IT Camps

System Center 2012 R2 Lab 3: Automation and Self-Service

Hands-On Lab | Step-by-Step Guide

For the VMs use the following credentials:

- Username: **Contoso\Administrator**
- Password: **Passw0rd!**

Version: 1.5.5

Last updated: March 28, 2014

Please share any feedback with the IT Camps Planning Team: ITCampPlan@Microsoft.com

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3- Automation & Self-Service

115 minutes optional (1:55 total)

1. SCO & SCSM: Automation & Self-Service Components (25 mins)
2. SCO: Understand Runbook Design (25 mins)
3. SCO & SCSM: Create & Test a Runbook (30 mins)
4. SCSM: Publish a Self-Service Offering (5 mins)
5. SCSM: Fulfill a Self-Service Request (30 mins)

3.1 - SCO & SCSM: Automation & Self-Service Components

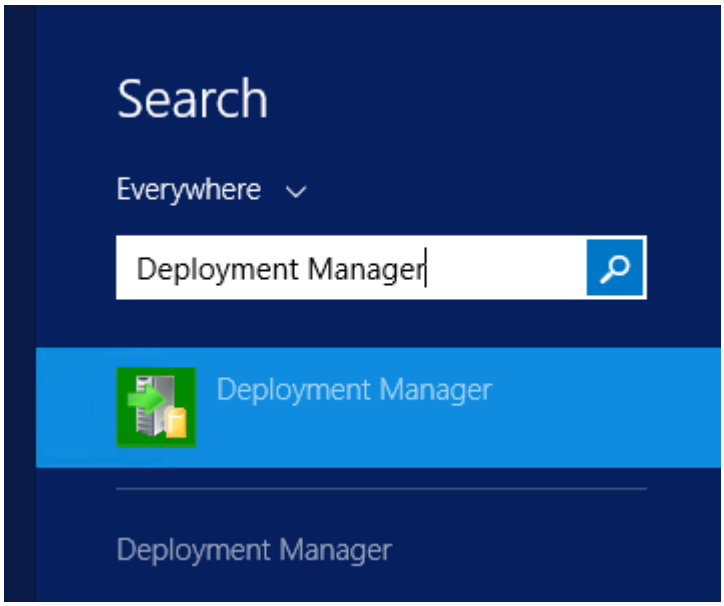
3.1.1 - SCO: Introduction to Orchestrator

In this exercise the user will learn about the different workspaces and functions of System Center 2012 R2 Orchestrator, including the Deployment Manager, Runbook Designer, Integration Packs, and the Orchestration Console.

Estimated time to complete: 10 minutes

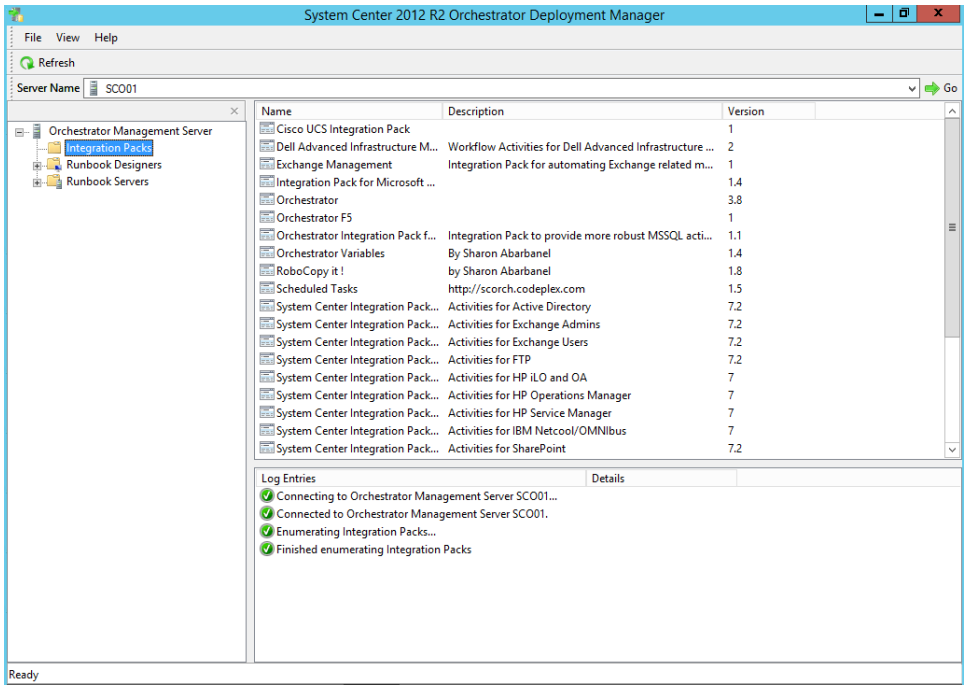
*Perform the following on **SCO01***

1. From **SCO01**, click the Windows key and search for **Deployment Manager** to open **System Center 2012 R2 Orchestrator Deployment Manager**.

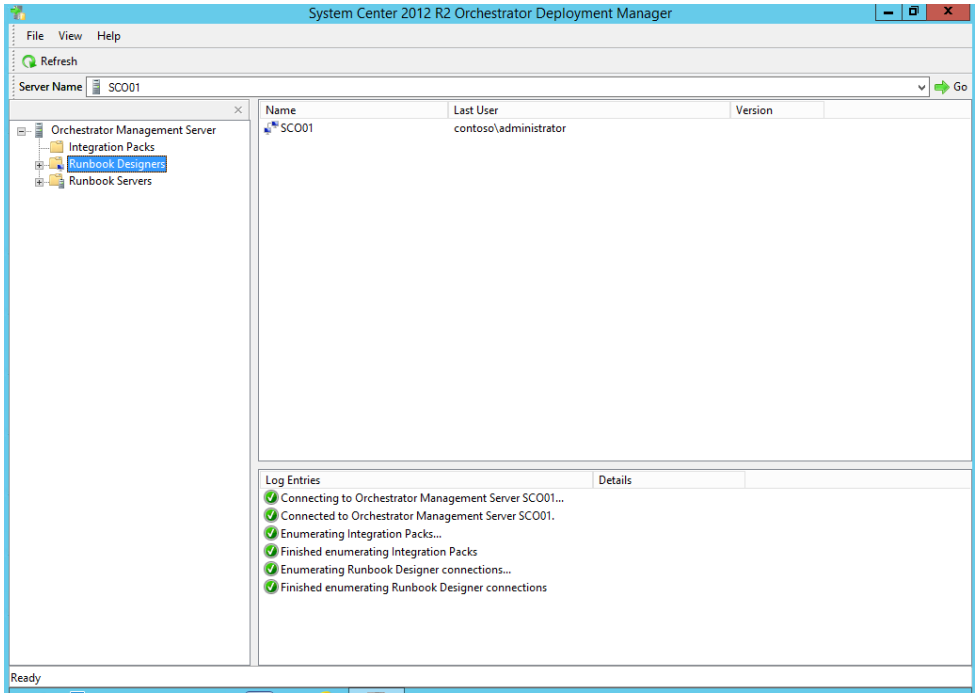


2. Click **Integration Packs.** Orchestrator includes over 40 built-in workflow standard activities that perform a wide variety of functions. Orchestrator is extensible and can integrate with other Microsoft and third-party platforms and products by installing Integration Packs.

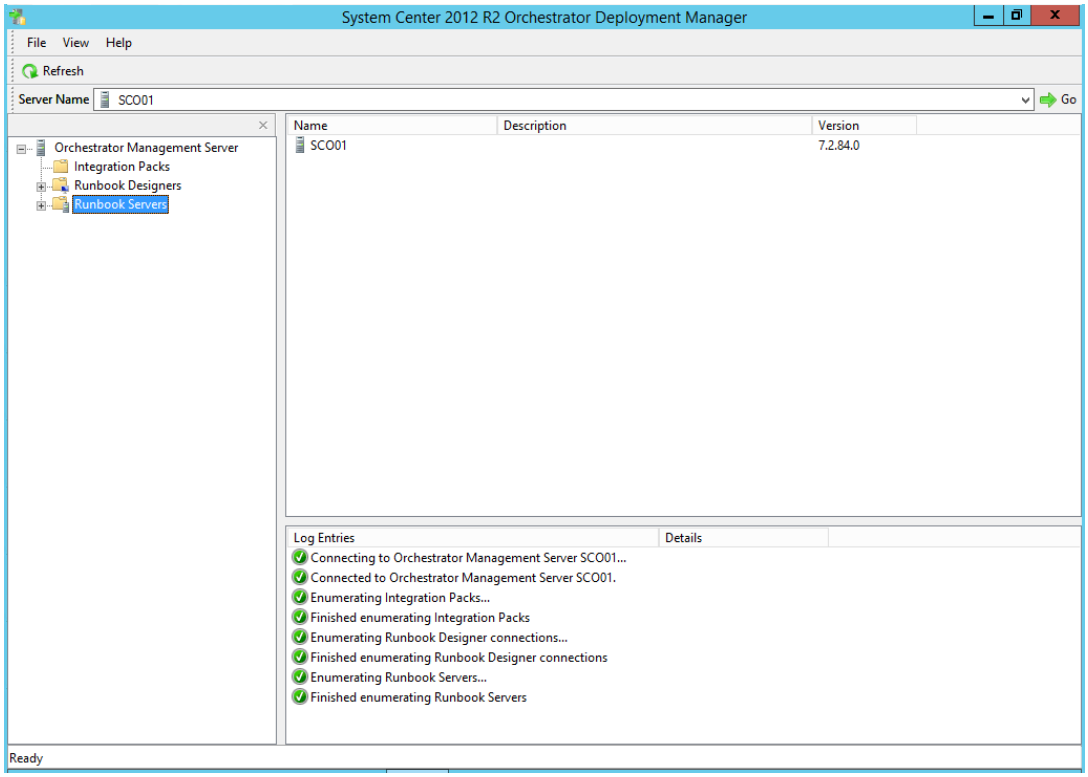
Integration Packs for Orchestrator contain additional activities that extend the functionality of Orchestrator**.**



3. Click **Runbook Designers**. The Runbook Designer is the tool used to create, manage, and run runbooks in System Center 2012 - Orchestrator. The Runbook Designer is intended for users who must create or modify runbooks. Users who only have to run runbooks and view their status should use the Orchestration console which is documented in the Using the Orchestration Console in System Center 2012 - Orchestrator.

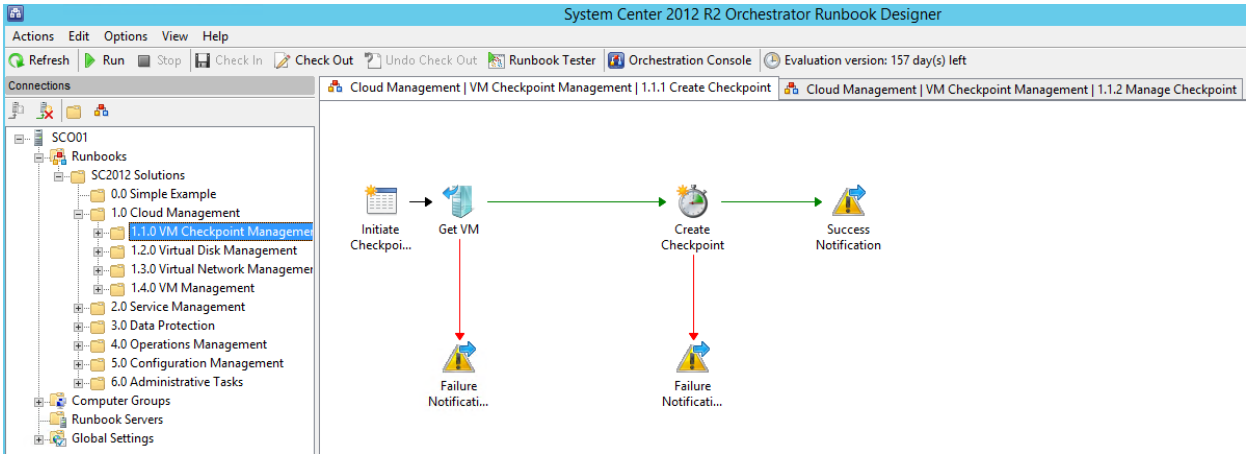


4. Click **Runbook Servers**. This tab displays the list of runbook servers assigned to run this runbook. If the list is empty, the runbook uses the setting defined in the Runbook Servers folder found in the Connections pane of the Runbook Designer. If the runbook server that uses the Primary role is available, the runbook runs on it. If the primary runbook server is not available, each runbook server that uses a Standby role is checked until one is found that can run the runbook.



5. Open the **Runbook Designer** by clicking the icon in the taskbar.

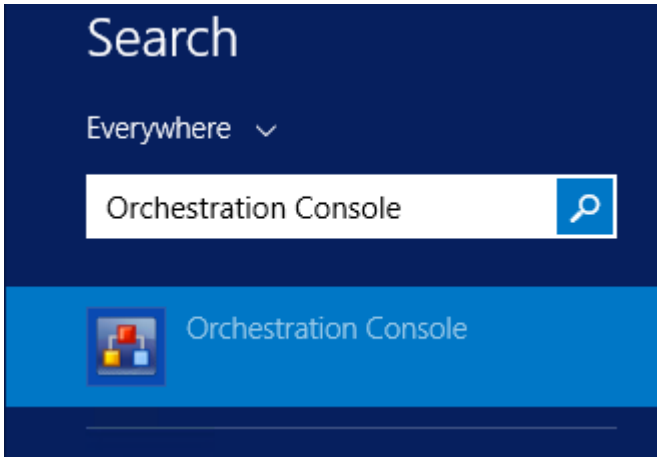
6. Expand **Runbooks**, then expand **SC2012 Solutions**. Navigate through the sample runbooks by clicking on the different folders, sub-folders, and tabs. The power of System Center 2012 - Orchestrator lies in providing runbooks and the individual activities that make up a runbook. Runbooks contain the instructions for an automated task or process. The individual steps throughout a runbook are called activities. Within the runbook, additional controls provide information and instructions to control the sequence of activities in the runbook. Runbooks, activities, and each runbook control have configurable properties.



7. Adjust the display panes, then click the following Activity nodes and review them.

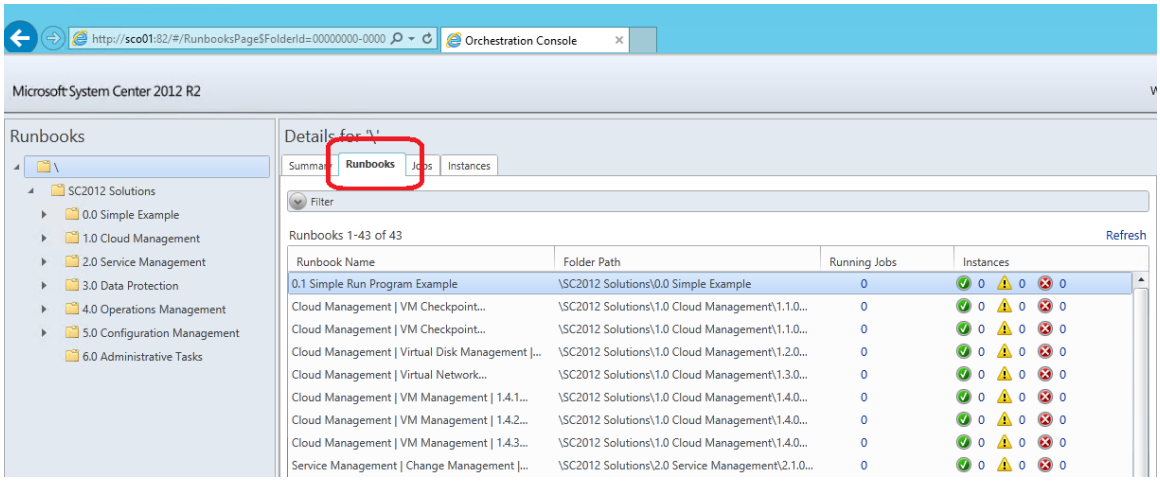
- System
- Scheduling
- Monitoring
- File Management
- Email
- Notification
- Utilities
- Windows Azure
- Text File Management
- Active Directory
- SC 2012 Data Protection Manager
- SC 2012 Configuration Manager
- SC 2012 Operations Manager
- SC 2012 Service Manager
- SC 2012 Virtual Machine Manager
- VMware vSphere

8. From the desktop click the Windows key and search for "**Orchestration Console**" then click the shortcut to open System Center 2012 R2 Orchestrator Console.

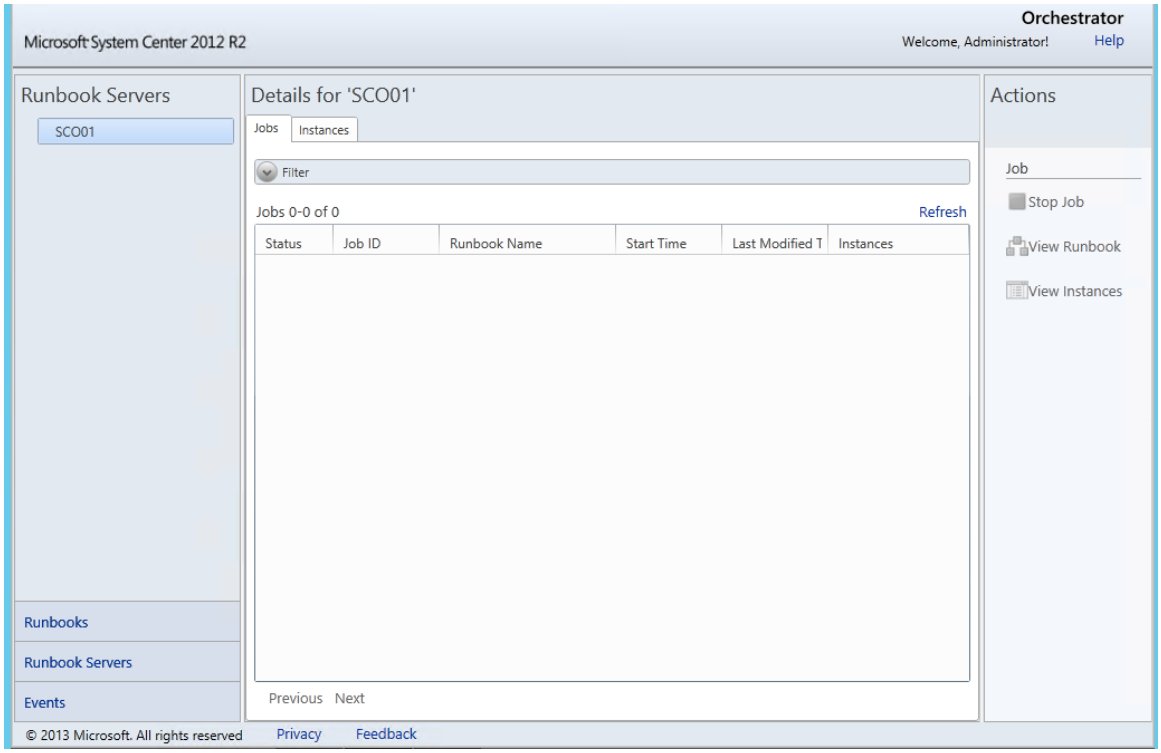


9. If prompted about keeping Silverlight up to date, click **No. Do not keep Silverlight up to date.** then click **OK**.

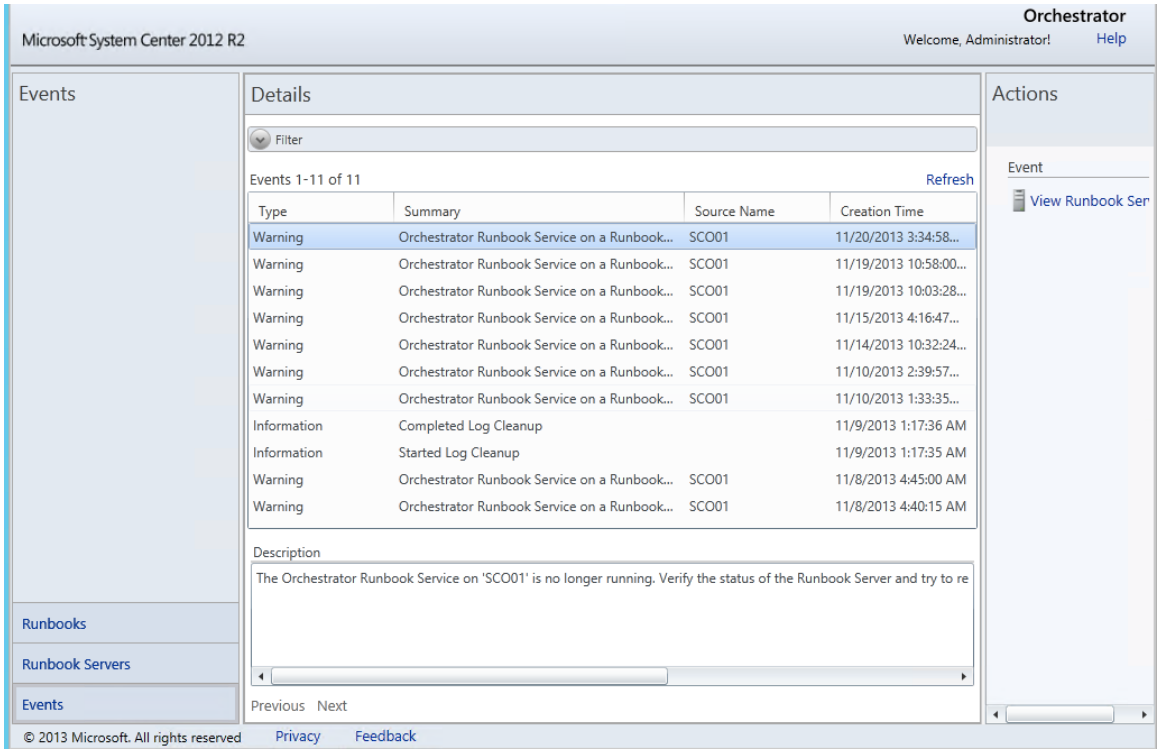
10. Click the **Runbooks** tab. Any runbooks configured to run will be listed here.



11. Click the **Runbook Servers** workspace. Each Runbook server will be listed here along with the status of jobs.



12. Click **Events**. Events will be listed in this pane. Warnings, errors and successfully completed jobs will appear in the details pane.


Microsoft System Center 2012 R2
Orchestrator
Welcome, Administrator!
Help
Events
Details
Actions
Filter
Events 1-11 of 11
Refresh
Type
Summary
Source Name
Creation Time
Warning
Orchestrator Runbook Service on a Runbook...
SCO01
11/20/2013 3:34:58...
Warning
Orchestrator Runbook Service on a Runbook...
SCO01
11/19/2013 10:58:00...
Warning
Orchestrator Runbook Service on a Runbook...
SCO01
11/19/2013 10:03:28...
Warning
Orchestrator Runbook Service on a Runbook...
SCO01
11/15/2013 4:16:47...
Warning
Orchestrator Runbook Service on a Runbook...
SCO01
11/14/2013 10:32:24...
Warning
Orchestrator Runbook Service on a Runbook...
SCO01
11/10/2013 2:39:57...
Warning
Orchestrator Runbook Service on a Runbook...
SCO01
11/10/2013 1:33:35...
Information
Completed Log Cleanup
11/9/2013 1:17:36 AM
Information
Started Log Cleanup
11/9/2013 1:17:35 AM
Warning
Orchestrator Runbook Service on a Runbook...
SCO01
11/8/2013 4:45:00 AM
Warning
Orchestrator Runbook Service on a Runbook...
SCO01
11/8/2013 4:40:15 AM
Description
The Orchestrator Runbook Service on 'SCO01' is no longer running. Verify the status of the Runbook Server and try to re
Previous
Next
Event
View Runbook Ser
Runbooks
Runbook Servers
Events
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Privacy
Feedback

3.1.2 - SCSM: Introduction to Service Manager

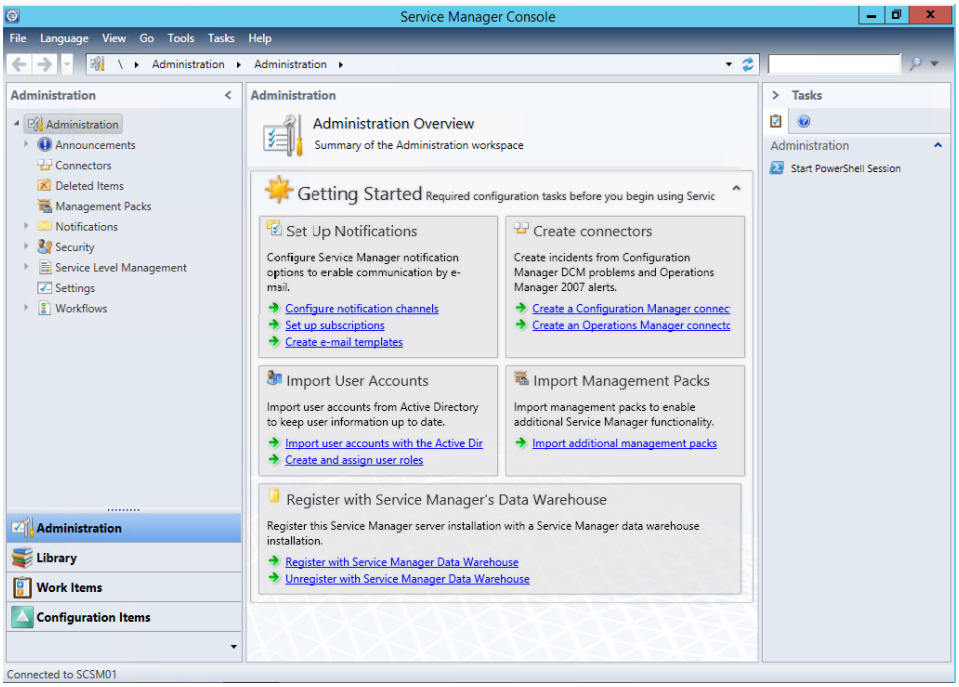
In this exercise, the Service Manager console is used to browse the Administration, Library, Work Items, and Configuration Items workspaces. Service Manager is used for both IT Service Management (ITSM) and self-service capabilities.

