

Administration Guide for the System Center Cloud Services Process Pack

Microsoft Corporation

Published: May 7, 2012

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Applies To

System Center Cloud Services Process Pack

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Revision History

|  |  |
| --- | --- |
| Release Date | Changes |
| May 7, 2012 | Original release of this guide. |

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Administration Guide for the System Center Cloud Services Process Pack

Welcome to the Administration Guide for Microsoft System Center Cloud Services Process Pack. This guide contains concepts and procedures that System Center 2012 – Service Manager administrators must perform to install and configure the Cloud Services Process Pack.

Administration Guide Topics

 [Overview](#z7268e2edc9264be388d21206de4f14b7)

System Center Cloud Services Process Pack overview.

 [Prerequisite Concepts](#zbb4c6a91e0174202922450c367b0d4ec)

Defines user roles and tasks. Process workflows show how user tasks are related.

 [Prerequisites](#z74c1931e4661411b97457a4ac5e136d3)

Defines what needs to be installed and configured before you install the Cloud Services Process Pack.

 [Installation](#z8f84ddb1b6624c969b43988802319c88)

Procedures for installing the Cloud Services Process Pack and the Cloud Services runbooks.

 [Required Configuration Tasks](#z63063a6ae8b047ba9448fb0785d9dc8c)

Required procedures that the service provider performs in the Service Manager console.

 [Optional Configuration Tasks](#z540105d58ad64dbea4157da0e195f762)

Optional procedures that the service provider performs in the Service Manager console, to enable System Center Cloud Services Process Pack Self-Service Portal scenarios.

 [Administration](#z08c4df8a7b464a8791815df41436d6b7)

Procedures for provisioning and decommissioning requests.

 [Reporting](#z31558f0620b54707baa257d75285f2e2)

A short overview of reports and a list of sample reports and reporting prerequisites.

 [Cloud Services Terminology](#za8a9d0f7bc8b4b9d8724e2ee6a224694)

Describes terms that are used in the System Center Cloud Services Process Pack.

Other Resources

 TechNet Library main page for [System Center 2012 – Service Manager](http://go.microsoft.com/fwlink/p/?LinkId=220655)

 [Planning Guide for System Center 2012 – Service Manager](http://go.microsoft.com/fwlink/p/?LinkId=209672)

 [Operations Guide for System Center 2012 – Service Manager](http://go.microsoft.com/fwlink/p/?LinkId=220656)

Overview

Infrastructure as a service (IaaS) is a service-centric model for the request and provisioning of data center resources. System Center Cloud Services Process Pack is Microsoft’s infrastructure as a service solution built on the Microsoft® System Center platform.

With the System Center Cloud Services Process Pack, enterprises can realize the benefits of infrastructure as a service while simultaneously leveraging their existing investments in the System Center 2012 – Service Manager, System Center 2012 - Orchestrator, System Center 2012 – Virtual Machine Manager (VMM), and System Center 2012 – Operations Manager platforms.

Corporate data centers are in transition. The recent shift from physical to virtual environments is now being replaced by an interest in moving to the cloud - specifically both private and public cloud infrastructures. Private cloud management assets are being delivered with System Center 2012 – Service Manager and a key part of this solution is the self-service experience. This experience is now significantly enhanced by the System Center Cloud Services Process Pack.

Introduction

Information technology (IT) organizations considering IaaS need to examine and adapt their existing tools, processes, workflows, and automation to meet the requirements of an effective cloud services implementation. While it is critical that the underlying features (such as Self-Service Portal, ticketing infrastructure, notifications, workflows, and automation) integrate well with each other and account for industry-wide best practices, the work involved to ensure an effective cloud services implementation can be daunting and time-consuming.

System Center Cloud Services Process Pack addresses these concerns by enabling IaaS while incorporating domain expertise and best practices from enterprises that have successfully deployed IaaS. These best practices are made available out of the box and are evident in all aspects of the solution.

In adopting System Center Cloud Services Process Pack, enterprises can benefit from platform flexibility that is inherent in the System Center suite of products. IT can tailor the solution for a specific IaaS experience that meets the needs of the business—for example, the Service Manager platform allows organizations to customize individual questions and inputs of the System Center Cloud Services Process Pack offering on the Self-Service Portal, and the Orchestrator platform allows creation of custom runbooks that can be run as part of infrastructure service requests.

The benefits offered by System Center Cloud Services Process Pack for the enterprise include:

 A well-tested and fully supported cloud services solution that accounts for industry-wide best practices.

 Deep customization and extension of the cloud services experience, natively supported by the System Center suite of products.

 Reduced cost, effort, and time to deploy cloud services to organizations that already leverage the System Center platform.

The benefits offered by System Center Cloud Services Process Pack for consumers of IT within the enterprise include:

 Standardized and well-defined processes for requesting and managing cloud services, including the ability to define tenants, cloud resources, and virtual machines. See the System Center Cloud Services Process Pack User Guide at <http://go.microsoft.com/fwlink/?LinkID=231143> for details.

 Natively supported request, approval, and notification to enable businesses to effectively manage their own allocated infrastructure cloud resources. For example, tenant administrators can approve or reject cloud resource and virtual machine requests.

Given these benefits, organizations that are thinking about IaaS, especially those organizations with current investments in the System Center platform, stand to gain tremendously from evaluating and leveraging the System Center Cloud Services Process Pack solution in their environments.

Prerequisite Concepts

The goal of System Center 2012 – Service Manager is to support IT service management in a broad sense. This includes implementing Information Technology Infrastructure Library (ITIL) processes, such as change management and incident management, and it can also include processes for other things, such as allocating resources from a private cloud.

Service Manager maintains a database. The database is the repository for nearly all configuration and management-related information in the System Center 2012 environment. With the System Center Cloud Services Process Pack, this information includes System Center 2012 – Virtual Machine Manager (VMM) resources such as virtual machine templates, virtual machine service templates, and so on, which are copied regularly from the VMM library into the database.

Service Manager provides its own Self-Service Portal. Using the information in the database, Service Manager can create a service catalog that shows the services available to a particular user. For example, a user wants to create a virtual machine in the group’s cloud. Instead of passing the request directly on to VMM as System Center 2012 - App Controller does, Service Manager starts a workflow to handle the request. The workflow contacts the user’s manager to get an approval for this request. If the request is approved, the workflow then starts a System Center 2012 - Orchestrator runbook.

A runbook is essentially another kind of workflow. While a Service Manager workflow is designed to implement ITIL-style processes, a runbook is designed to interact directly with system management tools. Orchestrator provides a range of pre-built features to interact with other technologies (including non-Microsoft management tools). Some of these are designed to interact with VMM. In this example, the runbook relies on Orchestrator features to ask VMM to create a new virtual machine in the user’s cloud in the organization. VMM checks that the request is within the user’s quota and the cloud’s capabilities, and then creates the virtual machine.

