Explorer ρ. 🛖 Favorites 🛘 🚖 🔼 Suggested Sites 🔻 💋 Web Slice Gallery 🔻 🚹 🕶 🔝 🕝 🚔 🕶 Page 🕶 Safety 🕶 Tools 🕶 🕡 🖜 inewScale RequestCenter; MyServices Home Page **MyServices** newScale Service Portal Requisitions Copy Re My Workspace System Home ? MyServices ServiceManager **Common Tasks** Search for Serv OrganizationDesigner Order on Rehalf PortalDesigner Search Search for ServiceDesigner Authorizations [ (Title an ServiceltemManag Administration My Authorizations CatalogDeplove ServiceLink Due On For Моге... Requisitions 7 Trusted sites | Protected Mode: Off Done

Figure 2-2 Opening the CatalogDeployer Module

**Step 4** On the CatalogDeployer screen, click **New** and choose **Import** from the drop-down list.





- **Step 5** On the Import Package from File dialog box, click **Browse** and navigate to the folder where you saved the files that were extracted from the automation pack.
- Step 6 Select the TCO-Foundation.xml file and click Import.
- Step 7 On the Package Import dialog box, when the message *Package Imported Successfully* displays, click **OK**. The Deployment Packages screen displays the package that was imported.

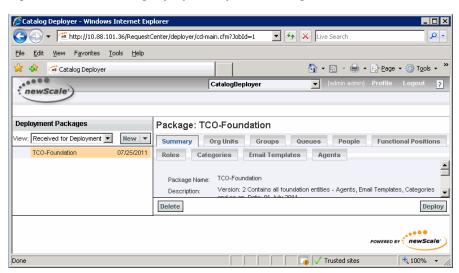


Figure 2-4 CatalogDeployer—Imported Package

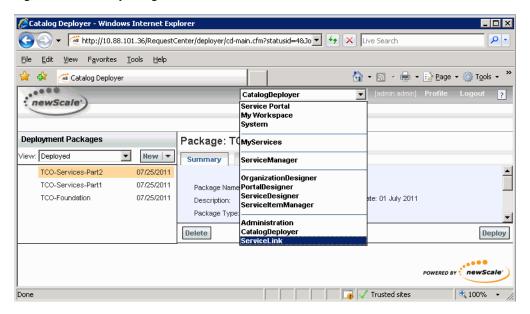
- **Step 8** Click **Deploy** to deploy the package.
- Step 9 On the Confirm Deploy dialog box, click Deploy Now.
- **Step 10** When the message *Package Deployed Successfully* displays on the Deploy Package dialog box, click **OK**.
- Step 11 Repeat Step 4 through Step 10 to import and deploy the TCO-Services-Part1.xml file.
- Step 12 Repeat Step 4 through Step 10 to import and deploy the TCO-Services-Part2.xml file.

#### **Configuring newScale Agent Outbound Parameters**

You must now configure the newScale agent outbound parameters to communicate with the TEO server. Perform the following procedure to configure the agent.

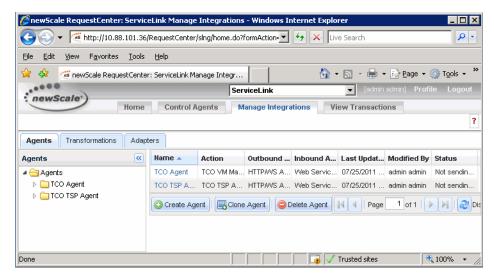
- **Step 1** Open newScale in your browser and login to the application.
- **Step 2** On the newScale Home page, select **ServiceLink** in the module drop-down list.

Figure 2-5 Opening the ServiceLink Module



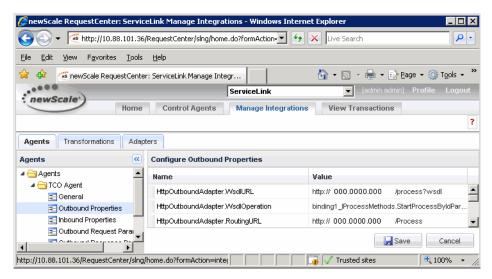
Step 3 On the ServiceLink screen, click the Manage Integrations tab.

Figure 2-6 ServiceLink—Manage Integrations



Step 4 On the Agents tab, expand the **Agents > TCO Agent** folders in the navigation pane and click **Outbound Properties**.

Figure 2-7 Agents—Configure Outbound Properties



**Step 5** In the Configure Outbound Properties pane, modify the Value for each of the following properties:

Property Name	Value
HTTPOutboundAdapter.WsdlURL	http://[domain_name]:61527/process?wsdl
	Where: [domain_name] is the domain name of the TEO server.
HTTPOutboundAdapter.RoutingURL	http://[domain_name]:61527/Process
	Where: [domain_name] is the domain name or IP address of the TEO server.
HTTPOutboundAdapter.UserName	UserName
	Where: [UserName] is the user name used to connect to the TEO server.
HTTPOutboundAdapter.Password	Password
	Where: [Password] is the password used to connect to the TEO server.
HTTPOutboundAdapter.Host	Host
	Where: [Host] is the host name of the TEO server.
HTTPOutboundAdapter.Domain	Domain
	Where: [Domain] is the domain name or IP address of the TEO server.

- Step 6 Click Save.
- Step 7 On the Agents tab, expand the **Agents > TCO TSP Agent** folders in the navigation pane and click **Outbound Properties**.

**Step 8** In the Configure Outbound Properties pane, modify the Value for each of the following properties:

Property Name	Value
HTTPOutboundAdapter.WsdlURL	http://[domain_name]:61527/process?wsdl
	Where: [domain_name] is the domain name of the TEO server.
HTTPOutboundAdapter.RoutingURL	http://[domain_name]:61527/Process
	Where: [domain_name] is the domain name or IP address of the TEO server.
HTTPOutboundAdapter.UserName	UserName
	Where: [UserName] is the user name used to connect to the TEO server.
HTTPOutboundAdapter.Password	Password
	Where: [Password] is the password used to connect to the TEO server.
HTTPOutboundAdapter.Host	Host
	Where: [Host] is the host name of the TEO server.
HTTPOutboundAdapter.Domain	Domain
	Where: [Domain] is the domain name or IP address of the TEO server.

- Step 9 Click Save.
- **Step 10** Click the **Control Agents** tab to restart the agents.
- Step 11 Select TCO Agent and TCO TSP Agent in the list and then click Start Selected to complete the procedure.

## **Initializing Your Cloud Environment**

Before you can begin using your cloud environment you must first initialize the environment with data. This section provides information on the tasks that must be performed to initialize the environment.



For additional information on each task, see Appendix A, "Cloud Operations."

#### **Defining Organizations**

The organizations in your cloud environment must be defined in newScale and pushed to the Cloud Governor prior to using the processes to request a service. Organizations can represent departments, business units, locations or groups. The cloud resources will be allocated and assigned based on organizations so these must be planned very carefully.

Perform the following tasks to define your organizations:

- In newScale, choose **OrganizationDesigner** from the module drop-down list, and then click **Create Organizational Unit** to create one or more organizations.
- After you have created the organization(s), click the **Home** tab on the OrganizationDesigner workspace, and then click **Create Person** to add the user names for the people who have permission to enter a service request.
- Push the new organization to the Cloud Governor using the "Organization Onboard" process. In TEO, navigate to the Processes view, filter by the **Cloud Governor Operations** category, and then run the "Organization Onboard" process.



You must have a Cloud Governor Database target defined prior to running any processes. *See* Creating Cloud Governor Database Target, page 4-17 for information on creating targets.

## **Allocating IP Address Pools**

You must allocate one or more public and management IP address pools for each defined organization.

In TEO, navigate to the Processes view, filter by the **Cloud Governor Operations** category, and then run the following processes:

- IP Address Pool Allocate Public
- IP Address Pool Allocate Management

### **Defining VMware Templates**

Before you can create virtual servers, you must define one or more VMware templates to be used for cloning new virtual servers. The templates need to be pre-built and configured within VMware vCenter.

- In newScale, use the Manage Standards option in Service Item Manager to add the template to newScale. Add one of the following templates to the standards table depending on the type of template to be used:
  - TCO VM Application Server
  - TCO VM DB Server
  - TCO VM Web Server
- In TEO, navigate to the Processes view, filter by the **Cloud Governor Operations** category, and then run the "VM Template Add" to add the template to Cloud Governor.

#### **Defining TSP Templates**

Before you can bare metal provision servers, you must define one or more Tidal Server Provisioner (TSP) templates in Cloud Governor.

In TEO, navigate to the Processes view, filter by the **Cloud Governor Operations** category, and then run the "TSP Template – Add" to add the template to Cloud Governor.

#### **Defining Cisco UCS Blades**

You must identify one or more Cisco UCS blades to be used for physical server provisioning.

In TEO, navigate to the Processes view, filter by the **Cloud Governor Operations** category, and then run the "Physical Server – Add" to add the physical server to Cloud Governor as available for use.

#### **Using the Cloud Governor Report**

You can execute the Cloud Governor Report process in the Cloud Governor Operations category to review cloud governor configuration or to locate values required as input to cloud governor processes. The cloud governor report is also schedule to be created daily at 6:00 am.

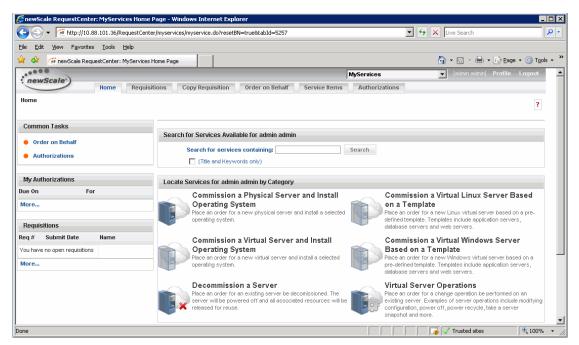
## **Initiating Service Requests**

Once the cloud environment is initialized, users can begin submitting requests for new services, such as virtual and physical servers. This section guides you through submitting a service request and viewing the status of the request.

#### **Submitting a Service Request**

- Step 1 In newScale, choose MyServices from the module drop-down list.
- **Step 2** On the MyServices Home page, click the category for the service you want to order.





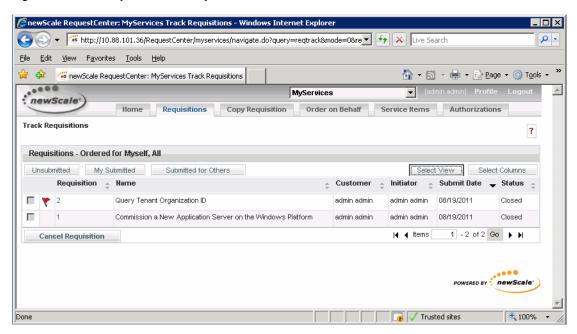
- Step 3 Select the service to review an overview of the service, and then click **Proceed to Order**.
- **Step 4** Complete the order form and then click **Submit Order**.

### **Viewing Service Request Status**

You can view the status of your request or view past requests using the Requisitions page.

- **Step 1** In newScale, choose **MyServices** from the module drop-down list.
- **Step 2** On the MyServices Home page, click the **Requisitions** tab.

Figure 2-9 MyServices—Requisitions Tab



- **Step 3** Click **Select View** to open the dialog box.
- **Step 4** From the Select Status drop-down list, choose **All** to view all requests and then click **OK**.
- **Step 5** Click the **Requisition ID** to view details about the request.

Initiating Service Requests



CHAPTER 3

# **Understanding the Automation Pack Content**

The Cloud automation packs include the content used to automate tasks for the cloud orchestration framework. This chapter provides information about the content included in the Cloud automation packs. It contains the following sections:

- Accessing Automation Pack Properties, page 3-2
- Viewing Automation Pack Content and Dependencies, page 3-3
- Cloud Common TAP Content, page 3-7
- Cloud newScale Service Catalog TAP Content, page 3-13
- Cloud Physical Server Automation TAP Content, page 3-14
- Cloud Virtual Server Automation TAP Content, page 3-15
- Cloud Service Orchestration TAP Content, page 3-16

## **Accessing Automation Pack Properties**

Users can access the automation pack properties from the Administration—Automation Packs view in the console. The automation pack properties dialog box displays general information about the content provided by the automation pack, version number, publish date, list of content (objects) provided, the dependencies of the automation pack, and the history of changes made to the automation pack.

**Step 1** On the Administration workspace, click **Automation Packs** in the navigation pane to display the installed automation packs in the Automation Packs pane.

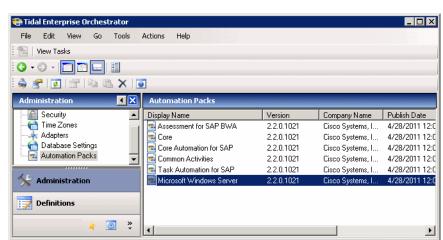


Figure 3-1 Accessing Automation Packs

Information about the automation packs display in the following columns:

Column	Description
Company Name	Name of the company that released the automation pack.
Publish Date	Date the automation pack was created or exported to a file.
Version	Version number of the automation pack.
Display Name	Name of the automation pack.
ID	Identification number of the automation pack.
Import Date	Date the automation pack was imported into the product.
Licensed	Indicates whether the automation is a licensed product in TEO.
Description	Text description of the automation pack.

**Step 2** Select the automation pack in the Automation Packs pane, right-click and choose **Properties**.

6 Items

**Step 3** On the Properties dialog box, select the appropriate tab to view the automation pack properties:

Tab	Description
General	Displays general information about the automation pack.
Objects	Display a list of objects contained in the automation pack.
Dependencies	Display a list of automation packs and adapters referenced by the objects in the automation pack.
History	Displays when the automation pack was created or modified, and audit log entries that are relevant to the automation pack.

**Step 4** Click **Close** to close the dialog box.

# **Viewing Automation Pack Content and Dependencies**

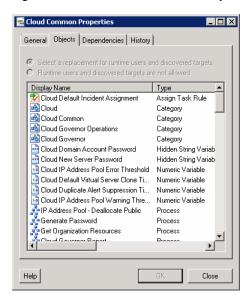
Use the automation pack Properties dialog box to view the content (objects) included in the automation pack and the dependencies associated with the automation pack.

### **Viewing Automation Pack Content**

Use the Objects tab to view a list of the content provided by the automation pack.

- Step 1 On the Administration—Automation Packs view, select [Automation Pack Name], right-click and choose Properties.
- **Step 2** On the Automation Pack Properties dialog box, click the **Objects** tab.

Figure 3-2 Cloud Common Properties — Objects Tab



**Step 3** On the Objects tab, review the information about the objects provided by the automation pack.

Columns	Description
Display Name	Name of the object (processes, global variables, knowledge base).
Type	Object type.
Action Required	Action required to successfully import or export the objects.
Description	Text description of the object.
Version	Object version.
Customization Setting	Non-default value set to the object. If the column is blank, the object has the default setting.