Estimated time to complete: 15 minutes

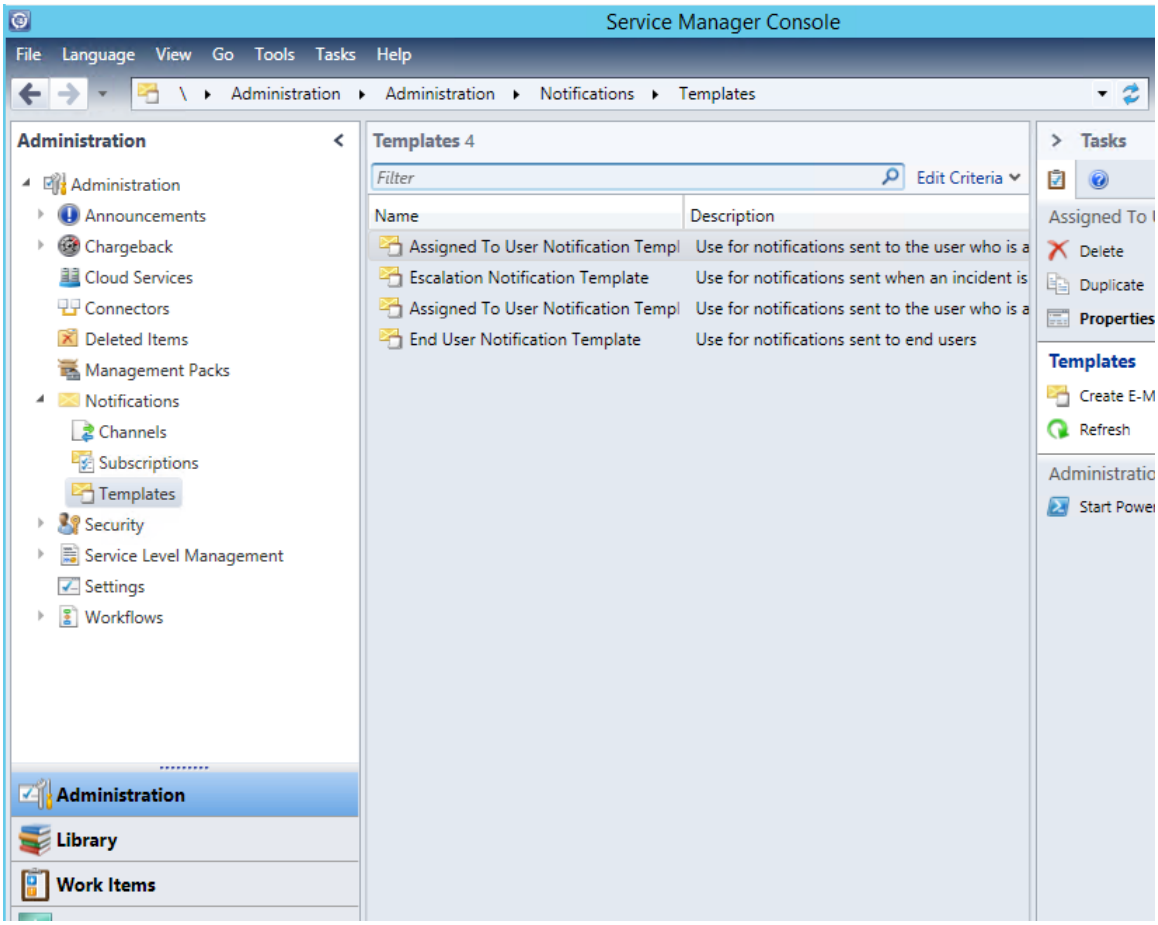
*Perform the following on **SCSM01***

1. From **SCSM01**, open the **Service Manager Console** by selecting the icon from the taskbar.

2. Navigate to the **Administration** workspace. The **Administration** workspace is used to configure and manage administrative items and settings, such as connectors, management packs, notifications, Self-Service Portal settings, security, service-level management, general settings, and workflow settings.



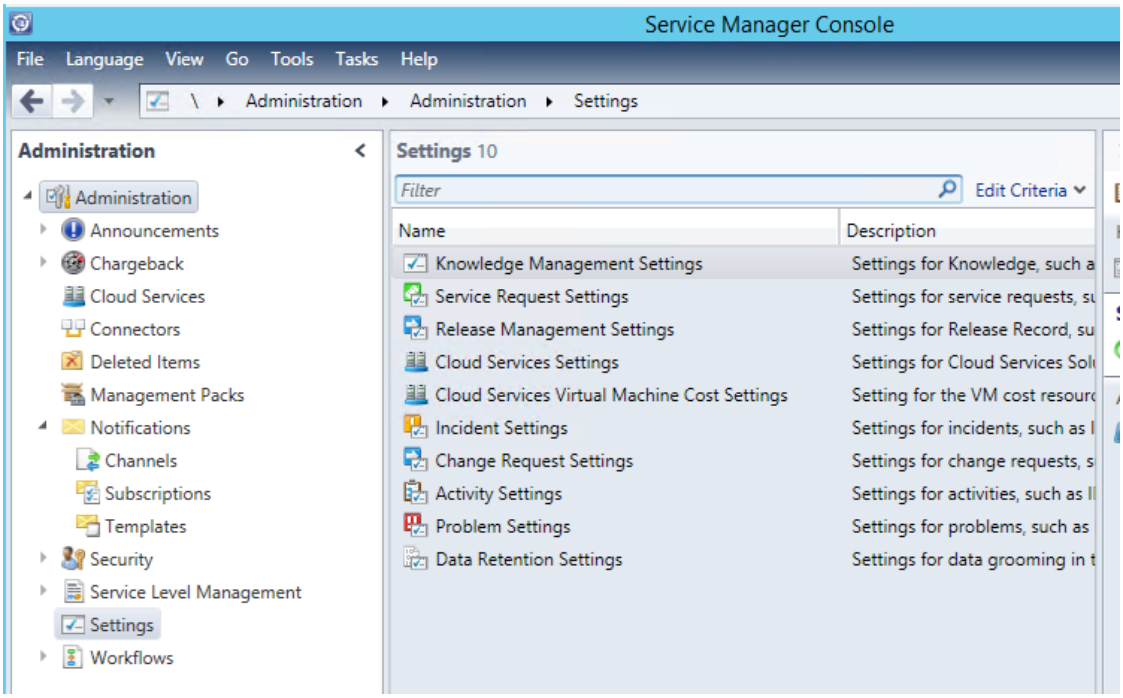
3. Expand **Notifications** and select **Templates**. New Email Notifications can be created here and existing templates can be reviewed.



4. Click **Connectors**. Connectors are used to import data as configuration items from Active Directory Domain Services (AD DS), System Center Configuration Manager, System Center 2012 - Orchestrator, System Center 2012 – Virtual Machine Manager (VMM), and System Center Operations Manager.

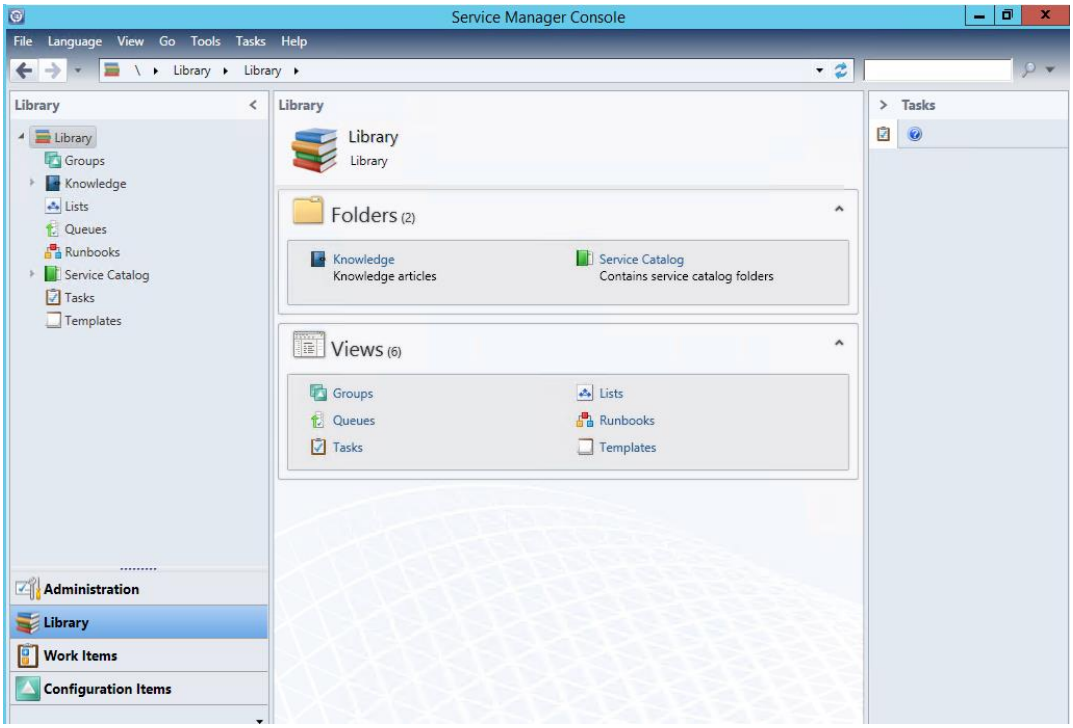
5. Expand **Security** and click **User Roles**. In System Center 2012 – Service Manager, the security rights that allow users to access or update information are defined in a user role profile. A user role profile is a named collection of access rights, and it usually corresponds to an employee's business responsibilities. Each user role profile controls access to such artifacts as knowledge articles, work items (incidents, change requests), authoring, administration, and other credentials.

6. Click **Settings**. Here various settings relating to services can be set.

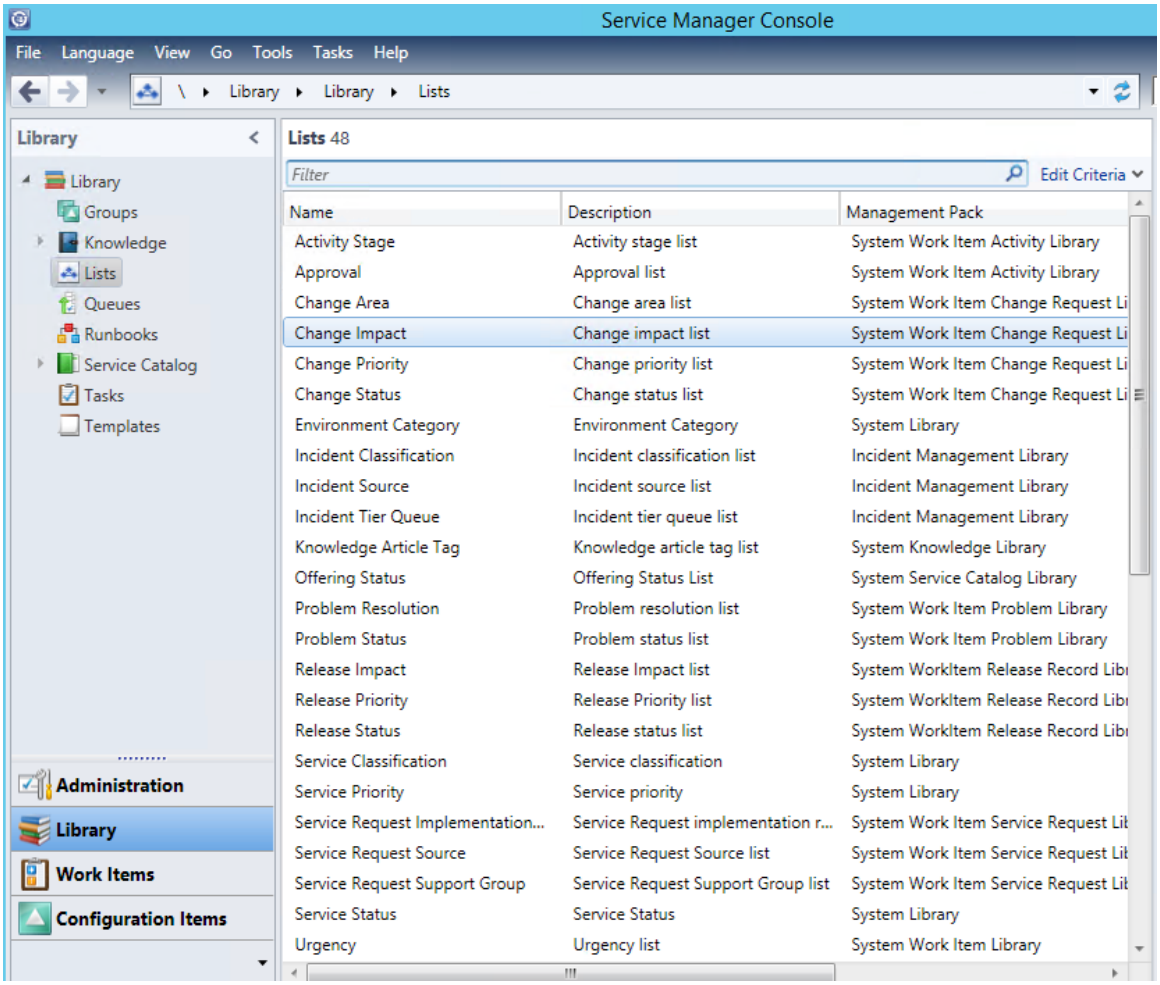


7. Expand **Workflows** and click **Status.** A workflow is a sequence of activities that automate a business process. The status node shows all the Workflows in the environment and their status.

8. Select the **Library** workspace. The **Library** pane allows the user to configure and manage library items, such as catalog groups, knowledge articles, lists, work item queues, runbooks, service catalog offerings, console tasks, and templates.



10. Select **Lists**. This node should be used to manage lists.



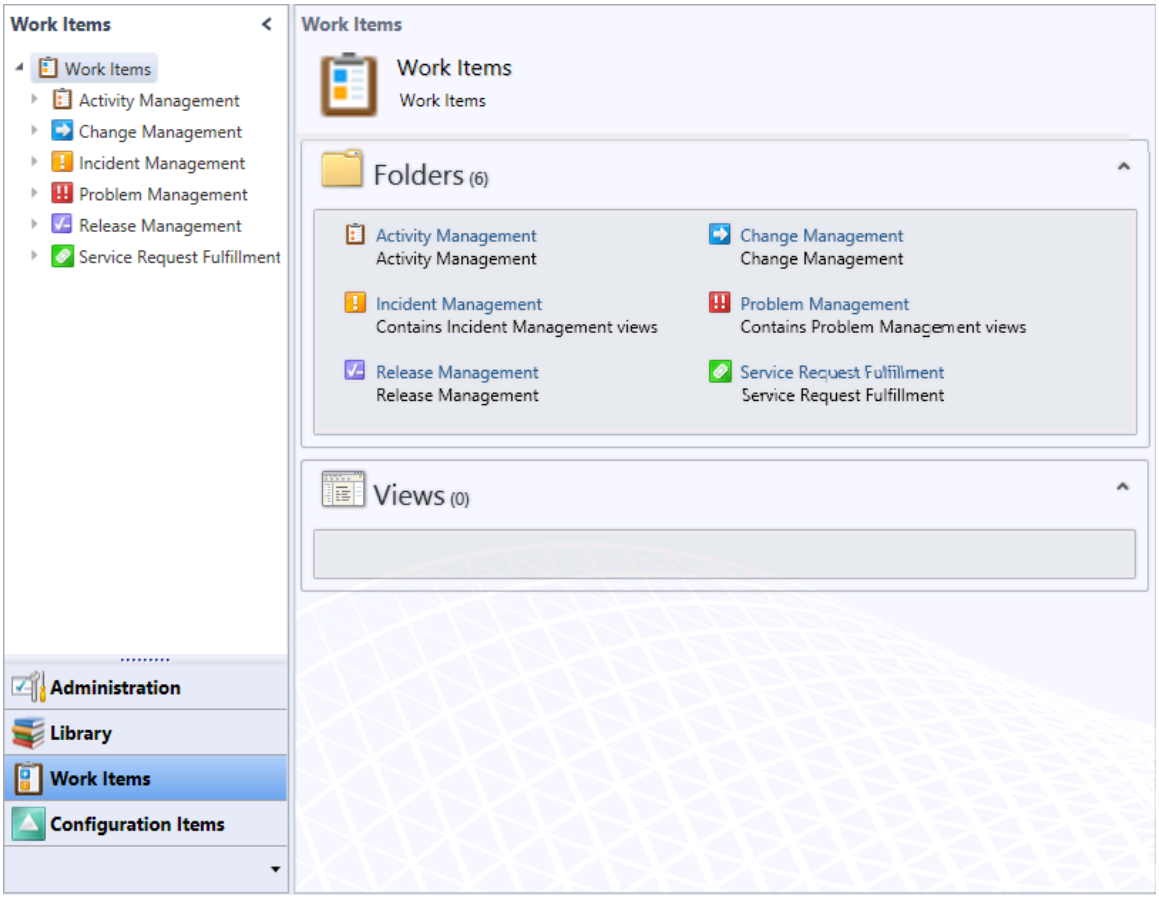
11. Click **Runbooks**. **Runbooks** contain the instructions for an automated task or process. The individual steps throughout a runbook are called activities. Within the Runbook, additional controls provide information and instructions to control the sequence of activities in the Runbook.

12. Expand **Service Catalog** then expand **Request Offerings** and click **All Request Offerings**. Request offerings are catalog items that describe the item, assistance, or action that is available to end users in the service catalog in System Center 2012 – Service Manager. Request offerings are normally placed in logical groups of service offerings. Both service offerings and their request offerings are available to Self-Service Portal users when the status of the offerings 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 associated with a catalog group that contains catalog items can use the Self-Service Portal to access the service catalog.

13. Expand **Service Offerings** and click **All Service Offerings**. Service offerings are logical groups of request offerings. For a service offering to appear in the Self-Service Portal, each

service offering must have at least one request offering added to it. After a service offering and a request offering are published, it is a straightforward process to associate them as a collection.

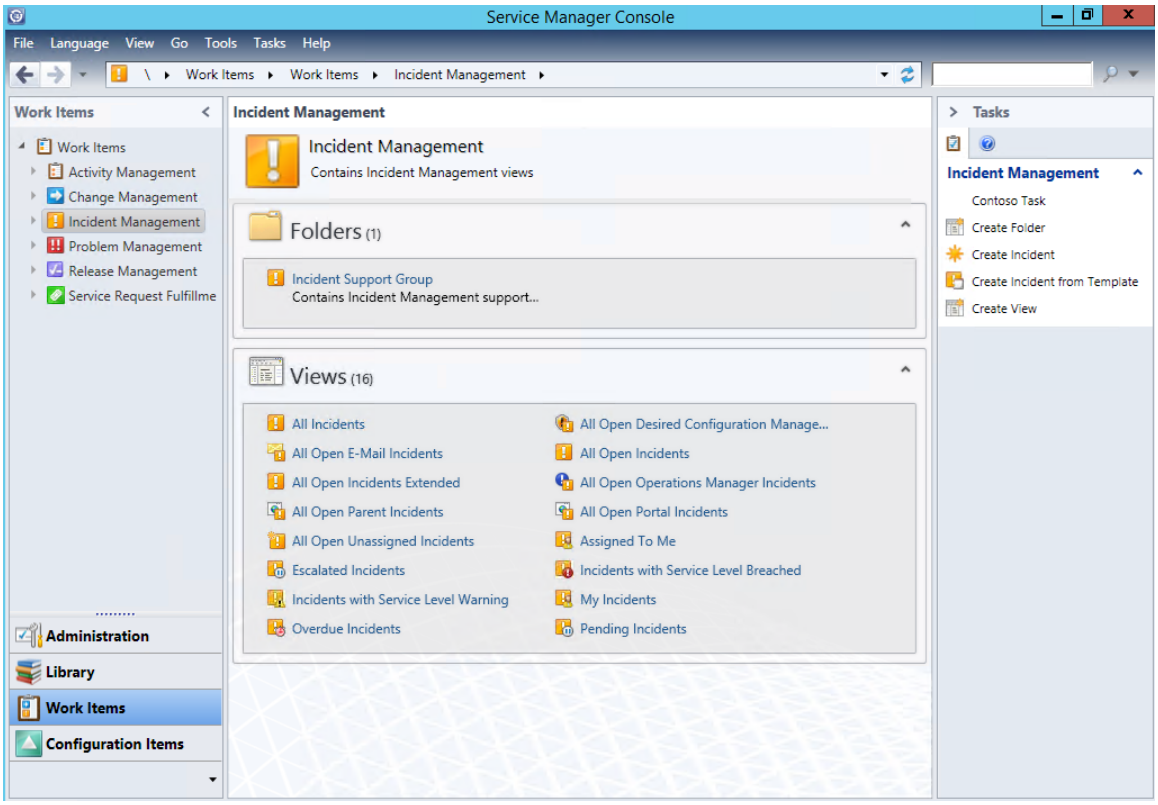
14. Select the **Work Items** workspace to open the Work Items pane. The Work Items workspace will be used for creating and managing work items, such as activities, change requests, incidents, problem records, release records and service requests.



15. Click **Activity Management**. This node is used to approve a review activity, complete or fail a manual activity and skip a failed activity.

16. Click **Change Management**. This node is used to create a new change request, add related items to a change request, add Manual activities to a change request, edit a change request, unblock a failed change request and close a change request.

17. Click **Incident Management**. This node is used to create a parent incident from an incident form, link an open incident to a parent incident, resolve a parent incident, reactivate a resolved parent incident, view a parent incident from a child incident, link a new incident to a parent incident, manually create a new incident, change an existing incident, contact a user from an incident form, create an incident view and personalize it and resolve and close an incident.



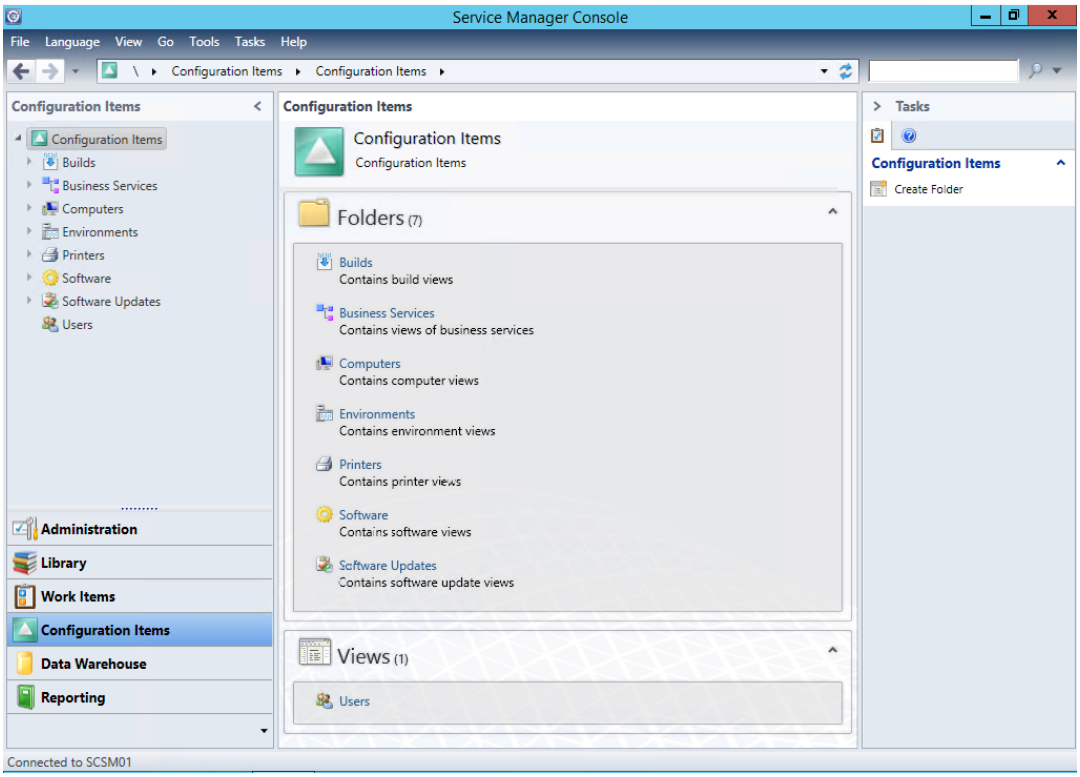
18. Click **Problem Management**. This node is used to create and edit problem records, resolve problem records and related incidents automatically and link an incident or change request to a problem record.

19. Click **Release Management**. This node is used to create a release record, promote a release record to a parent release record, demote a parent release record to a child release record, link a child release record to the current release record, unlink a child release record from the current release record, create a build configuration item, create an environment configuration item, add release package information to a release record, chose changes to deploy, plan release activities, skip a failed activity and determine status and progress for a change request in the release record.

20. Click **Service Request Fulfillment**. This node shows services requests submitted through the Service Manager Self-Service Portal (SMPortal). It can manage service requests, create a service request using the Service Manager console, approve and complete a service request using activities, cancel a service request, close a service request and view service request details.

21. From the Navigation pane, click **Configuration Items**.

22. The **Configuration Items** pane allows the user to create and manage configurations items, such as builds, business services, computers, build environments, printers, software, software updates, and Service Manager users.



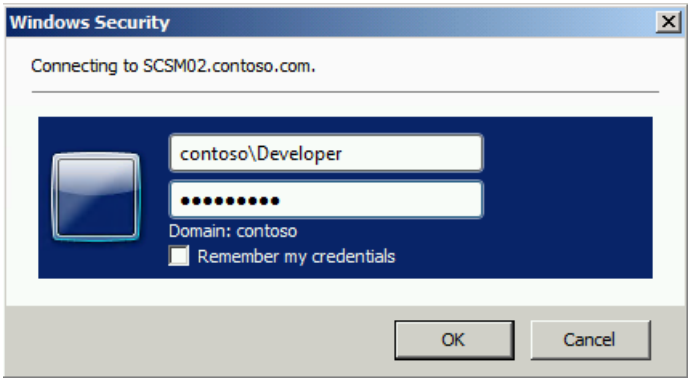
20. Click **Computers**. In this node of the Configuration Items workspace, user can perform tasks that are common to all configuration items.

21. Expand **Computers** and select **All Windows Computers**. This node is used to inventory all machines in the environment.

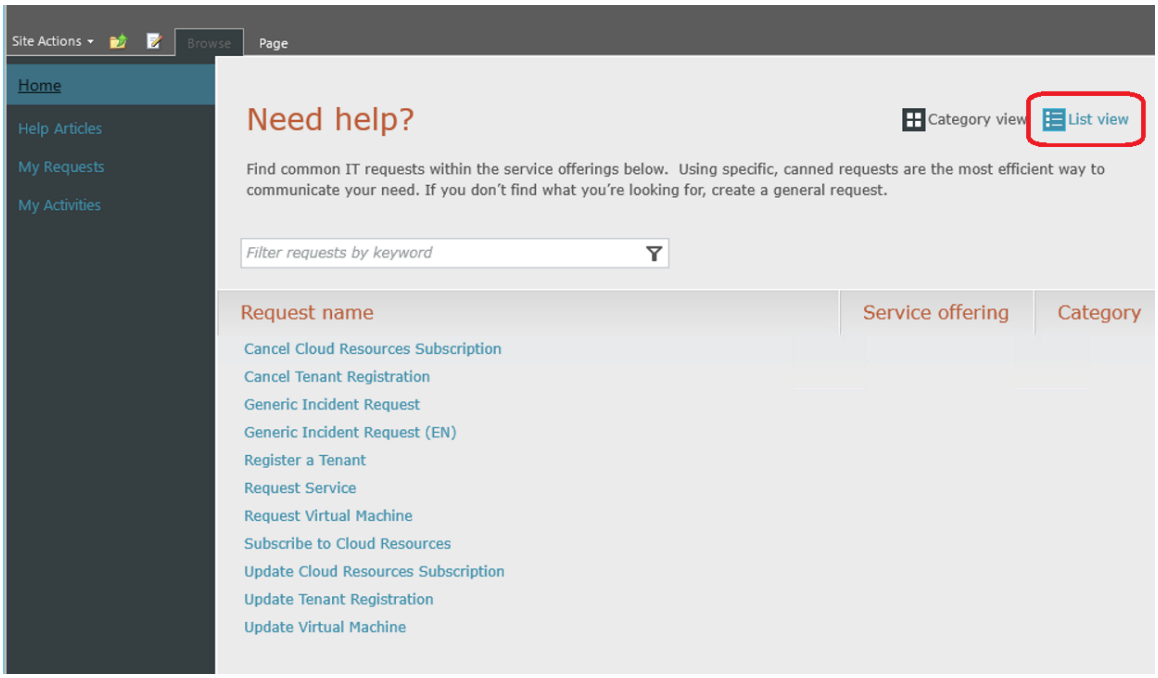
*Perform the following on **SCSM02***

22. From **SCSM02**, open the **Service Manager Portal** by selecting the **Internet Explorer** icon from the taskbar.

23. If the site does not open, browse to http://SCSM02:81/SMPortal/SitePages/Service%Catalog.aspx. One or two prompts may appear. Log in with a username of **contoso\Developer** and a password of **Passw0rd!**



24. While on the Home menu click **List view** to display customized IT service offerings that have been published by the IT Department.