Cloud Services Terminology

The following terms are used when describing concepts and actions related to the Cloud Services Process Pack.

|  |  |
| --- | --- |
| Tenant | An organization that consumes cloud computing resources from a service provider but is ultimately responsible for the data stored in or transferred by the cloud resources. |
| Cloud Resources | Cloud resources are logical groupings of System Center 2012 – Virtual Machine Manager (VMM) resources including virtual machine templates and quotas, such as storage and memory. Each cloud resource includes a single VMM user role, users that belong to the VMM role and a VMM cloud. The assigned VMM user role can be used to access a cloud configured for a particular cloud resource. These groupings allow cloud resource subscription users to request virtual machines in assigned cloud resources in System Center 2012 – Virtual Machine Manager (VMM). |
| Cloud Resources Subscription | Cloud Resources Subscriptions provide the ability for Service Providers to make cloud resources available to Service Manager Self-Service Portal users. |
| Request Offering | A request offering is a catalog item that describes the item, assistance, or available action. Request offerings become available to Self-Service Portal users when the offerings are published.  For additional information about request offerings and an overview of the service catalog, see <http://go.microsoft.com/fwlink/p/?LinkId=232694>. |

About Cloud Services User Roles

There are two groups of users that use the Cloud Services Process Pack: Service Manager console users and Service Manager Self-Service Portal users.

Service Manager Console Users

This table provides a list of Service Manager console users and their tasks. Depending on your implementation, the Service Provider might perform the tasks of multiple roles.

|  |  |
| --- | --- |
| Role | Tasks |
| Service Provider | **** Installs and configures the Cloud Services Process Pack  **** Installs and configures runbooks  **** Configures service offerings |
| Tenant Reviewer | **** Approves or denies tenant requests and creates tenants  **** Approves or denies tenant update requests |
| Activity Implementer | **** Implements all approved cloud resources requests  **** Implements decommission requests |

Service Manager Self-Service Portal Users

This table provides a list of Service Manager Self-Service Portal users and their tasks. The Service Provider must create these two user roles.

|  |  |
| --- | --- |
| Role | Tasks |
| Tenant Administrator | **** Creates tenant registration requests  **** Creates cloud resources subscription requests  **** Creates cloud resources subscription update requests  **** Creates tenant registration update requests  **** Creates tenant cancellation requests  **** Creates cloud resources subscription cancellation requests  **** Approves virtual machine requests  **** Approves requests for service |
| Cloud Resources Subscription User | **** Creates virtual machine requests  **** Creates virtual machine update requests  **** Creates service requests |

See Also

[How to Create User Roles](#z17dd96f9ab4b4599acba9887b5f661ad)

Process Workflows

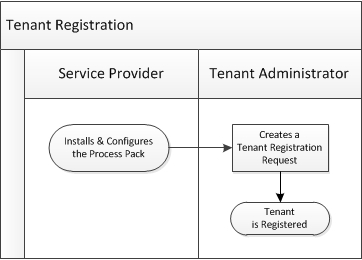
Three processes need to occur for a virtual machine to be created. First, a tenant must be registered. Then, a cloud resources subscription must be requested and provisioned. Finally, a virtual machine is created after the virtual machine request has been submitted.

Sample Process Workflows

The following three charts show how different users are involved in the registration of tenants, assigning of cloud resources to subscriptions and the creation of virtual machines.

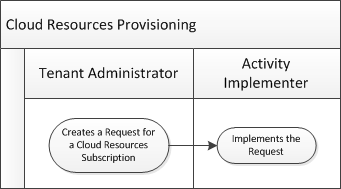
Tenant Registration

The Service Provider and Tenant Administrator are involved in registering new tenants.



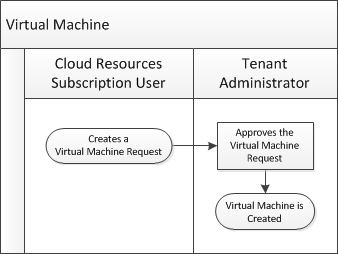
Assign Cloud Resources to Cloud Resources Subscription

The Tenant Administrator and Activity Implementer are involved in provisioning cloud resources.



Virtual Machine Creation

The Cloud Resources Subscription User and the Tenant Administrator are involved in creating new virtual machines.



Prerequisites

Before installing the System Center Cloud Services Process Pack, you need to ensure these prerequisites have been met.

Environment Prerequisites

The following applications must be installed:

 System Center 2012 – Service Manager

 System Center 2012 - Orchestrator

 System Center 2012 – Operations Manager

 System Center 2012 – Virtual Machine Manager (VMM)

Security Prerequisites

Installation of the System Center Cloud Services Process Pack and System Center Cloud Services runbooks requires these permissions:

 The person who installs System Center Cloud Services Process Pack must be a Service Manager administrator.

 The person who installs System Center Cloud Services Process Pack must be an administrator on the server that is running Service Manager.

 The person who installs System Center Cloud Services runbooks must be a domain user.

 The person who installs System Center Cloud Services runbooks must be an administrator on the machine on which the program is installed as well as an Orchestrator administrator.

 The person who installs System Center Cloud Services runbooks must be an administrator in the Orchestrator database.

 The system center Orchestrator service account must be an administrator on VMM.

Cloud Services Process Pack Prerequisites

 Import the VMM Discovery Management Pack into Service Manager. For your convenience, we have provided the VMM Discovery Management Pack, along with other required management packs, with the Cloud Services Process Pack download. By default, the WinZip Self-Extractor saves the management files to C:\Users\<username>\AppData\Local\Temp\2\Setup\ManagementPacks. For more details, see FAQ: Installing all the Prerequisite MPs for the Cloud Services Management Pack at <http://go.microsoft.com/fwlink/?LinkId=245768>.

 Operations Manager integration with VMM should already be complete. For more details, see Configuring Operations Manager Integration with VMM at <http://go.microsoft.com/fwlink/p/?LinkID=225145>.

Runbook Prerequisites

 Before installing runbooks, the system center integration pack for System Center 2012 – Service Manager needs to be imported into Orchestrator using the Orchestrator deployment manager.

 The Service Manager connection string needs to be configured before installing runbooks.

For more details, see System Center Integration Pack for System Center 2012 Service Manager at <http://go.microsoft.com/fwlink/?LinkID=245808>.

Installation

The following sections describe how to install the Cloud Service Process Pack on a server running System Center 2012 – Service Manager and how to install the Cloud Service runbooks on a computer running System Center 2012 - Orchestrator.

Install the Cloud Services Process Pack and Runbooks

Use these procedures to install the Cloud Services Process Pack and runbooks.

 [Install the Cloud Services Process Pack](#z2eac3d3689574ca1ad3568dfa4b9bc5f)

 [Install the Cloud Services Runbooks](#z9383ea4bfbce4486b99857422d1b0304)

Install the Cloud Services Process Pack

The Cloud Services Process Pack must be installed on the server that is running System Center 2012 – Service Manager.

Warning

Installation failures can be caused by software, hardware, and configuration issues. Cloud Services Process Pack installation failures can leave the Cloud Services Process Pack in an unstable state. Before installing the Cloud Services Process Pack, you should back up the Service Manager database. If you have a backup Service Manager database and you experience an installation failure, then you can use the database recovery procedure at <http://go.microsoft.com/fwlink/?LinkId=209671>.

Important

To perform this task, you will need to be an administrator on the server that is running Service Manager.

If you have installed an older version of the Cloud Services Process Pack, you will need to uninstall the older version and then install the newer version.