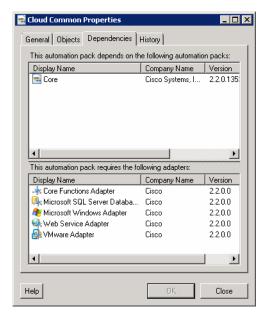
**Step 4** Click **Close** to close the dialog box.

## **Viewing Automation Pack Dependencies**

Use the Dependencies tab to view the automation packs and adapters referenced by the objects in the automation pack. These object must be installed prior to importing the automation pack.

- Step 1 On the Administration—Automation Packs view, select [Automation Pack Name], right-click and choose Properties.
- **Step 2** On the Automation Pack Properties dialog box, click the **Dependencies** tab.

Figure 3-3 Cloud Common Properties — Dependencies Tab



**Step 3** Review the list of automation packs and adapters referenced by the Cloud Common automation pack:

Object Type	Dependency
Automation Packs	• Core
Adapters	Core Functions Adapter
	Microsoft Windows Server Database Adapter
	Microsoft Windows Server Adapter
	Web Service Adapter
	VMware Adapter

**Step 4** Click **Close** to close the dialog box.

#### **Cloud Automation Pack Dependencies**

The following table provides a lit of the dependent automation packs and adapters required for each Cloud automation pack.

Cloud Automation Pack	Dependent Automation Packs	Required Adapters
Cloud Common	• Core	Core Functions Adapter
		Microsoft Windows Server Database Adapter
		Microsoft Windows Server Adapter
		Web Service Adapter
		VMware Adapter
Cloud newScale Service Catalog	Cloud Common	Core Functions Adapter
		Microsoft SQL Server Database Adapter
		Web Service Adapter
Cloud Physical Server	Common Activities	Core Functions Adapter
Automation	Cloud Common	Cisco UCS Software Adapter
		Microsoft SQL Server Database Adapter
		Microsoft Windows Adapter
		Tidal Server Provisioner Adapter

Cloud Automation Pack	Dependent Automation Packs	Required Adapters
Cloud Virtual Server Automation	Cloud Common	<ul> <li>Core Functions Adapter</li> <li>VMware Adapter</li> <li>Microsoft SQL Server Database Adapter</li> <li>Microsoft Windows Adapter</li> <li>Tidal Server Provisioner Adapter</li> </ul>
Cloud Service Orchestration	<ul> <li>Cloud Virtual Server Automation</li> <li>Cloud Common</li> <li>Cloud Physical Server Automation</li> </ul>	<ul> <li>Core Functions Adapter</li> <li>VMware Adapter</li> <li>Microsoft SQL Server Database Adapter</li> <li>Microsoft Windows Adapter</li> <li>Tidal Server Provisioner Adapter</li> <li>Web Service Adapter</li> <li>Cisco UCS Software Adapter</li> </ul>

## **Cloud Common TAP Content**

The Cloud Common automation pack ships with the content that is shared across all the Cloud automation packs.

## **Cloud Common Processes**

The following table contains the processes that are imported by the Cloud Common automation pack.

The Cloud Common automation pack also contains atomic processes (activities) that can be used in processes. *See* Chapter 6, "Using the Cloud Activities."

Process Name	Description
Cloud Governor Report	This process generates a report that displays information about the objects and resources being governed in the cloud, such as organziations, IP addresses, TEO targets and more. The report is useful for managing these objects and for creating new objects.
	If the process is started by a user, a Review Request will be generated to indicate that the report is ready to be viewed.
Cloud Process Execution Error	This process handles all alerts generated by the cloud content and determines whether incidents should be created.
Get Organization Resources	This process retrieves a list of resources assigned to an organization from the cloud governor (for example, network, data store, time zone, and host server).
IP Address Pool – Allocate Management	This process is used to allocate a management address pool for the specified organization.
IP Address Pool – Allocate Public	This process is used to allocate a public address pool for the specified organization.
IP Address Pool – Deallocate Management	This process will deallocate a management IP address pool for the specified organization.
IP Address Pool – Deallocate Public	This process will deallocate a public IP address pool for the specified organization.
Obtain Template Name	This process determines the VMware template to use for creating a new virtual server based on OS and service level.
Organization – Offboard	This process allows you to remove an organization from the Cloud Governor.
Organization – Onboard	This process allows you to add or update an organization in the Cloud Governor.
Physical Server – Add	This process adds a physical server to the Cloud Governor. If the physical server already exists, the process will fail.
Physical Server – Delete	This process deletes a physical server based on a server number. The server number can be found on the Cloud Governor Report.

Process Name	Description
Release IP Address	This process releases an IP address that was previously reserved.
Release Service Target	This process releases all resource allocated for a service target and deletes the service target.
Reserve IP Address	This process retrieves the network settings (such as DNS and subnet) and reserves an IP address from a pool of IP addresses.
TSP Template – Add	This process adds a TSP template to the Cloud Governor to be used by TSP for bare metal provisioning of virtual and physical servers.
TSP Template – Delete	This process deletes a TSP template for a specific operating system.
VM Template – Add	This process is used to add a VM template to the Cloud Governor.
VM Template – Delete	This process is used to remove a VM template from the Cloud Governor.

For additional information on processes, see Chapter 5, "Managing the Cloud Processes."

## **Cloud Common Task Rules**

The following task rule is imported by the Cloud Common automation pack.

Task Rule Name	Description
Cloud Default Incident Assignee	Contains the designated user or group who will be
	assigned incidents created by the Cloud processes.

For information on configuring Task Rules, *see* Using Task Rules for Assignments and Notifications, page 4-26.

# **Cloud Common Extended Target Properties**

The following table contains the extended target properties that are imported by the Cloud Common automation pack.

Extended Target Property	Description
Cloud.Configuration.CloudGovernor	Reference to a TEO SQL Server Target configured for the Cloud Governor.
Cloud.Configuration.newScale. WebService	Reference to a TEO Web Target configured for the newScale web service. Cloud content uses this target to call back into newScale to update service requests.
Cloud.Configuration.TSP.Server	Reference to a TSP Server target. Cloud content uses this target to bare-metal provision virtual machines.
Cloud.Service.General.Owner.TEO	The TEO web target that manages the service.
Cloud.Service.General.Owner. UCSManager	The UCS manager that manages the service.
Cloud.Service.General.Owner.VCenter	The vCenter target that manages the service.
Cloud.Service.General.TargetName	The display name of the TEO service target representing the service.
Cloud.Service.General.Type	The type of service being managed. Current values used by Cisco Cloud target groups include:
	Cisco Cloud Physical Server
	Cisco Cloud Virtual Server
Cloud.Service.Organization.ID	The ID of the organization that requested the service.
Cloud.Service.Organization.Name	The name of the organization that requested the service.
Cloud.Service.Server.General.Domain	The domain or workgroup to which the server belongs.
Cloud.Service.Server.General.Name	The DNS name of the server.
Cloud.Service.Server.General.OSType	The type of operating system deployed on the managed server (such as Windows or Linux).
Cloud.Service.Server.General. OSVersion	The version of the OS running on the server.
Cloud.Service.Server.General.Password. JoinDomain	The password used to join the server to the domain.
Cloud.Service.Server.General.Password. LocalAdministrator	The password to assign the local administrator account.
Cloud.Service.Server.General.Timezone	The time zone of the server.
Cloud.Service.Server.General.User. JoinDomain	The user account to join the server to the domain.
Cloud.Service.Server.Network. Management.DNS	The management network DNS setting for the server.
Cloud.Service.Server.Network. Management.Gateway	The management network gateway for the server.
Cloud.Service.Server.Network. Management.IPAddress	The management IP address assigned to a virtual or physical server.

Extended Target Property	Description
Cloud.Service.Server.Network. Management.Path	The name of the management network for the server.
Cloud.Service.Server.Network. Management.SubnetMask	The management network subnet mask for the server.
Cloud.Service.Server.Network.Public. DNS	The public network DNS setting for the server.
Cloud.Service.Server.Network.Public. Gateway	The public network gateway for the server.
Cloud.Service.Server.Network. Public.IPAddress	The public IP address assigned to a virtual or physical server.
Cloud.Service.Server.Network. Public.Path	The public network path for the server.
Cloud.Service.Server.Network. Public.SubnetMask	The network subnet mask for the server.
Cloud.Service.Server.Network.TSP.Path	The network used by Tidal Server Provisioner (TSP) for bare metal provisioning.
Cloud.Service.Server.Physical. UCS.Blade	The blade number in UCS Manager.
Cloud.Service.Server.Physical. UCS.Chassis	The chassis number in UCS Manager.
Cloud.Service.Server.Physical. UCS.Organization	The Org in UCS Manager.
Cloud.Service.Server.Physical. UCS.ServiceProfile	The service profile in UCS Manager.
Cloud.Service.Server.Physical. UCS.Template	The template in UCS Manager.
Cloud.Service.Server.Virtual.CPUCount	The number of CPUs allocated to the VM.
Cloud.Service.Server.Virtual.CPUCount. Pending	The number of CPUs that are pending to be configured to the VM. Once the configuration is changed, the Cloud.Service.Server.Virtual.CPUCount extended target property is updated.
Cloud.Service.Server.Virtual.DataStore	The VMware data store where the VM storage is located.
Cloud.Service.Server.Virtual.DiskSize	The amount of storage allocated for the VM.
Cloud.Service.Server.Virtual.ESXHost	The VMware ESX host that is hosting the VM.
Cloud.Service.Server.Virtual. InventoryPath	The path in VMware vCenter where the virtual machine is located.
Cloud.Service.Server.Virtual. MemorySize	The amount of memory allocated for the VM.
Cloud.Service.Server.Virtual. MemorySize.Pending	The amount of memory pending to be allocated to the VM. Once the configuration is changed, the Cloud.Service.Server.Virtual.MemorySize extended target property is updated.

Extended Target Property	Description
Cloud.Service.Server.Virtual.Provision Method	The method used to provision the server (for example, Clone or TSP).
Cloud.Service.Server.Virtual. ResourcePool	The VMware resource pool for the VM.
Cloud.Service.Server.Virtual.Snapshot	The location of the last snapshot of the virtual server.
Cloud.Service.Server.Virtual. SnapshotDate	The date of the last snapshot of the virtual server.
Cloud.Service.Server.Virtual. TemplateFolder	The folder containing the VM template to use for cloning.
Cloud.Service.Server.Virtual. TemplateName	The name of the template used to close the VM.
Cloud.Service.Server.Virtual. VMFullName	The full name of the virtual machine (VM path and VM name).



All extended target properties that are prefixed with "Cloud.Service" should not be configured by users. These properties are configured by the processes.

For information on configuring extended target properties, *see* Managing Extended Target Properties, page 4-21.

## **Cloud Common Target Groups**

The following target groups are improted by the Cloud Common automation pack. For additional information on using target groups, see the *Tidal Enterprise Orchestrator Reference Guide*.

Target Group Name	Description
Cloud All Configured Targets	Contains all the cloud target groups. This target group is used for resolving affected targets in the cloud alert handler process.
Cloud All Services	Contains all service targets configured in TEO (includes service targets that are managed and not managed by Cisco cloud content).
Cloud Managed Physical Servers	Contains the physical servers provisioned and managed by Cisco cloud content.
Cloud Managed Services	Contains all services managed by Cisco cloud content.
Cloud Managed Virtual Servers	Contains virtual servers provisioned and managed by Cisco cloud content.
Cloud newScale Web Targets	Contains all configured newScale web targets.
Cloud SQL Server Targets	Contains all configured Microsoft SQL Server targets.
Cloud TEO Web Targets	Contains all configured TEO web targets.

Target Group Name	Description
Cloud TSP Server Targets	Contains all configured Tidal Server Provisioner targets. Cloud content uses extended target properties to find the TSP server for provisioning.
Cloud UCS Manager Targets	Contains all configured Cisco UCS Manager targets. Cloud content uses extended target properties to find the UCS Manager for provisioning.
Cloud VCenter Targets	Contains all configured vCenter targets. Cloud content uses extended target properties to find the appropriate vCenter server hosting a VM.
Cloud Web Targets	Contains all configured web service targets. Cloud content uses extended target properties to find the newScale and TEO web service targets.
Cloud Windows Targets	Contains all configured Windows targets. Cloud content uses extended target properties to find the TEO Windows.

## **Cloud Common Categories**

The following categories are imported by the Cloud Common automation pack. For information on using categories, see the *Tidal Enterprise Orchestrator Reference Guide*.

Category Name	Description
Cloud	All processes and objects related to Cisco cloud automation.
Cloud Common	Objects shared across all Cisco cloud content.
Cloud Governor	A group of processes to manage and monitor the Cloud Governor database.
Cloud Governor Operations	Processes used to manage the Cloud Governor database, such as onboarding a new customer or allocating an IP address pool.

## **Cloud Common Global Variables**

The following global variables are imported by the Cloud Common automation pack.

Global Variable Name	Description
Cloud Default Virtual Server Clone Timeout	The default period of time, specified in minutes, for a VMware clone operation to timeout.
Cloud Domain Account	A domain account with permission to join a new server to the domain.
Cloud Domain Account Password	The password for the domain account used to join new servers to the domain.
Cloud Duplicate Alert Suppression Time Period	The amount of time, in hours, to suppress duplicate alerts related to cloud automation.

Global Variable Name	Description
Cloud IP Address Pool Error Threshold	The threshold to generate an error alert when the percentage of IP addresses used exceed this value.
Cloud IP Address Pool Warning Threshold	The threshold to generate a warning alert when the percentage of IP addresses used exceed this value.
Cloud New Server Password	The password that will be assigned to the local Administrator account for new Windows servers and the root password for Linux servers.
UCS Boot Policy – Local Disk	The the name of a Boot Policy, defined in UCS Manager, that sets the boot order to boot from Local Disk first.

# **Cloud newScale Service Catalog TAP Content**

The Cloud newScale Service Catalog automation pack contains the content that is required to integrate newScale Service Catalog with the Cisco cloud solution.

## **Cloud newScale Service Catalog Processes**

The following table contains the processes that are imported by the Cloud newScale Service Catalog automation pack.

Process Name	Description
newScale Complete Service Request	This process is triggered by a change request being completed. It marks the associated newScale service request as completed.
newScale Failed Service Request	This process is triggered by a change request failing. It marks the associated newScale service request as completed.
newScale Service Request Handler	This process is called directly by newScale service catalog, using the TEO web service, to process a new service request. The process will create or locate the appropriate TEO service target and trigger a fulfillment process to handle the request.
newScale Service Request Manager	This process obtains the request from newScale and routes it to the appropriate TEO owner for processing.
newScale Update Service Request History	This process will add a note to the history of a newScale service request. It is triggered by a note being added to a TEO change request.

For additional information on processes, see Chapter 5, "Managing the Cloud Processes."

### **Cloud newScale Service Catalog Categories**

The following category is imported by the Cloud newScale Service Catalog automation pack. For information on using categories, see the *Tidal Enterprise Orchestrator Reference Guide*.

Category Name	Description
•	Processes and other object required for integration with newScale service catalog.