25. From the menu on the left, click **Help Articles**. This page would display any articles published by the IT department. In this lab, this page is blank.

26. From the menu on the left, click **My Requests**. This page would display any requests previously made by this user. In this lab, this page is currently blank.

27. From the menu on the left, click **My Activities**. This page would display any actions and tasks that the user needs to perform. In tis lab, this page is currently blank.

3.2 - SCO: Understand Runbook Design

3.2.1 - SCO: Configure Orchestrator Integration

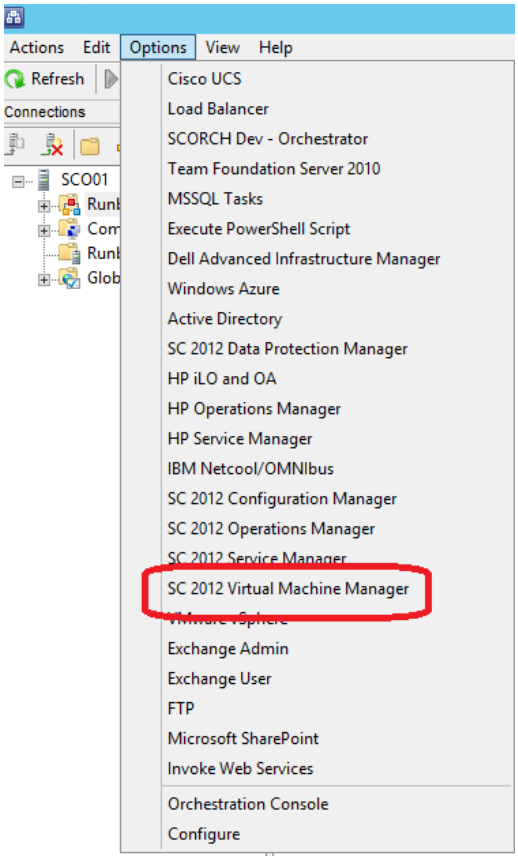
In this exercise Orchestrator will be connected to several other systems in the datacenter, such as Virtual Machine Manager. By configuring the connection information, Orchestrator can automate tasks on those systems and pass information between these systems.

Estimated time to complete: 15 minutes

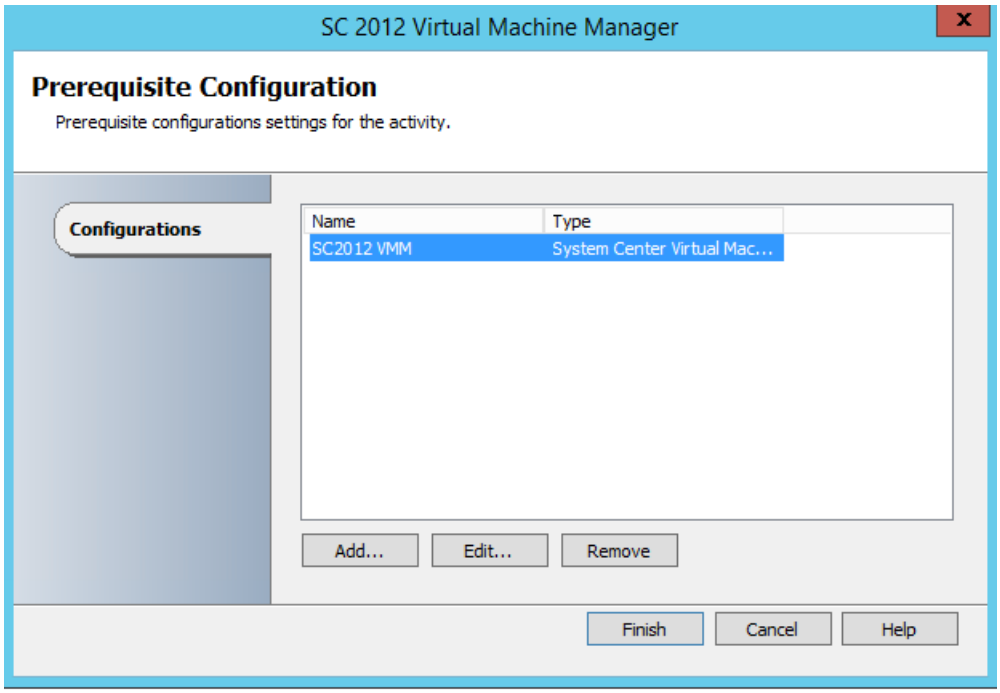
*Perform the following on **SCO01***

1. From **SCO01**, open the **Runbook Designer** by clicking the icon in the taskbar.

2. On the menu bar, select **Options** and select **SC 2012 Virtual Machine Manager.**

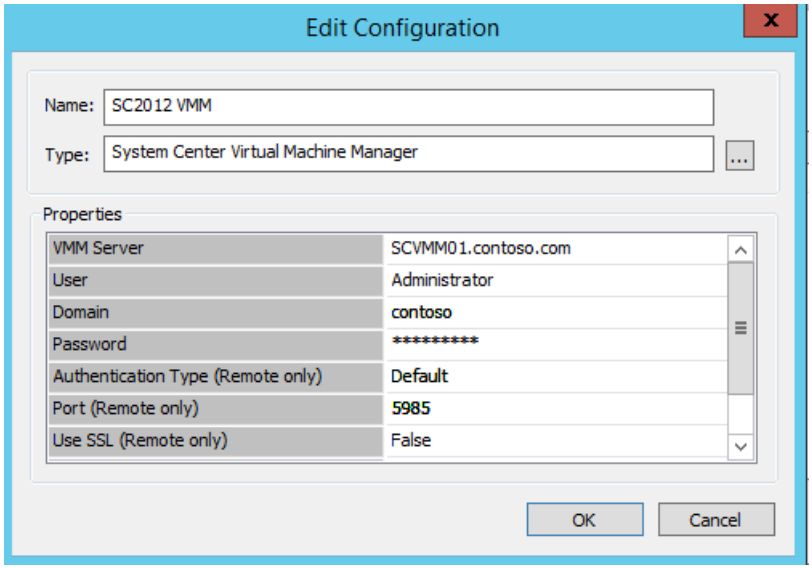


3. On the **Prerequisite Configuration** page, select **SC2012 VMM** and click **Edit**.

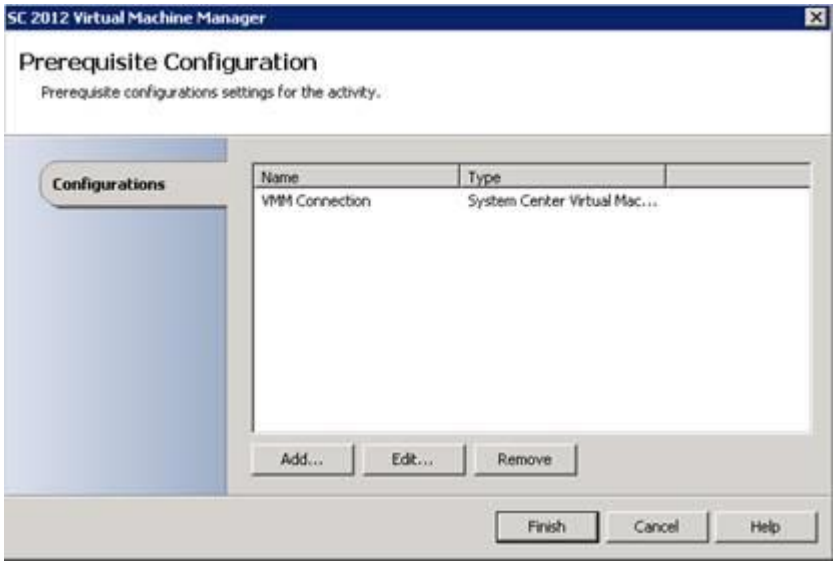


4. Enter the following **properties**, then select **OK** when finished.

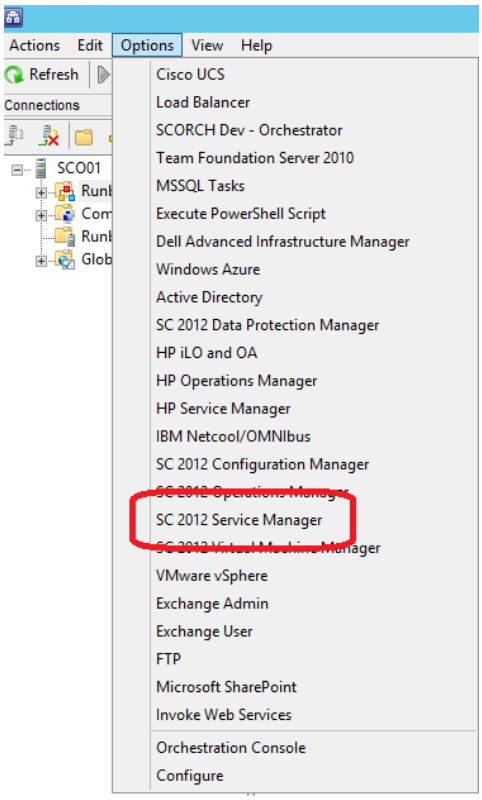
- **VMM Server**: SCVMM01.contoso.com
- **User**: Administrator
- **Domain**: contoso
- **Password**: Passw0rd!
- **Authentication Type (Remote only):** Default
- **Port (Remote only)**: 5985
- **Use SSL (Remote only)**: False
- **Cache Session Timeout (Min.)**: 10
- **VMM Administrator Console**: SCVMM01.contoso.com



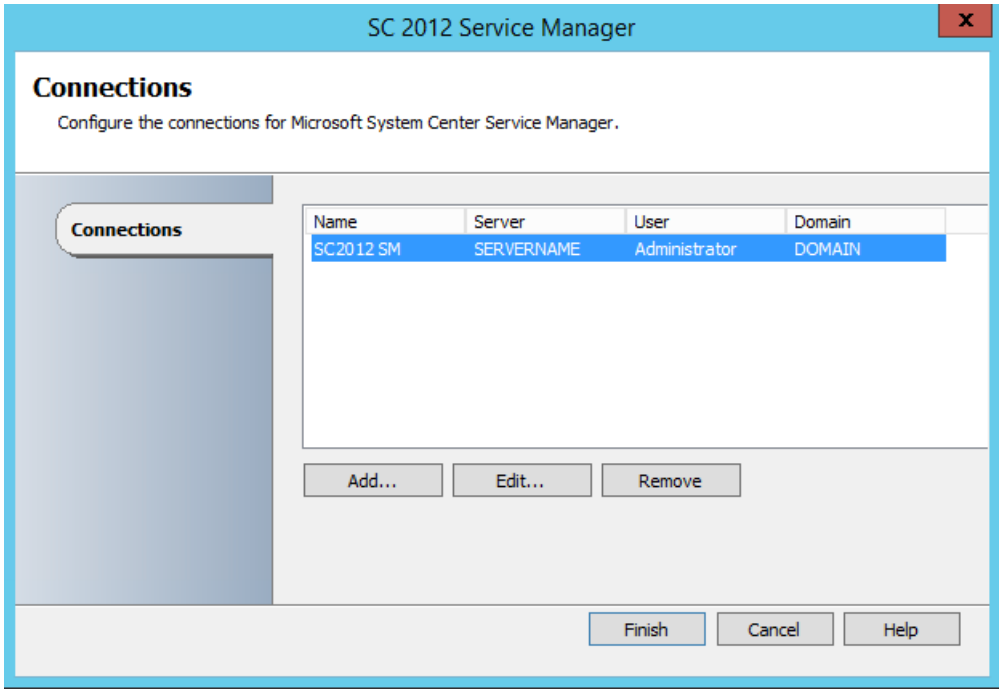
5. Press **Finish**.



6. On the menu bar, select **Options** and select **SC 2012 Service Manager**.

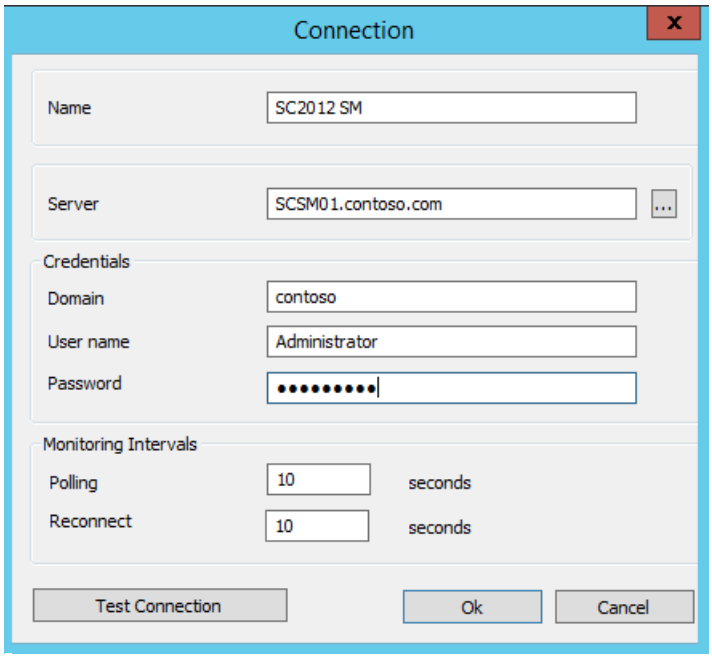


7. On the **Connections** page, select **SC2012 SM** and click **Edit**.

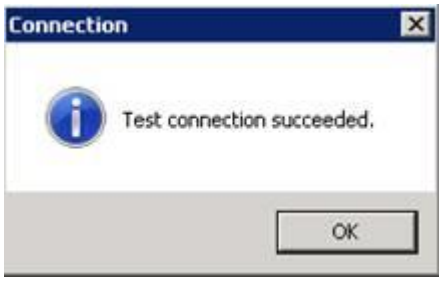


8. Fill in the following information, then press the **Test Connection** button.

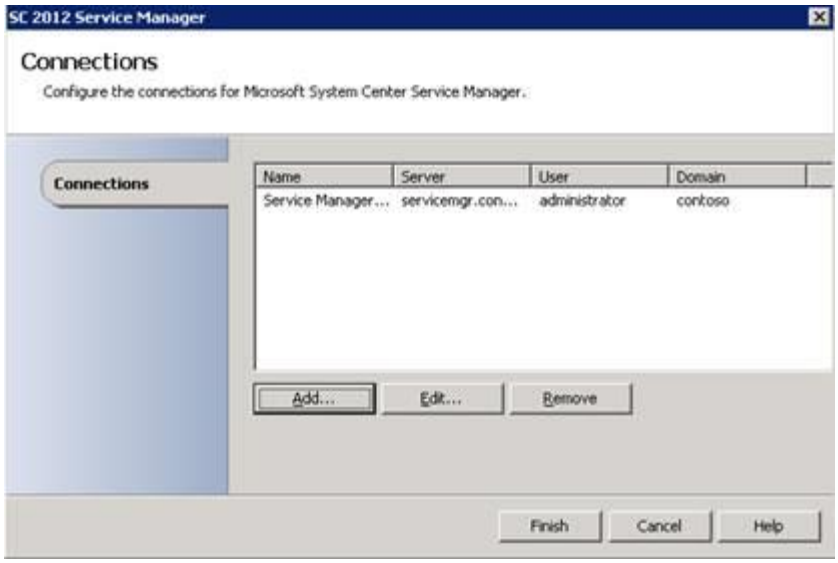
- **Name**: SC2012 SM
- **Server**: SCSM01.contoso.com
- **Domain**: contoso
- **User name**: administrator
- **Password**: Passw0rd!
- **Polling**: 10
- **Reconnect**: 10



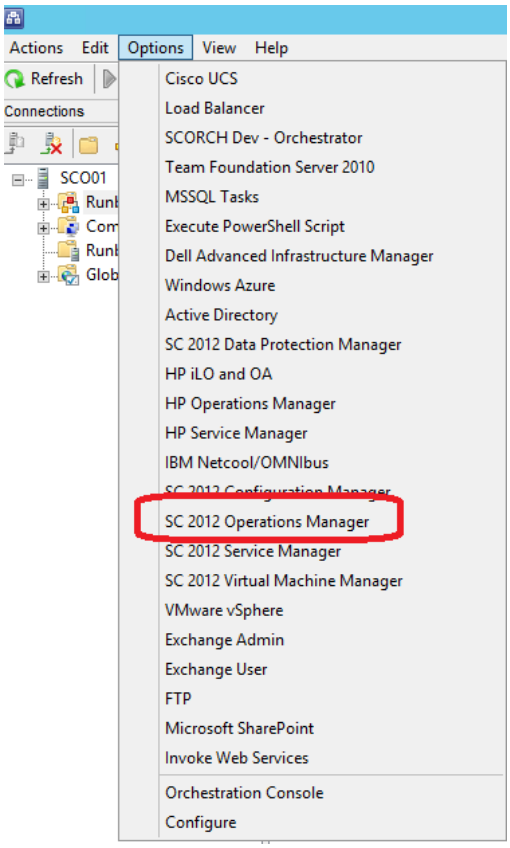
9. When the window appears displaying **Test connection succeeded** appears, press **OK** and **OK** again.



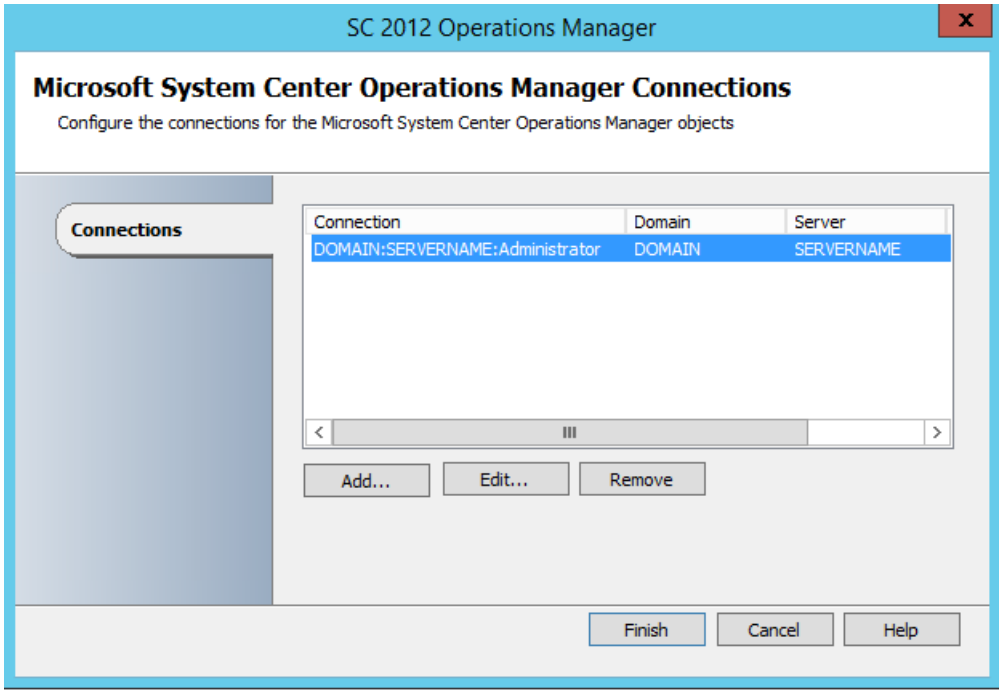
10. Press **Finish**.



11. On the menu bar, select **Options** and select **SC 2012 Operations Manager**

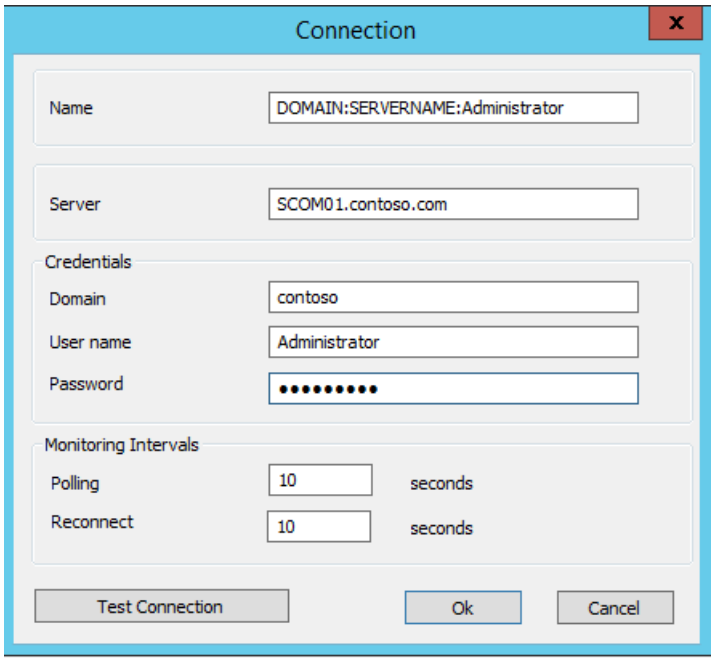


12. On the **Microsoft System Center Operations Manager Connections** page, select **DOMAIN:SERVERNAME:Administrator**, and click **Edit**.



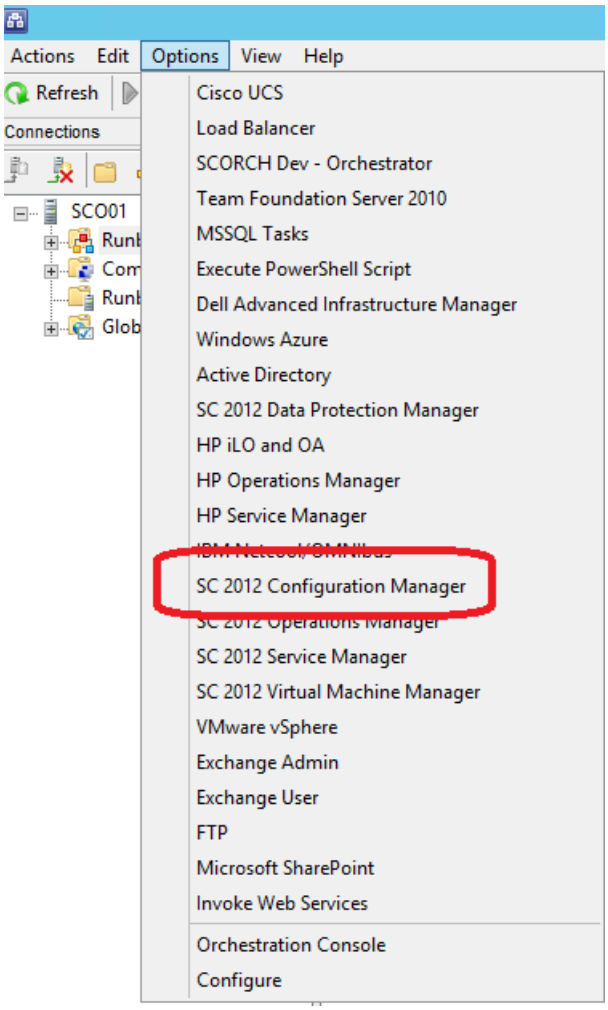
13. On the **Connections** page, fill in the following information, then press **Test Connection**.

- Name: SCOM Connection
- Server: SCOM01.contoso.com
- Domain: contoso
- User name: administrator
- Password: Passw0rd!

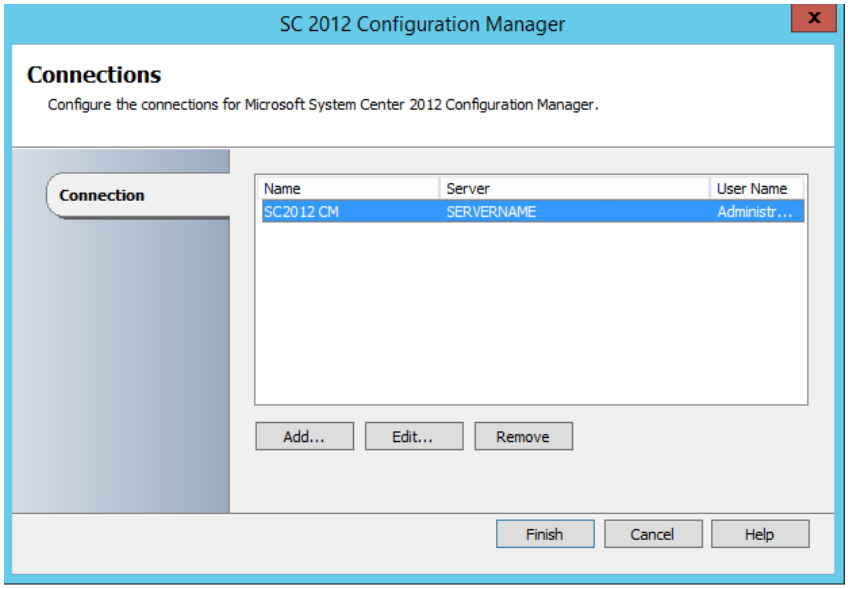


14. When the **Connection successful** dialog box appears, press **OK** and **OK** again.

15. On the menu bar, select **Options** and select **SC 2012 R2 Configuration Manager**.

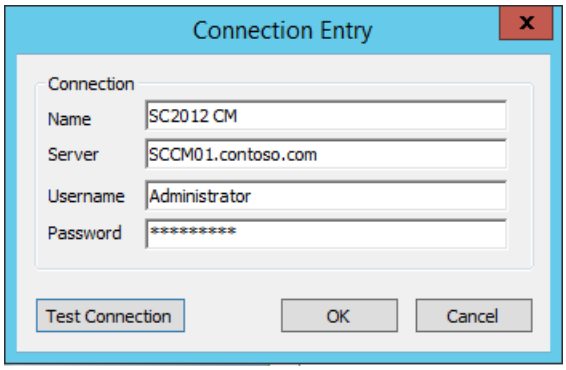


16. On the **Connections** page, select **SC2012 CM** and click **Edit**.

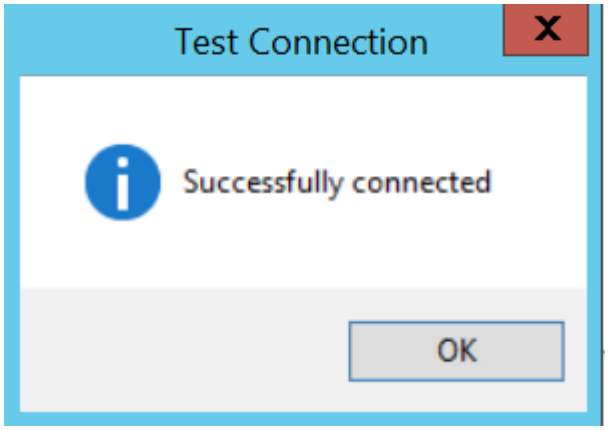


17. Fill in the following information, then press the **Test Connection** button.

- Name: **SC2012 CM**
- Server: **SCCM01.contoso.com**
- User name: **Administrator**
- Password: **Passw0rd!**

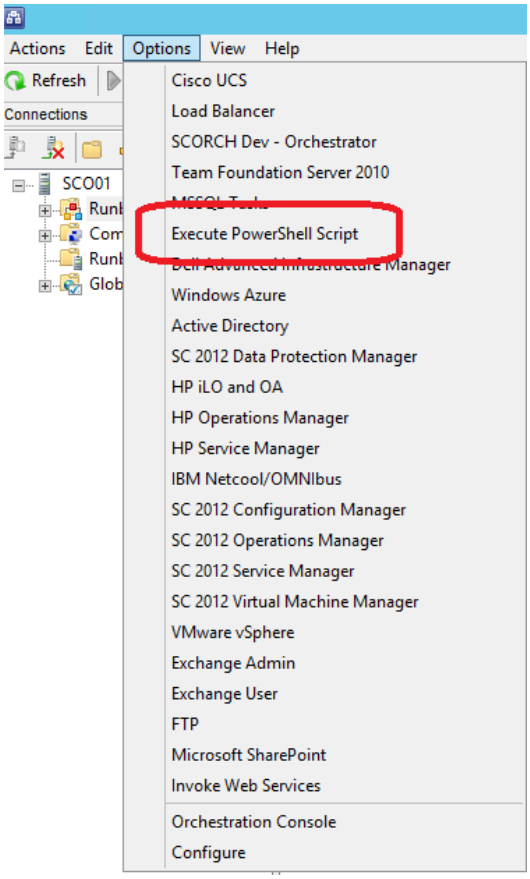


18. When the window appears displaying **Successfully connected**, press **OK** and **OK** again.



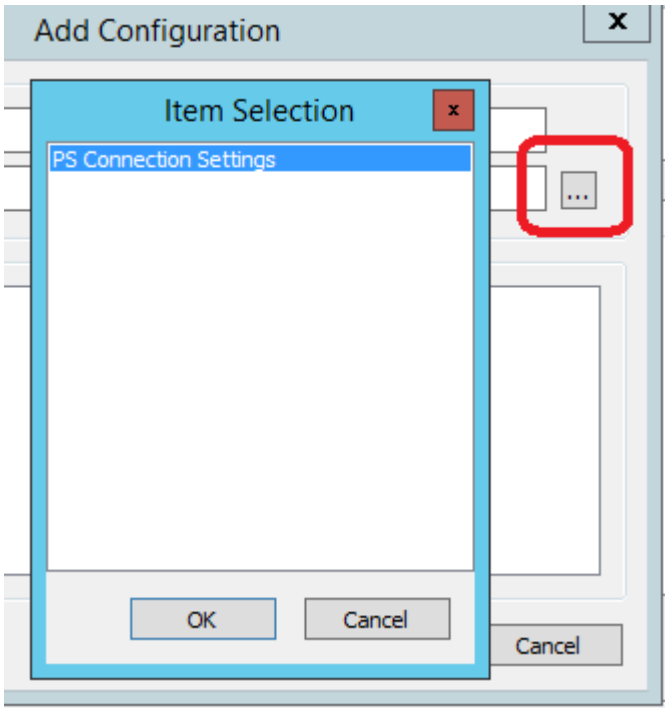
19. Press **Finish**.