To install the Cloud Services Process Pack

|  |
| --- |
| 1. Download the System\_Center\_Cloud\_Services\_Process\_Pack.zip file to a folder on the Service Manager server.  2. Open the zip file and double-click System Center Cloud Services Process Pack.exe.  3. Click Unzip to extract the setup files and click Ok. The setup wizard will appear.  4. In the Cloud Services Process Pack Setup Wizard, select Cloud services process pack.  5. On the Product registration page, read and accept the license agreement, and then click Next.  6. View the Prerequisites page. If the prerequisite check passed, click Next.  7. Verify that the correct items are selected on the Installation summary page and then click Install.  8. On the Setup completed successfully page, click Close. |

Install the Cloud Services Runbooks

The Cloud Services runbooks are required to create the VMM self-service user roles that are used when assigning quota to cloud resources subscriptions. The Cloud Services runbooks are also required to create, update, and decommission virtual machines. The Cloud Services runbooks must be installed on the management server that is running System Center 2012 - Orchestrator.

Important

To perform these tasks, you need to be an administrator on the management server as well as an Orchestrator administrator.

If you have installed an older version of the Cloud Services runbooks, you will need to uninstall the older version and then install the newer version.

To uninstall the Cloud Services runbooks

|  |
| --- |
| 1. Delete the System Center Cloud Services runbooks folder (for example, SM-Cloud Services) using the Orchestrator Runbook Designer.  2. Go to Control Panel.  3. On the Uninstall or change a program page, select System Center Cloud Services Runbooks and click Uninstall. |

To install the Cloud Services runbooks

|  |
| --- |
| 1. Download the System\_Center\_Cloud\_Services\_Process\_Pack.zip file to a folder on the server that is running Orchestrator.  2. Open the zip file and double-click System Center Cloud Services Process Pack.exe.  3. Click Unzip to extract the setup files and click Ok. The setup wizard will appear.  4. In the Cloud Services Process Pack Setup Wizard, select Cloud services runbooks.  5. On the Product registration page, read and accept the license agreement, and then click Next.  6. On the Prerequisites, System check results page, if the prerequisite check passed, click Next.  7. On the Configure System Center Orchestrator account and Database page, provide the administrator account details of the Orchestrator management server, the Orchestrator database server, and the database name details. If the validations are successful, click Next.  8. On the Configure the System Center Orchestrator connections page, the name in the Runbooks folder name area cannot be changed - this is a default field. Type the connection name that was configured in Orchestrator for System Center 2012 – Service Manager in the System Center Service Manager connection name area and click Next.  Warning  The angle bracket characters (< >) are not allowed in the connection name. If your connection name includes these characters, you should rename your connection and then install Cloud Services runbooks.  9. On the Installation summary page, review and verify that the correct features are selected, and then click Install.  10. On the Setup completed successfully page, click Close. |

Required Configuration Tasks

This configuration section provides required procedures that the Service Provider performs in System Center 2012 – Service Manager.

The Service Provider should perform the following tasks in the order in which they appear.

1. [Create Connectors](#za379bd05851f4e35a8867579a398fd8c)

2. [Configure Virtual Machine Manager Resources](#zbb0e3607bdae4c0d9620fe5f753a8e90)

3. [Configure General Properties](#z3bba51c5a61c42d99296f9329f68fd90)

4. [Configure Cost Properties](#z1fefd0a99df548ecbadcb6682d75baf2)

5. [Create Cost Center](#zbadc463e5ee54e7088f04d35432c6df0)

Before You Begin

System Center 2012 – Virtual Machine Manager (VMM) is used for configuration and management of the infrastructure on which virtual machines are hosted. The VMM resources (logical networks, virtual IP pools, storage classifications, virtual machine templates, service templates, and clouds) must be created and configured before configuring the Cloud Services Process Pack.

For information about the configuration and management of the infrastructure features, see the VMM guidance at <http://go.microsoft.com/fwlink/?LinkId=234224>.

About Virtual Machine Manager Resources

The following table describes the Virtual Machine Manager resources that need to be created and configured in the infrastructure.

|  |  |
| --- | --- |
| Item | Description |
| Logical network | A logical network together with one or more associated network sites is a user-defined named grouping of IP subnets, virtual local area networks (VLANs), or IP subnet/VLAN pairs that is used to organize and simplify network assignments. At least one logical network must exist for you to deploy virtual machines and services. |
| Storage classification | Classifying storage entails assigning a meaningful classification to storage pools. For example, you may assign a classification of GOLD to a storage pool that resides on the fastest, most redundant storage array. |
| Virtual machine template | A virtual machine template provides a standardized group of hardware and software settings that can be used repeatedly to create new virtual machines configured with those settings.  Virtual Machine Manager stores a template in the library catalog in the Virtual Machine Manager database. |
| Virtual IP template | A virtual IP template contains load balancer-related configuration settings for a specific type of network traffic. For example, you could create a template that specifies the load-balancing behavior for HTTPS traffic on a specific load-balancer manufacturer and model. These templates represent the best practices from a load balancer configuration standpoint.  After you create a virtual IP template, users can specify the virtual IP template to use when they create a service. When a user models a service, they can pick an available template that best matches their needs for the type of load balancer and the type of application. |
| Service template | The service template includes information about the virtual machines that are deployed as part of the service, which applications to install on the virtual machines, and the networking configuration needed for the service (including the use of a load balancer). |
| Cloud | The infrastructure solution delivered as a service. |

Create Connectors

Connectors import data from System Center 2012 – Virtual Machine Manager (VMM), System Center 2012 – Operations Manager, and System Center 2012 - Orchestrator to the Service Manager database. Connectors can also import logical networks, virtual machine templates and storage classifications from VMM, policies from Orchestrator, and operational data from Operations Manager.

Important

Data from external systems that is imported into the database can be edited using the corresponding form. However, when the connectors are synchronized, all changes will be overwritten.

A service provider must create the VMM, Operations Manager, and Orchestrator connectors before performing additional configuration procedures.

Use these procedures to create connectors.

 [How to Create a Virtual Machine Manager Connector](#z0ca06a6eb3ec4d46b538d8bb42d6a9f4)

 [How to Create an Operations Manager Connector](#zeff4272dca6a469aa62c0d21c03eff7d)

 [How to Create an Orchestrator Connector](#z769bd6a260f04c519be034842f5fcb4b)

How to Create a Virtual Machine Manager Connector

The System Center 2012 – Virtual Machine Manager (VMM) connector is important because it imports virtual machine templates, service templates, logical networks, virtual IP profiles, and VMM user roles to System Center 2012 – Service Manager to provide automation in the infrastructure when provisioning virtual machines. Use the following procedure to create a VMM connector.