## **Cloud Physical Server Automation TAP Content**

The Cloud Physical Server Automation automation pack contains the infrastructure related processes for creating and managing physical machines.

### **Cloud Physical Server Processes**

The following table contains the processes that is imported by the Cloud Physical Server automation pack.

Process Name	Description
Delete Physical Server	This process removes a physical server from service.
Install OS on Physical Server	This process installs the OS on a physical server using TSP.

For additional information on processes, see Chapter 5, "Managing the Cloud Processes."

### **Cloud Physical Server Categories**

The following category is imported by the Cloud Physical Server automation pack. For information on using categories, see the *Tidal Enterprise Orchestrator Reference Guide*.

Category Name	Description
Cloud Physical Server Automation	Processes and other objects required to automate the
	creation and management of physical servers.

## **Cloud Virtual Server Automation TAP Content**

The Cloud Virtual Server Automation automation pack contains the infrastructure related processes for creating and managing virtual servers.

#### **Cloud Virtual Server Processes**

The following table contains the processes that is imported by the Cloud Virtual Server automation pack.

Process Name	Description
Allocate and Reserve Virtual Resources	This process reserves the resources and creates a new virtual server, either by cloning from a template or bare metal provisioning.
Create Virtual Server From Bare Metal	This process creates a new virtual server and installs an OS on it using TSP.
Create Virtual Server From Template	This process creates a new virtual server by cloning an existing VM template.
Customize Virtual Server	This process configures the VM memory, CPUs, networks, storage, and OS.
Delete Virtual Server	This process takes a virtual machine out of service and decommission the server.
Modify Virtual Server Configuration	This process modifies the CPU and memory settings on a virtual machine.

For additional information on processes, see Chapter 5, "Managing the Cloud Processes."

## **Cloud Virtual Server Categories**

The following category is imported by the Cloud Virtual Server automation pack. For information on using categories, see the *Tidal Enterprise Orchestrator Reference Guide*.

Category Name	Description
	Processes and other objects required to automate the creation and management of virtual servers.

## **Cloud Service Orchestration TAP Content**

The Cloud Service Orchestration automation pack contains the processes for orchestrating fulfillment of cloud service requests.

## **Cloud Service Orchestration Processes**

The following table contains the processes that is imported by the Cloud Service Orchestration automation pack.

Process Name	Description
Commission Physical Server	This process orchestrates the entire process of deploying a physical Linux server on a UCS blade. This includes reserving the required resources, installing the Linux operating system, and updating external systems.
Commission Virtual Linux Server	This process orchestrates the entire process of deploying a virtual Linux server on a VMware ESX server. This includes reserving the required resources, creating the VM, installing the Linux operating system, updating external systems and notifying the user when the service is available for use.
Commission Virtual Server from Template	This process orchestrates the entire process of cloning a virtual server on a VMware ESX server. This includes reserving the required resources, modifying the guest OS, updating external systems and notifying the user when the service is available for use.
Decommission Physical Server	This process orchestrates the entire process of decommissioning a physical server. This includes powering off the UCS blade, freeing up resources, and notifying the user when the server is no longer available.
Decommission Virtual Server	This process orchestrates the entire process of decommissioning a virtual server on a VMware ESX server. This includes powering off the VM, freeing up resources, marking the VM for deletion, updating external systems and notifying the user when the service is no longer available.
Modify Virtual Server	This process orchestrates the entire process of modifying the settings of a virtual server on a VMware ESX server. This includes the number of CPUs, memory, storage, updating external systems and notifying the user when the service has been modified.
Power Off Virtual Server	This process orchestrates the entire process of powering off a virtual server on a VMware ESX server.
Reset Virtual Server	This process orchestrates the entire process of resetting a virtual server on a VMware ESX server.

Process Name	Description
Revert Snapshot Virtual Server	This process orchestrates the entire process of reverting a snapshot of a virtual server. This includes prompting the user for the snapshot to revert, reverting the snapshot and notifying the user when the process is complete.
Snapshot Virtual Server	This process orchestrates the entire process of making a snapshot of a virtual server on a VMware ESX server.

For additional information on processes, see Chapter 5, "Managing the Cloud Processes."

## **Cloud Service Orchestration Categories**

The following category is imported by the Cloud Service Orchestration automation pack. For information on using categories, see the *Tidal Enterprise Orchestrator Reference Guide*.

Category Name	Description
Cloud Service Orchestration	Processes and other objects required to orchestrate the creation and management of cloud services.

Cloud Service Orchestration TAP Content



CHAPTER 4

# **Getting Started Using the Automation Pack**

Before you begin using the content that ships with the automation pack, you must create the objects in TEO that are referenced in the processes. These objects include targets, runtime users, task rules for assignments and notifications, and extended target properties.

This chapter provides basic information on defining the objects. It includes the following sections:

- Creating Runtime User Accounts, page 4-2
- Creating Targets, page 4-4
- Managing Extended Target Properties, page 4-21
- Managing Global Variables, page 4-24
- Using Task Rules for Assignments and Notifications, page 4-26

For additional information about the objects discussed in this chapter, refer to the following documentation:

Document	Description
Tidal Enterprise Orchestrator Reference Guide	General information about Core product features.
Cisco TEO Adapter Guide for Tidal Server Provisioner	General information about the objects provided by the Tidal Server Provisioner adapter.
Cisco TEO Adapter Guide for VMware	General information about the objects provided by the VMware adapter.
Cisco TEO Software Adapter Guide for Cisco UCS	General information about the objects provided by the Cisco UCS Software adapter.
Cisco TEO Adapter Guide for Web Services	General information about the objects provided by the Web Services adapter.

## **Creating Runtime User Accounts**

The Runtime User is the account that holds the credentials for connecting to the targets. The Cloud environment requires targets that use the Runtime User type and the Tidal Server Provisioner User type accounts.

### **Creating a Runtime User**

The Runtime User is the type of runtime user account that is used to connect to the following types of targets:

- newScale Server Web Target
- VMware Virtual Center Server Targets
- Cisco UCS Manager Targets
- Cloud Governor Database Target (Runtime User or Windows User)
- Tidal Server Provisioner Target (Tidal Server Provisioner User)



For additional information on creating and managing runtime users, see the *Tidal Enterprise Orchestrator Reference Guide*.

- **Step 1** Open the New Runtime User dialog box using one of the following methods:
  - In the Definitions workspace, right-click Runtime Users in the navigation pane and choose New > Runtime User.
  - On the New Target Properties dialog box, click **New > Runtime User** in the Default runtime user field
- **Step 2** On the General tab, specify the following information:



The Required Field (1) icon displayed on a tab or page indicates that the field is required and is missing a value.

Field	Description
Display name	Enter a name for the user account.
User name	Enter the user name assigned to the user account that connects to the target.
Password	Check the check box and enter the password assigned to the user account.
	<b>Note</b> No password verification is done for the simple (generic) runtime user.
Description	A description of the user account.

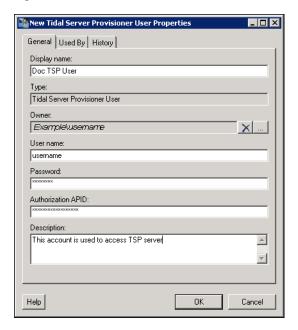
**Step 3** Click **OK** to close the dialog box.

## **Creating Tidal Server Provisioner User**

The Tidal Server Provisioner user is the account used to connect to the Tidal Server Provisioner Server target.

Step 1 On the Definitions workspace, right-click Runtime User and choose New > Tidal Server Provisioner User to display the New Tidal Server Provisioner User Properties dialog box.

Figure 4-1 New Tidal Server Provisioner User Properties—General Tab





The Required Field [] icon displayed on a tab or page indicates that the field is required and is missing a value.

**Step 2** Specify the information in the following text fields:

Field	Description
Display name	Enter the name to be assigned to the user account. This is the name that will display in the Runtime Users view.
Туре	Display only. Type of object.
Owner	Name of the user who owns the object. Click the <b>Browse</b> tool to change the owner.
User name	Enter the user name for the account that connects to the Tidal Server Provisioner server.

Field	Description
Password	Enter the password that is assigned to the Tidal Server Provisioner user account.
Authorization APID	<ul> <li>Enter the authorization APID assigned to the user account.</li> <li>Note For information on obtaining an authorization APID, see the Cisco TEO Adapter Guide for Tidal Server Provisioner.</li> </ul>
Description	Optional. Enter a description of the runtime user account.

 $\textbf{Step 3} \qquad \text{Click } \textbf{OK} \text{ to close the dialog box.}$ 

# **Creating Targets**

Before you can create or run processes, you must create the targets on which the processes will run. This section guides you through creating the following target types that are used in the Cloud processes.

Target/Type	Where Used
TEO Servers/Web Target	The web target for the local TEO server is created when the Cloud Common automation pack is imported (Tidal Enterprise Orchestrator Web Service). However, if this TEO server will serve as a request manager you will also need to configure a web target for each TEO server that will process service requests.
	It is recommended that you use a naming convention for secondary TEO web targets that easily identifies the type of requests that are routed to the server (for example, TEO Accounting, TEO Product Development, etc.).
newScale Server/Web Target	The web target that TEO uses to communicate notes and status of service catalog requests to newScale.
VMware Virtual Center Server Targets	A VMware Virtual Center Server target needs to be configured for each vCenter that will manage virtual machines in the cloud.
	It is recommended that you use a naming convention for vCenter targets that easily identifies the virtual machines the target manages (for example, VMware vCenter Accounting, VMware vCenter Product Development, etc.).

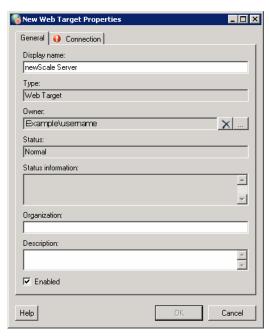
Target/Type	Where Used
Cisco UCS Manager Targets	A Cisco UCS Manager target needs to be configured for each Cisco UCS Manager that will manage physical machines in the cloud.
	It is recommended that you use a naming convention for Cisco UCS Manager targets that easily identifies the Cisco UCS Manager instances the target manages (for example, UCS Accounting, UCS Product Development, etc.).
Tidal Server Provisioner Target	A Tidal Server Provision target needs to be configured for bare metal provisioning.
Cloud Governer Database Target	A SQL Server Database target needs to be configured for the Cloud Governor Database.
	The Cloud Governor Database target needs to have full rights to the database and the runtime user needs full permissions to the database.
	Note The Cloud Governor Database is created when the Cloud Common automation pack is imported. See Creating Cloud Governor Database, page 2-2.

# **Creating Web Targets for newScale and TEO Servers**

You use the Web target type to create a target for the newScale server and secondary TEO servers. Use the New Web Target Properties dialog box to create the Web target.

Step 1 On the Definitions workspace, right-click **Targets** and choose **New > Web Target** to open the New Web Target Properties dialog box.





**Step 2** On the General tab, enter the information in the following text fields:

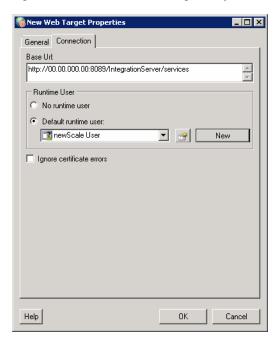
Field	Description
Display name	Name for the target. This is the name that will display in the Targets pane.
Туре	Display only. Type of target.
Owner	User name of the owner of the target. This is typically the person who created the target.
Status	Display only. Status of the target.
Status information	Display only. Detailed information regarding the target status.
Organization	Name of the company that supports the target.
Description	Optional field to enter a description for the target.

Step 3 Click the Connection tab.



The Required Field icon displayed on a tab or page indicates that the field is required and is missing a value.

Figure 4-3 New Web Target Properties—Connection Tab



**Step 4** On the Connection tab, specify the following connection information for the target:

Field	Description
Base Url	Enter the appropriate target URL to use as a base for the execution.
	For example:
	http://doc-dev.domain.com:61527/WS
Runtime User	Click one of the following radio buttons to indicate which runtime user account to use to connect to the target:
	<ul> <li>No runtime user—Select this radio button to indicate that no runtime user is required to execute a process or activity against the target.</li> </ul>
	• Default runtime user—Select this radio button and then choose the default runtime user account that contains the credentials to connect to the target.
	Note To view the properties for the selected runtime user, click the <b>Properties</b> tool.
	To create a new runtime user account, click <b>New</b> and then choose <b>Runtime User</b> or <b>Windows User</b> .
	See Creating a Runtime User, page 4-2.

Field	Description
Ignore certificate errors	Check or uncheck the check box to indicate whether the target should ignore any certificate errors on the specified web site. If the check box is checked, all errors will be ignored.

**Step 5** Click **OK** to close the dialog box and complete the procedure.

The Web target displays in the Targets pane.

# **Creating VMware Virtual Center Server Targets**

A VMware Virtual Center Server target needs to be configured for each vCenter that will manage virtual machines in the cloud.

It is recommended that you use a naming convention for vCenter targets that easily identifies the virtual machines the target will manage (for example, TEO Accounting, TEO Product Development, etc.).

Use the New VMware Virtual Center Server Properties dialog box to create the target.

Step 1 On the Definitions workspace, right-click **Targets** and choose **New > VMware Virtual Center Server** to open the New VMware Virtual Center Server Properties dialog box.

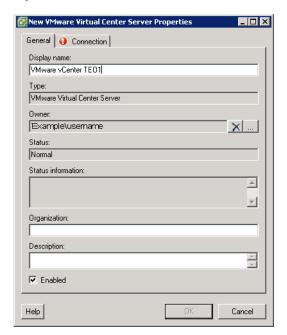


Figure 4-4 New VMware Virtual Center Server Properties—General Tab

**Step 2** On the General tab, enter the information in the following text fields:

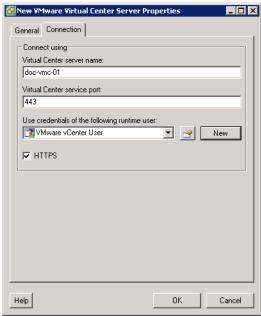
Field	Description
Display name	Name for the target. This is the name that will display in the Targets pane.
Type	Display only. Type of target.
Owner	User name of the owner of the target. This is typically the person who created the target.
Status	Display only. Status of the target.
Status information	Display only. Detailed information regarding the target status.
Organization	Name of the company that supports the target.
Description	Optional field to enter a description for the target.

#### Step 3 Click the Connection tab.



The Required Field icon displayed on a tab or page indicates that the field is required and is missing a value.

Figure 4-5 New VMware Virtual Center Server Properties—Connection Tab



**Step 4** On the Connection tab, specify the following connection information for the target:

Field	Description
Virtual Center server name	Enter the fully-qualified domain name (FQDN) or IP address of the virtual center.
Virtual Center service port	Port number used to access the virtual center (default port is 443).
Use the credentials of the following runtime user	Choose the default runtime user account to connect to the target from the drop-down list.
	Note To view the properties for the selected runtime user, click the <b>Properties</b> tool.
	To create a new runtime user account, click <b>New</b> and then choose <b>Runtime User</b> .
	See Creating a Runtime User, page 4-2.
HTTPS	Check or uncheck the check box to indicate whether HTTPS will be set if the Virtual Center web service has been configured to use HTTPS protocol.
	If HTTPS protocol is not used on the Virtual Center, uncheck the check box.