20. On the menu bar, select **Options** and select **Execute PowerShell Script**.



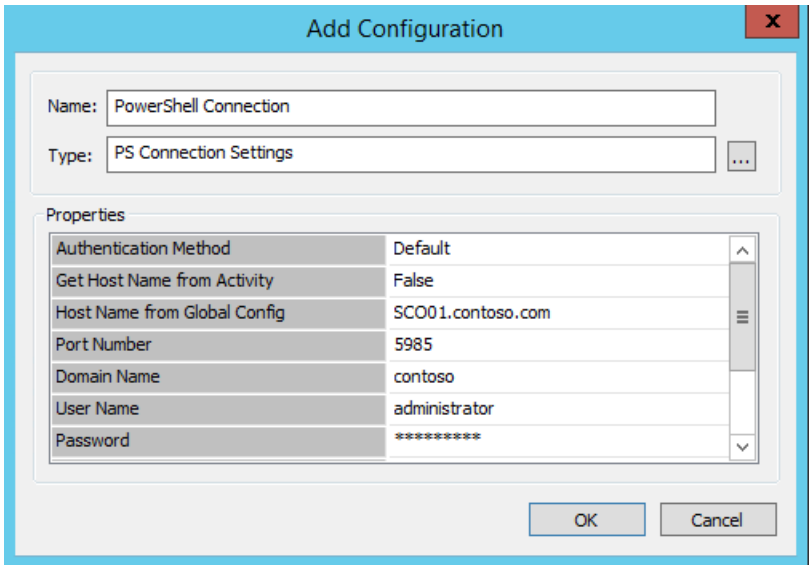
21. Click **Add**.

22. Click on the ellipsis (…) next to Type, and select **PS Connection Settings**, then click **OK**.



23. Enter the following information, then click **OK**.

- Name: PowerShell Connection
- Type: PS Connection Settings
- Authentication Method: Default
- Get Host Name from Activity: False
- Host Name from Global Config: SCO01.contoso.com
- Port Number: 5985
- Domain Name: contoso
- User Name: Administrator
- Password: Passw0rd!
- Connection Timeout: 1
- Script Timeout: 4
- Execute Asynch: False
- Include Write-Host: False



24. Click **Finish**.

3.2.2 - SCO: Review a Runbook

In this exercise each Activity in the Orchestrator Runbook Designer will be reviewed. This runbook reads information provided by the user through a self-service portal, then based on that input either creates a checkpoint or restores a checkpoint, then writes a notification to the event log.

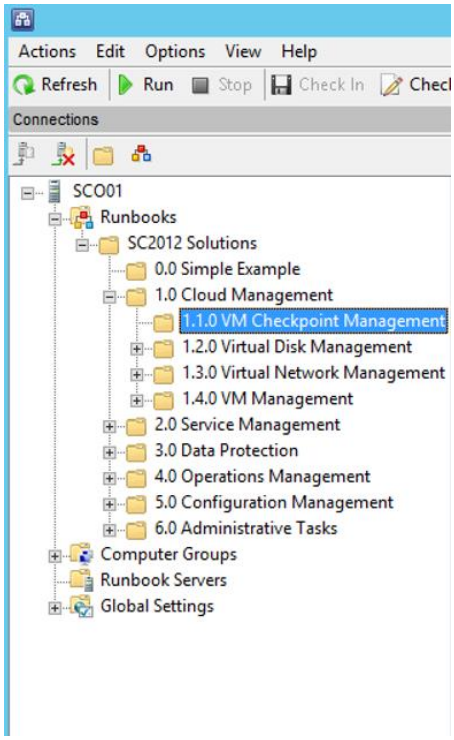
Configuration of the connection to Virtual Machine Manager and Service Manager (Exercise 4.2.1 - SCO: Configure Orchestrator Integration) must be configured prior to starting this exercise.

Estimated time to complete: 10 minutes

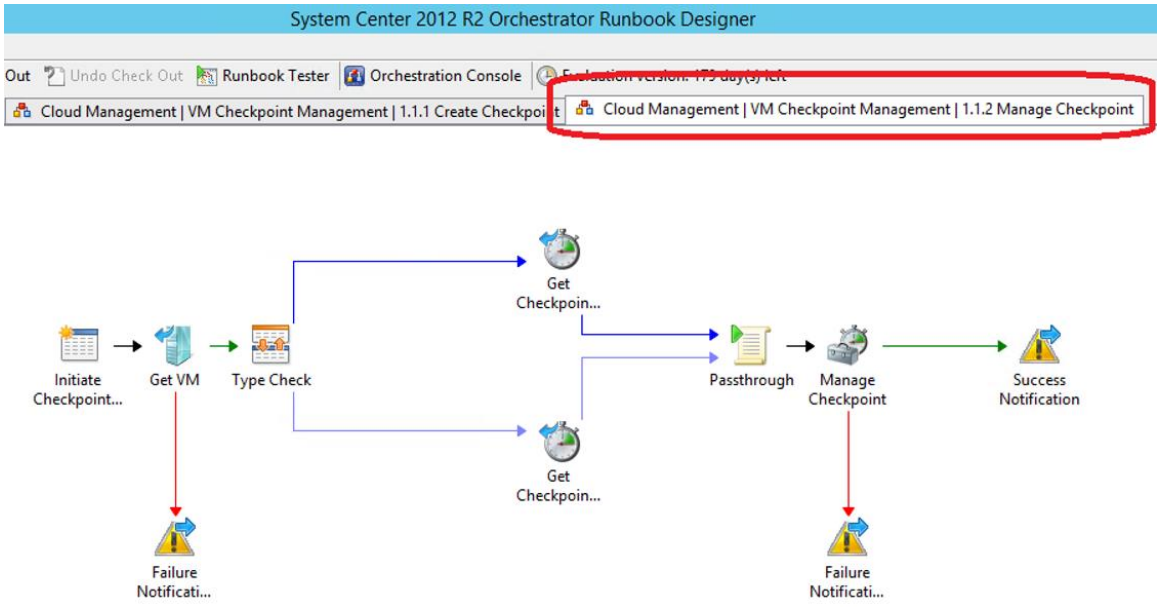
*Perform the following on **SCO01***

1. From **SCO01**, open the **Runbook Designer** by clicking the icon in the taskbar.

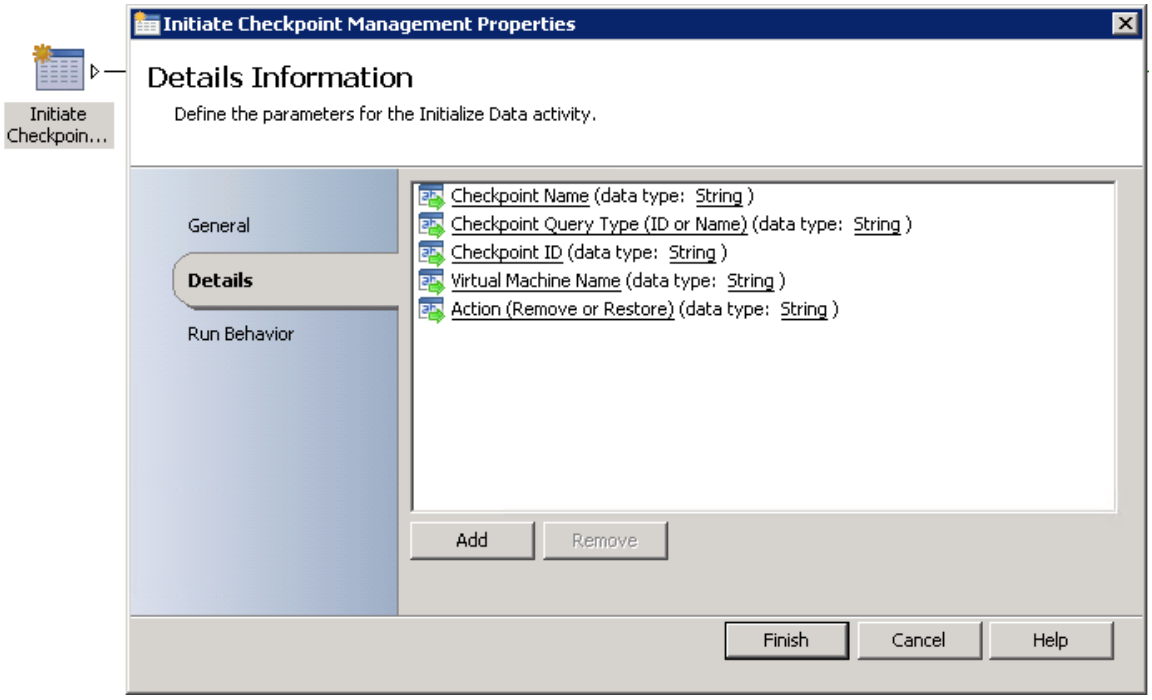
2. Navigate to **Runbooks | SC2012 Solutions |1.0 Cloud Management** and click **1.1.0 VM Checkpoint Management**.



3. From the top menu select the second tab **Cloud Management | VM Check Point Management | 1.1.2 Manage Checkpoint**. These runbooks are for demonstration purposes only and some are not fully functional.

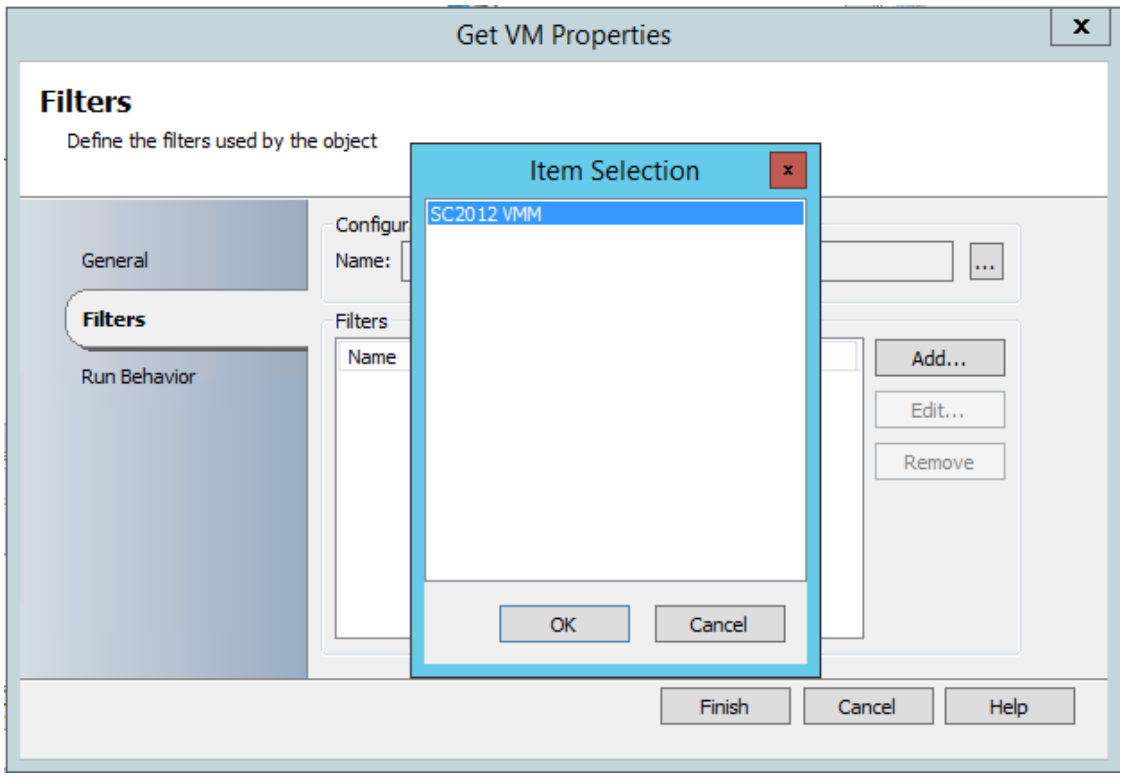


4. Double-click the **Initiate Checkpoint Management** activity. Review the different data inputs that will be used in this workflow, noting the **Virtual Machine Name** and **Action (Remove or Restore)**. Click **Cancel**.

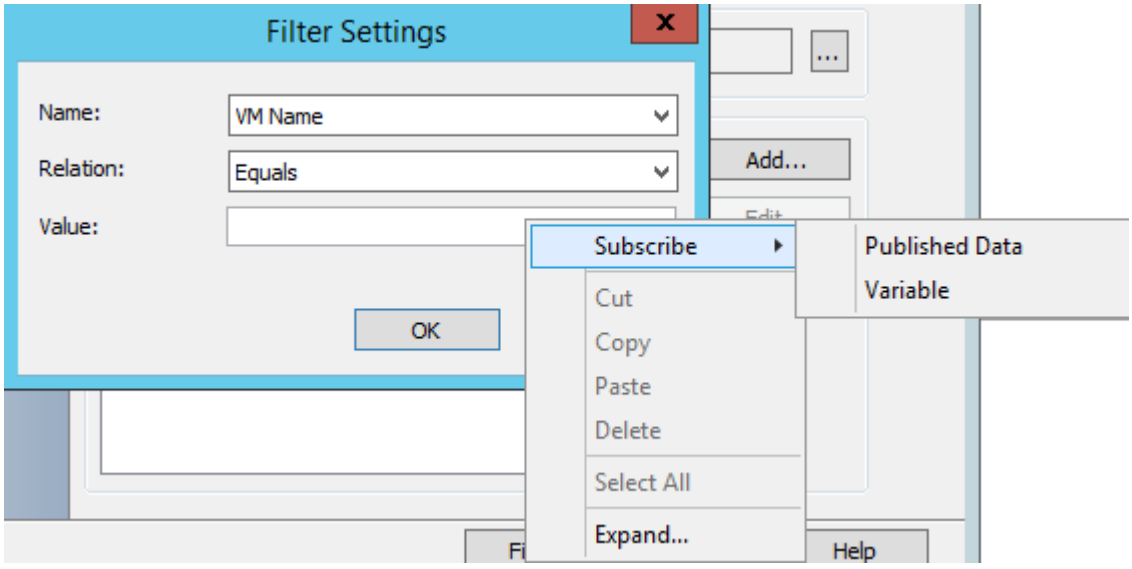


5. Double-click the **Get VM** activity.

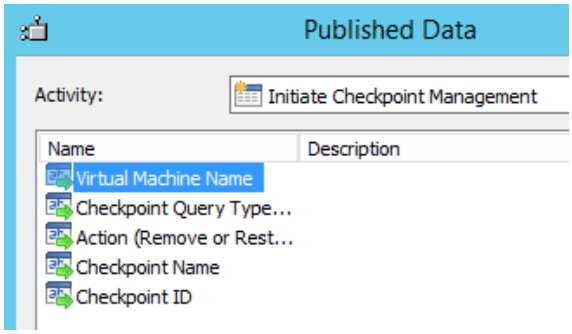
6. Click the **ellipsis (…)** next to **Name**. Select **SC2012 VMM** and click **OK**. It may take a minute to refresh.



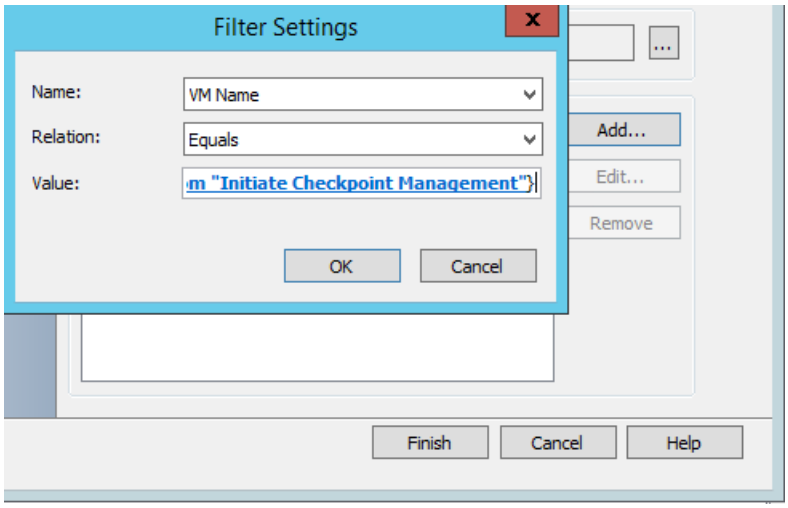
7. Click **Add**, then in the **Value** field, right-click on the background, then select **Subscribe | Published Data**.



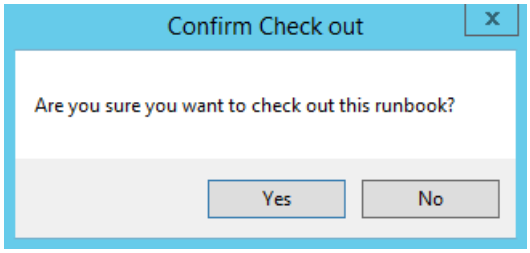
8. In the **Published Data** dialog, select **Virtual Machine Name**, and click **OK**. This takes the input Virtual Machine Name from the last activity and uses this parameter to specify which VM will be changed by this Runbook.



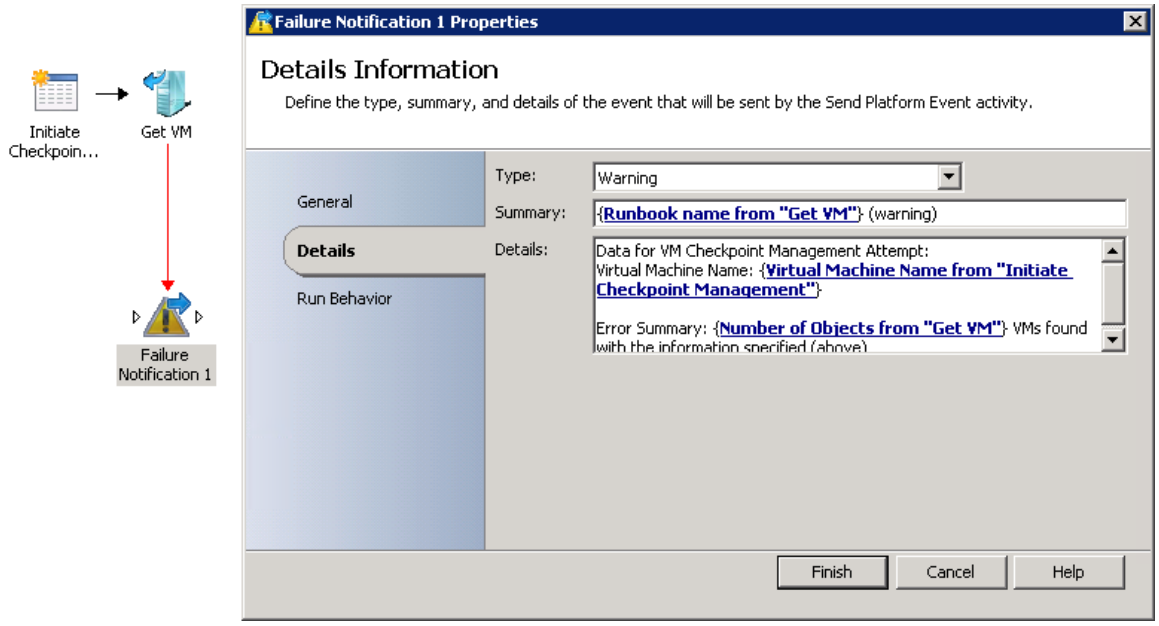
9. After returning to the **Filter Settings** screen, click **OK**, then click **Finish**.



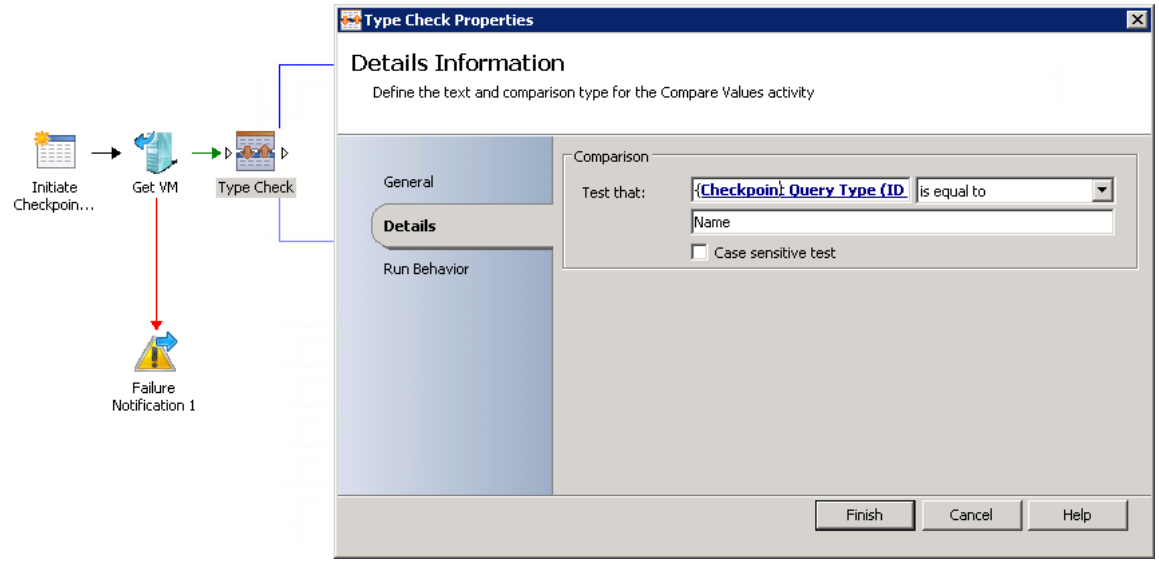
10. A notification to **Confirm Check out** will appear. Click **Yes**.



11. Double-click the **Failure Notification 1** activity. Note that this will create a system event warning that an administrator can view later using parameters passed from the Initiate Checkpoint Management activity. This warning will be triggered if the VM cannot be found. Click **Cancel**.

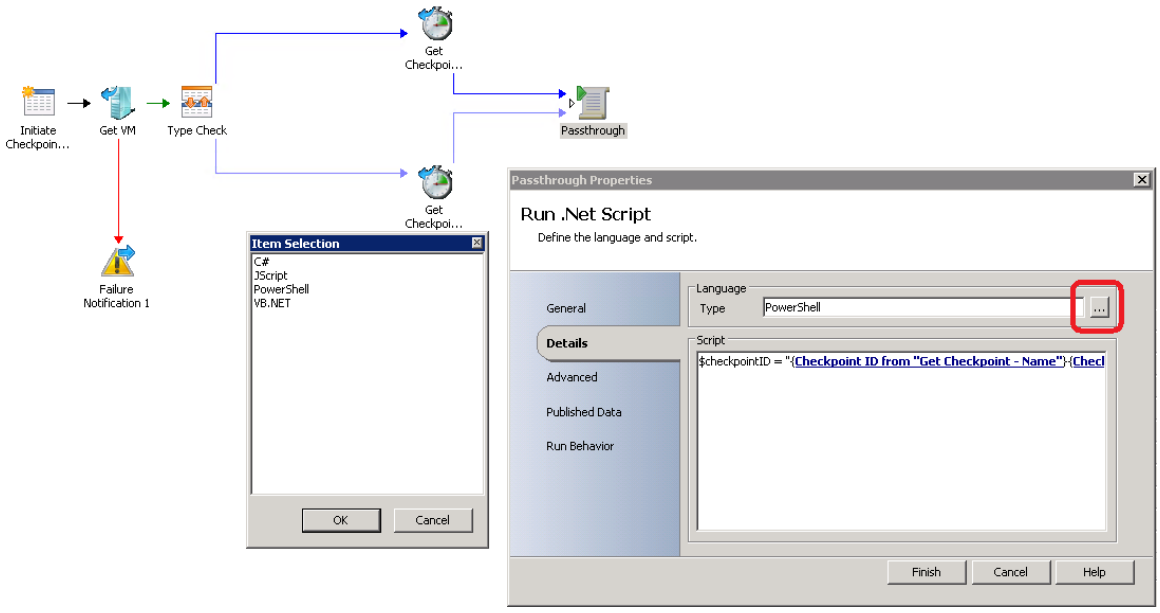


12. Double-click the **Type Check** activity. This will look at user input and make a decision based on the data using conditional statements. Based on the outcome of this comparison the workflow will branch into different directions. This comparison looks at whether the input is a Checkpoint Name (the upper path to Get Checkpoint – Name) or a Checkpoint ID (the lower path to Get Checkpoint Name (2). Click **Cancel**.