To create a System Center Virtual Machine Manager connector

|  |
| --- |
| 1. In the Service Manager console, click Administration.  2. In the Administration pane, click Cloud Services.  3. In the Cloud Services pane, under Getting Started, click Create a Virtual Machine Manager connector.  4. Perform these steps to complete the Virtual Machine Manager Connector Wizard:  a. On the Before You Begin page, click Next.  b. On the General page, in the Name box, type a name for the new connector. Make sure that Enable this connector is selected, and then click Next.  c. On the Connection page, in the Server Information area, type the name of the computer hosting VMM.  d. On the Connection page, in the Credentials area, either select an existing account or click New, and then do the following:  i. In the Run As Account dialog box, in the Display name box, type a name for the Run As account. In the Account list, select Windows Account. Enter the credentials for an account that has rights to connect VMM, and then click OK. On the Connection page, click Test Connection.  Note  Special characters (such as the ampersand [&]) in the User Name box are not supported.  ii. In the Test Connection dialog box, make sure that The connection to the server was successful appears, and then click OK. On the Connection page, click Next.  e. On the Summary page, make sure that the settings are correct, and then click Create.  f. On the Completion page, make sure that you receive a “Virtual Machine Manager connector successfully created” message, and then click Close. |

To validate the creation of a System Center Virtual Machine Manager connector

|  |
| --- |
| 1. In the Connectors pane, locate the System Center Virtual Machine Manager connector that you created.  2. Review the Status column for a status of Running.  Note  Allow sufficient time for the import process to finish if you are importing a large number of virtual machines or clouds.  3. In the Service Manager console, click Configuration Items.  4. In the Tasks pane, click Create Folder.  5. In the Create New Folder Wizard, do the following:  a. In the Folder name box, type a name for the folder. For example, type Test.  b. In the Management pack area, make sure that an unsealed management pack of your choice is selected, and then click OK. For example, select Service Catalog Generic Incident Request.  6. In the Configuration Items pane, click the folder you just created. For example, click Test.  7. In the Tasks pane, click Create View.  8. In the Create View Wizard, do the following:  a. On the General page, in the Name area, type a name for this view. For example, type VMMTemplates.  b. In the Management pack area, make sure that an unsealed management pack of your choice is selected. For example, select Service Catalog Generic Incident Request.  c. In the navigation pane of the wizard, click Criteria.  d. In the Advanced Search area, click Browse.  e. In the drop-down list (located to the right of the Type to filter box), select All basic classes.  f. In the Type to filter box, type virtual machine template, click Virtual Machine Template, click OK, and then click OK to save and close the form.  9. In the Configuration Items pane, expand the folder you created, and then click the view you created. For example, expand Test, and then click VMMTemplates  10. In the VMMTemplates pane, you will see the Virtual Machine Manager templates that have been created. |

How to Create an Operations Manager Connector

The System Center 2012 – Operations Manager configuration item (CI) connector is necessary to import System Center 2012 – Virtual Machine Manager (VMM), virtual machine and cloud data into the System Center 2012 – Service Manager database.

To import objects that are discovered by Operations Manager, Service Manager requires a list of class definitions for these objects; the list of definitions is in the System Center Operations Manager management packs. Therefore, you must import some System Center Operations Manager management packs into Service Manager. When you install Service Manager, a set of System Center Operations Manager management packs for common objects and the required Windows PowerShell scripts are copied to your Service Manager installation folder.

You can use the following procedure to create an Operations Manager CI connector.

To create a System Center 2012 – Operations Manager CI connector

|  |
| --- |
| 1. In the Service Manager console, click Administration.  2. In the Administration pane, click Cloud Services.  3. In the Cloud Services pane, under Getting Started, click Create an Operations Manager connector.  4. Perform these steps to complete the Operations Manager CI Connector Wizard:  a. On the General page, in the Name box, type a name for the new connector. Make sure that the Enable check box is selected, and then click Next.  b. On the Server Details page, in the Server name box, type the name of the server that is hosting the Operations Manager root management server.  c. Use one of the following methods to enter credentials:   Under Credentials, select the Run As account you created for the CI connector, and then go to step 4d.   Under Credentials, click New. In the User name, Password, and Domain boxes, type the credentials for the Run As account, and then click OK. For more information about the permissions that are required for this Run As account, see [Accounts Required During Setup](http://go.microsoft.com/fwlink/p/?LinkId=251153) in the Deployment Guide for System Center 2012 - Service Manager.  d. On the Server Details page, click Test Connection. If you receive the following confirmation message, click OK, and then click Next:  “The connection to the server was successful.”  e. On the Management Packs page, click Select all, or select the management packs that define the configuration items you want to import, and then click Next.  f. On the Schedule page, click Next, and then click Create. |

To validate the creation of an Operations Manager CI connector

|  |
| --- |
|  Confirm that the objects that Operations Manager discovered are listed as configuration items in Service Manager. |

See Also

[How to Import Management Packs for System Center Operations Manager Configuration Item Connectors](http://go.microsoft.com/fwlink/p/?LinkId=249139)

How to Create an Orchestrator Connector

The System Center 2012 - Orchestrator connector automates virtual machine creation and virtual machine changes in System Center 2012 – Virtual Machine Manager (VMM). You can use the following procedures in System Center 2012 – Service Manager to create a connector for Orchestrator and then validate the creation of the connector.

To create an Orchestrator connector

|  |
| --- |
| 1. In the Service Manager console, click Administration.  2. In the Administration pane, click Cloud Services.  3. In the Cloud Services pane, under Getting Started, click Create an Orchestrator connector.  4. Perform these steps to complete the Orchestrator Connector Wizard:  a. On the Before You Begin page, click Next.  b. On the General page, in the Name box, type a name for the new connector. Make sure that Enable this connector is selected, and then click Next.  c. On the Connection page, in the Server Information area, type the URL of the Orchestrator Web service, depending on which version of Orchestrator you are using. For Orchestrator RC, type the URL of the Orchestrator Web service in the form of http://<computer>:<port>/Orchestrator2012/Orchestrator.svc, where <computer> is the name of the computer hosting the web service and <port> is the port number where the web service is installed. (The default port number is 81.)  d. On the Connection page, in the Credentials area, either select an existing account or click New, and then do the following:  i. In the Run As Account dialog box, in the Display name box, type a name for the Run As account. In the Account list, select Windows Account. Enter the credentials for an account that has rights to connect to Orchestrator, and then click OK. On the Connection page, click Test Connection.  Note  Special characters (such as the ampersand [&]) in the User Name box are not supported.  ii. In the Test Connection dialog box, make sure that the message “The connection to the server was successful” appears, and then click OK. On the Connection page, click Next.  e. On the Sync Folder page, select the SM-CloudServices folder, and then click Next.  f. On the Web Console URL page, type the URL for the Orchestrator web console in the form of http://<computer>:port (the default port number is 82), and then click Next.  g. On the Summary page, make sure that the settings are correct, and then click Create.  h. On the Completion page, make sure that you receive the message “Orchestrator connector successfully created,” and then click Close. |

To validate the creation of an Orchestrator connector

|  |
| --- |
| 1. In the Connectors pane, locate the Orchestrator connector that you created.  2. Review the Status column for a status of Finished Success.  Note  Allow sufficient time for the import process to finish if you are importing a large number of runbooks.  3. In the Service Manager console, click Library.  4. In the Library pane, expand Library, and then click Runbooks.  5. Review the Runbooks pane, and note that your runbooks have been imported. |

Configure Virtual Machine Manager Resources

The System Center 2012 – Virtual Machine Manager (VMM) resources, such as the logical networks and virtual machine templates, must be configured and made available in the Service Manager Self-Service Portal before users can request virtual machine provisioning.

Important

Before performing the procedures in this section, make sure that the connectors have been created.

Use the following procedure to configure VMM resources.