**Step 5** Click **OK** to close the dialog box and complete the procedure.

The VMware Virtual Center Server target displays in the Targets pane.

## **Creating Cisco UCS Manager Targets**

A Cisco UCS Manager target needs to be configured for each Cisco UCS Manager that will manage physical machines in the cloud.

It is recommended that you use a naming convention for the Cisco UCS Manager targets that easily identifies the Cisco UCS Manager instances the target will manage (for example, TEO Accounting, TEO Product Development, etc.).

Use the New Cisco UCS Manager Properties dialog to create Cisco UCS Manager targets.

Step 1 In the Definitions view, right-click Targets and choose New > Cisco UCS Manager from the submenus.
The New Cisco UCS Manager Properties dialog box displays.

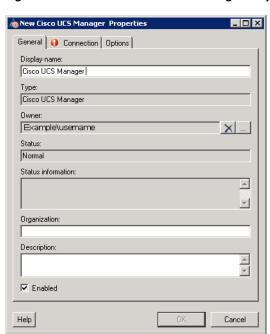


Figure 4-6 New Cisco UCS Manager Properties—General Tab

**Step 2** On the General tab, enter the following general information about the target:

Field	Description
Display name	Name of the target that displays in the Targets pane.
Type	Display only. Type of target.
Owner	User name of the owner of the target. This is typically the person who created the target.
	Click the <b>Browse</b> tool to change the owner.
Status	Display only. Indicates the status of the target. The status determines whether the target is available or unavailable for process or activity execution.
Status Information	Display only. Detailed information regarding the target status and the reasons for the target being unreachable.

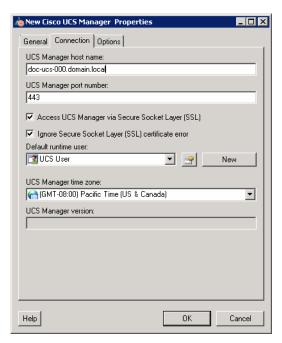
Field	Description
Organization	Name of the company that supports the target.
Description	Text description of the target.
Enabled	Check or uncheck the check box to enable or disable the target. The check box is checked by default which makes it available immediately upon creation.  If you uncheck the check box, the target is disabled and will be unavailable for execution.

Step 3 Click the Connection tab to specify the connection information for the Cisco UCS Manager target.



The Required Field [] icon displayed on a tab or page indicates that the field is required and is missing a value.

Figure 4-7 New Cisco UCS Manager Properties—Connection Tab



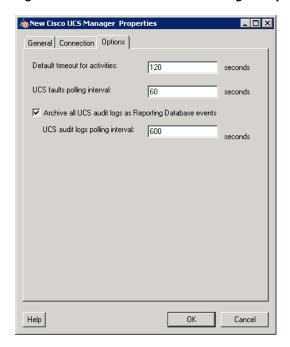
**Step 4** On the Connection tab, specify the following information:

Field	Description
UCS Manager host name	Enter the IP address or name of the server that hosts the UCS Manager.
UCS Manager port number	Port number for connecting to the Cisco UCS Manager target. By default, port 443 is used for SSL protocol and port 80 is used for http connection.
Access UCS Manager via Secure Socket Layer (SSL)	This check box is checked by default to indicate that SSL protocol is used to connect to the host server. Uncheck the check box if SSL protocol is not used.

Field	Description
Ignore Secure Socket Layer (SSL) certificate error	This check box is checked by default to indicate that certificate error messages should be ignored.
Default runtime user	Runtime user account to be used to connect to the target. Select the default runtime user from the drop-down list.
	Note To view the properties for the runtime user, click the <b>Properties</b> fool.
	To create a new runtime user, click <b>New</b> and then choose <b>Runtime User</b> .
	See Creating a Runtime User, page 4-2.
UCS Manager time zone	Choose the time zone that is used on the UCS Manager server.
UCS Manager version	Firmware version installed on the UCS Manager. This field is blank until the target is created. The version displays on the target properties.

#### Step 5 Click the Options tab.





**Step 6** Specify the following polling information for the UCS Manager target:

Field	Description
Timeout for UCS Manager activity	Enter the number of seconds to wait for a UCS activty fails because it timed out. The default timeout value is 120 seconds.
UCS faults polling interval	Enter the number of seconds to represent how often the UCS Manager target should be polled for faults. The default value is 60 seconds.
Archive all UCS audit logs as Reporting Database events	Check this checkbox if you want all UCS audit logs to be archived as events in the Reporting Database. Uncheck the checkbox if you do not want to archive the UCS audit logs.
UCS audit logs polling interval	If the Archive all UCS audit logs as Reporting Database events check box is checked, enter the number of seconds to represent how often the UCS audit logs should be polled. The default value is 600 seconds.

**Step 7** Click **OK** to complete the procedure and close the dialog box.

The Cisco UCS Manager target displays in the Targets pane.

# **Creating Tidal Server Provisioner Target**

A Tidal Server Provision target needs to be configured for the Tidal Server Provisioner server, which is used for bare metal provisioning.

Use the Connection tab on the New Tidal Server Provisioner Properties dialog box to create the Tidal Server Provisioner target.

**Step 1** In the Definitions view, right-click **Targets** and choose **New > Tidal Server Provisioner** from the submenus to open the New Tidal Server Provisioner Properties dialog box.

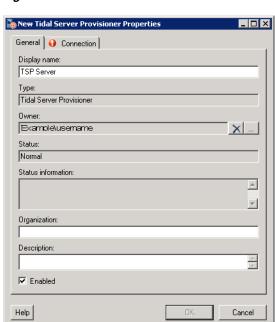


Figure 4-9 New Tidal Server Provisioner Properties—General Tab

**Step 2** On the General tab, enter the following general information about the target:

Field	Description
Display name	Name of the target that displays in the Targets pane.
Туре	Display only. Type of target.
Owner	User name of the owner of the target. This is typically the person who created the target.
	Click the <b>Browse</b> tool to change the owner.
Status	Display only. Indicates the status of the target. The status determines whether the target is available or unavailable for process or activity execution.
Status Information	Display only. Detailed information regarding the target status and the reasons for the target being unreachable.
Organization	Name of the company that supports the target.

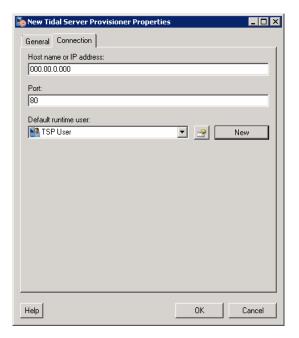
Field	Description
Description	Text description of the target.
Enabled	Check or uncheck the check box to enable or disable the target. The check box is checked by default which makes it available immediately upon creation.  If you uncheck the check box, the target is disabled and will be unavailable for execution.

Step 3 Click the Connection tab to specify the connection information for the Tidal Server Provisioner target.



The Required Field icon displayed on a tab or page indicates that the field is required and is missing a value.

Figure 4-10 New Tidal Server Provisioner Properties—Connection Tab



**Step 4** On the Connection tab, specify the following information:

Field	Description
	Enter the IP address or name of the server that hosts Tidal Server Provisioner.
	Port number for connecting to the Tidal Server Provisioner target. By default, port 80 is used for http connection.

Field	Description	
Default runtime user	Choose the runtime user account to be used to connect to the target from the drop-down list.	
	Note To view the properties for the runtime user, click the <b>Properties</b> tool.	
	To create a new runtime user, click <b>New</b> and then choose <b>Tidal Server Provisioner User</b> .	
	See Creating Tidal Server Provisioner User, page 4-3.	

**Step 5** Click **OK** to complete the procedure and close the dialog box.

The Tidal Server Provisioner target displays in the Targets pane.

# **Creating SQL Server Database Targets**

The SQL Server Database target type is used for the Cloud Governor Database target and the newScale RequestCenter Database target.

Use the New SQL Server Database Properties dialog to create the targets.

### **Creating Cloud Governor Database Target**

Step 1 In the Definitions view, right-click Targets and choose New > SQL Server Database from the submenus to open the New SQL Server Database Properties dialog box.

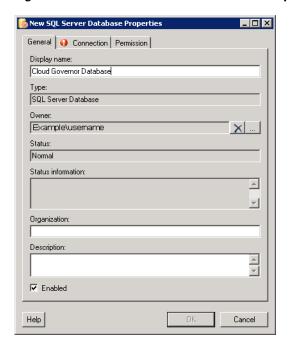


Figure 4-11 New SQL Server Database Properties — General Tab

**Step 2** On the General tab, enter the following general information about the target:

Field	Description
Display name	Name of the target that displays in the Targets pane.
Туре	Display only. Type of target.
Owner	User name of the owner of the target. This is typically the person who created the target.
	Click the <b>Browse</b> tool to change the owner.
Status	Display only. Indicates the status of the target. The status determines whether the target is available or unavailable for process or activity execution.
Status Information	Display only. Detailed information regarding the target status and the reasons for the target being unreachable.
Organization	Name of the company that supports the target.
Description	Text description of the target.
Enabled	Check or uncheck the check box to enable or disable the target. The check box is checked by default which makes it available immediately upon creation.
	If you uncheck the check box, the target is disabled and will be unavailable for execution.

**Step 3** Click the **Connection** tab to specify the connection information for the SQL Server Database target.



The Required Field on icon displayed on a tab or page indicates that the field is required and is missing a value.

lim New SQL Server Database Properties General Connection Permission Server: doc-teo-00.domain.local Database name: CloudGovernor Database owner: Default\owner Default timeout for activities (seconds): 120 Default runtime user: 🙎 Default User New Connection string: server={S}; database={D} ۸ Help

Figure 4-12 New SQL Server Database Properties—Connection Tab

**Step 4** On the Connection tab, specify the following information:

Field	Description	
Server	Enter the IP address or name of the server.	
Database name	Enter the name of the database.	
Database owner	Enter the name of the database owner.	
Default timeout for activities (seconds)	Indicates the length of time to wait before a command is complete.	
Default runtime user	Choose the runtime user account to be used to connect to the target from the drop-down list.	
	Note	To view the properties for the runtime user, click the <b>Properties</b> fool.
		To create a new runtime user, click <b>New</b> and then choose <b>Runtime User</b> or <b>Windows User</b> .
		See Creating a Runtime User, page 4-2.

Step 5 Click the Permissions tab.

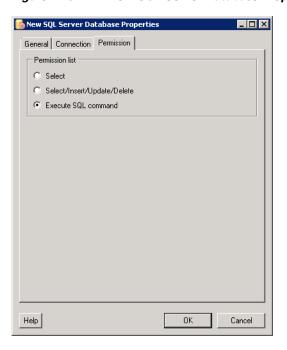


Figure 4-13 New SQL Server Database Properties—Permission Tab

- Step 6 Click the Execute SQL command radio button.
- $\textbf{Step 7} \qquad \textbf{Click OK} \text{ to complete the procedure and close the dialog box.}$

The Cloud Governor Database target displays in the Targets pane.

# **Managing Extended Target Properties**

Once the Cloud targets are created, you must configure certain Extended Target Properties to reference these targets so cloud processes are aware of them. Other extended target properties are configure dynamically by the cloud processes.

This section provides information on viewing or modifying the extended target properties (target references) that ship with the Cloud Common automation pack.

# **Accessing Extended Target Properties**

The extended target properties that ship with the Cloud automation packs can be accessed from the Definitions—Extended Target Properties view.

**Step 1** On the Console, select the Definitions workspace and click **Extended Target Properties** in the navigation pane. By default, all the properties display in the Extended Target Properties pane.

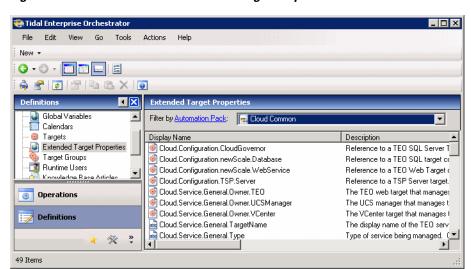


Figure 4-14 Definitions—Extended Target Properties View

The following information about the extended target properties displays by default:

Column	Description
Display Name	Name of the target property.
Description	Text description of the target property.
Value	Value assigned to the target property.
Data Type	Type of value being used for the target property (Boolean, Encrypted String, Identity, Numeric, String, Table).
Automation Pack	Name of the automation pack that provides the target property.
Customizable	Indicates the customization setting for the target property in the automation pack.

Column	Description
Target Types	Indicates the targets associated with the target property.
Last Modified Time	Date and time the variable was last modified.
Last Modified By	Name of the user who last modified the target property.
Id	Unique ID of the target property.
Owner	User name of the owner of the target property. This is typically the person who created the target property.
Created Time	Date and time the target property was created.
Created By	User name of the person who created the target property.

Step 2 Click the Filter by link and choose Automation Pack > [Automation Pack Name] to filter for only the extended target properties that ship with the specific automation pack.



The extended target properties for the Cloud processes ship in the Cloud Common automation pack.

## **Configuring References to Targets**

The Cloud extended target properties include target references that must be configured to reference the Cloud targets. The following target references must be configured:

- Cloud.Configuration.CloudGovernor—References the TEO SQL Server Database target that is configured for the CloudGovernor database.
- Cloud.Configuration.newScale.WebService—References the TEO Web target configured for the newScale web service. The Cloud content uses this target to call back into newScale to update service requests.
- Cloud.Configuration.TSP.Server—References the TEO TSP Server target. The Cloud content uses this target to bare-metal provision virtual machines.

Use the Extended Target Properties feature to reference the targets.

- **Step 1** On the Definitions workspace, click **Extended Target Properties**.
- Step 2 Filter by Automation Pack and choose Cloud Common from the drop-down list.
- Step 3 In the Extended Target Properties pane, right-click the extended target property (reference) and choose **Properties**.

General Target Values Target Types References Used By

Display name:
Cloud Configuration CloudGovernor

Owner:
Example\username

Data type:
Target Reference

Value:

Description:
Reference to a TEO SQL Server Target configured for the Cloud Governor.

Help

OK Cancel

Figure 4-15 Extended Target Properties—General Tab

**Step 4** In the Value text field, click the **Browse** tool to open the Select Target dialog box.

Figure 4-16 Select Target



- **Step 5** On the Select Target dialog box, select the appropriate target and click **OK**.
- **Step 6** Click **OK** to close the Extended Target Properties dialog box.

# **Managing Global Variables**

The processes use global variables for information that is used on a regular basis to avoid having to specify the same information in several processes or activities. The global variables that ship with the automation pack are configured with default values but can be modified to meet the requirements for your specific environment.

This section provides instructions for accessing the global variables that ship with the Cloud Common automation pack and modifying the default values.