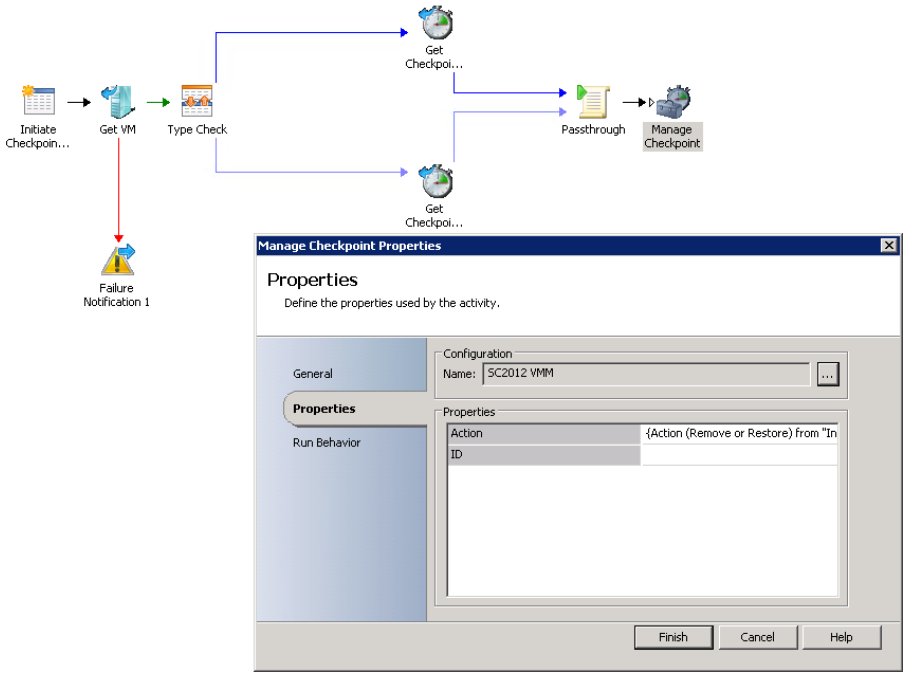


13. Double-click the **Passthrough** activity which will run a script.

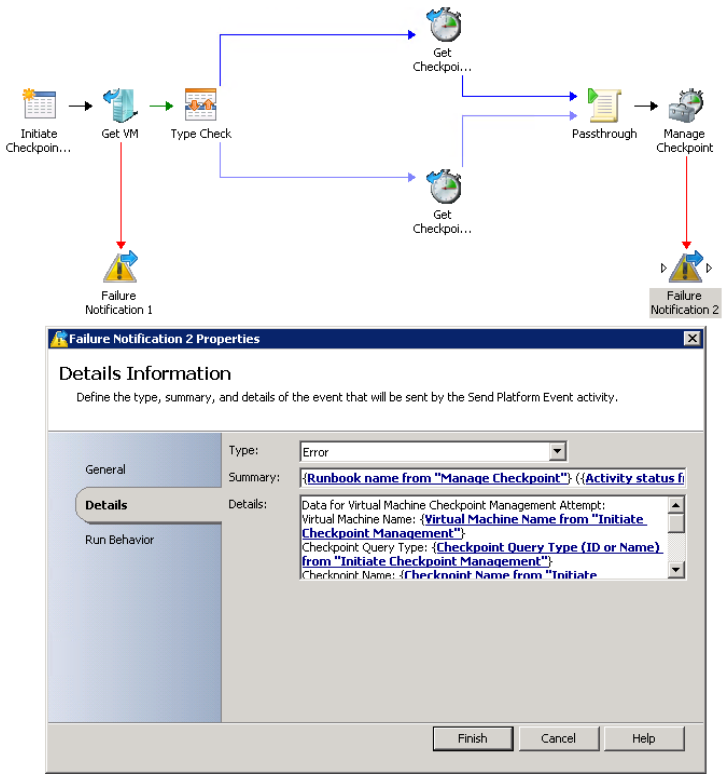
14. Under **Language** in the **Type** box click the **ellipsis** (**…**). Note the different types of scripts that can be triggered in Orchestrator, and these scripts can even invoke other scripts or APIs. Click **Cancel** and **Cancel** again.



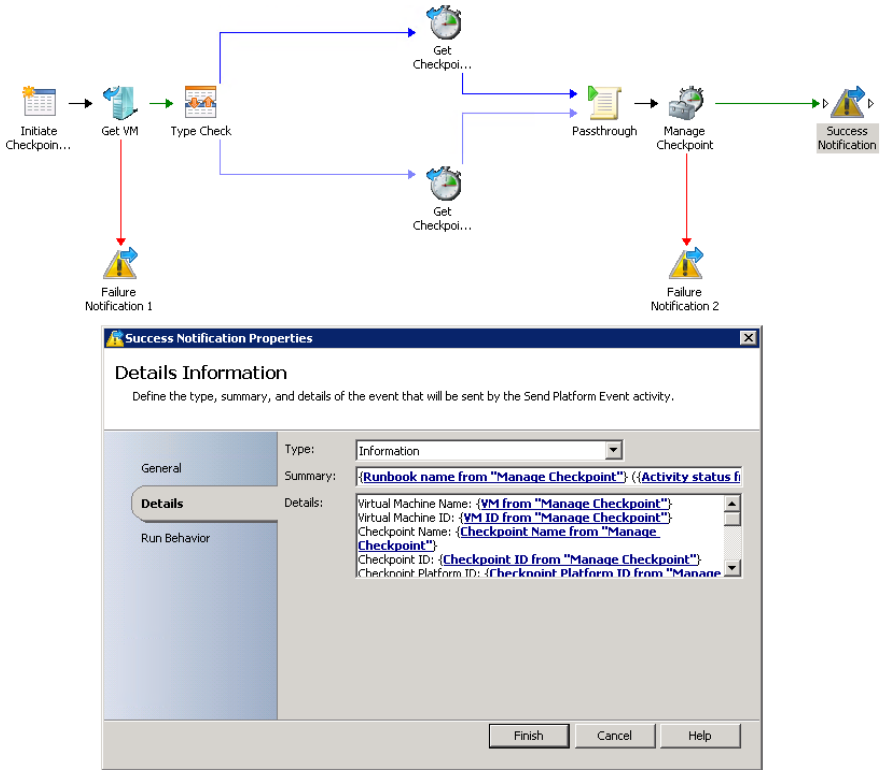
15. Double-click the **Manage Checkpoint** activity. Note that this will take the user's input as a parameter based on the action to either Remove or Restore a checkpoint. Click **Cancel**.



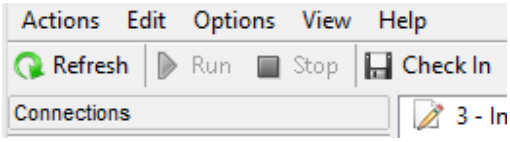
16. Double-click the **Failure Notification 2** activity. Note that this will create a system event error that an administrator can view later using parameters passed from the Initiate Checkpoint Management activity. This error will be triggered if Virtual Machine Manager is unable to Remove or Restore a checkpoint. Click **Cancel**.



17. Double-click the **Success Notification** activity. Note that this will create a system event informational alert that an administrator can view later using parameters passed from the Initiate Checkpoint Management activity. This alert will be triggered if Virtual Machine Manager is able to successfully Remove or Restore a checkpoint. Click **Cancel**.



18. Select **Check In** from the upper task bar.



3.3 - SCO & SCSM: Create & Test a Runbook

3.3.1 - SCO: Create a New Runbook

In this exercise a new Runbook will be create in the Orchestrator Runbook Designer, then checked out so that it can be edited.

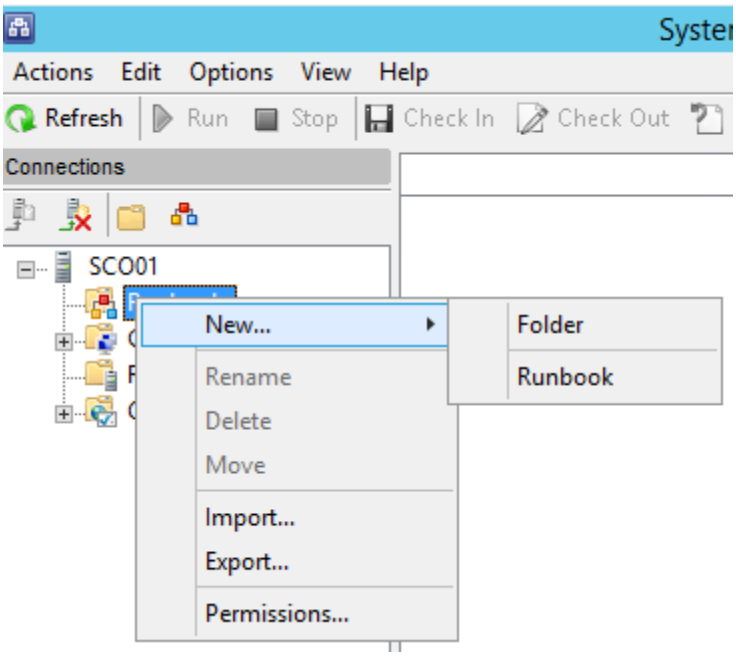
All exercises in this section (4.3 - SCO & SCSM: Create & Test a Runbook) should be completed in order to successful build and test this Runbook.

Estimated time to complete: 2 minutes

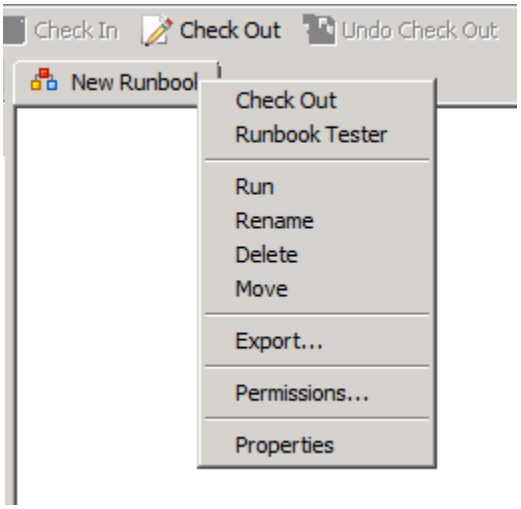
*Perform the following on **SCO01***

1. From **SCO01**, open the **Runbook Designer** by clicking the icon in the taskbar.

2. Right-click **Runbooks** and click **New | Runbook**.



3. Right-click the **New Runbook** tab and click **Check Out**.



4. Right-click the **New Runbook** tab and click **Rename**.
5. Type **Contoso-AddVM** and press **Enter**.

3.3.2 - SCO: Initialize Data Activity

In this exercise the Initialize Data activity is configured, which takes input parameters and uses that data later in the workflow. Information gets passed between different activities using a "data bus" which converts information from different systems into plain strings and integers, so that it can then be injected into another system.

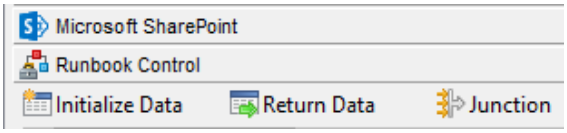
All exercises in this section (4.3 - SCO & SCSM: Create & Test a Runbook) should be completed in order to successful build and test this Runbook.

Estimated time to complete: 5 minutes

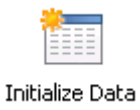
*Perform the following on **SCO01***

1. From **SCO01**, open the **Runbook Designer** by clicking the icon in the taskbar.

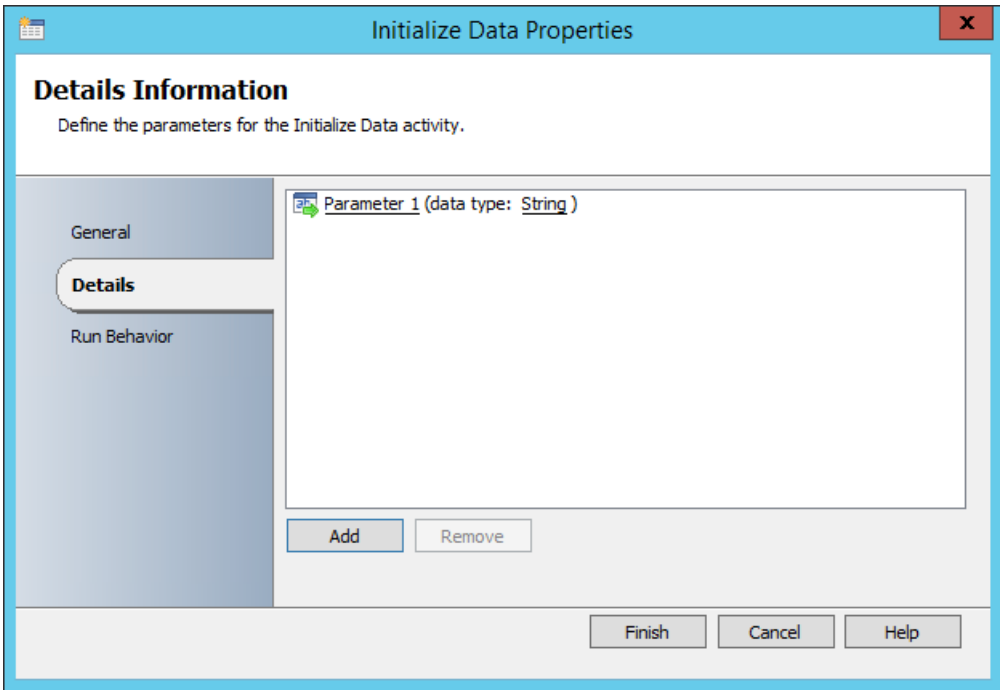
2. In the **Activities pane** expand **Runbook Control**. This is at the very bottom of the list of Integration Packs, Email. Drag the frame down if it is not visible.



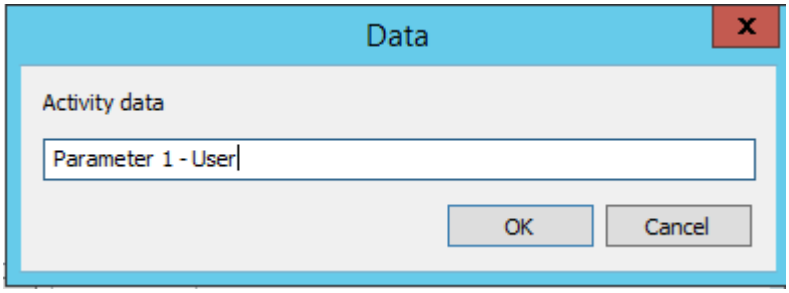
3. Click and drag **Initialize Data** into the workspace.



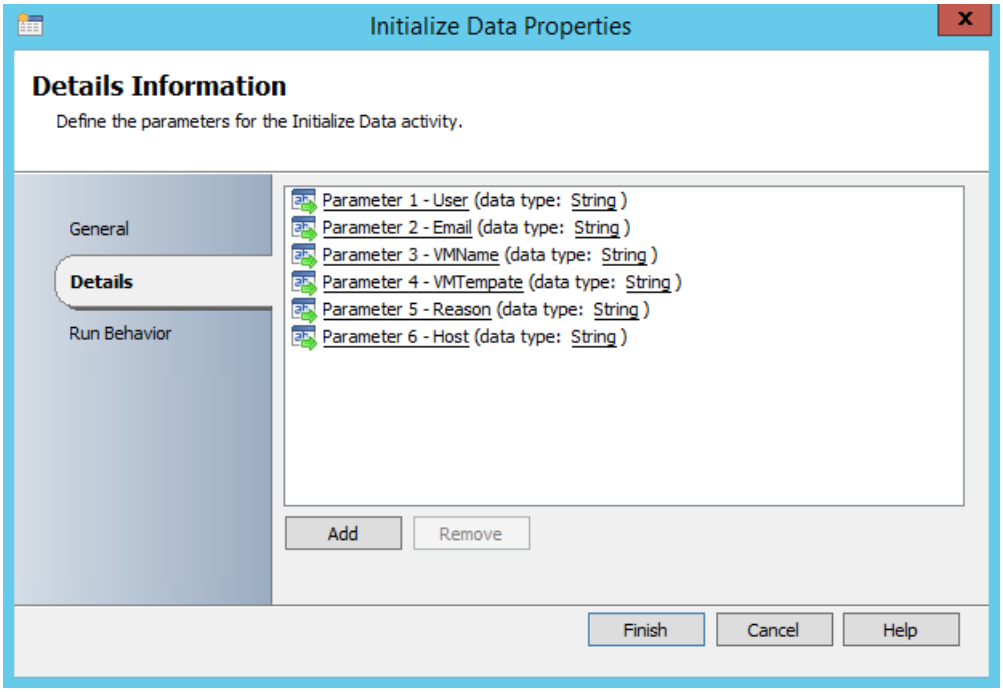
4. Double-click **Initialize Data**.
5. Under the **Details** tab click **Add**.
6. Click **Parameter 1**.



7. Append the line to read **Parameter 1 – User** and click **OK**.



8. Click **Add** and click **Parameter 2**.
9. Append the line to read **Parameter 2 – Email** and click **OK**.
10. Click **Add** and click **Parameter 3**.
11. Append the line to read **Parameter 3 – VMName** and click **OK**.
12. Click **Add** and click **Parameter 4**.
13. Append the line to read **Parameter 4 – VMTemplate** and click **OK**.
14. Click **Add** and click **Parameter 5**.
15. Append the line to read **Parameter 5 – Reason** and click **OK**.
16. Click **Add** and click **Parameter 6**.
17. Append the line to read **Parameter 6 – Host** and click **OK**.



18. Click **Finish**.

3.3.3 - SCO: Create VM from Template Activity

In this exercise the Create VM from Template activity is configured which uses Virtual Machine Manager to deploy a virtual machine from a template.

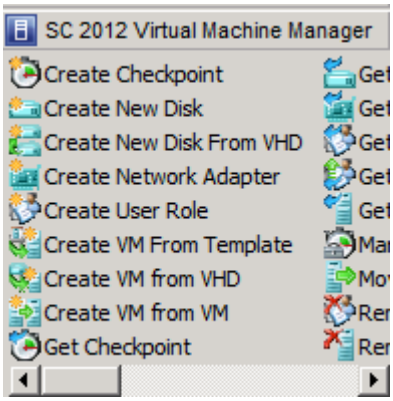
All exercises in this section (4.3 - SCO & SCSM: Create & Test a Runbook) should be completed in order to successful build and test this Runbook.

Estimated time to complete: 5 minutes

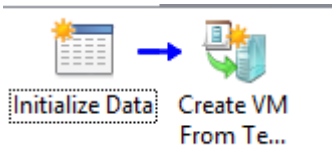
*Perform the following on **SCO01***

1. From **SCO01**, open the **Runbook Designer** by clicking the icon in the taskbar.

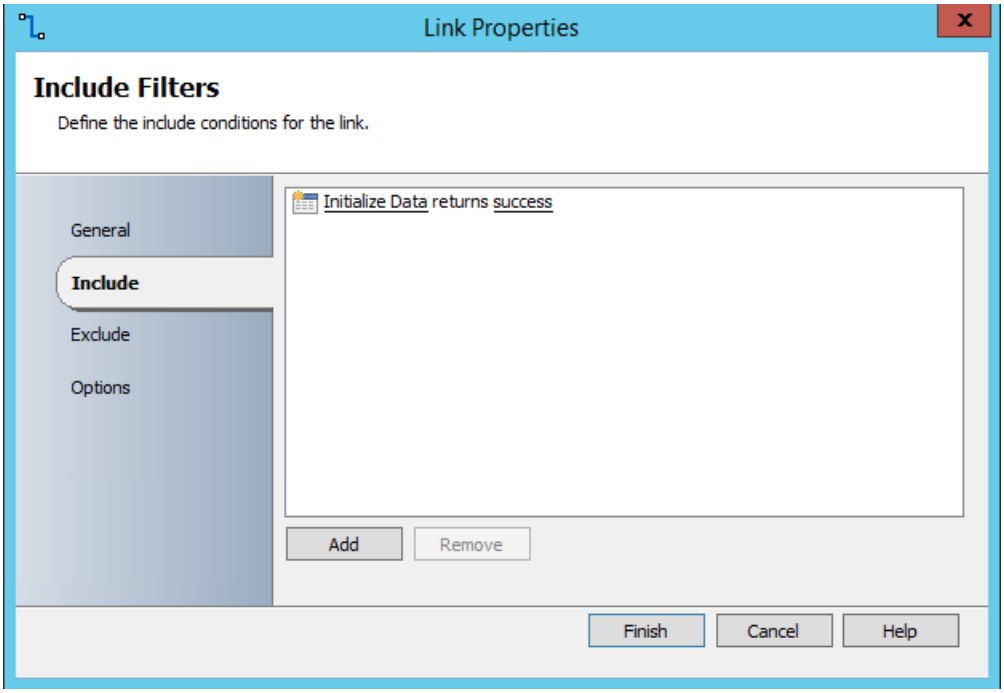
2. In the **Activities pane** expand the **SC 2012 Virtual Machine Manager** Integration Pack.



3. Click and drag **Create VM from Template** to the workspace.
4. Hover over **Initialize Data** until an arrow appears. Click and drag the arrow from **Initialize Data** to **Create VM from Template**.

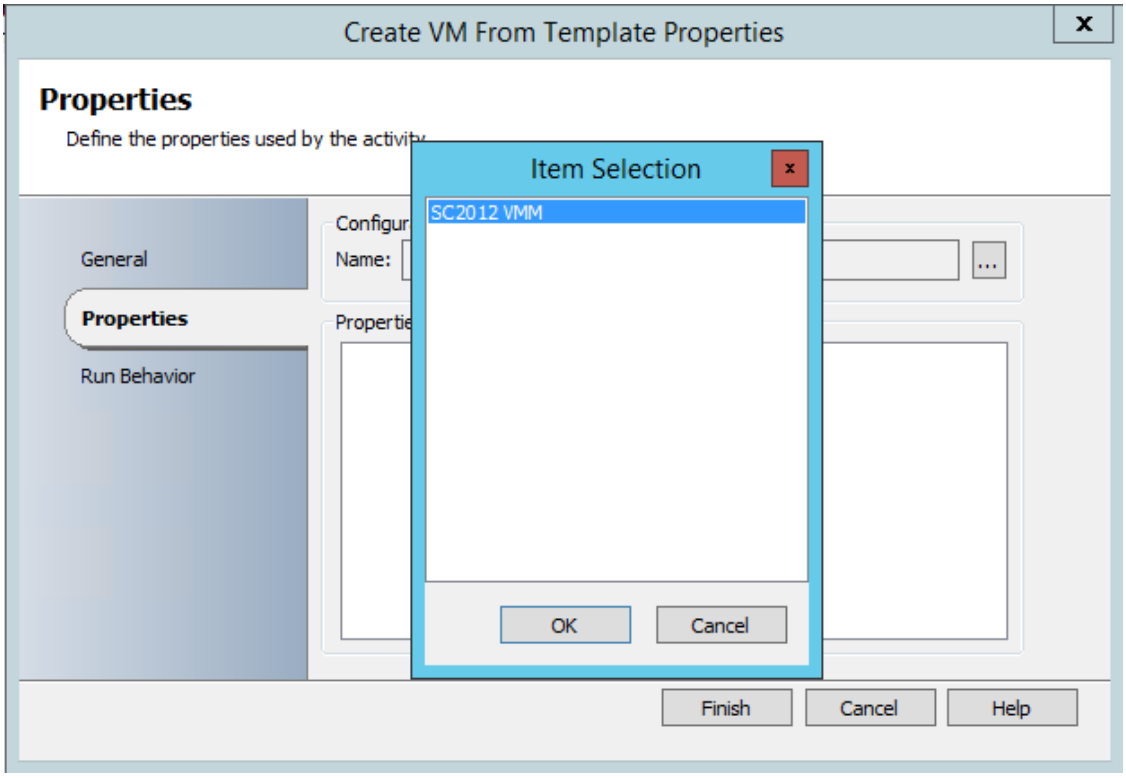


5. Double-click the new **blue arrow**. Notice that it is defined as **success**, and click **Cancel**.

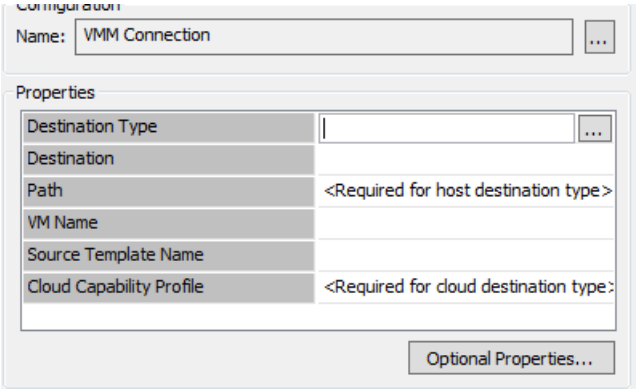


6. Double-click **Create VM From Template**.

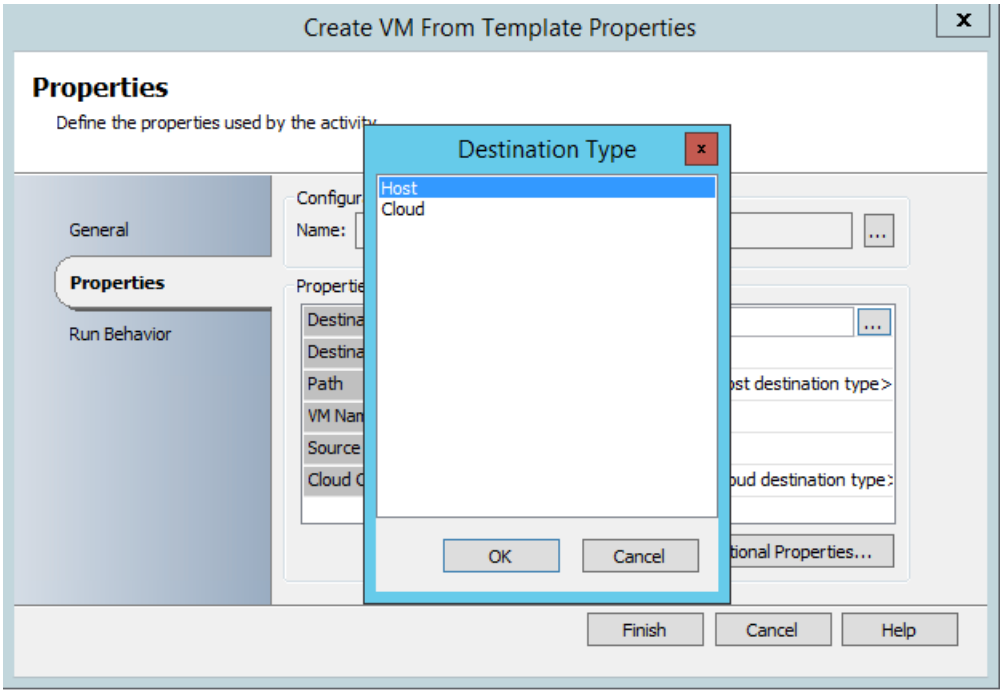
7. In the Configuration area, click the **ellipsis** (**…**), select **SC2012 VMM** and click **OK**. Wait a minute for the Properties page to populate.



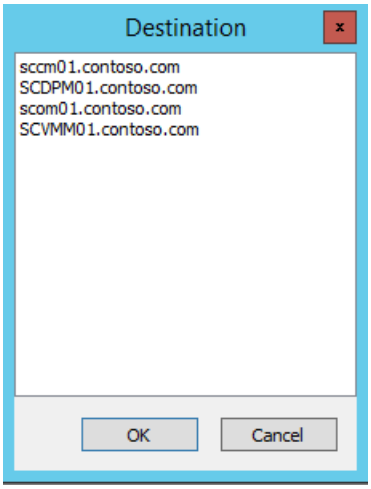
8. Click in the **Destination Type** field, then click the **ellipsis** (**…**).