To configure a Virtual Machine Manager resource

|  |
| --- |
| 1. In the Service Manager console, click Administration.  2. In the Administration pane, click Cloud Services.  3. In the Cloud Services pane, under Getting Started, click Configure VMM Resources.  4. Follow these steps to complete the Configure VMM Resources Wizard:  a. On the Before You Begin page, click Next.  b. On the Logical Networks page, select which networks should be displayed on the Self-Service Portal and type a name for each network in the User Friendly Name box, and then click Next.  c. On the VIP Templates page, you can click Next, or optionally, select which VIP Templates should be displayed on the Self-Service Portal, type a name for each template in the User Friendly Name box, and then click Next.  d. On the Storage Classifications page, you can click Next, or optionally, select which storage classifications should be displayed on the Self-Service Portal, type a name for each Storage Classification in the User Friendly Name box, and then click Next.  e. On the VM Templates page, select which VM Templates should be displayed on the Self-Service Portal, type a name for each VM template in the User Friendly Name box, and then click Next.  f. On the Service Templates page, you can click Next, or optionally, select which Service Templates should be displayed on the Self-Service Portal, type a name for each service template in the User Friendly Name box, and then click Next.  g. On the Placement Tags page, you can click Next, or optionally, you can add placement tags. Placement tags help decide where infrastructure requests should be placed (for example, in which data center, on which server). Examples of placement tags are: location, business impact, and compliance requirements. To create a placement tag, click the plus button. Then, type a name for the placement tag in the Display Name box, type a description in the Description box, and type any notes you have in the Notes box. Repeat the procedure for each additional placement tag and then click Next.  h. On the Summary page, verify that the VMM resources are configured correctly, and then click Submit. |

Configure General Properties

Use these procedures to configure the general properties of the System Center Cloud Services Process Pack items in the System Center 2012 – Service Manager console.

Important

The Tenant Administrators User Role and Cloud Resources Subscription User Role are optional settings that will be required if you use catalog groups to control users’ access to request offerings. For more information, see [How to Create Catalog Groups](#zbd5173404bd948b588e0dbaf613ab198).

The Tenant Reviewers setting is optional. By default, tenant registration is automatically approved.

To configure general properties

|  |
| --- |
| 1. In the Service Manager console, click Administration.  2. In the Administration pane, click Cloud Services.  3. In the Cloud Services pane, in the Getting Started area, click Configure general properties.  4. Follow these steps to complete the Cloud Services Settings page:  a. In the Tenant ID Prefix box, type the alpha-numeric prefix for the tenant.  b. In the Cloud Resources Subscription ID Prefix box, type the alpha-numeric prefix for the cloud resources subscription.  c. In the Tenant Administrators User Role box, type the name of the Tenant Administrator user role.  d. In the Cloud Resources Subscription User Role box, type the name of the Cloud Resources User role.  e. In the Tenant Reviewers box, type the domain name\user name of the users who should be reviewers for the tenant. More than one name can be entered. Separate names with a semicolon.  f. In the Activity Implementer box, type the domain name\user name of the user who will be reviewing and updating cloud resource subscriptions. Only one domain name\user name can be entered in this box.  g. Click OK. |

Configure Cost Properties

Use this procedure to configure the cost properties in the System Center 2012 – Service Manager console.

To configure cost properties

|  |
| --- |
| 1. In the Service Manager console, click Administration.  2. In the Administration pane, click Cloud Services.  3. In the Cloud Services pane, in the Getting Started area, click Configure cost properties.  The Cloud Services Settings form will be displayed.  4. Enter costs for each virtual machine resource.  5. Enter a note in the Notes field and click OK.  Important  All fields on the Cloud Services Settings form are required fields. If you do not want to assign a cost to a resource, enter 0 in the respective field. The Miscellaneous Cost Per Day field is for additional fixed costs that can be added by each enterprise. |

Create Cost Center

Use this procedure to create a cost center in the System Center 2012 – Service Manager console.

How to create a cost center

|  |
| --- |
| 1. In the Service Manager console, click Administration.  2. In the Administration pane, click Cloud Services.  3. In the Cloud Services pane, in the Getting Started area, click Create Cost Center.  4. In the Tasks pane, click Create Cost Center.  5. In the Cost Center Properties screen, on the General tab, type the name of the cost center in the Display Name box.  6. In the Configuration Item area, select a status in the Asset Status drop-down box.  7. In the Notes box, type any notes or comments for the cost center.  8. In the Cost Center area, in the Code box, type a code for the cost center.  9. In the Name box, type a name for the cost center.  10. In the Description box, type a description for the cost center, and click Apply.  11. Optionally, on the Related Items tab, you can add work items, configuration items, and knowledge articles, and attach files related to the newly created cost center.  12. On the History tab, you can view the property changes for the cost center.  13. Click OK. |

Optional Configuration Tasks

This optional configuration section provides procedures that the Service Provider performs in System Center 2012 – Service Manager, to enable System Center Cloud Services Process Pack Self-Service Portal scenarios.

The Service Provider should perform the following tasks in the order in which they appear.

1. [How to Create Catalog Groups](#zbd5173404bd948b588e0dbaf613ab198)

2. [How to Create User Roles](#z17dd96f9ab4b4599acba9887b5f661ad)

3. [How to Create Notification Channels, Templates and Subscriptions](#z9dba9452fdfd49578b51879e03a8ef2b)

4. [How to Configure Service Request Offerings](#z749b6aeb753a4ffa9d63a05facfdbd0e)

How to Create Catalog Groups

It is not a requirement to create catalog groups. However, it is recommended that you group all request offerings under a service offering. By grouping service offerings you will be able to associate catalog groups to user roles. The association of catalog groups with user roles will enable you to control which users will have access to specific request offerings.

Use the following procedure to create catalog groups in the System Center 2012 – Service Manager console.

To create catalog groups

|  |
| --- |
| 1. In the Service Manager console, click Administration.  2. In the Administration pane, click Cloud Services.  3. In the Cloud Services pane, in the Optional Configuration Steps area, click Create Catalog groups to control access.  4. On the Before You Begin page, you can read the instructions, and then click Next.  5. On the General page, follow these steps:  a. In the Group name box, type a name for the catalog group. For example, type Access Request Offering Group.  b. In the Group description box, type a description for the catalog group. For example, type This group is used to consolidate and provide security to Access Request Offering catalog items.  c. Next to Management pack, select an unsealed management pack of your choice and then click Next. For example, if you previously created the Sample Management Pack, select it.  6. On the Included Members page, follow these steps to select catalog items and associate them to the catalog group:  a. Click Add to open the Select objects dialog box, select one or more cloud service request offerings, click Add, and then click OK to close the dialog box.  b. Click Next.  7. On the Dynamic Members page, you can click Next, or optionally, you can select a class and specific objects based on criteria that you choose to add as members of the group, and then click Next.  8. On the Subgroups page, you can click Next, or optionally, you can add other groups as members of the new group that you are creating, and then click Next.  9. On the Excluded Members page, you can click Next, or optionally, you can select a class and specific objects based on criteria that you choose to exclude as members of the group, and then click Next.  10. On the Summary page, review the information and then click Create.  11. On the Completion page, click Close. |

How to Create User Roles

User roles that are created in this procedure can be associated with catalog groups. By associating users with catalog groups, users will be able to access role-specific request offerings on the Service Manager Self-Service Portal.

Important

After you create the Tenant Administrator and Cloud Resources Subscription User roles, you should enter the role names in the general properties settings.

Use this procedure to create the user roles in the System Center 2012 – Service Manager console.