## **Accessing Global Variables**

The global variables that ship with the Core Automation for SAP automation pack can be accessed from the Definitions—Global Variables view.

- **Step 1** On the Console, select the Definitions workspace and click **Global Variables** in the navigation pane. By default, all the variables display in the Global Variables pane.
- Step 2 Click the Filter by link and choose Automation Pack > Cloud Common to filter for only the global variables that ship with the specific automation pack.

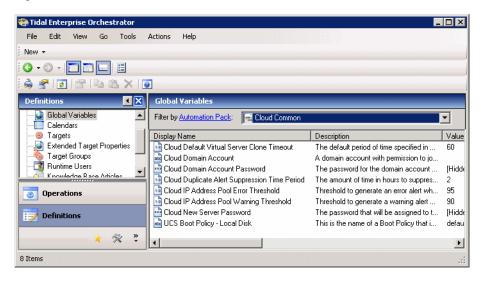


Figure 4-17 Global Variables View

The following information about the variables displays by default:

Column	Description
Display Name	Name of the global variable.
Description	Brief overview of the global variable.
Value	Value of the variable.
Data Type	Type of value being used for the variable (Boolean, Encrypted String, Identity, Numeric, String, Table).
Automation Pack	Name of the automation pack that provides the object.

Column	Description
Last Modified Time	Time the global variable was last modified.
Last Modified By	Name of the user who last modified the global variable.

## **Modifying Global Variable Default Values**

Most of the global variables that ship with the Cloud content have default values configured. However, you can modify these default values.

There are also a few global variables that do not ship with default values and these variables must be configured prior to being used in the processes. The following global variables must be configured by the user:

· Cloud Domain Account

Figure 4-18

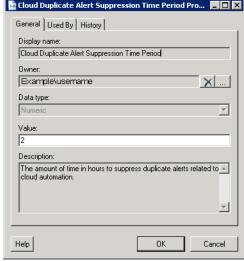
- Cloud Domain Account Password
- Cloud New Server Password

You use the Global Variable Properties dialog box to configure the global variables or modify the default values.

- **Step 1** In the Definitions view, click **Global Variables** in the navigation pane to display the variables in the Global Variables pane.
- Step 2 Click the Filter by link and choose Automation Pack > Cloud Common to filter for only the global variables that ship with the Cloud Common automation pack.
- Step 3 In the Global Variables pane, right-click the global variable and choose Properties.

Global Variable Properties - General Tab

Cloud Duplicate Alert Suppression Time Period Pro...



**Step 4** In the Value text field, enter the new value and click **OK**.

# **Using Task Rules for Assignments and Notifications**

Task rules are used to manage task assignments and notifications for tasks, such as incidents and alerts, that are generated from processes. When you import the Cloud Common automation pack, you are prompted to specify the default user or group who should be assigned Cloud related incidents. By default, this person will receive all assignments unless task rules are created to specify alternate users or groups for specific tasks. In addition, email notifications will not be sent unless you create a task rule to send a notification.

This section guides your through configuring the task rules and provides instructions for creating and managing task rules.



If you do not want to create task rules for email notifications, you can use the default notification based on assignment processes that ship with the Core automation pack. These processes are disabled by default and must be enabled if you want notifications to be sent (see Enabling Notification Based on Assignment Processes, page 4-39).

## **Accessing Task Rules View**

The task rules that ship with the Cloud automation packs can be accessed from the Definitions—Task Rules view.

- **Step 1** On the Console, select the Definitions workspace and click **Task Rules** in the navigation pane. By default, all the rules display in the Task Rules pane.
- Step 2 Click the Filter by link and choose Automation Pack > [Automation Pack Name] to filter for only the task rules that ship with the specific automation pack.

Go Tools **I**X Target Groups Filter by  $\underline{\text{Automation Pack}};$ <No Filter> ▼ Runtime Users Knowledge Base Articles Display Name Туре Automation Pack Last Modified Tin Knowledge

Categories 🕏 Cloud Default Incident Assign... Assign Task Rule 7/23/2011 11:32 Cloud Common Operations Definitions R 1 Items

Figure 4-19 Definitions—Task Rules View

The following information about the task rules displays by default:

Column	Description
Display Name	The name assigned to the task rule.
Enabled	Indicates whether the task rule is enabled ( <i>True</i> ) or disabled ( <i>False</i> ). A disabled task rule is unavailable for execution.
Type	Type of task.
Owner	User name of the person or group who assigned the task rule.
Last Modified Time	The date and time the task rule was last modified.
Last Modified By	The object or user name that last modified the task rule.
Id	Unique ID of the task rule.
Description	Brief description of the task rule.
Type Description	Brief overview of the task rule type.
Created Time	Time at which the task rule was created.
Created Date	Date the task rule was created.
Automation Pack	Name of the automation pack associated with the task rule.

## **Configuring Task Rules**

Use the Task Rules view to configure the task rule that ships with the Cloud Common automation pack.

### **Cloud Default Incident Assignment**

The Cloud Default Incident Assignment task rule is used to assign incidents that are created by the Cloud automation packs to a default user or group. During the automation pack import process you are prompted for the default assignee. If you did not configure the assignee during the import process or if you want to modify the assignee, use the following procedure to specify the assignment information.

- **Step 1** In the Definitions workspace, click **Task Rules** in the navigation pane to display the task rules in the results pane.
- Step 2 Click the Filter by link and choose Automation Pack, and then choose Cloud Common from the drop-down list.
- Step 3 Right-click Cloud Default Incident Assignment and choose Properties to open the Cloud Default Incident Assignment Properties dialog box.
- **Step 4** Click the **Assign** tab to specify the user or group that should receive notifications for incidents and alerts generated by the processes.
- **Step 5** On the Assign tab, click **Add** to open the Select Assignee to Add dialog box.

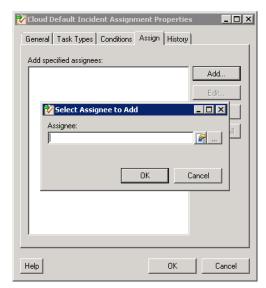


Figure 4-20 Adding Assignees to Task Rule

- **Step 6** On the Select Assigneed to Add dialog box, specify the assignees using one of the following methods:
  - Click the **Reference** fool to select the appropriate variable reference containing the assignee or list of assignees from the Insert Variable Reference dialog box.
  - Click the **Browse** tool to launch the Select User or Group dialog box to add user to the list of assignees.
- **Step 7** Click **OK** to add the assignee to the task rule.

Cloud Default Incident Assignment Properties

General Task Types Conditions Assign History

Add specified assignees:

Dornain\username

Add...

Edit...

Remove All

Help

OK Cancel

Figure 4-21 Task Rule Properties—Assign Tab with Assignee

**Step 8** When you have completed adding assignees to the task rule, click **OK** to close the dialog box.

# **Creating a New Task Rule**

Use the Task Rules view to create a new task rule. The procedure is the same for all types of task rules with the exception of the task-specific tab (Assign, Notify, Update) for the type of task rule you are creating.



Only users with administrative rights can create task rules in TEO.

You can create the following types of task rules:

Task Rules	Description
Assign Task Rule	Assigns users to a task.
Notify Task Rule	Notifies users that a task has been created.
Update Task Rule	Specifies the properties to be updated in a task

Step 1 In the Definitions workspace, right-click Task Rules and choose New > [Task Rule Type] to open the New Rule Properties dialog box.

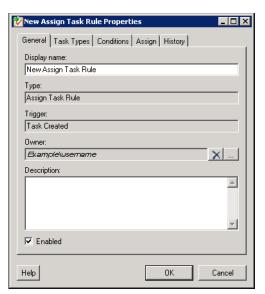


Figure 4-22 New Rule Properties Dialog Box—General Tab

**Step 2** On the General tab, enter the following information:

Field	Description
Display Name	Name of the task.
Type	Display only. Shows the type of object.
Trigger	Display only. Type of trigger associated with the task rule.
Owner	User name of the owner of the task rule. This is typically the person who created the task rule.  Click the <b>Browse</b> tool to launch the Select User or Group dialog box to change the owner.
Description	A brief description of the task rule.
Enabled	The check box is checked by default to indicate that the task rule is available for execution.
	Uncheck the check box to disable the task rule. If the check box is unchecked, the task rule is disabled and will be unavailable for execution.

**Step 3** Click the **Task Types** tab to specify the types of tasks to be executed by the rule.

| Select All | Unselect All |

| Select All | Unselect All |

| Select All | Unselect All |

| OK | Cancel |

Figure 4-23 New Rule Properties Dialog Box — Task Types Tab

**Step 4** Check the check box for the type of task that will execute the rule.

Task Type	Description
Alert	Alerts reflect potential problems that a user may want to investigate and possibly diagnose the problem.
Approval Request	Specifies the message and choices for the assignee who is approving the task.
Guided Operation	Details the steps a user takes to complete an assigned task.
Incident	Task requires an operator to take action in order to resolve an issue.
Input Request	Task requires input from an individual or group.
Review	Task assigns a document for review.

**Step 5** Click the **Conditions** tab to specify the conditions of when the task rule action is to be taken based on an evaluation of the defined conditions.



The Required Value 1 icon displayed on a tab or page indicates that the field is required and is missing a value.

New Assign Task Rule Properties

General Task Types Conditions Assign History

Rule execution condition:

Basic Advanced

TRUE condition (condition is always satisfied)

TRUE New Delete

Help

OK Cancel

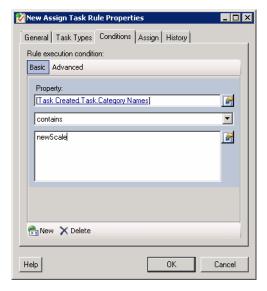
Figure 4-24 New Rule Properties Dialog Box—Conditions Tab

**Step 6** On the Conditions tab, define the conditions that must be met for the rule to execute.

#### **Defining a Basic Condition:**

a. On the Basic page, click New to add a new property for the condition that must be met.



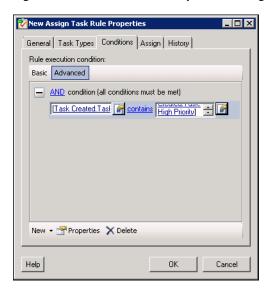


- **b.** In the Property text field, click the **Reference** tool to choose a defined variable or reference an object on the Insert Variable Reference dialog box.
- **c**. Choose the condition expression from the drop-down list.
- **d.** Enter the condition description in the text box or click the **Reference** tool to choose a defined variable or reference an object on the Insert Variable Reference dialog box.
- **e.** Click **New** to define additional properties, if necessary.

#### **Defining an Advanced Condition:**

**a.** Click the **Advanced** tab to define a specific type of condition (Compound, Prior Process Instance, Time, or Variable).

Figure 4-26 New Rule Properties Dialog Box—Advanced Condition



**b.** Click the link to modify the option for the condition equation.

Option	Description
AND condition (all conditions must be met)	Click this option if an action is to be taken only when all conditions in the list are <i>true</i> .
OR condition (one condition must be met)	Click this option if an action is to be taken when one condition in the list is <i>true</i> .

- c. Click New and choose the type of condition from the drop-down list.
- **d.** Specify the relevant information for the type of condition selected.



Click NewClick the **Reference** tool to choose a defined variable or reference an object on the Insert Variable Reference dialog box.

- e. Click New to define additional properties, if necessary.
- Step 7 Click the task rule specific tab (Assign, Notify, or Update) and specify the relevant information for the specific type of rule.

#### **Assign Task Rule**

If you are creating an Assign Task Rule, the Assign tab displays on the New Rule Properties dialog box.

Figure 4-27 New Rule Properties Dialog Box—Assign Tab



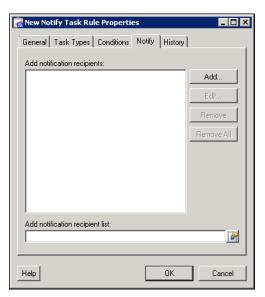
**Step 8** On the Assign tab, specify the assignees for task rule.

Field	Description
Add	Click this button to launch the Select Assignee to Add dialog box to specify the assignees.
	On the Select Assignee to Add dialog box, use one of the following methods to specify the assignee:
	<ul> <li>Click the Reference tool to select the appropriate variable reference containing the assignee or list of assignees from the Insert Variable Reference dialog box.</li> <li>Click the Browse tool to launch the Select User or Group dialog box and add user to the list of assignees.</li> </ul>
Edit	Select the appropriate assignee in the list and click this button to view or modify the assignee of the task rule.
Remove	Select the appropriate assignee and click this button to remove the assignee from the list.
Remove All	Click this button to remove all specified assignees from the list.

#### **Notify Task Rule**

If you are creating a Notify Task Rule, the Notify tab displays on the New Rule Properties dialog box.

Figure 4-28 New Rule Properties Dialog Box – Notify Tab



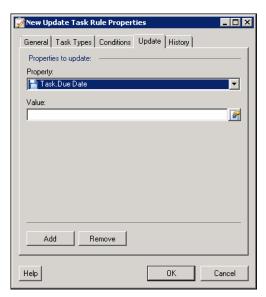
On the Notify tab, specify the recipients of the notification that the task rule has executed. You can add individual recipients or include a notification recipient list.

Field	Description
Add notification recipients	Displays list of users to be notified by the task rule.
	<ul> <li>Add—Click this button to launch the Select Notification Recipient to Add dialog box to specify the recipients.</li> </ul>
	On the dialog box, enter the email address for the recipient or click the <b>Reference</b> fool to select the appropriate variable reference containing the recipient or list of recipients from the Insert Variable Reference dialog box and then click <b>OK</b> .
	• Edit—Select the appropriate recipient in the list and click this button to view or modify the recipient of the task rule.
	<ul> <li>Remove—Select the appropriate recipient in the list and click this button to remove the recipient from the list.</li> </ul>
	Remove All—Click this button to remove all specified recipients from the list.
Add notification recipient list	Click the <b>Reference</b> fool to select the appropriate variable reference containing list of recipients from the Insert Variable Reference dialog box.

#### **Update Task Rule**

If you are creating an Update Task Rule, the Update tab displays on the New Rule Properties dialog box.

Figure 4-29 New Rule Properties Dialog Box—Update Tab



On the Update tab, specify the properties to be updated after the task rule has executed.

Field	Description
Add	Click this button to add a new property to the Properties to update area.
Remove	Click this button to remove the last property added to the Properties to update area.
Property	From the Property drop-down list, choose the item to update within the task. The properties displayed depend on the selected item.
List action	Choose the appropriate item from the drop-down list to determine which action to take with the selected property:
	• Add Item—Adds item to task.
	• Remove item—Removes item from task.
	• Clear—Removes property value from task.
Value	Enter new value for the property.

**Step 9** Click **OK** to save the task rule definition and close the dialog box.

## **Managing Task Rule Definitions**

This section provides instructions on modifying task rules in the Definitions—Task Rule view. Only users with administrative rights can modify task rules in TEO.



For additional information on managing task rules, see the *Tidal Enterprise Orchestrator Reference Guide*.