9. Select **Host** and click **OK**.

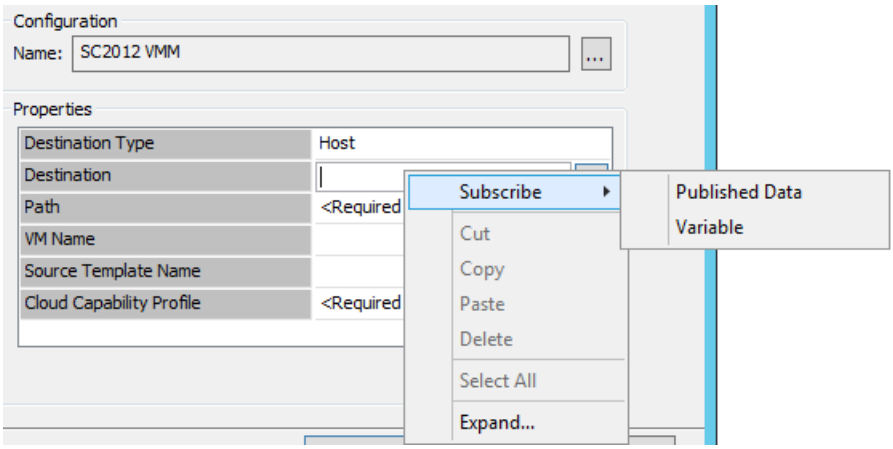


10. Click in the Destination field, then click the **ellipsis** (**…**) and note the options.

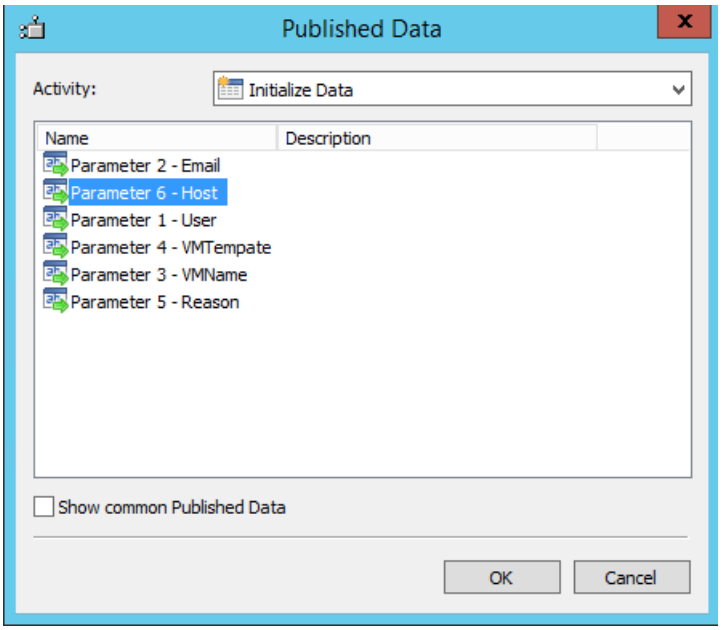


11. Click **Cancel**.

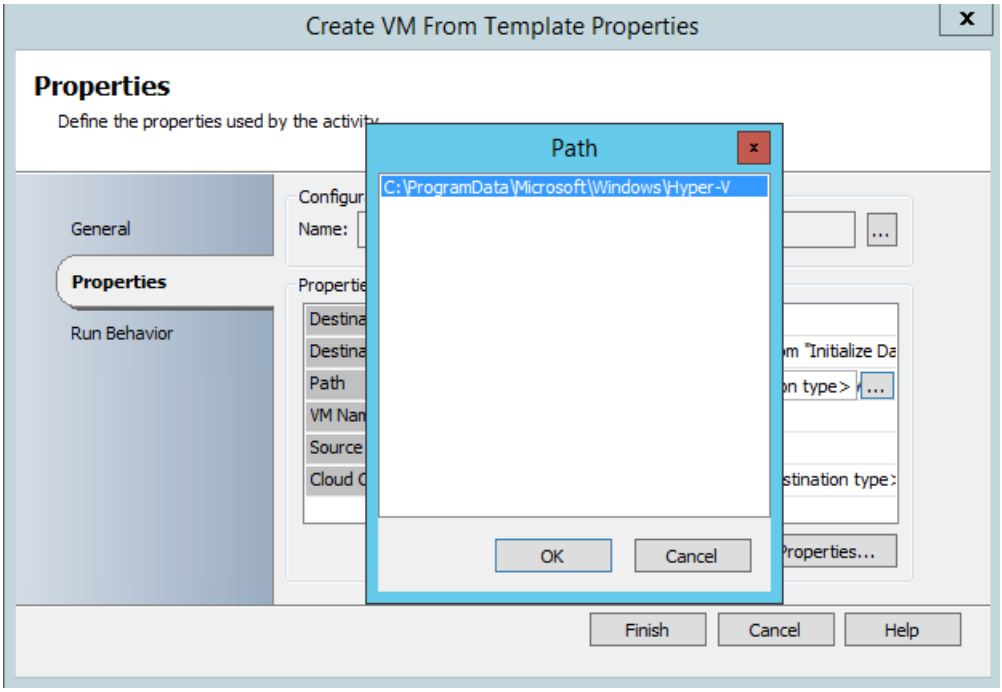
12. Right-click in the **Destination field** and click **Subscribe | Published Data**.



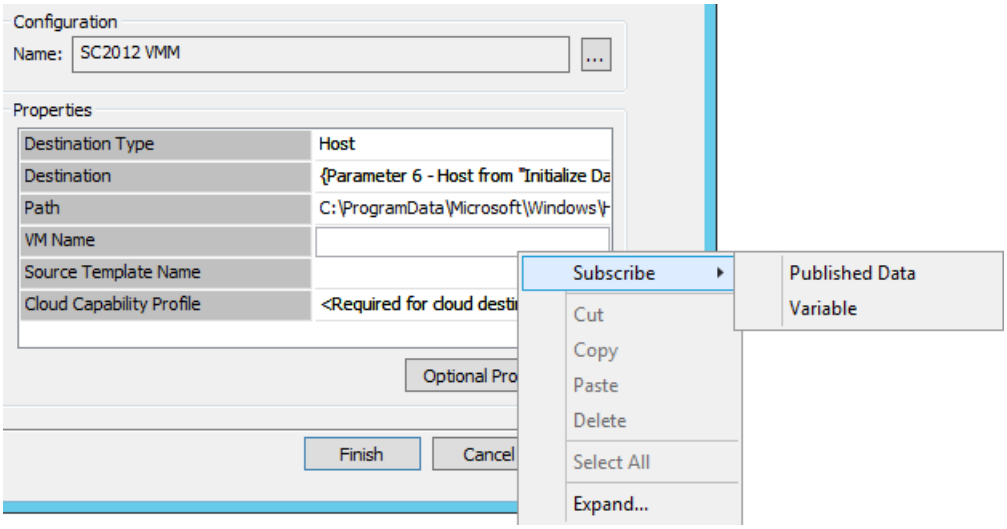
13. Ensure **Initialize Data** is selected in the **Activity** dropdown, select **Parameter 6 - Host** and click **OK**. This will use the cloud that the user specified as the host which this VM is deployed to and will use the data which was provided to this parameter from the Initialize Data activity.



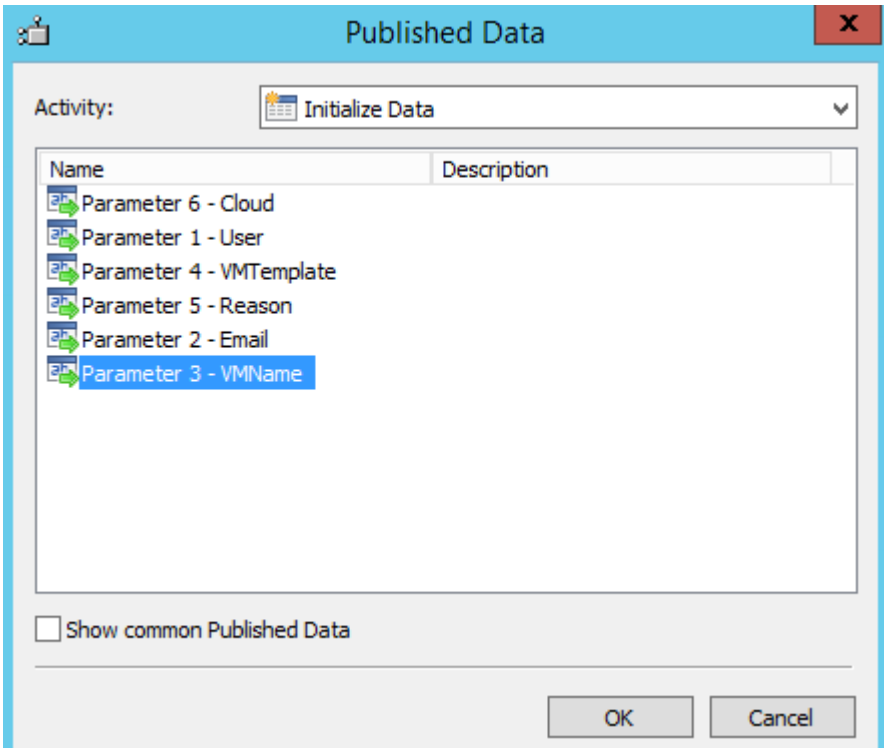
14. Click in the **Path** field, click the **ellipsis** (**…**), select **C:\ProgramData\Microsoft\Windows\Hyper-V** and click **OK**.



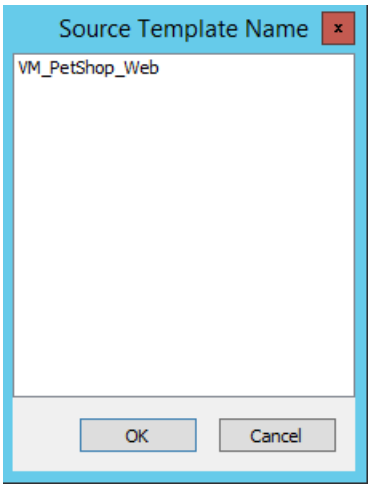
15. Right-click in the **VM Name** field, and click **Subscribe | Published Data**.



16. Select **Parameter 3 - VMName** and click **OK**. This will use the VM name that the user specified as the name of the VM.

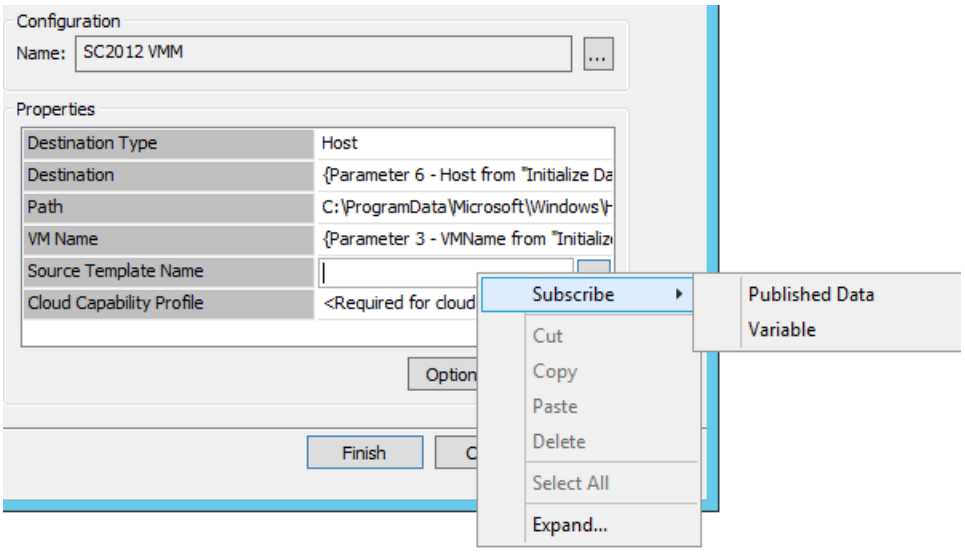


17. Click in the **Source Template Name** field, click the **ellipsis** (**…**) and note the options. This virtual machine template is stored in the Virtual Machine Manager Library on SCVMM01.

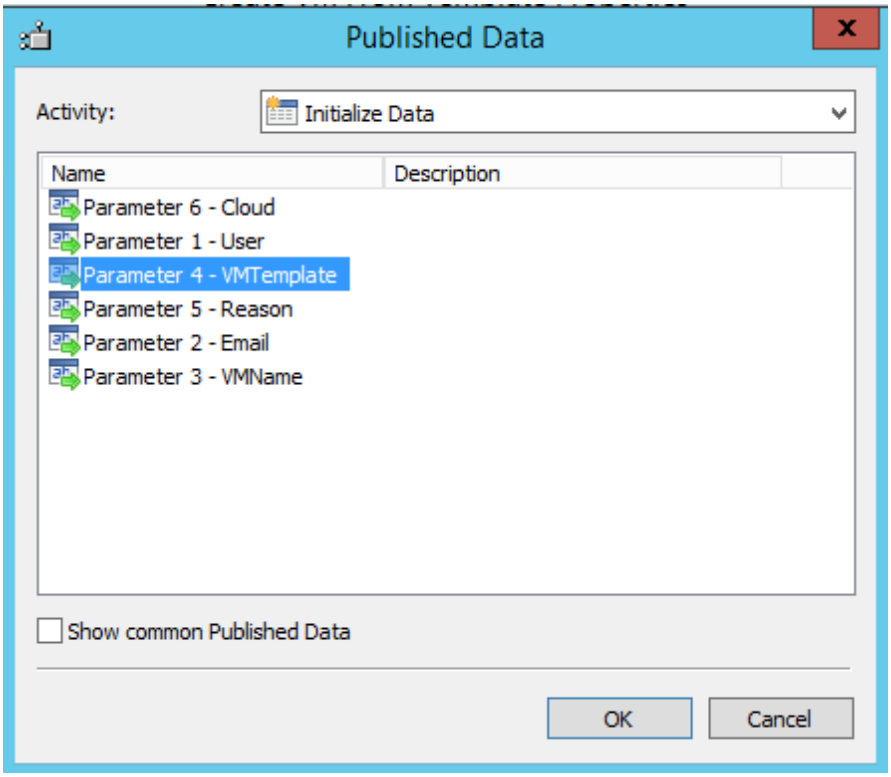


18. Click **Cancel**.

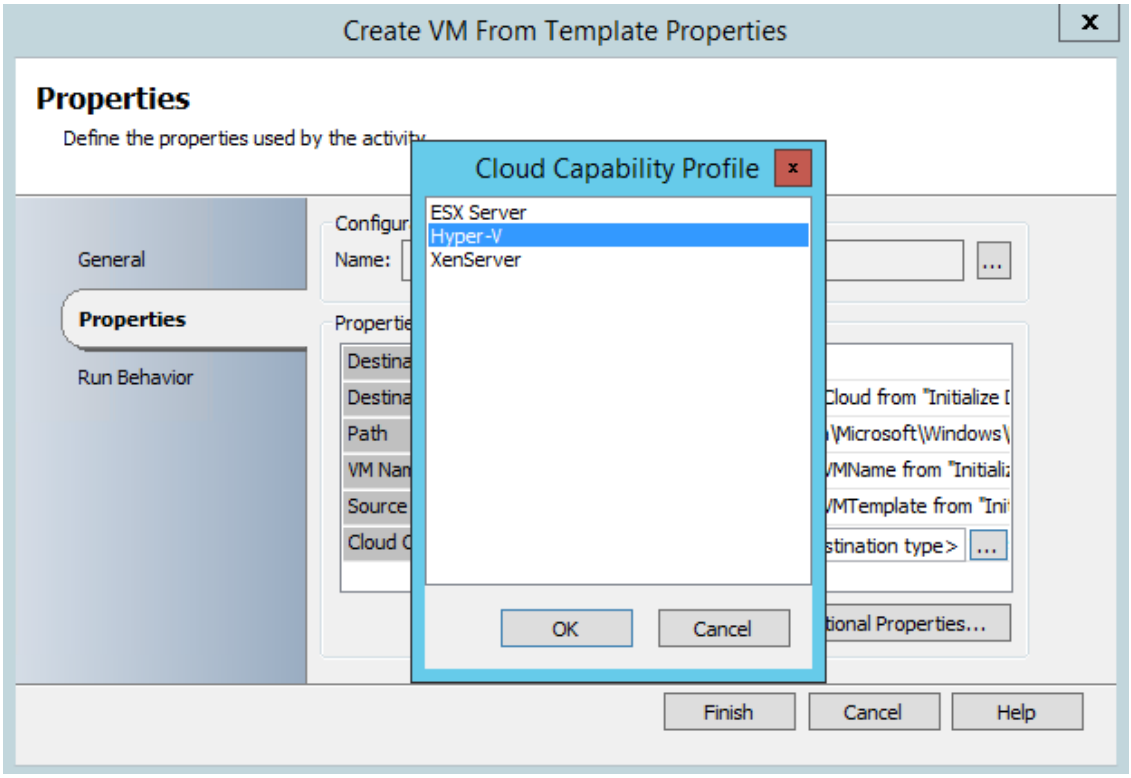
19. Right-click in the **Source Template Name** field, and click **Subscribe | Published Data**.



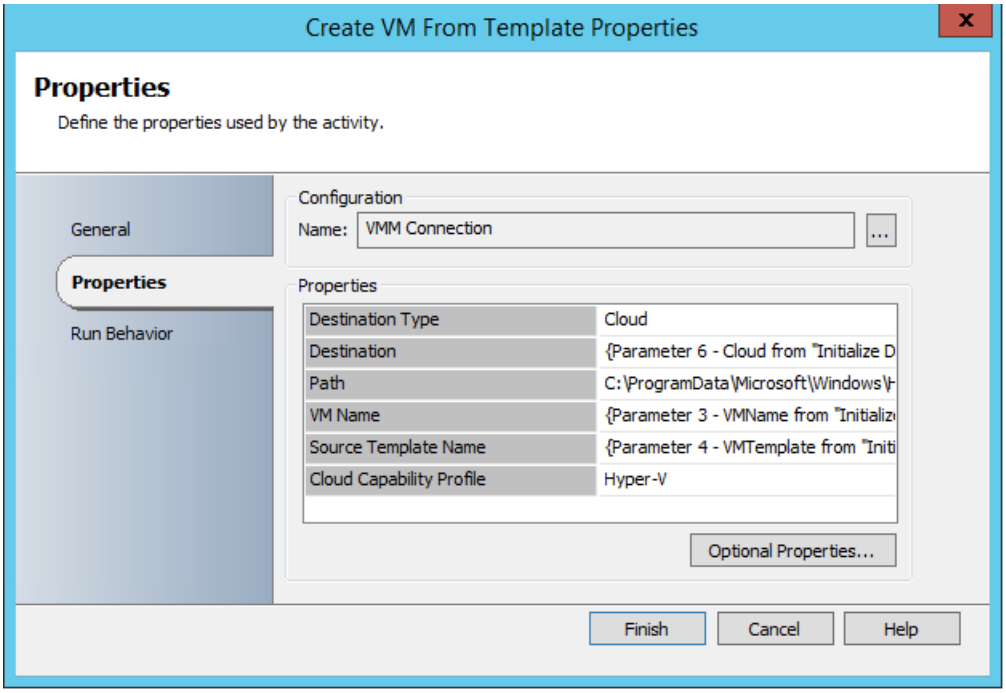
20. Select **Parameter 4-VMTemplate** and click **OK**. This will use the template name that the user specified as the name of the VM.



21. Click in the **Cloud Capability Profile** field, click the **ellipsis** (**…**), select **Hyper-V** and click **OK**.



22. Click **Finish**.



3.3.4 - SCO: Send Email Activity

In this exercise the Send Email activity is configured which will use an SMTP server to send an email if the VM is successfully created from a template.

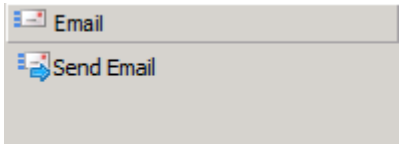
All exercises in this section (4.3 - SCO & SCSM: Create & Test a Runbook) should be completed in order to successful build and test this Runbook.

Estimated time to complete: 5 minutes

*Perform the following on **SCO01***

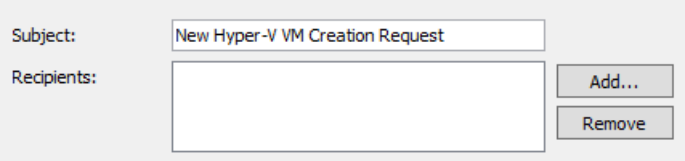
1. From **SCO01**, open the **Runbook Designer** by clicking the icon in the taskbar.

2. In the **Activities pane** expand **Email**.

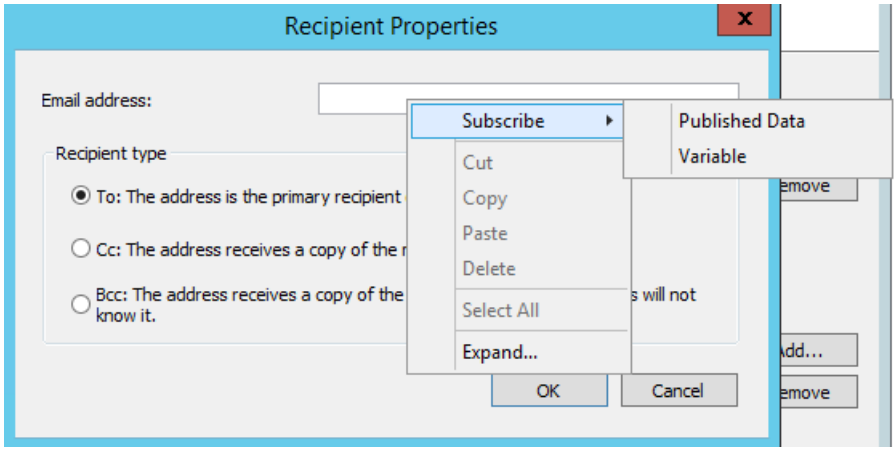


3. Drag **Send Email** to the right of **Create VM From Template**.
4. Hover over **Create VM From Template** until an **arrow** appears. Click and drag the **arrow** from **Create VM From Template** to **Send Email**.

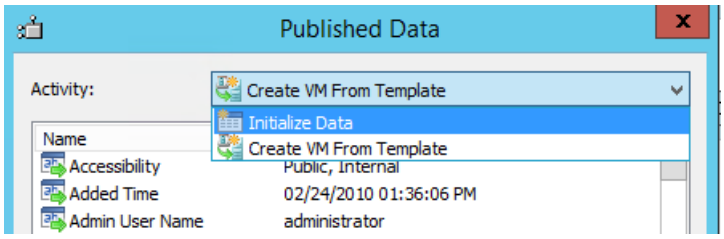
5. Double-click **Send Email**.
6. Click in the **Subject Line** and type **New Hyper-V VM Creation Request**.



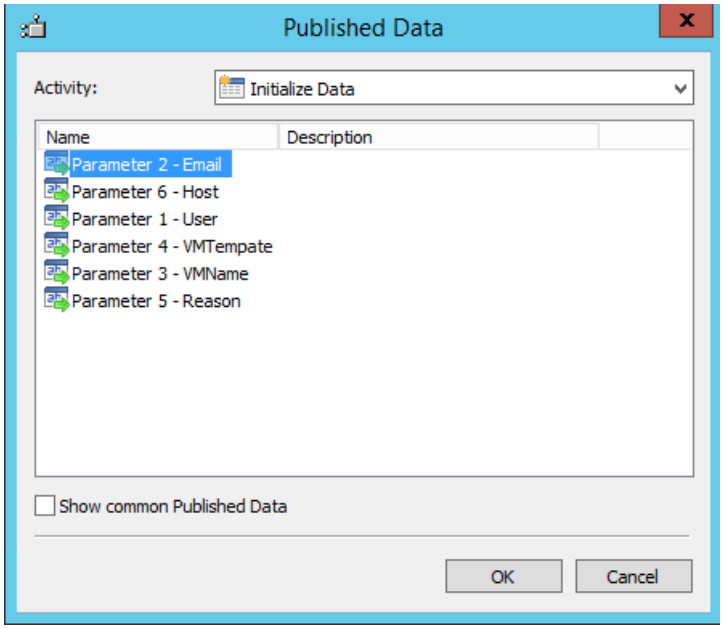
7. Next to **Recipients**, click **Add**.
8. Right-click in the **Email address** field and click **Subscribe | Published Data**.



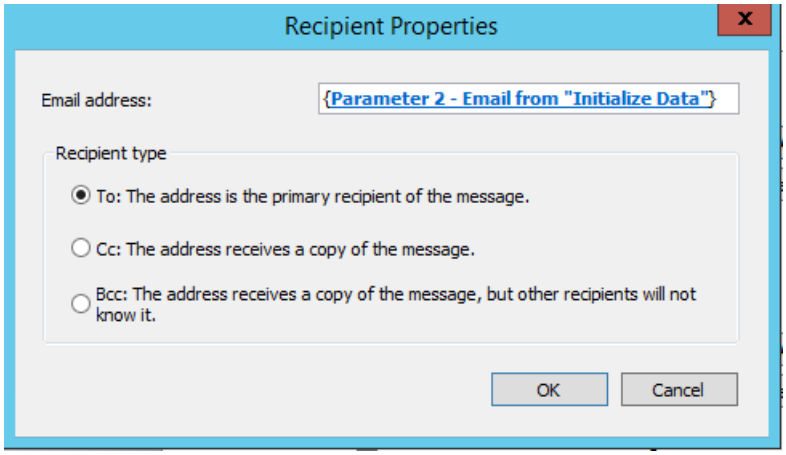
9. Click the **Activity Dropdown** and select **Initialize Data**. This will use the email address that the user specified as the email request that will receive a notification once the VM has been deployed.



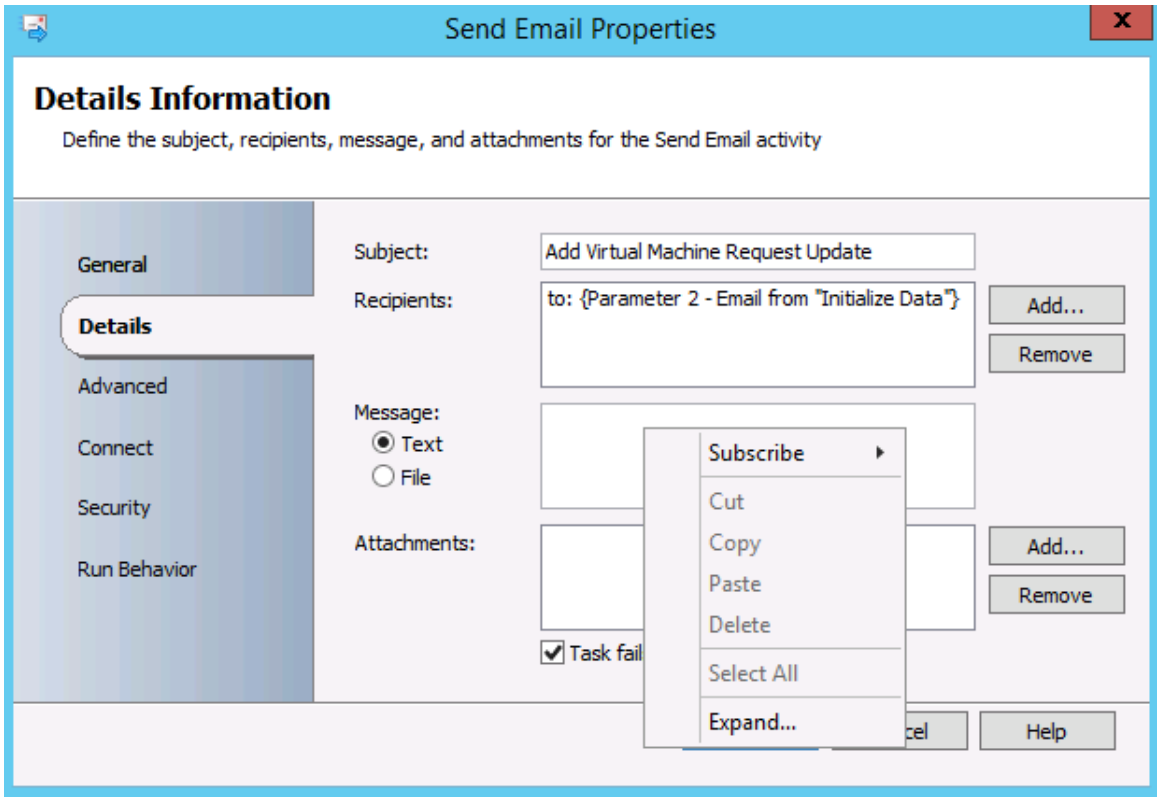
10. Select **Parameter 2 - Email** and click **OK**.