To create user roles

|  |
| --- |
| 1. In the Service Manager console, click Administration.  2. In the Administration pane, click Cloud Services.  3. In the Cloud Services pane, under Optional Configuration Steps, click Create User Roles for Tenant Administrators and Cloud Resources Subscription Users.  4. In the Task pane, click Create User Role and select End User. The Create User Role wizard will be displayed.  5. Perform these steps to complete the Create User Role wizard:  a. On the Before You Begin page, click Next.  b. On the General page, type a name and description for this user role, and then click Next. For example, Tenant Administrator.  Important  User role names are case sensitive.  c. On the Management Packs page, start to filter the scope of the data that you want to assign access to. Select all of the Service Manager Cloud Services management packs and then click Next.  d. On the following pages, all the queues, groups, tasks, views, and form templates from the specified management packs are displayed. You can select specific items on these pages to further limit the set of data that access is assigned to.  Important  The groups and the queues lists are not filtered—all groups and queues from all management packs are listed.  e. On the Users page, select the users that you want to be available for this user role, click Add, select the users or groups, click OK and then click Next.  f. Review the Summary page and then click Create.  g. On the Completion page, click Close. |

To add user roles to general properties

|  |
| --- |
| 1. In the Service Manager console, click Administration.  2. In the Administration pane, click Cloud Services.  3. In the Cloud Services pane, in the Getting Started area, click Configure general properties.  4. Follow these steps to add user roles:  a. In the Tenant Administrators User Role box, type the name of the Tenant Administrator user role.  b. In the Cloud Resources Subscription User Role box, type the name of the Cloud Resources User role.  c. Click OK. |

See Also

[How to Create a User Role](http://go.microsoft.com/fwlink/p/?LinkId=232693)

How to Create Notification Channels, Templates and Subscriptions

Notification channels are the method by which E-mail notification messages are sent to users. By using System Center 2012 – Service Manager, you can make notifications for almost any kind of change. For example, you can configure an E-mail notification to be sent to a tenant administrator when a virtual machine request has been submitted.

There are three procedures involved in creating automated E-mail notifications. First, E-mail notifications must be configured. Then, a template must be created. The notification template determines the type and format of the messages to send. After you have enabled at least one notification channel and created a notification template, you can create an E-mail notification subscription.

To configure E-mail notifications

|  |
| --- |
| 1. In the Service Manager console, click Administration.  2. In the Administration pane, click Cloud Services.  3. In the Cloud Services pane, in the Optional Configuration Steps area, click Create Notification Channels and Subscriptions.  4. In the Tasks pane, under E-Mail Notification Channel, click Properties to open the Configure E-Mail Notification Channel dialog box.  5. Select Enable e-mail notifications.  6. Click Add. In the Add SMTP Server dialog box, type the fully qualified domain name of the SMTP server that you want to use. For example, type Exchange01.Woodgrove.Com.  7. In the Port number box, type or select the SMTP port number that you want to use. For example, select 25.  8. In the Authentication method box, select either Anonymous or Windows Integrated. For example, select Anonymous. Then click OK.  9. In the Return e-mail address box, type the email address of the service account used during setup. For example, type smadmin@woodgrove.com.  10. In the Retry primary after box, type or select the number of seconds that you want Service Manager to wait before it tries to resend outgoing email notifications. For example, select 25.  11. Click OK to close the dialog box. |

To create a notification template for a newly assigned activity

|  |
| --- |
| 1. In the Service Manager console, click Administration.  2. In the Administration pane, expand Notifications, and then click Templates.  3. In the Tasks pane, under Templates, click Create E-mail Template.  4. On the General page of the Create E-mail Notification Template Wizard, in the Notification template name box, type a name. For example, type New Activity Assigned Received Template. Optionally, in the Description box, you can type a description for the template that you are creating.  5. Next to the Targeted class box, click Browse.  6. In the Select a Class dialog box, click Manual Activity, and then click OK.  7. Make sure that an unsealed management pack of your choice is selected, and then click Next. For example, select the Sample Management Pack.  8. On the Template Design page, in the Message subject box, type a subject for the email template. For example, type New Activity Assigned with ID#. Then, click Insert.  9. In the Select Property dialog box, select ID, and then click Add.  10. In the Message body box, type a description to indicate that an activity has been assigned.  11. Use the other default values on this page, and then click Next.  12. On the Summary page, review the settings that you have selected for the template. Then, click Create.  13. On the Completion page, click Close.  Important  Manually copying and pasting substitution strings from other notification templates will not generally work. Therefore, you should avoid copying them to prevent errors. Instead, you can easily browse for and insert available substitution strings into any notification template that you are creating or updating.  After you create the notification templates, you can use a notification subscription to send email messages based on the templates. |

To create an E-mail notification subscription

|  |
| --- |
| 1. In the Service Manager console, click Administration.  2. In the Administration pane, expand Notifications, and then click Subscriptions.  3. In the Tasks pane, click Create Subscription.  4. On the Before You Begin page of the Create E-mail Notification Subscription Wizard, click Next.  5. On the General page, in the Notification subscription name box, type a name to identify the subscription. For example, type New request for virtual machine. Optionally, type a short description in the Description text box.  6. Next to the Targeted class box, click Browse.  7. In the Select a Class dialog box, choose a class. Then click OK.  8. In the When to notify box, select When an object of the selected class is created.  9. Make sure that an unsealed management pack of your choice is selected, and then click Next.  10. On the Additional Criteria page, select Incident. In the Available Properties list, select Classification Category, and then click Add.  11. On the Additional Criteria page, click the Criteria tab. In the Criteria area, next to [Incident] Classification Category, select equals. In the list, select E-mail Problems, and then click Next.  12. On the Template page, next to the E-mail template box, click Select.  13. In the Select Objects dialog box, in the Templates list, select a notification template, click OK, and then click Next.  14. On the Recipient page, click Add.  15. In the Select Objects dialog box, select the appropriate user, click Add, click OK, and then click Next.  Note  The notification address must be configured for the user account of the tenant administrator.  16. On the Related Recipients page, click Add.  17. In the Select Related Recipient dialog box, search for the appropriate class, and then select the appropriate substitution string that represents the user. Click Add, click OK, and then click Next. For example, select additional user accounts that you want to send the notification to.  18. On the Summary page, review the settings that you selected for the notification subscription, and then click Create.  19. On the Completion page, click Close. |

See Also

[How to Create Notification Templates](http://go.microsoft.com/fwlink/p/?LinkId=229694)

How to Configure Service Request Offerings

A request offering is a catalog item. Service offerings are logical groups of request offerings. Both service offerings and their request offerings are available to Service Manager Self-Service Portal users, when their status is set to Published and if end users have been assigned a corresponding Service Manager user role. Only users who have been assigned a user role that is associated with a catalog group that contains catalog items can use the Self-Service Portal to access the service catalog.

Use this procedure to group cloud service process pack request offerings under the Private Cloud Infrastructure Services service offering.