### **Enabling a Task Rule**

A task rule is enabled by default. If a task rule is manually disabled, the task rule must be enabled before it is available for execution.

On the Definitions—Task Rules view, select the task rule and then use one of the following methods to enable it:

- On the Results pane, right-click and choose **Enable**.
  - -or-
- On the Details pane, select Click here to enable.

The Enabled column on the Results pane changes to True. If necessary, click the **Refresh** tool to update the view.

### **Disabling a Task Rule**

Disabling a task rule prevents the item from being available for execution. The disabled task rule is not removed from the list of task rules on the Definitions—Task Rules Results pane.

On the Definitions—Task Rule view, select the task rule and then use one of the following methods to disable it:

- On the Results pane, right-click and choose **Disable**.
  - -or-
- On the Details pane, select Click here to disable.

The Enabled column on the results pane changes to False. If necessary, click the **Refresh** tool to update the view.

### **Creating a Copy of a Task Rule**

The copy option is used when the user wants to leverage an existing task rule to define a new task rule using existing properties.

- **Step 1** On the Definitions—Task Rules view, select the appropriate task rule, right-click and choose **Copy**.
- **Step 2** On the Results pane, right-click and choose **Paste**.

A copy of the defined task rule is pasted onto the Results pane.

- **Step 3** To rename the copied task rule or other properties, right-click and choose **Properties**.
- **Step 4** Modify the task rule name, as appropriate, and click **OK** to close the dialog box.

### **Sorting Task Rules**

The task rules are executed according to the order they are listed on the Definitions—Task Rules view. You should sort the task rules based on the order in which you want them to execute.



All task rules will execute even if there is more than one task rule assigned for the same condition. For example, if you have two assignment rules for the same incident, both rules will be executed in the order listed in the Task Rules view.

On the Definitions—Task Rules view, select the task rule and use one of the following methods to move it to the desired position in the list:

- Drag and drop the task rule into the appropriate position in the list.
- On the Actions toolbar, click **Move Up** or **Move Down**.
- Click the Actions menu and choose **Move Up** or **Move Down**.
- Right-click and choose **Move Up** or **Move Down**.

The list of task rules are sorted according to the selected action.

### **Deleting a Task Rule**

Use the Definitions—Task Rules view to delete task rules that are no longer used.

- **Step 1** On the Definitions—Task Rules view, select the task rule, right-click and choose **Delete**.
- **Step 2** On the Confirm Delete dialog box, click **Yes** to confirm the deletion.

## **Enabling Notification Based on Assignment Processes**

If you want to have emails sent to whoever is assigned to a task but do not want to create notification task rules, you can enable the processes that ship with the Core automation pack that send emails based on assignment.

When these processes are enabled, the user or user group who was assigned to tasks will receive the email notification.

- **Step 1** In the Definitions workspace, click **Processes**.
- Step 2 Click the Filter by link and choose Automation Pack > Core to filter for the processes that ship with the Core automation pack.
- Step 3 Right-click the appropriate Notification Based on Assignment process and choose Enable.

The following processes are for notification based on assignment:

Process Name	Description
Default Alert Notification Based on Assignment	Sends email when an alert gets assigned.
Default Approval Request Notification Based on Assignment	Sends email when an approval request gets assigned.
Default Change Request Notification Based on Assignment	Sends email when an change requests gets assigned.
Default Guided Operation Request Notification Based on Assignment	Sends email when a guide operation request gets assigned.
Default Incident Notification Based on Assignment	Sends email when an incident gets assigned.
Default Input Request Notification Based on Assignment	Sends email when an input request gets assigned.
Default Review Request Notification Based on Assignment	Send email when a review request gets assigned.

Using Task Rules for Assignments and Notifications



CHAPTER 5

# **Managing the Cloud Processes**

This chapter provides information on using the product, specific to the Cloud automation packs. It includes information on accessing the Cloud processes and filtering for specific processes, managing the processes, starting a process, and viewing a running process, its results, and the automation summary generated by the process.

It includes the following sections:

- Accessing Cloud Processes, page 5-2
- Managing the Cloud Processes, page 5-4
- Running Processes, page 5-10
- Viewing Process Results, page 5-13
- Viewing Automation Summary, page 5-15



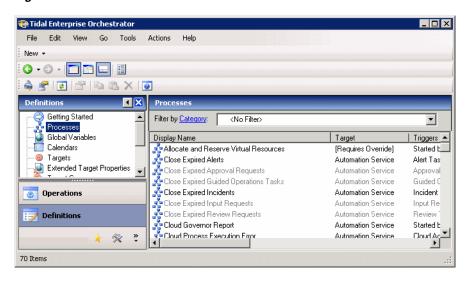
Before you can run the Cloud processes, you must configure the objects that are referenced by the processes and activities. *See* Chapter 4, "Getting Started Using the Automation Pack" for information on configuring the Cloud-related objects in TEO.

## **Accessing Cloud Processes**

The processes that ship with the product can be accessed from the Definitions—Processes view.

**Step 1** On the Console, select the Definitions workspace and click **Processes** in the navigation pane. By default, all the processes display in the Processes pane.

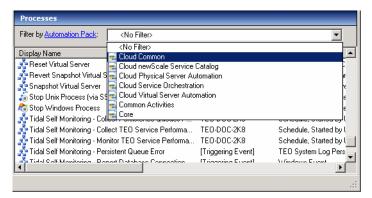
Figure 5-1 Processes View



If you have multiple automation packs installed, you can filter the processes to display the processes specific to the automation pack.

- Step 2 In the upper portion of the Processes pane, click the Filter by link and choose Automation Pack.
- Step 3 In the drop-down list, choose [Automation Pack Name].

Figure 5-2 Filtering Processes by Automation Pack



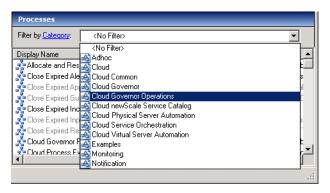
The processes display in the Processes pane (see Figure 5-4 on page 5-5).

## **Filtering Processes by Category**

The Cloud automation packs contain categories by which you can also filter the processes. This is particularly useful when you are initializing your cloud environment and need to filter for Cloud Governor Operations processes.

- Step 1 In the upper portion of the Processes pane, click the Filter by link and choose Category.
- **Step 2** In the drop-down list, choose the category.

Figure 5-3 Filtering Processes by Category



**Step 3** Scroll to the process.

## **Managing the Cloud Processes**

This section provides information on managing the Cloud processes, including:

- Enabling and disabling processes
- Enabling and disabling the process archival feature
- Modifying a process schedule

### **Enabling a Process**

Some processes are disabled by default to reduce the load on the server or because they may require configuration to your specific environment before they can be used. They may also have been imported as disabled by checking the Disable all imported processes check box in the Automation Pack Import Wizard. The disabled processes must be enabled before they are available for execution.

Perform the following steps to enable a process.

- **Step 1** In the Processes view, navigate to the process that you want to enable (disabled processes appear dimmed).
- **Step 2** Use one of the following methods to enable the process:
  - Right-click the process and choose Enable from the submenu.

### **Disabling a Process**

Disabling a process prevents the process from executing. You may want to disable some processes to reduce the load on your server or while you are modifying the process definition.

Perform the following steps to disable a process.

- **Step 1** In the Processes view, navigate to the process that you want to disable.
- **Step 2** Use one of the following methods to disable the process:
  - Right-click the process and choose **Disable** from the submenu.
  - In the Process Editor, click the **General** tab and then uncheck the **Enabled** check box. Click the **Save** | tool to save your changes to the process and close the Process Editor.

### **Modifying Process Instance Archival**

TEO provides an option in the process definition that allows you choose whether or not to archive process and activity execution in the TEOProcess database. Disabling the **Archive completed instances** option helps improve performance and minimize the size of the database. It is also useful when debugging the execution of processes.

Perform the following steps to enable or disable the archival feature.

- **Step 1** In the Processes view, navigate to the process you want to flag for archival.
- **Step 2** Right-click the process and choose **Edit** from the submenu.

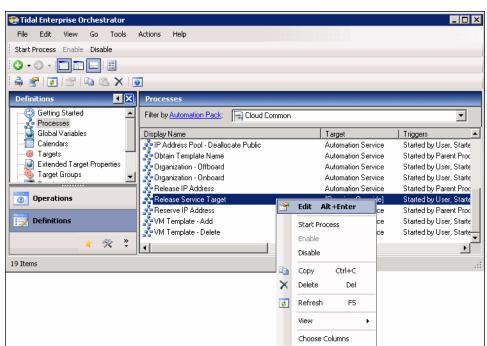
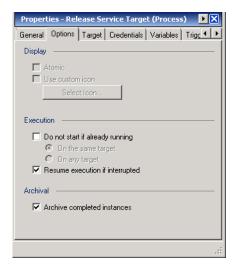


Figure 5-4 Opening a Process to Edit Properties

**Step 3** On the process Properties dialog box, click the **Options** tab.

Figure 5-5 Process Properties — Options Tab



**Step 4** On the Options tab, uncheck or check the **Archive completed instances** check box to disable or enable process instance archival.

If the process is already flagged for archival and you no longer want to save the process instances for this process, uncheck the check box.

Step 5 Click the Save | tool to save your changes to the process and close the process Editor.

### **Modifying a Process Definition**

To modify a process that ships with the automation pack, you must copy the process and then modify the process definition specific to your environment.

### **Copying a Process**

- **Step 1** In the Processes pane, filter the processes to display the Cloud processes.
- **Step 2** Scroll to the process you want to modify, right-click and choose **Copy**.
- Step 3 Right-click in a blank area on the Processes pane, and choose Paste.
- **Step 4** On the Filter by link, click **Name** to locate the copied process.

#### **Editing Process Definition**

Once you have copied the example process, you can open the process in the Process Editor and edit the process properties.

- **Step 1** In the Processes pane, navigate to the copied process, right-click and choose **Edit**.
- **Step 2** On the Process Properties dialog box, click the tab for the information that you want to customize for the process definition:
  - General—Enter a customized description for the process.
  - Options—Modify the display, execution and archival options for the process.
  - Target—Modify the target for the process. By default, the process is defined to execute on the target that is specified at start time.
  - Credentials—If you modify the target for the processes, use this tab to assign the appropriate runtime user account for the target.
  - Variables—The example processes ship with pre-defined variables. You can add, delete or modify the variables for the process.
  - Triggers—The example processes do not have triggers assigned. Use this tab to specify how or when the the process will execute.
  - Categories—The copied process will be assigned to the same categories as the original process. You can create a new category using this tab.
- **Step 3** Modify the existing process workflow, if necessary, by adding activities or redefining the activity inputs.
- **Step 4** When you have completed your changes to the process, click the **Save** 🔛 tool to save your changes and close the Process Editor.

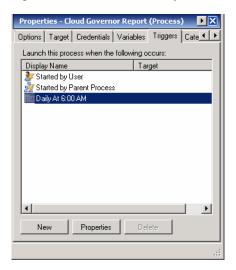
### **Modifying a Process Schedule**

Many of the processes that ship with the automation packs are triggered by a schedule. You can modify when the process will be executed by disabling the existing schedule and then creating a new schedule for the process. You use the process Properties dialog box to modify the process schedule.

Perform the following steps to assign a new schedule to a process.

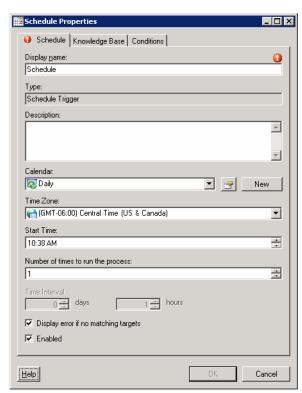
- **Step 1** In the Processes view, navigate to the process for which you want to modify.
- **Step 2** Right-click the process and choose **Edit** from the submenu (see Figure 5-4 on page 5-5).
- **Step 3** On the process Properties dialog box, click the **Triggers** tab.

Figure 5-6 Process Properties — Triggers Tab



- **Step 4** On the Triggers tab, right-click the current **Schedule** and choose **Disable** from the submenu.
- **Step 5** Click **New > Schedule** to open the Schedule Properties dialog box to create a new schedule for this process.

Figure 5-7 Schedule Properties



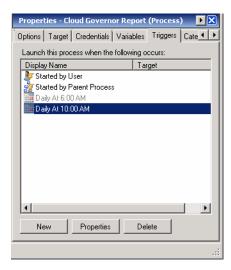
**Step 6** On the Schedule Properties dialog box, specify the criteria for the new schedule and click **OK**.



For information on creating schedules, see "Managing Triggers" in the *Tidal Enterprise Orchestrator Reference Guide*.

The newly created schedule displays on the Triggers tab and is enabled.

Figure 5-8 Process Properties – Triggers Tab with Newly Created Schedule



**Step 7** Click the **Save** I tool to save your changes to the process and close the process Editor.

# **Running Processes**

The processes that ship with the product will run based on the trigger that was defined in the process definition. For processes that are triggered by a schedule, you can also manually start a process at any time (adhoc). This section guides you through starting a process and viewing its progress as it runs.

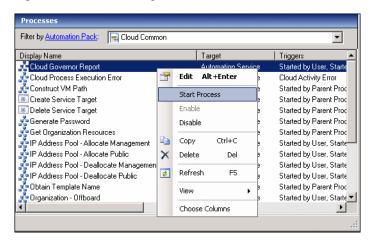


You can only view a running process and the process instances for processes that have the Archive completed instances feature enabled. See Modifying Process Instance Archival, page 5-5 for information on enabling the archival feature on a specific process.

### **Starting a Process**

**Step 1** In the Processes view, right-click the process and choose **Start Process** from the submenu.

Figure 5-9 Starting a Process



The Confirm Start Process dialog box displays.

Figure 5-10 Confirm Start Process



**Step 2** On the Confirm Start Process dialog box, click **OK** to start the process.

The Start Process Results dialog box displays. Proceed to Viewing Running Process, page 5-11.

## **Viewing Running Process**

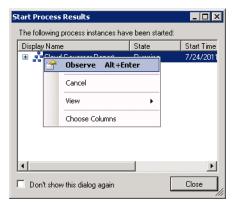
After starting the process, you can use the Process Viewer to view the process as it runs through each activity.



You can only view a running process and the process instances for processes that have the **Archive completed instances** feature enabled. See Modifying Process Instance Archival, page 5-5 for information on enabling the archival feature on a specific process.

**Step 1** On the Start Process Results dialog box, right-click the process and choose **Observe**.

Figure 5-11 Start Process Results – Observe Submenu



The Process Viewer displays the process workflow.