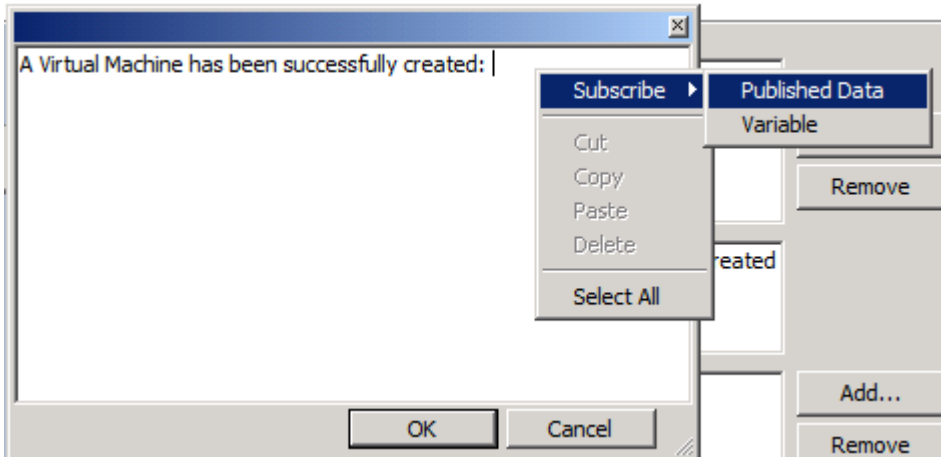
11. Click **OK**.



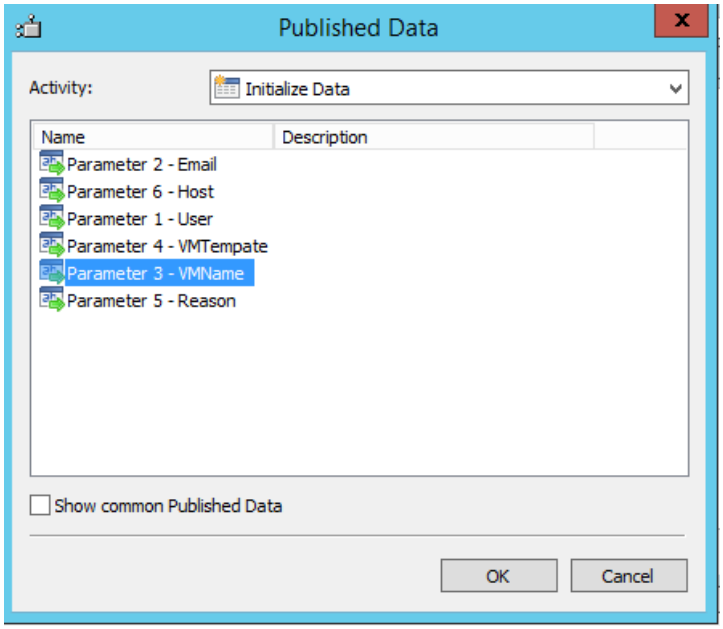
12. Right-click in the **Message** field and click **Expand**.



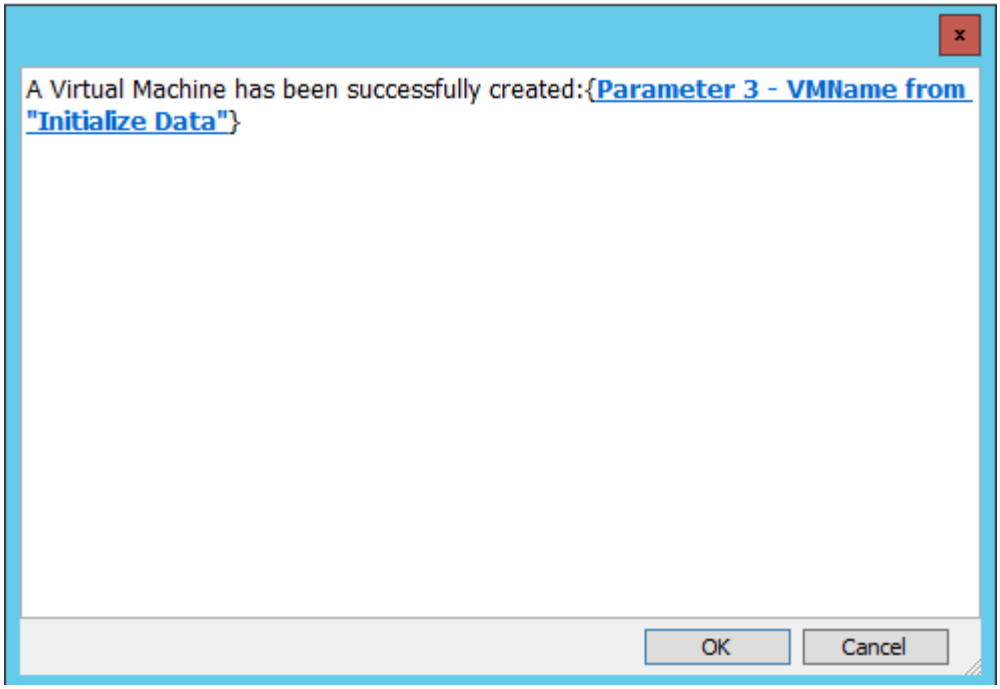
13. Type the following text: **A Virtual Machine has been successfully created:**
14. Right-click after the message text and click **Subscribe | Published Data**.



15. Select **Initialize Data** in the **Activity** dropdown and **click Parameter 3 - VMName**. This will use the name of the VM that the user specified within the text of the email.

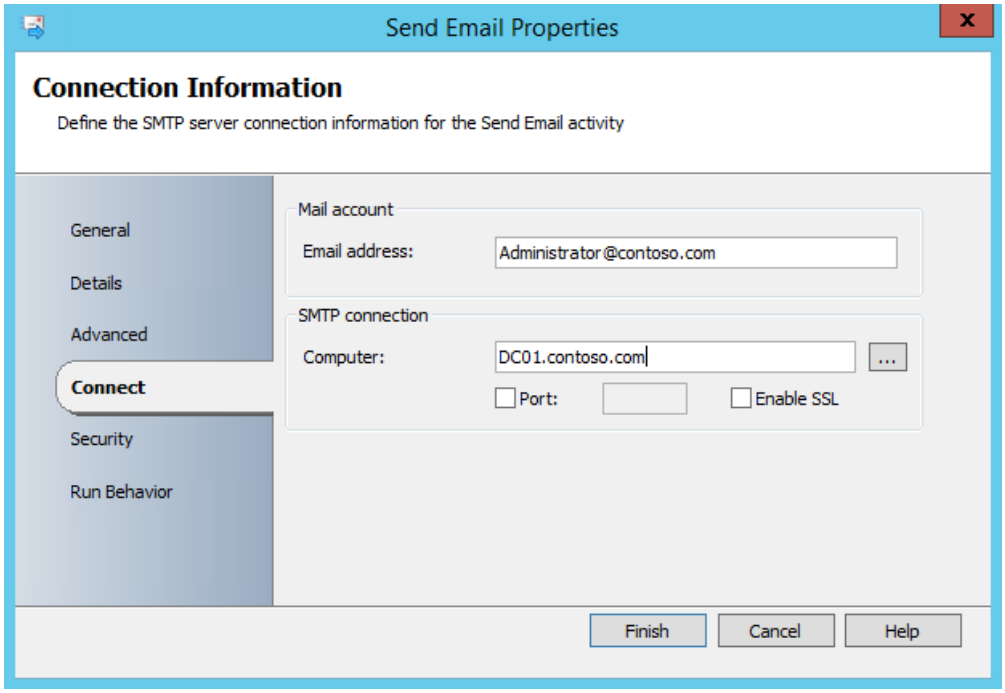


16. Click **OK**.



17. Click **OK**.
18. On the **Send Email** Properties window, select the **Connect** tab.

19. Type **Administrator@contoso.com** in the **Email address** field and **DC01** in the **Computer** field.



20. Click **Finish**.

3.3.5 - SCO: Create Incident with Template Activity

In this exercise the Create Incident with Template activity is configured which will create an incident in Service Manager if the VM is not successfully created.

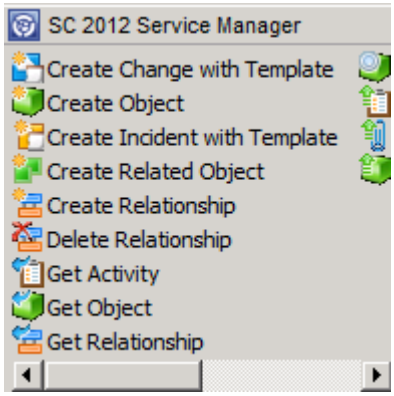
All exercises in this section (4.3 - SCO & SCSM: Create & Test a Runbook) should be completed in order to successful build and test this Runbook.

Estimated time to complete: 5 minutes

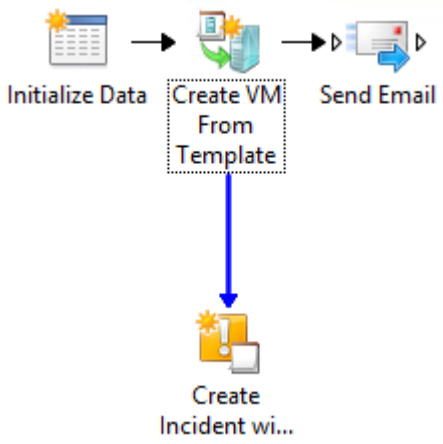
*Perform the following on **SCO01***

1. From **SCO01**, open the **Runbook Designer** by clicking the icon in the taskbar.

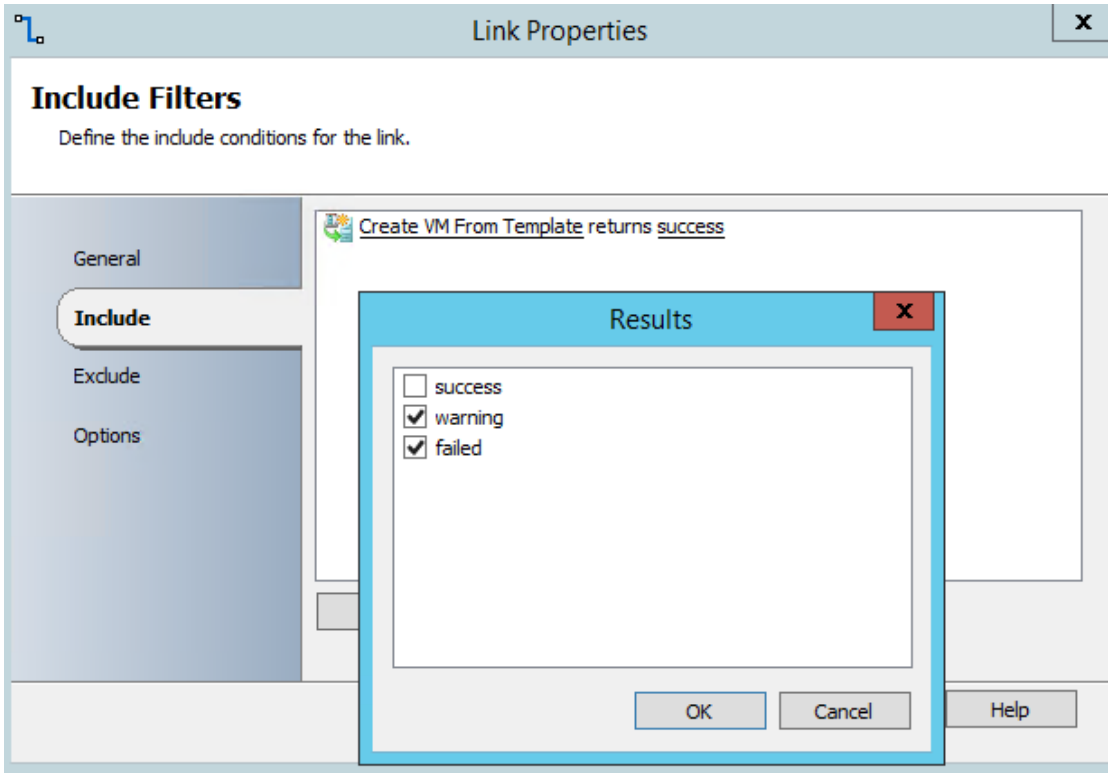
2. In the **Activities pane** expand **SC 2012 Service Manager**.



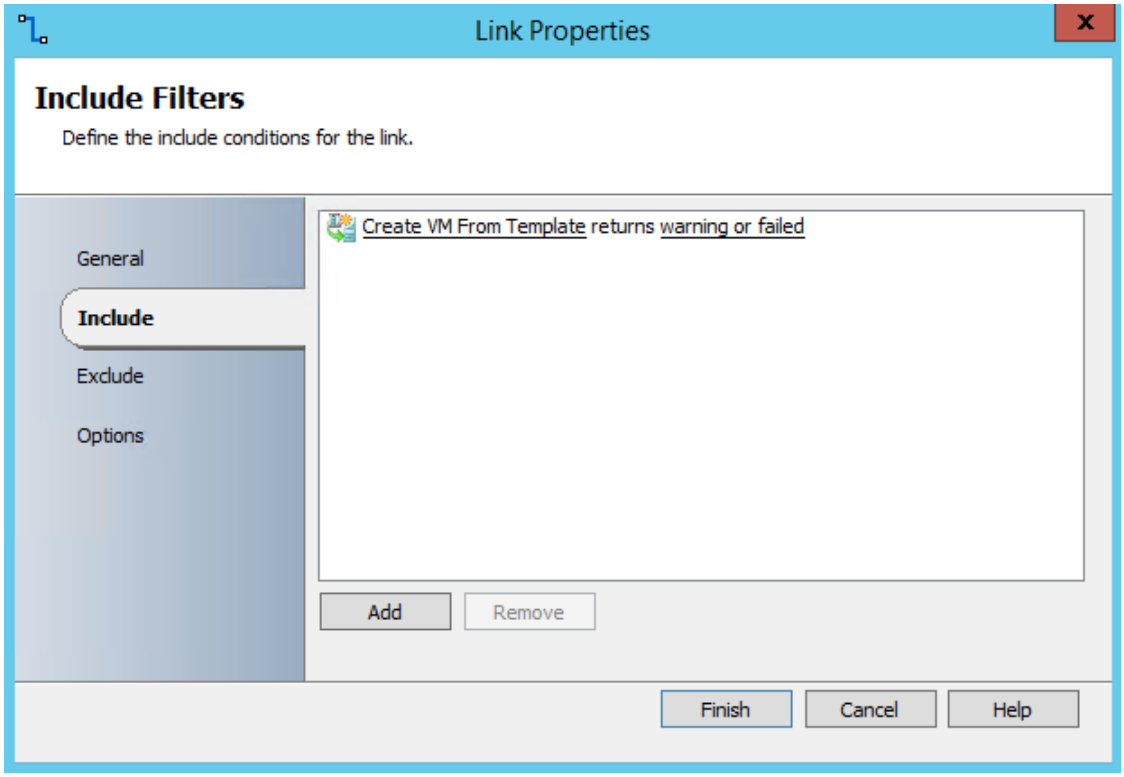
3. Click and drag **Create Incident with Template** to below **Create VM from Template** in the workspace.
4. Hover over **Create VM from Template** until an **arrow** appears. Click and drag the white **arrow** from **Create VM from Template** to **Create Incident with Template**. There should now be **two arrows** leading away from **Create VM From Template**.



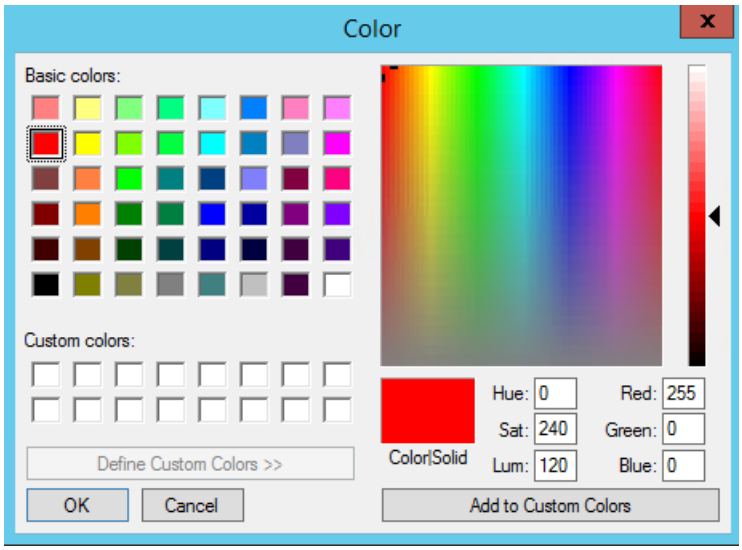
5. Double-click the **blue arrow** between **Create VM From Template** and **Create Incident From Template**.
6. Click the **success link.**
7. When the **Results** dialog appears, deselect the **success** checkbox and click to select the **warning** and **failed** checkboxes.



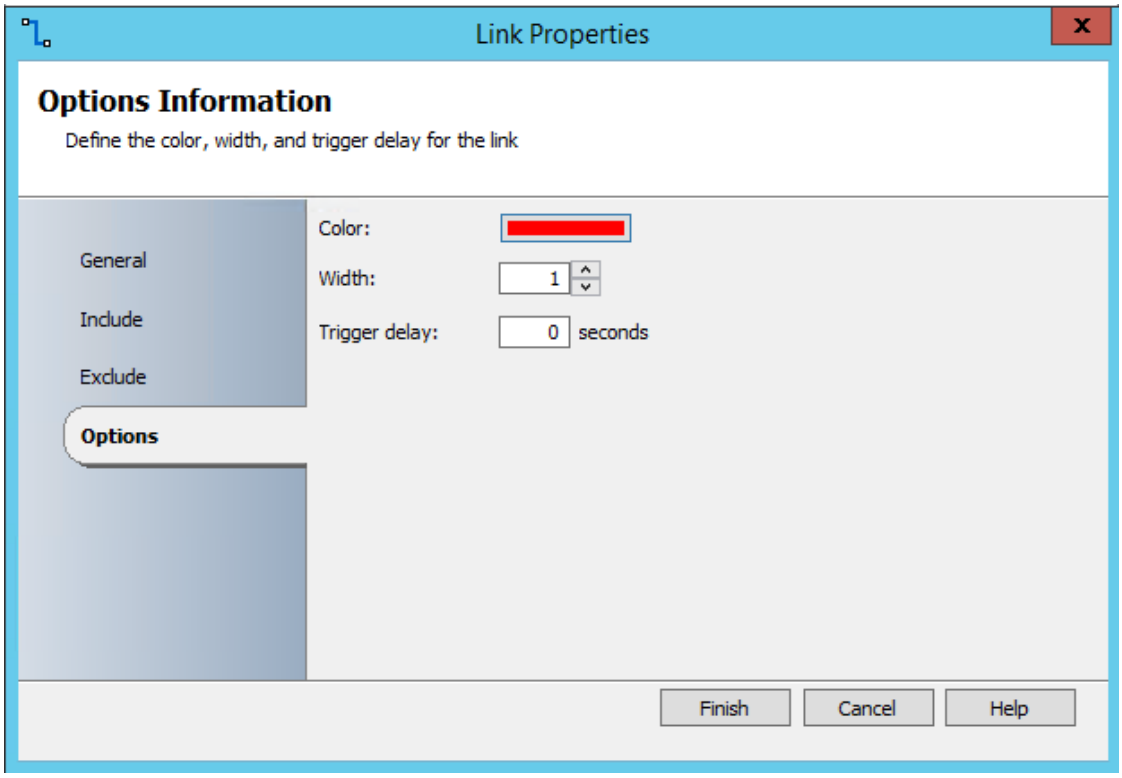
8. Click **OK**.



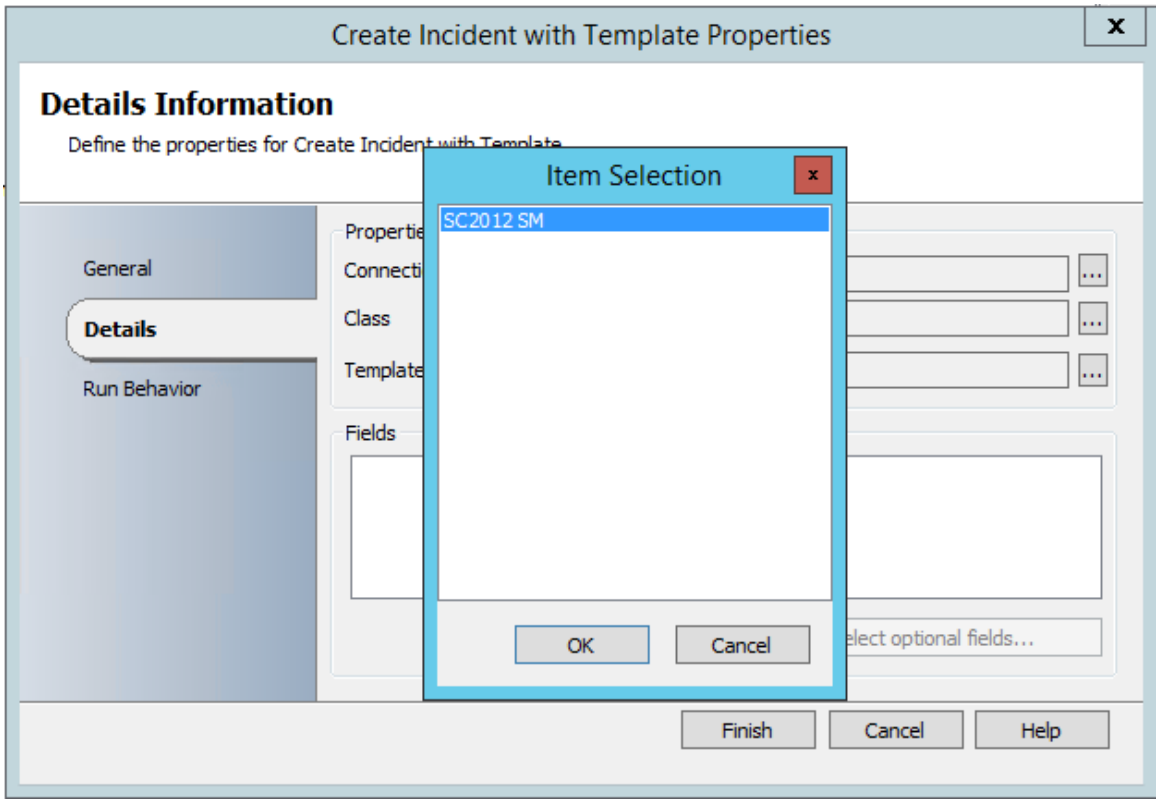
9. On the **Link Properties** page select the **Options** tab.
10. Press the black rectangle to open the color picker and select **red**. Click **OK**.



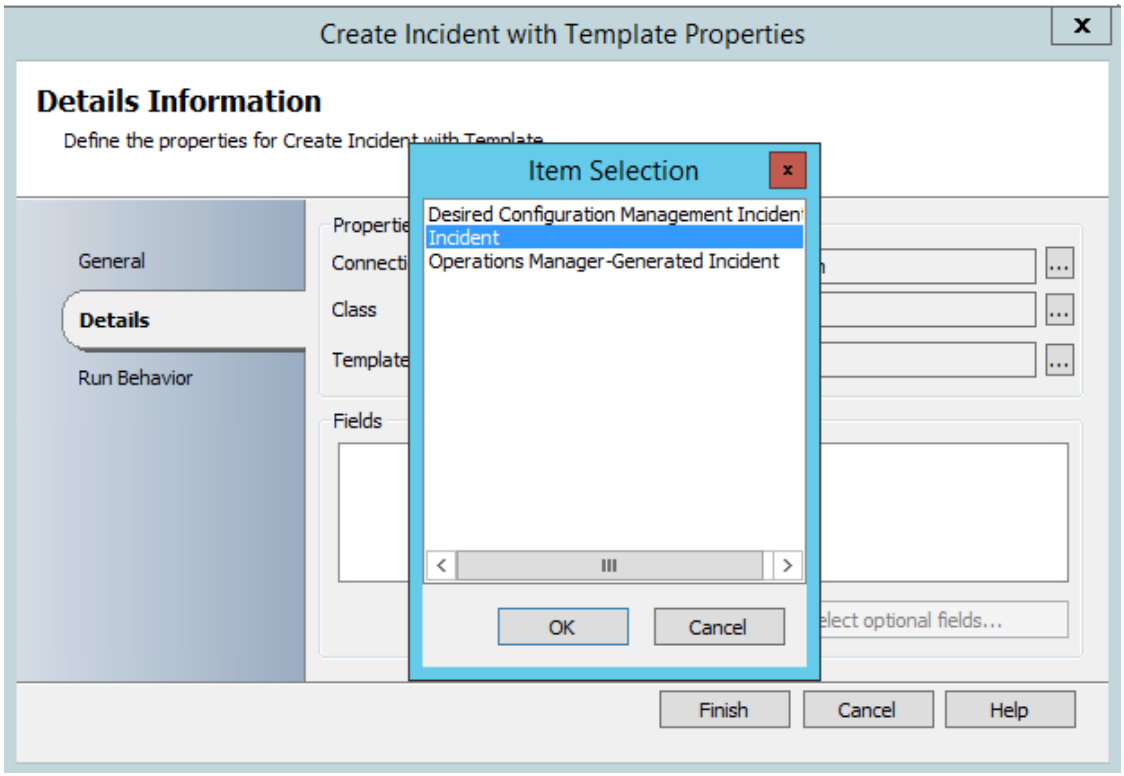
11. Click **Finish**.