To group request offerings

|  |
| --- |
| 1. In the Service Manager console, click Administration.  2. In the Administration pane, click Cloud Services.  3. In the Cloud Services pane, under Optional Configuration Steps, click Group request offerings under service offering.  4. Select Private Cloud Infrastructure Services and then click Properties.  5. On the Request Offering page, click the Add button, add the cloud services request offerings and then click OK.  6. Click Ok. |

See Also

[Using the Service Catalog in System Center 2012 - Service Manager](http://go.microsoft.com/fwlink/p/?LinkId=249140)

[How to Create User Roles](#z17dd96f9ab4b4599acba9887b5f661ad)

[Appendix A: Cloud Services Request Offerings](#z5a8909717e4e433992018ba0eb317a26)

Administration

This section provides procedures for the following tasks:

 [How to Approve a Tenant Registration Request](#zcf171dab0a594866a5bd11279be4210e)

 [How to Assign Cloud Resources](#zbe57eadaacd241118999664614ce9684)

 [How to Provision a Update Cloud Resource Subscription Request](#z53c38ea1e0e5409bb3d96f89b6c6d8fb)

 [How to Approve a Virtual Machine Request](#z137fad9e9bdc4f389e1400fbf0182efc)

 [How to Approve a Service Deployment Request](#z187648e412f24248bbb7fd95a7348145)

 [How to Provision a Service Deployment Request](#zbf5d3cb7b375439d97ae387818513f03)

 [How to Process a Tenant Cancellation Request](#z5e9ee97f6b9d439298649cedeb2299e5)

 [How to Cancel a Cloud Resources Subscription](#z28c1399165a24b9fbe2a941c62a9aa08)

 [Virtual Machine Decommission](#ze4546e3a9da24d11bfa1d3a92f07795f)

How to Approve a Tenant Registration Request

A tenant is an organization that consumes cloud computing resources from a service provider but is ultimately responsible for the data stored in or transferred by the cloud resources.

By default, tenant registrations are automatically approved. If your deployment has been customized to require an approval process for tenant registrations, use this procedure to approve tenant requests in the System Center 2012 – Service Manager console.

To approve a tenant registration request

|  |
| --- |
| 1. In the Service Manager console, in the Work Items pane, click Activity Management to expand.  2. Double-click Review Activities and then open All Activities.  3. Select the request and click Approve.  4. Enter a comment and click OK.  Note  Tenants are automatically created when the tenant registration requests are approved. |

How to Assign Cloud Resources

After a Tenant Administrator creates a cloud resource subscription request in the Service Manager Self-Service Portal, the Activity Implementer should assign cloud resources to the subscription request. The Assign Cloud Resources Wizard helps you to assign cloud resources. Use the following procedure in System Center 2012 – Service Manager to assign the cloud resources.

To assign cloud resources to a subscription request

|  |
| --- |
| 1. In the Service Manager console, on the Work Items pane, expand Manual Activities and then click All Activities.  2. Select the requests and on the Task pane, click Assign Cloud Resources.  3. Follow these steps to complete the Assign Cloud Resources Wizard:  a. On the General page, verify the Cloud Resource Name, Storage Quota, Memory Quota, Virtual Machines, and Virtual CPUs are all correct. Make any needed changes and click Next.  b. On the VMM Cloud page, select a VMM server and a VMM cloud and click Next.  Important  Make sure that the VMM cloud has a valid stored virtual machine path.  c. On the Virtual Machine Templates page, verify that the Virtual Machine templates are correct, make any needed changes by checking the box under Assign, and then click Next.  d. On the Service Templates page, verify the service templates are correct. Make any needed changes by checking the box under Assign, and then click Next.  e. On the Logical Networks page, verify the logical networks are compatible with the VMM cloud, make any needed changes by checking the box under Assign, and then click Next.  f. On the Create VMM User Role page, verify that the VMM User Role Name and cloud resource subscription users are correct. If needed, modify the VMM User Role Name and then click Next.  g. On the Summary page, verify all items are correct, and click Mark as Complete.  h. On the Completion page click Close. |

How to Provision a Update Cloud Resource Subscription Request

The Activity Implementer must assign the cloud resources. Use the following procedure in System Center 2012 – Service Manager to complete the update cloud resource subscription request.

To provision a update cloud resource request

|  |
| --- |
| 1. In the Service Manager console, in the Work Items pane, expand Activity Management, double-click Manual Activities and then click All Activities.  2. In the All Activities pane, double-click the Allocate additional Cloud Resources to Subscription activity.  3. In the Task pane, click Update Cloud Resources Subscription.  4. Follow these steps to complete the Update Cloud Resources Wizard:  a. In the General page, verify that the New Cloud Resources Subscription Name, New Storage Quota, New Memory Quota, New Virtual Machines, and New Virtual CPUs are all correct. Make any needed changes and click Next.  b. In the New VM Templates page, verify that the virtual machine templates are correct, based on the VMM user role, make any needed changes by checking the box under Assign, and then click Next.  c. In the New Service Templates page, verify that the service templates are correct, based on the VMM user role, make any needed changes by checking the box under Assign, and then click Next.  d. In the Summary page, review the new users, and then click Mark as Complete.  Note  Users that are removed from the cloud resources in this procedure are not removed from the Service Manager user role.  e. Click Close.  5. Double-click De-Allocate Cloud Resources from Subscription.  6. Select the Related Item tab and verify the items to be de-allocated under Configuration Items. Click Add or Remove to make changes.  7. In the Task pane, click Update Cloud Resources Subscription (De-allocate Resources).  8. Click Apply, and then click OK. |

How to Approve a Virtual Machine Request

Virtual machine requests are approved in the System Center 2012 – Service Manager console. Use the following procedure to approve a virtual machine request.

To approve a virtual machine request

|  |
| --- |
| 1. In the Service Manager console, in the Work Items pane, click Activity Management to expand.  2. Double-click Review Activities and then open All Activities.  3. Select the request and click Approve.  4. Enter a comment and click OK.  Note  The virtual machine will automatically be created when the request is approved.  After the Operations Manager configuration item (CI) connector synchronizes with System Center 2012 – Operations Manager, the virtual machine properties will be displayed under Configuration Items>Cloud Services>Virtual Machines>Active Virtual Machines. |

Provision a Service Deployment Request

After a user has requested a Service Deployment in the Service Manager Self-Service Portal, the administrator must approve the request, create a service template in System Center 2012 – Virtual Machine Manager (VMM), synchronize the System Center 2012 – Operations Manager connector, and provision the request.

Important

Each step must be performed in this order. For example, the request cannot be provisioned until the database has been synchronized. And, the database cannot be synchronized until after the service has been created in VMM.

Use these procedures to provision a service deployment request:

1. [How to Approve a Service Deployment Request](#z187648e412f24248bbb7fd95a7348145)

2. [How to Create a Service Template in VMM](http://go.microsoft.com/fwlink/p/?LinkID=212432)

3. [How to Synchronize a System Center Operations Manager Connector](http://go.microsoft.com/fwlink/p/?LinkId=229671)

4. [How to Provision a Service Deployment Request](#zbf5d3cb7b375439d97ae387818513f03)

For more information, see [Creating Service Templates in VMM](http://go.microsoft.com/fwlink/p/?LinkID=212414)

How to Approve a Service Deployment Request

The first step in provisioning a service deployment request is to approve the request. Use the following procedure in System Center 2012 – Service Manager to approve the request.

To approve a Service Deployment Request

|  |
| --- |
| 1. In the Service Manager console, in the Work Items pane, click Review Activities to expand.  2. Open the All Activities node.  3. Select the request and click Approve.  4. Enter a comment and click OK. |

How to Provision a Service Deployment Request

Use this procedure in System Center 2012 – Service Manager to provision a service deployment request.

Important

The System Center 2012 – Operations Manager connector must be synchronized before performing this procedure.