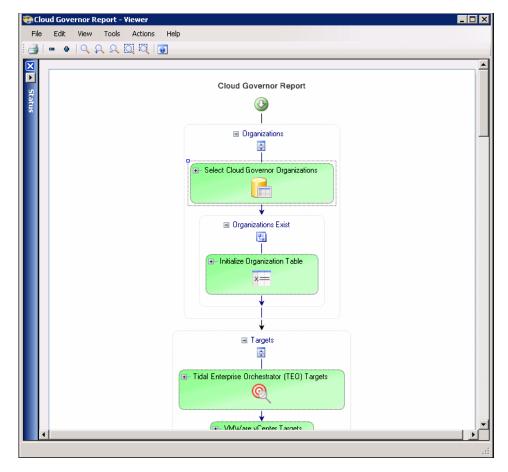


Figure 5-12 Process Viewer – Viewing Process Running

- **Step 2** View the process as it proceeds through the workflow.

  The activities within the process workflow will change to green as they complete (succeed).
- Step 3 When the process completes, close the Process Viewer and proceed to Viewing Process Results, page 5-13.

## **Viewing Process Results**

After a process completes, you can view the results in the Operations workspace.



You can only view a running process and the process instances for processes that have the Archive completed instances feature enabled. See Modifying Process Instance Archival, page 5-5 for information on enabling the archival feature on a specific process.

### **Accessing Process View**

- **Step 1** On the Operations workspace, expand expand **Process Views** in the navigation pane and click the view that represents how the process was executed (for example, click **View Adhoc** if the process was manually executed).
- Step 2 Using the Filter by link, choose Category and then choose the Cloud Governor Operations from the drop-down list.
- **Step 3** Scroll to the process and select it.
- **Step 4** In the View Results pane, expand the process to view each activity in the process workflow.

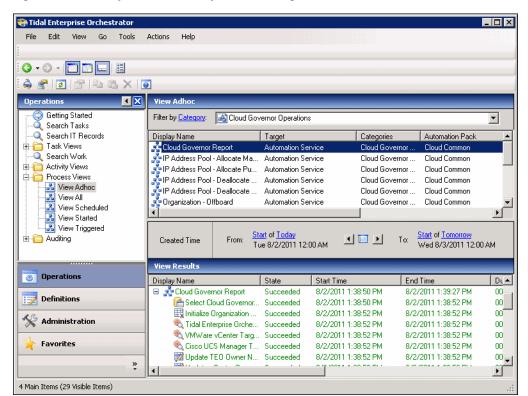


Figure 5-13 Operations Workspace — Viewing Process Results

**Step 5** Review the status of the process and each activity within the process to verify that it has succeeded.

### **Viewing Tasks**

When a process detects an issue that requires action, an alert is generated. If you have configured the product to send notifications to a specific person in your organization, that person will receive an email notification whenever an alert is generated. You can also view these alerts in the Task Views on the Operations workspace.

- Step 1 On the Operations workspace, expand **Task Views** in the navigation pane and click the appropriate view, for example, **View User Interactions**.
- Step 2 In the View User Interactions pane (upper pane), choose View all tasks from the Task Assignee drop-down list to display the tasks in the View Results pane.

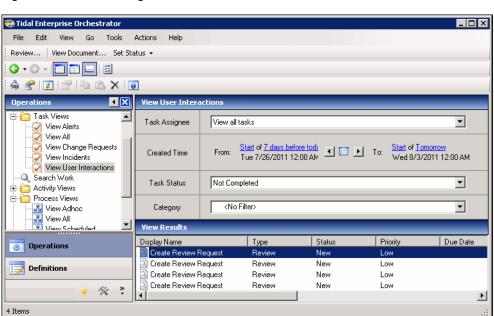


Figure 5-14 Viewing Tasks

**Step 3** To view a specific alert, right-click the alert and choose **Review**.

Display Name Туре Status Priority Due Date Create Review Reque Review. Create Review Request Review Create Review Request Review Properties Alt+Enter Create Review Request Review View Document... Set Status Delete Del Refresh F5

Choose Columns

Figure 5-15 Task Review Submenu

The Review Request Report displays in your web browser.

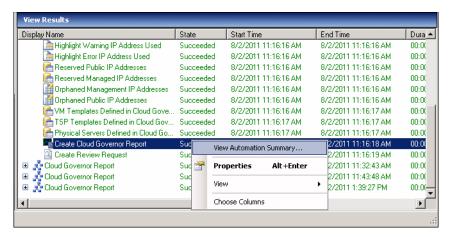
# **Viewing Automation Summary**

When alerts are generated, TEO delivers an online Automation Summary that details the analysis that was performed to identify a situation that may require action. It also shows relevant diagnostic and state information captured while performing the situation analysis, and provides a recommended resolution for the situation.

You can access the Automation Summary from the Tasks View on the Operations workspace.

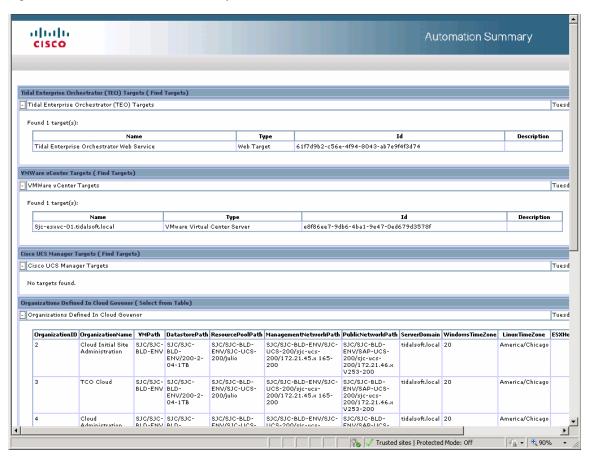
- **Step 1** On the Operations workspace, expand **Task Views** in the navigation pane and click **View Alerts**.
- **Step 2** In the View Alerts pane, click the **View all tasks** radio button to display the alerts in the View Results pane.
- Step 3 Right-click the alert and choose View Automation Summary.

Figure 5-16 View Automation Summary Submenu



The Automation Summary displays in your web browser.

Figure 5-17 Automation Summary





CHAPTER 6

# **Using the Cloud Activities**

The Cisco TEO Cloud automation packs provide additional activities for managing the Cloud environment. These are additional activities that display in the Process Editor toolbox after the user has imported the automation packs.

When defining an activity in the process workflow, the properties pane contains property pages that are specific to the selected activity. This chapter provides instructions for defining these activities, instructions for completing the property pages for each specific activity, and instructions on viewing the activity results.

It includes the following sections:

- Cloud Activities, page 6-2
- Defining an Activity, page 6-3
- Defining the Create Service Target Activity, page 6-7
- Defining the Delete Service Target Activity, page 6-8
- Defining the Add Service Request Note Activity, page 6-10
- Defining the Complete Service Request Activity, page 6-11
- Defining the Update Service Request Parameter Activity, page 6-13

# **Cloud Activities**

The following table displays the activities that are provided by the Cloud automation packs.

Activity	Description
Create Service Target	Creates a new service target that represents a type of service.
	See Defining the Create Service Target Activity, page 6-7.
Delete Service Target	Deletes a service target using the target name or target ID.
	See Defining the Delete Service Target Activity, page 6-8.
Add Service Request Note	Add text to a newScale service request history. The text can include a TEO automation summary path.
	See Defining the Add Service Request Note Activity, page 6-10.
Complete Service Request	Mark a newScale service request as complete and optionally add a note to the service request history.
	See Defining the Complete Service Request Activity, page 6-11.
Update Service Request Parameter	Sets the value of a newScale agent parameter, such as the IP address.
	See Defining the Update Service Request Parameter Activity, page 6-13.

# **Defining an Activity**

Use the following steps to define an activity in the Process Editor. The property pages that display depend on the activity. Refer to the appropriate section for instructions on completing the activity property pages.

**Step 1** On the Toolbox pane, navigate to the appropriate section, click the activity and drag it onto the Workflow pane.

The Activity Properties dialog box displays.



The Required Field (i) icon displayed on a tab or page indicates that the field is required and is missing a value.

Click the **Reference** fool to select a defined variable or reference an object within the process. For additional information, see the *Tidal Enterprise Orchestrator Reference Guide*.

**Step 2** On the General tab, enter the following information:

Field	Description
Name	Name of the activity.
Туре	Display only. Displays the type of activity.
Description	Text description of the activity.

- **Step 3** Click the **Activity-specific** tab (typically, Inputs) and enter the required information. See the appropriate section in this chapter for instructions on completing the fields on the activity-specific tab.
- **Step 4** Click the **Target** tab to specify the process target. You can use the process target or override it and specify a different target for the specific activity.

Field	Description
Execute on the process target	Click this radio button to use the same target that was specified for the process.
Execute on activity target	Click this radio button to indicate that the activity should execute against a target selected in an activity within the process. Choose the activity from the drop-down list.
Execute on this target	Click this radio button and choose a specific target from the drop-down list.  • To view the properties for the selected target, click the <b>Properties</b> tool.
	• To create a new target for this process, click <b>New</b> .

Field	Description
Execute on this target reference	Click this radio button and then click the <b>Reference</b> tool to select the target reference property on which to execute the activity.
	On the Insert Variable Reference dialog box, expand <b>Process &gt; Target &gt; Properties</b> , select the appropriate target reference property, and click <b>OK</b> .
	The selected target reference property displays in the text field.
Execute on the target selected by this algorithm	Click this radio button to execute the target selected by one of the target algorithms displayed in the drop-down menu.
	<b>Note</b> The available algorithms that display depend on the selected activity.
Execute on this target group	Click this radio button to choose a target group from the drop-down list.
	• To view the properties for the selected target group, click the <b>Properties</b> tool.
	• To create a new target group for this process, click <b>New</b> .
	Use the <b>Choose a target using this algorithm</b> drop-down list to choose the algorithm that will determine the target to execute from the eligible target group.
	Note The available algorithms that display depend on the selected activity.

**Step 5** Click the **Credentials** tab to specify the runtime user whose credentials should be used for process execution:

Field	Description
Use target's default runtime user	Click this radio button to use the default runtime user for the target that is specified in the activity.
Use Process runtime user	Click this radio button to use the credentials for the runtime user that was specified for the process.
Override process runtime user	Click this radio button to specify different credentials than what are used for the process. The selected runtime user overrides the runtime user that was specified for the process.
	<ul> <li>To view the properties for the selected runtime user, click the <b>Properties</b>  tool.</li> </ul>
	• To create a runtime user record for the process, click <b>New</b> .

**Step 6** Click the **Knowledge Base** tab to specify a knowledge base article for the activity. The following information displays:

Field	Description
Knowledge base	Knowledge base article associated with the activity.
Summary	Brief description of the issue.
Possible Cause	Explanation of the condition that may be causing the issue.
Possible resolution	List of actions that can be performed to attempt to resolve the issue.
Related information	Additional information related to the issue.

- Step 7 If the knowledge base article is not displayed by default, click the **Browse** tool in the Knowledge Base field.
- **Step 8** On the Select Knowledge Base dialog box, select the appropriate knowledge base article in the list and click **OK**.



Click **New** to create a new knowledge base article. For additional information on knowledge base articles, *see* the *Tidal Enterprise Orchestrator Reference Guide*.

**Step 9** Click the **Result Handlers** tab to specify condition branches for the activity.

Button	Description
Add	Adds a condition branch.
Remove	Removes the condition branch from the activity.
Move Up	Moves the condition up one position in the list of conditions.
Move Down	Moves the condition down one position in the list of conditions.

**Step 10** Click the **Save** 🖟 tool to save the activity definition.

## **Viewing Activity Results**

When an activity is executed, results are displayed in the Operations workspace activity instance view.

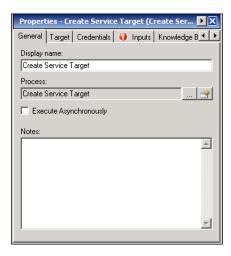
- **Step 1** In the Operations workspace, expand the **Activity Views** folder and click the view that represents how the process was executed (for example, View Adhoc, if the process was manually executed).
- **Step 2** In the View Results pane, expand the process, and double-click the activity instance or right-click and choose **Observe**.
- **Step 3** On the Process Viewer, ensure that **Properties** is enabled in the View menu, and then click the activity in the workflow to display the activity instance properties.
- **Step 4** On the General tab, view the State field to determine if the activity *Succeeded* or *Failed*.
- **Step 5** Click the **Inputs** tab to view the *display-only* properties of the activity.
- Step 6 Click the Outputs tab to view the results of the activity.

# **Defining the Create Service Target Activity**

Use the Create Service Target activity to create a new service target that represents a type of service.

**Step 1** On the Toolbox pane, click the **Create Service Target** activity and drag it onto the Workflow pane.

Figure 6-1 Create Service Target Properties—General Tab

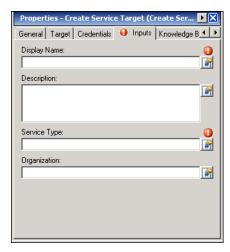


**Step 2** On the General tab, enter the following information:

Field	Description
Name	Name of the activity.
Туре	Display only. Displays the type of activity.
Description	Text description of the activity.

Step 3 Click the Inputs tab.

Figure 6-2 Create Service Target Properties—Inputs Tab



**Step 4** Specify the following information:

Field	Description
Display Name	Display name of the service target to be created.
Description	Text description of the service target to be created.
Service Type	The type of service represented by the new service target.
Organization	The organization to which the newly created service target belongs.

- **Step 5** Complete the appropriate information in the following tabs:
  - Target—Specify whether the defined process target should be used or overridden.
  - Credentials—Specify the runtime user whose credentials should be used for process execution.
  - Knowledge Base—Select the appropriate knowledge base article to associate with the activity.
  - Result Handlers—Click the appropriate buttons to manage the condition branches on the workflow.
- **Step 6** Click the **Save** 🔛 tool to save the activity definition.

# **Defining the Delete Service Target Activity**

Use the Create Service Target activity to delete a service target using the target name or target ID.

Step 1 On the Toolbox pane, click the **Delete Service Target** activity and drag it onto the Workflow pane.

Figure 6-3 Delete Service Target Properties – General Tab



**Step 2** On the General tab, enter the following information:

Field	Description
Name	Name of the activity.
Type	Display only. Displays the type of activity.
Description	Text description of the activity.

#### Step 3 Click the Inputs tab.

Figure 6-4 Delete Service Target Properties—Inputs Tab



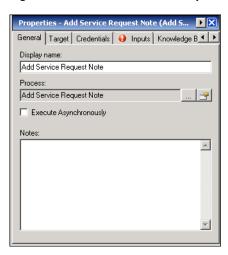
- **Step 4** In the Target ID or Name text field, specify the target ID or the display name of the service target to be deleted.
- **Step 5** Complete the appropriate information in the following tabs:
  - Target—Specify whether the defined process target should be used or overridden.
  - Credentials—Specify the runtime user whose credentials should be used for process execution.
  - Knowledge Base—Select the appropriate knowledge base article to associate with the activity.
  - Result Handlers—Click the appropriate buttons to manage the condition branches on the workflow.
- **Step 6** Click the **Save** | tool to save the activity definition.

# **Defining the Add Service Request Note Activity**

Use the Add Service Request Note activity to to add text to a newScale service request history. The text can include a TEO automation summary path.

Step 1 On the Toolbox pane, click the Add Service Request Note activity and drag it onto the Workflow pane.

Figure 6-5 Add Service Request Note Properties—General Tab

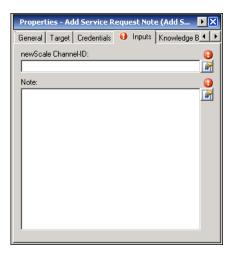


**Step 2** On the General tab, enter the following information:

Field	Description
Name	Name of the activity.
Туре	Display only. Displays the type of activity.
Description	Text description of the activity.

Step 3 Click the Inputs tab.

Figure 6-6 Add Service Request Note Properties—Inputs Tab



**Step 4** Specify the following information:

Field	Description
newScale Channel-ID	The channel ID assigned to a service request by newScale for communicating back information about the service request. Typically, this is passed with the original service request.
Note	The note to be added to the service request.

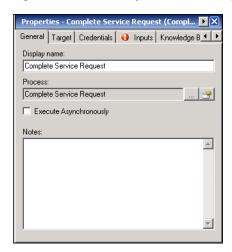
- **Step 5** Complete the appropriate information in the following tabs:
  - Target—Specify whether the defined process target should be used or overridden.
  - Credentials—Specify the runtime user whose credentials should be used for process execution.
  - Knowledge Base—Select the appropriate knowledge base article to associate with the activity.
  - Result Handlers—Click the appropriate buttons to manage the condition branches on the workflow.
- Step 6 Click the Save | tool to save the activity definition.

# **Defining the Complete Service Request Activity**

Use the Complete Service Request activity to mark a newScale service request as complete and optionally add a note to the service request history.

Step 1 On the Toolbox pane, click the Complete Service Request activity and drag it onto the Workflow pane.

Figure 6-7 Complete Service Request Properties—General Tab

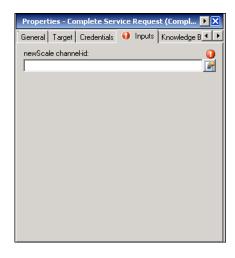


**Step 2** On the General tab, enter the following information:

Field	Description
Name	Name of the activity.
Туре	Display only. Displays the type of activity.
Description	Text description of the activity.

#### Step 3 Click the Inputs tab.

Figure 6-8 Complete Service Request Properties—Inputs Tab



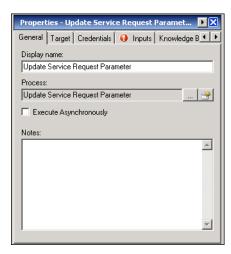
- **Step 4** In the newScale channel-id text field, enter the channel-ID assigned by newScale to uniquely identify a request. Typically, this is passed with the original service request.
- **Step 5** Complete the appropriate information in the following tabs:
  - Target—Specify whether the defined process target should be used or overridden.
  - Credentials—Specify the runtime user whose credentials should be used for process execution.
  - Knowledge Base—Select the appropriate knowledge base article to associate with the activity.
  - Result Handlers—Click the appropriate buttons to manage the condition branches on the workflow.
- **Step 6** Click the **Save** | tool to save the activity definition.

# **Defining the Update Service Request Parameter Activity**

Use the Update Service Request Parameter activity to set the value of a newScale agent parameter, such as IP address.

Step 1 On the Toolbox pane, click the Update Service Request Parameter activity and drag it onto the Workflow pane.

Figure 6-9 Update Service Request Parameter Properties — General Tab



**Step 2** On the General tab, enter the following information:

Field	Description
Name	Name of the activity.
Туре	Display only. Displays the type of activity.
Description	Text description of the activity.

Step 3 Click the Inputs tab.

Figure 6-10 Update Service Request Parameter Properties—Inputs Tab



#### **Step 4** Specify the following information:

Field	Description
newScale channel-id	The channel-ID assigned by newScale to uniquely identify a request. Typically, this is passed with the original service request.
Parameter Name	The name of the parameter to be set in newScale.
Parameter Value	The value of the parameter to be set in newScale.

#### **Step 5** Complete the appropriate information in the following tabs:

- Target—Specify whether the defined process target should be used or overridden.
- Credentials—Specify the runtime user whose credentials should be used for process execution.
- Knowledge Base—Select the appropriate knowledge base article to associate with the activity.
- Result Handlers—Click the appropriate buttons to manage the condition branches on the workflow.
- **Step 6** Click the **Save** I tool to save the activity definition.





# **Cloud Operations**

This appendix describes tasks you may need to perform on a daily or less frequent basis for efficient cloud operations. Each section describes actions to be taken based on the task you want to perform. The following tasks are included:

- Recovering From Failed Service Request, page A-2
- Onboarding an Organization, page A-3
- Offboarding an Organization, page A-4
- Updating an Organization, page A-4
- Allocating IP Address Pool for Organization, page A-4
- Deallocating IP Address Pool for Organization, page A-5
- Identifying IP Address Pools with Limited IP Addresses, page A-5
- Identifying Orphaned IP Addresses, page A-5
- Publishing New VM Template for Service Request, page A-6
- Removing VM Template, page A-7
- Adding New UCS Blade for Physical Provisioning, page A-7
- Removing UCS Blade from Cloud, page A-7
- Adding New TSP Template for Bare Metal Provisioning, page A-7
- Removing TSP Template from Cloud, page A-8

# **Recovering From Failed Service Request**

#### **Evaluate the Failure**

Perform the following tasks to evaluate the failure, including identifying the cause and possible resolutions:

- Locate the incident created for the failed service request. Typically, these incidents have an incident class of 5001.
- Review the incident description to understand the issue that caused the failure. The description may also include a URL to a related alert for a technical issue that may have caused the failure.
- Review the knowledge base article that is included in the automation summary for the incident to identify a possible resolution for the failure.

### **Resolving Technical Issue**

If the technical issue that is causing the failure can be resolved, perform the following tasks:

- Add a note to the TEO change request for the service stating that the problem is being resolved and the service will be completed. The note will be synchronized to the newScale service request.
- Resolve the technical issue causing the failure.
- Manually execute the TEO processes identified in the knowledge base. The service target is identified in the incident description.
- If the processes complete successfully, add a note to the TEO change request for the service stating that the service request has been fulfilled.
- Update the status of the change request to *Change Complete*. This will also complete the newScale service request.

### **Cancelling Service Request**

If the technical issue that is causing the failure cannot be resolved, perform the following tasks:

- Add a note to the TEO change request for the service stating the problem cannot be resolved at this time and possibly resubmit the request at a later time. This note will be synchronized to the newScale service request.
- Update the status of the change request to *Canceled*. This will also complete the newScale service request.
- In the Processes view, filter by the Cloud Governor Operations category and execute the process "Release Service Target" to release all resources allocated to the service target.

# Releasing All Resources Allocated to Service Target

For a variety of reasons you may need to release all resources allocated for a service target. This will delete an associated VM, release reserved IP addresses, and release reserved physical resources.

In the Processes view, filter by the Cloud Governor Operations category and execute the process "Release Service Target" to release all resources for a selected service target.

# **Reviewing Configured Resources**

The Cloud Governor Report is an automation summary that will show you the resources configured and allocated in the cloud. This information is useful in other operations, such as onboarding a new organization or allocating IP address pools. By default, the Cloud Governor Report is generated every morning at 6:00 a.m. You can also execute the Cloud Governor Report adhoc.

In the Processes view, filter by the Cloud Governor Operations category and execute the process "Cloud Governor Report" to review configured and allocated resources in the cloud.

When the process completes, a Review Request will be created and assigned to the person requesting the report. The Review Request can be viewed in **Operations > Task Views > View User Interactions**.

# **Onboarding an Organization**

Before people in an organization can submit orders for services in the cloud, the organization must be defined in newScale and the Cloud Governor. This will configure the cloud resources available for the organization. Perform the following task to onboard an organization in the cloud:

- Define the organization in newScale using the Organization Designer module.
- Look up the organization ID assigned to the new organization.
  - In newScale, order the Query Tenant Organization ID service.
  - Select the new organization from the drop-down list and note the assigned ID.



Note

It is NOT necessary to submit the order.

• In the TEO, filter the processes by the Cloud Governor Operations category and execute the "Organization – Onboard" process.

Enter the values in the applicable parameters for the process. Review the description for each parameter for information about the value to be entered. You can find many of these parameter values in the Cloud Governor Report (*see* Reviewing Configured Resources, page A-3 for information on the Cloud Governor Report).



If several organizations will be onboarded with the same resources, create a parent process for the organization and call the "Organization – Onboard" process as a child process. Hard code the parameters that do not change, and create input variables for parameters that will change.

# Offboarding an Organization

When an organization is no longer valid, you need to remove the organization and release all cloud resources that are allocated to the organization. Perform the following tasks to offboard an organization from the cloud:

- Review the Cloud Governor Report to identify the organization ID and the current resources allocated for the organization.
- Release all service targets created by the organization (*see* Releasing All Resources Allocated to Service Target, page A-3).
- Release all IP address pools allocated for the organization (*see* Deallocate an IP address pool for an organization).
- In the TEO, filter the processes by the Cloud Governor Operations category and execute the "Organization Offboard" process.

# **Updating an Organization**

Occasionally, you may need to update the resources assigned to an organization, such as the TEO server that will own requests for an organization. Perform the following tasks to update an organization:

- Review the organization on the Cloud Governor Report to view the current organization configuration (*see* Reviewing Configured Resources, page A-3).
- In the TEO, filter the processes by the Cloud Governor Operations category and execute the "Organization Onboard" process.

Enter the values in the applicable parameters for the process. Review the description for each parameter for information about the value to be entered. You can copy the input parameters that *do not* change from the Cloud Governor Report, and then enter new values for the parameters that need to be updated.

# **Allocating IP Address Pool for Organization**

For new organizations, you need to allocate public IP address pools or management IP address pools. Also, when an organization is depleting allocated IP addresses, you may need to allocate additional pools.

- Review the organization on the Cloud Governor Report to identify the organization ID and current IP address pools allocated for the organization (*see* Reviewing Configured Resources, page A-3).
- In the TEO, filter the processes by the Cloud Governor Operations category and execute one or both of the following processes:
  - IP Address Pool Allocate Public
  - IP Address Pool Allocate Management

# **Deallocating IP Address Pool for Organization**

IP addresses for an organization need to be deallocated when they need to be made available for other organizations or when an organization is removed from the cloud.

- Review the organization on the Cloud Governor Report to identify the organization ID and current IP address pools allocated for the organization (*see* Reviewing Configured Resources, page A-3).
- In the TEO, filter the processes by the Cloud Governor Operations category and execute one or both of the following processes:
  - IP Address Pool Deallocate Public
  - IP Address Pool Deallocate Management

# **Identifying IP Address Pools with Limited IP Addresses**

It is important to identify IP address pools that are running short on available IP addresses before the pool is completely depleted, which will result in service request failures.

Review the IP Address Pool Analysis section in the Cloud Governor Report (*see* Reviewing Configured Resources, page A-3) to identify IP address pools that are running short on available IP addresses. The pools that are running short will be highlighted in yellow or red.

# **Identifying Orphaned IP Addresses**

It is important to identify orphaned IP addresses and release them for use by other services.

- Review the following sections in the Cloud Governor Report (*see* Reviewing Configured Resources, page A-3) to identify orphaned IP addresses:
  - Orphaned Management IP Addresses
  - Orphaned Public IP Addresses
- In the TEO, filter the processes by the Cloud Governor Operations category and execute the "Release IP Address" process. In the Table Name parameter, use one of the following values:
  - PublicIPAddressInstance
  - ManagementIPAddressInstanc

# **Publishing New VM Template for Service Request**

VM templates allow requestors to request a virtual server based on a predefined template. When you create a new VM template, it must be added to newScale and the Cloud Governor so that it can be used to order a service. Perform the following tasks to publish a new VM template.

### **Define Template**

You must first define the template in newScale. Perform the following tasks to define the template:

- a. Select the Service Item Manager module and then select Manage Standards.
- b. Add the template to one of the following standards tables in the TCO Provision Group:
  - TCO VM Application Server
  - TCO VM DB Server
  - TCO Web Server
- c. Use the OS Type and OS Name values to group the templates into the correct service:
  - OS Type should be either Windows or Linux
  - OS Name is arbitrary but should be consistent. For example, "Windows Server 2008 64 bit" or "CentOS"

### **Add Template to Cloud Governor**

You must now add the VM template to the Cloud Governor.

In the TEO, filter the processes by the Cloud Governor Operations category and execute the "VM Template – Add" process to add the template to the Cloud Governor. Use the following guidelines when entering the parameters for the process:

- OS Type, OS Name and Application Name parameters need to match what was entered in the newScale standards table.
- The Application Type parameter depends on which newScale standards table you entered in the template:
  - TCO VM Application Server = Application Server
  - TCO VM DB Server = Database Server
  - TCO Web Server = Web Server
- The Template Folder is the complete path in VMware vCenter where the template is located.

# **Removing VM Template**

When a template is no longer available for ordering as a service, it needs to be removed from the Cloud Governor. Perform the following tasks to remove a VM template from the cloud to prevent it from being ordered as a service:

- Review the Cloud Governor Report (*see* Reviewing Configured Resources, page A-3) to identify the current configured VM templates.
- In the TEO, filter the processes by the Cloud Governor Operations category and execute the "VM Template Delete" process to remove the template. Use the report to obtain the parameter values to run the process.

# Adding New UCS Blade for Physical Provisioning

When a new Cisco UCS blade is made available for physical server provisioning, it needs to be added to the Cloud Governor. Perform the following tasks to add a new Cisco UCS blade:

- Review the Cloud Governor Report (*see* Reviewing Configured Resources, page A-3) to identify the physical servers defined in the cloud.
- In the TEO, filter the processes by the Cloud Governor Operations category and execute the "Physical Server Add" process.

# **Removing UCS Blade from Cloud**

When a Cisco UCS blade is no longer available for physical server provisioning, it needs to be removed from the Cloud Governor. Perform the following tasks to remove the UCS blade:

- Review the Cloud Governor Report (*see* Reviewing Configured Resources, page A-3) to identify the physical servers defined in the cloud.
- In the TEO, filter the processes by the Cloud Governor Operations category and execute the "Physical Server Delete" process.

# **Adding New TSP Template for Bare Metal Provisioning**

When a new TSP template is made available for bare metal server provisioning it needs to be added to the Cloud Governor. Perform the following tasks to add a new TSP template:

- Review the Cloud Governor Report (*see* Reviewing Configured Resources, page A-3) to identify the TSP templates defined in the cloud.
- In the TEO, filter the processes by the Cloud Governor Operations category and execute the "TSP Template – Add" process.

# **Removing TSP Template from Cloud**

When a new TSP template is no longer available for bare metal server provisioning, it needs to be removed from the Cloud Governor. Perform the following tasks to remove a TSP template:

- Review the Cloud Governor Report (*see* Reviewing Configured Resources, page A-3) to identify the TSP templates defined in the Cloud Governor.
- In the TEO, filter the processes by the Cloud Governor Operations category and execute the "TSP Template Delete" process.



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