To provision a service deployment request

|  |
| --- |
| 1. In the Service Manager console, in the Work Items pane, click Manual Activities to expand.  2. Open the All Activities node.  3. Select the activity.  4. In the Task pane, click Provision Service.  5. Follow these steps to complete the Provision Service Wizard:  a. Click Add.  b. On the Select objects page, select the services from the list of available objects and click Add, and then click OK.  The Select objects page will close and the selected services will be displayed on the Provision Service page.  c. Click OK. |

See Also

[How to Synchronize a System Center Operations Manager Connector](http://go.microsoft.com/fwlink/?LinkId=239772)

How to Process a Tenant Cancellation Request

Use the following procedure in System Center 2012 – Service Manager to process a tenant cancellation request.

To process a tenant cancellation request

|  |
| --- |
| 1. In the Service Manager console, in the Work Items pane, click Manual Activities to expand and then click All Activities.  2. In the All Activities pane, select the Update Subscribed Cloud Resources in Virtual Machine Manager and then click Clean up VMM Resources in the Tasks pane.  3. Review the details on the Cloud resources subscription details page. To view the details, select the cloud resources and click Open.  4. Click OK.  5. In the All Activities pane, select the Update Subscribed Cloud Resources in Virtual Machine Manager and click Mark as Completed.  6. Type comments on the Comments page and click OK. |

How to Cancel a Cloud Resources Subscription

After a subscription cancellation request has been submitted, the activity implementer can cancel the cloud resources subscription in System Center 2012 – Service Manager.

Note

This procedure does not decommission the resources allocated for the cloud resource subscription in System Center 2012 – Virtual Machine Manager (VMM).

Use the following procedure to cancel a cloud resources subscription in Service Manager.

To cancel a cloud resources subscription in Service Manager

|  |
| --- |
| 1. In the Service Manager console, in the Work Items pane, click Manual Activities to expand and then click All Activities.  2. In the All Activities pane, select the Cancel Cloud Resources Subscription Manual Activity, and then click Clean up VMM Resources in the Tasks pane.  3. Review the details on the Cloud resources subscription details page. To view the details, select the resource and click Open.  Important  The Cloud resources subscription details screen displays all resources allocated to the cloud resources subscription. This information should be referenced when cleaning up VMM resources in VMM. For example, in VMM you might want to delete the associated user role or delete virtual machines that were created for the cloud resources subscription.  4. Click OK.  5. In the All Activities pane, select the Cancel Cloud Resources Subscription Manual Activity, and then click Mark as Completed in the Tasks pane.  6. Type comments on the Comments page and click OK. |

Virtual Machine Decommission

Virtual machines are automatically stored in the System Center 2012 – Virtual Machine Manager (VMM) library configured for the cloud when they reach their decommission date. When the virtual machine approaches its decommission date, an automated service request will be raised. If the automated service request fails, then that virtual machine will remain in an active state. When this occurs, the virtual machines will not be automatically decommissioned, as the automated service request will not re-attempt even when the decommissioning date has expired.

To immediately decommission a virtual machine, change the decommission date to the current date. To physically remove a virtual machine from a VMM, a System Center 2012 – Service Manager administrator will need to manually delete the virtual machine from the VMM library and from the Service Manager Decommissioned View.

Important

Manually changing virtual machine status to "Decommissioned" from the Virtual Machines Configuration Item does not initiate a Virtual Machine Decommissioning Service Request.

Reporting

Reports are automatically generated and stored in the data warehouse. Reports are based on OLAP cubes.

Note

Uninstalling the Cloud Services Process Pack does not remove data from the data warehouse. If the Cloud Services Process Pack is uninstalled and then reinstalled, the old data will be displayed along with the new data.

Reporting Prerequisites

Before reports can be generated, the following must occur:

 Install Data Warehouse

 Register Data Warehouse with System Center 2012 – Service Manager

 Install Microsoft Excel 2010

Additional Dependencies

For report data to be correct, these jobs must be completed. If these jobs are not executed, then the reports will be incomplete or outdated.

Make sure that the MPsyncJob occurs first. The MPsyncJob synchronizes management pack data with the data warehouse.

For the reports to be correct, the following three jobs must be executed in this sequence:

1. Extract\_SM-MGMT-GRP

2. Transform.Common

3. Load.Common

The Process.CloudServicesCube job must be completed last. If the Process.CloudServicesCube job is not completed, the reports will not be populated with data. By default, the Process.CloudServicesCube job is scheduled to be run every 24 hours.

Sample Reports

There are two types of reports: Tenant and chargeback. Tenant reports contain information about available resources. Chargeback reports contain information on costs. Two sample report files are installed with the Cloud Services Process pack. Each sample report file contains three or four of the following reports:

Cloud Resources Report

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| The Cloud Resources Report allows the Service Provider and Tenant Administrator to view details of the cloud resources. |

Tenant Report

|  |
| --- |
| The Tenant Report allows the Service Provider and Tenant Administrator to view the tenant properties. |

Virtual Machine Report

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| --- |
| The Virtual Machine Report allows the Service Provider, Tenant Administrator and Cloud Resources Users to be able to view the virtual machines along with virtual machine properties. |

Chargeback Report Per VM

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| --- |
| The Chargeback Report Per VM report allows the Service Provider, Tenant Administrator and Cloud Resources Users to be able to view the chargeback report for the virtual machines that they manage. The chargeback is calculated from the day in which the virtual machine data is synchronized with data warehouse from service manager. Chargeback is not calculated by the date in which the virtual machine was created. |

Chargeback Report Per Tenant

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| The Chargeback Report Per Tenant report allows users to view chargeback costs per tenant. |

Virtual Machines Daily Specs

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| The Virtual Machines Daily Specs report allows users to view properties of virtual machines. |

VM Cost Settings Daily Report

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| --- |
| The VM Cost Settings Daily Report specifies changes made to cost configurations. |

How to Generate a Report

Custom reports can be made by using a sample report.

To generate a report using sample report

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| --- |
| 1. Open the Cloud Services Process Pack install folder and find the two sample reports in Excel format.  2. Copy, paste, and rename the two sample reports.  3. Open the new report and modify the data source connection string to point to your data warehouse server.  a. In Excel, select the Data tab and click Connections.  b. Click Properties and then click the Definition tab.  c. Modify the source in the connection string to point to your data warehouse server and click OK.  Reports will automatically be generated.  4. Click Close.  To view your data, click the report tabs. |

Appendix A: Cloud Services Request Offerings

The cloud services process pack contains a set of preconfigured request offerings. These offerings can be used without modification, or they can be used as templates for creating more customized request offerings.

Cloud Services Process Pack Offerings

These are the offerings that are in the Cloud Services Process Pack:

|  |  |
| --- | --- |
| Offering Name | Description |
| Register a Tenant | Use this form to register a tenant. A tenant is an organization that consumes cloud computing resources from a service provider but is ultimately responsible for the data stored in or transferred by the cloud resources. |
| Update Tenant Registration | Use this form to update a tenant registration. |
| Cancel Tenant Registration | Use this form to cancel a tenant registration. |
| Subscribe to Cloud Resources | Use this form to subscribe to cloud resources. Cloud resources are logical groupings of VMM resources including virtual machine templates and quotas, such as storage and memory. |
| Update Cloud Resources Subscription | Use this form to update a cloud resources subscription. |
| Cancel Cloud Resources Subscription | Use this form cancel a cloud resources subscription. |
| Request Virtual Machine | Use this form to request a virtual machine. |
| Update Virtual Machine | Use this form to update a virtual machine. |
| Request Service | Use this form to request service. |

See Also

[How to Configure Service Request Offerings](#z749b6aeb753a4ffa9d63a05facfdbd0e)