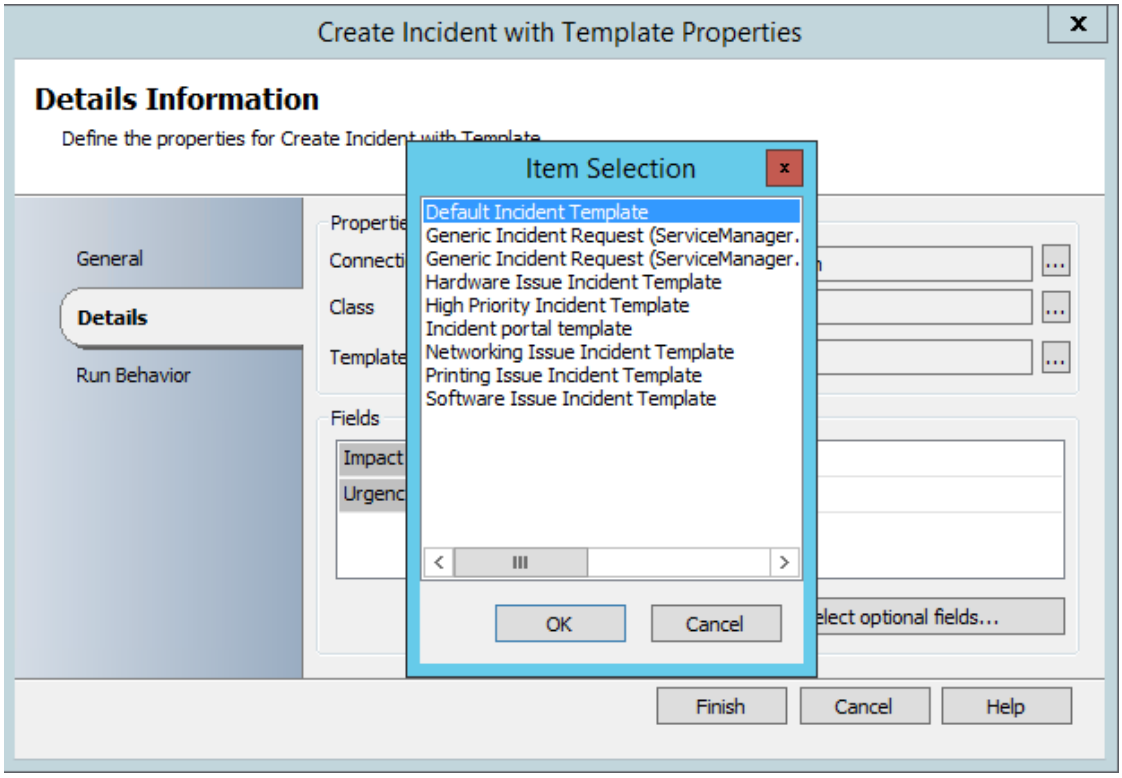
12. Double-click **Create Incident with Template**.
13. The **Create Incident with Template Properties** will open. Select the **Details** tab.
14. Click the **ellipsis** (**…**) next to **Connection**, select **SC2012 SM** and click **OK**.



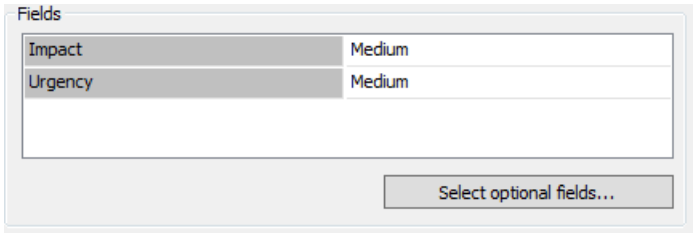
15. Click the **ellipsis** (**…**) next to **Class**, select **Incident** and click **OK**. These options are created based on information retrieved from Service Manager.



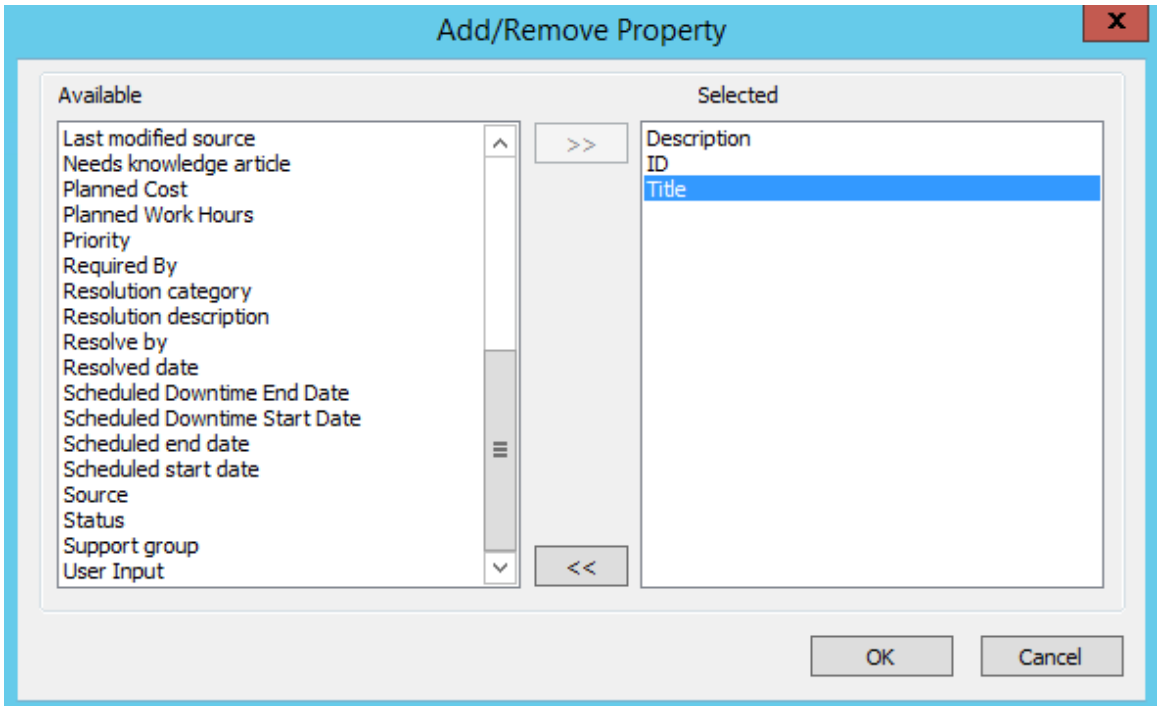
16. Click the **ellipsis** (**…**) next to **Template**, select **Default Incident Template** and click **OK**.



17. Click **Select Optional fields.**

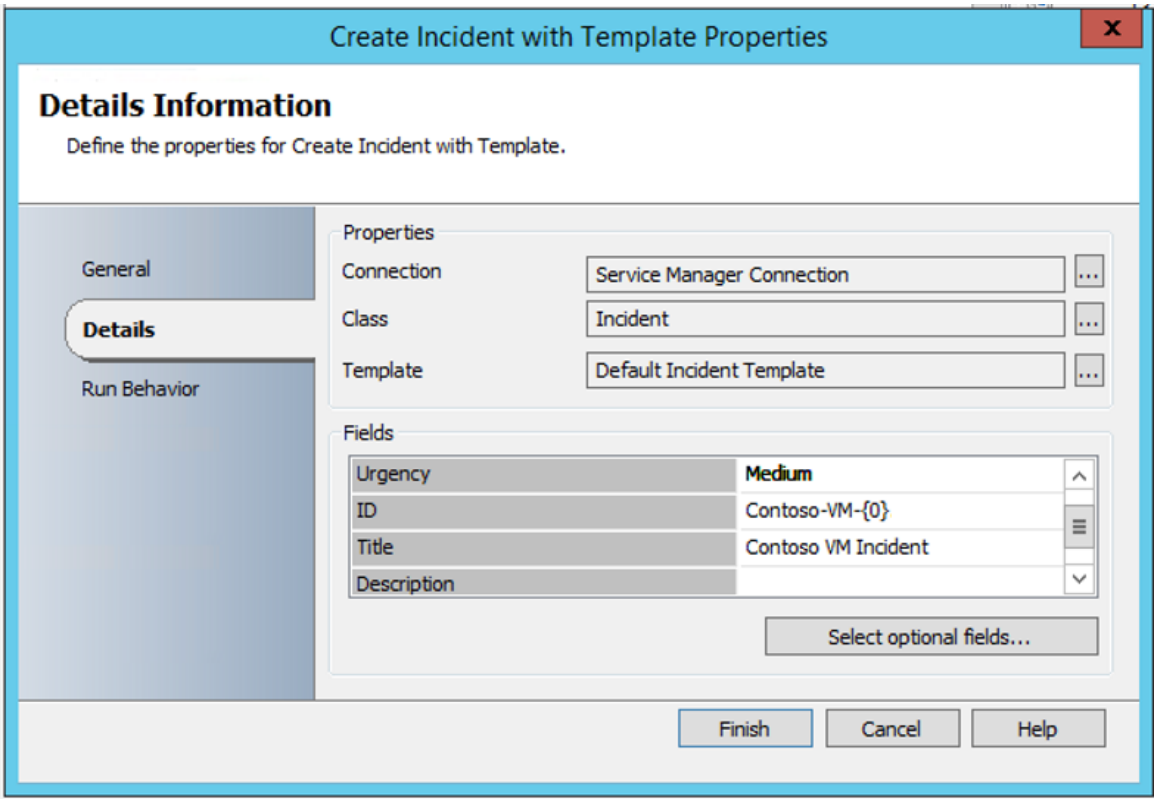


18. Select **Description**, click the **>>** button.
19. Select **ID**, click the **>>** button
20. Select **Title**, click the **>>** button, then click **OK**.



21. In the **ID** field, click in front of the **{** character and type **Contoso-VM-**. The completed **ID** line should read **Contoso-VM-{0}**

22. In the **Title** field, type **Contoso VM Incident**.



23. Right-click in the **Description** field and click **Expand**.
24. Type the following:

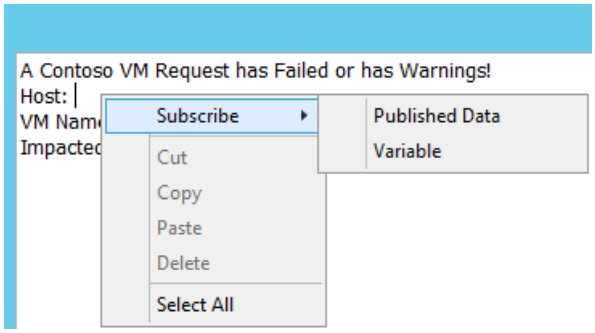
A Contoso VM Request has Failed or has Warnings!

Host:

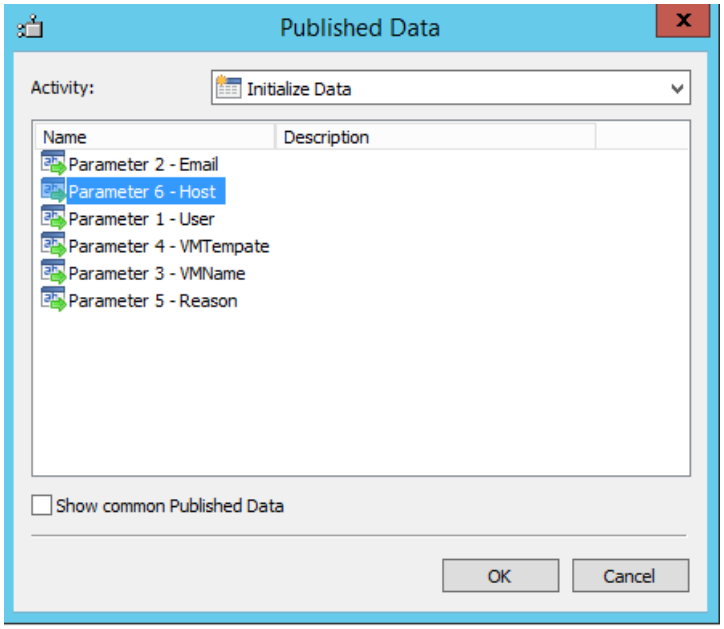
VM Name:

Impacted User:

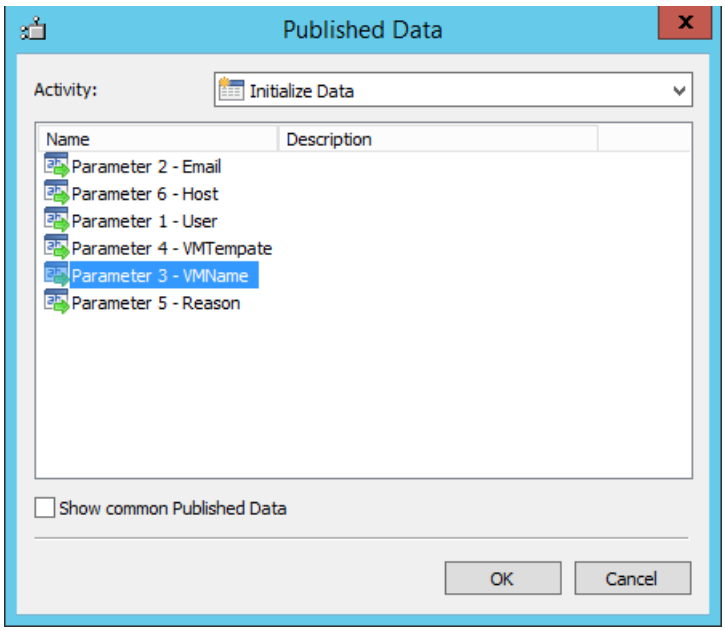
25. Right-click after **Host:** and click **Subscribe | Published Data**.



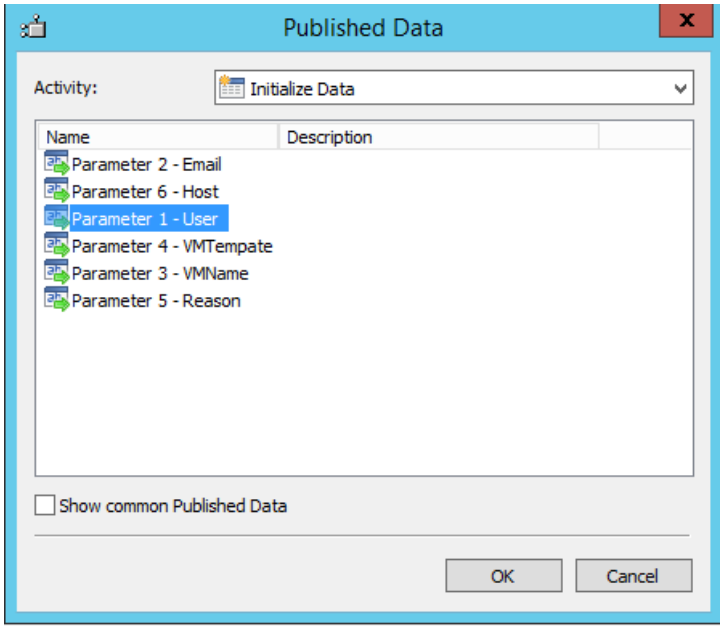
26. Select **Initialize Data** from the **Activity** menu, click **Parameter 6 - Host** and click **OK**. This will use the name of the cloud that the user specified within the text of the incident report.



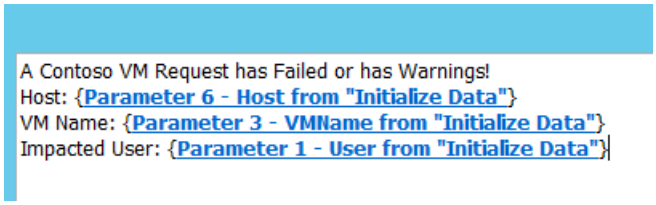
27. Right-click after **VM Name:** and click **Subscribe | Published Data**.
28. Select **Initialize Data** from the **Activity** menu, click **Parameter 3 - VMName** and click **OK**. This will use the name of the VM that the user specified within the text of the incident report.



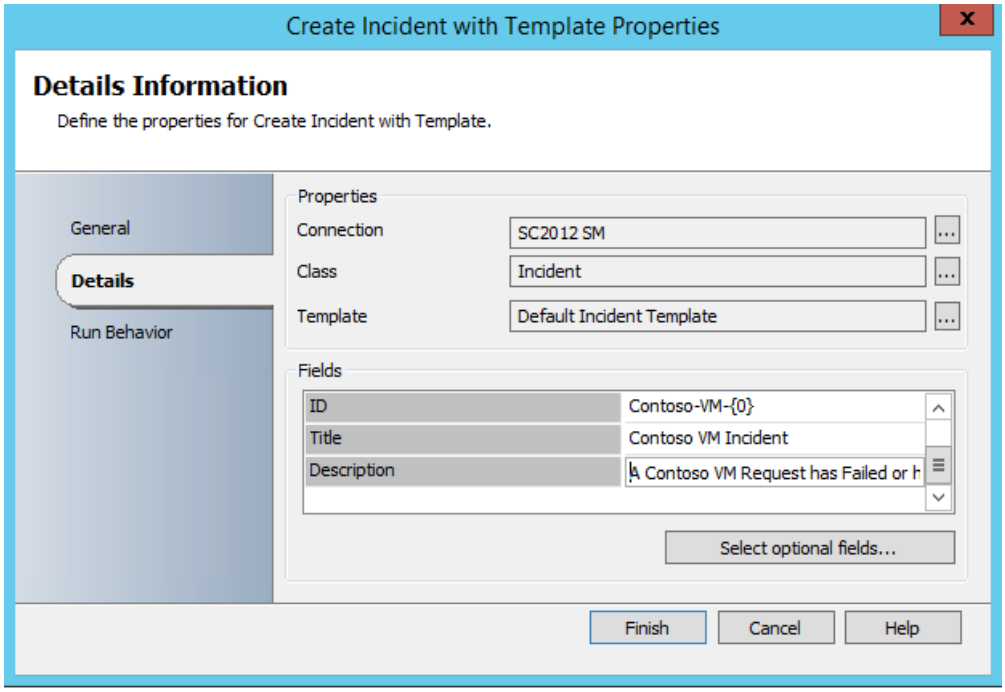
29. Right-click after **Impacted User:** and click **Subscribe | Published Data**.
30. Select **Initialize Data** from the **Activity** menu, click **Parameter 1 - User** and click **OK**. This will use the name of the user within the text of the incident report.



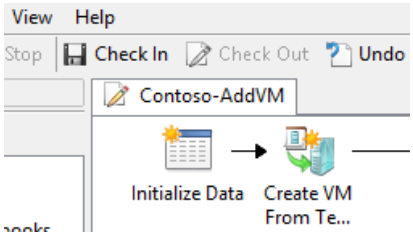
31. Click **OK**.



32. Click **Finish**.



33. From the upper ribbon, click **Check In** to save the Runbook.



3.3.6 - SCO: Test a Runbook

In this exercise the Runbook Tester will be used to step through the workflow that was created. The workflow will attempt to deploy a virtual machine using Virtual Machine Manager, and if this process fails then Orchestrator will create a new incident in Service Manager. In this virtualized lab environment, it is not possible to deploy a VM from within a VM, so the deployment will fail and an incident will be created.

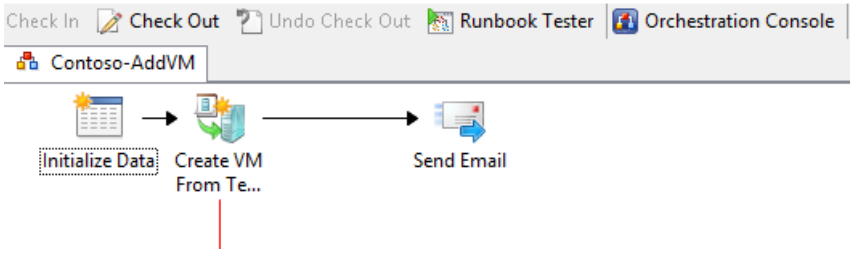
All exercises in this section (4.3 - SCO & SCSM: Create & Test a Runbook) should be completed in order to successful build and test this Runbook.

Estimated time to complete: 5 minutes

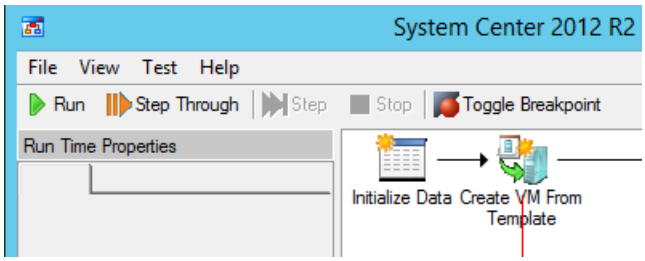
*Perform the following on **SCO01***

1. From **SCO01**, open the **Runbook Designer** by clicking the icon in the taskbar.

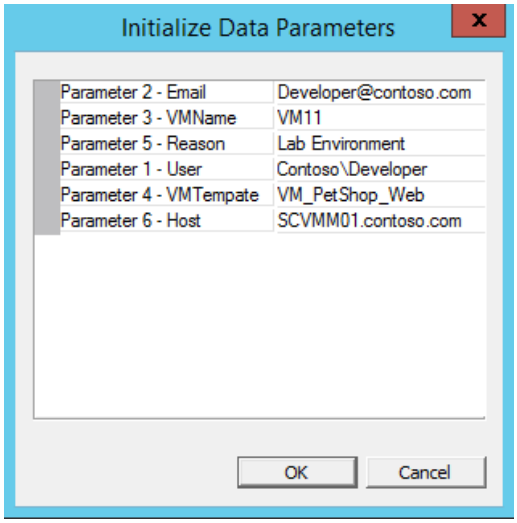
2. Select the **Runbook Tester** from the upper ribbon.



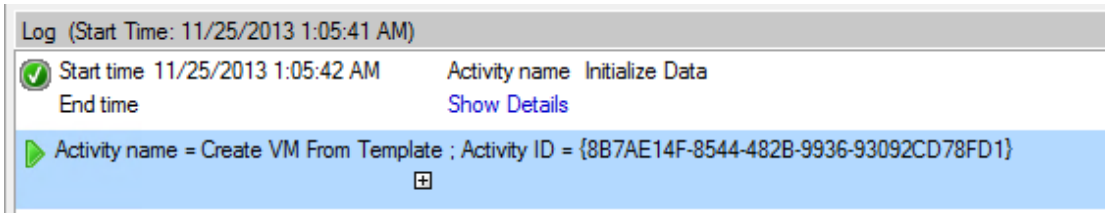
3. On the **Confirm Check out** dialog select **Yes**.
4. From the **Runbook Tester** select **Run**.



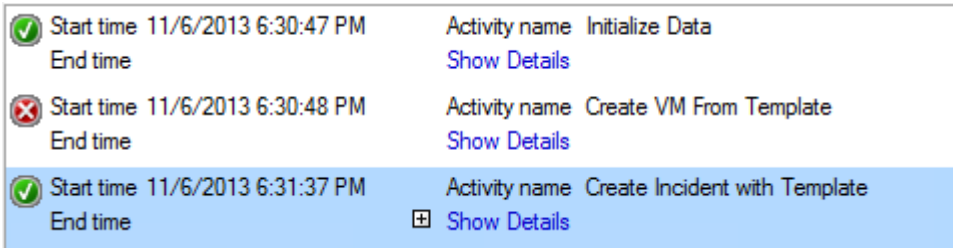
5. In the **Initialize Data Parameters** dialog, enter the following data to test the Runbook, then click **OK**. Note the parameters may appear in a different order.
6. Parameter 1- User: **Contoso\Developer**
7. Parameter 2- Email: **Developer@contoso.com**
8. Parameter 3- VMName: **VM11**
9. Parameter 4- VMTemplate: **VM_PetShop_Web**
10. Parameter 5- Reason: **Lab Environment**
11. Parameter 6- Host: **SCVMM01.contoso.com**



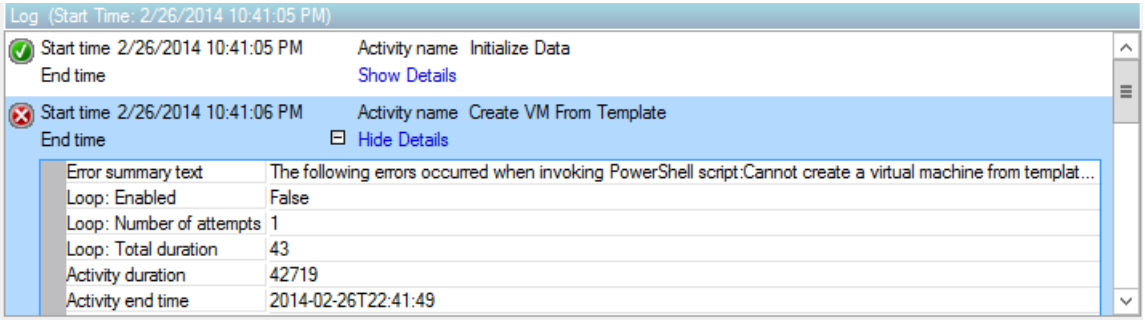
12. The **Runbook Tester** will start and their progress can be seen in the **Log**. This will take several minutes to complete.



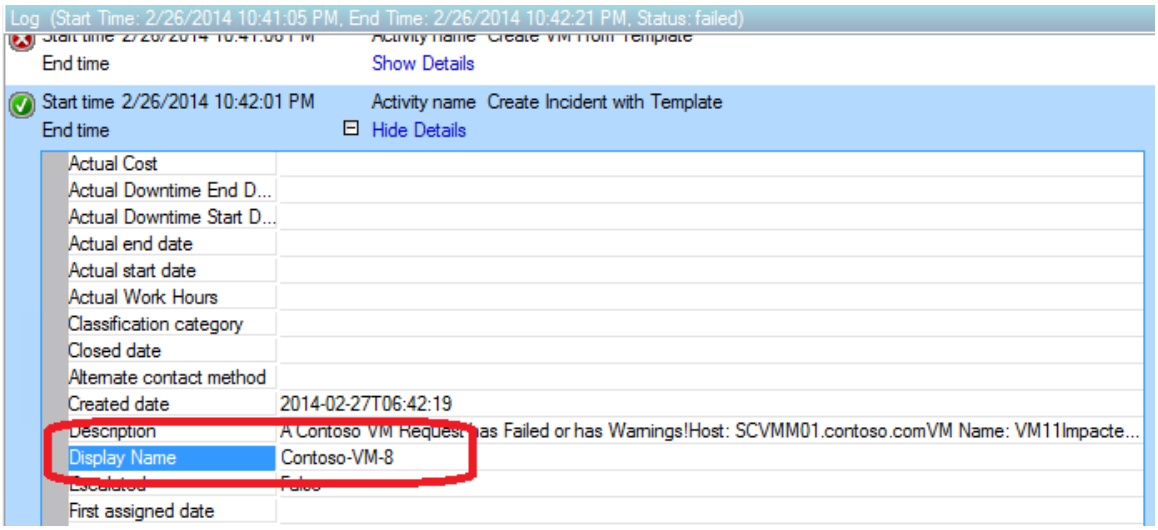
13. When the test completes, the results should be a **Pass** for **Initialize Data**, followed by a **Fail** for **Create VM From Template**, followed by a **Pass** for **Create incident with Template**. The deployment will fail, this is expected in this virtualized lab environment. This lab is built using virtual machines, and t is not possible to run VMs within Hyper-V VMs ("nested virtualization"). A user can create and configure VMs, but cannot start the VM.



14. Expand **Show Details** for the Activity **Create VM From Template**. In the Error summary text, Notice that VMM was unable to fulfill the request.

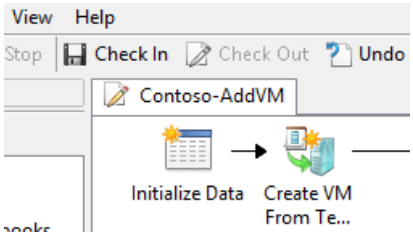


15. Expand **Show Details** for **Create Incident with Template**. Scroll to **ID** and notice the Service Manager incident ID generated for this test (**Contoso-VM-"Variable"**). Make a note of this ID number.



16. Close the **Runbook Tester**.

17. In **Runbook Designer**, click **Check In**.



3.3.7 - SCSM: Review an Incident

In this exercise the incident which was created by Orchestrator due to the failed virtual machine deployment is reviewed inside Service Manager.

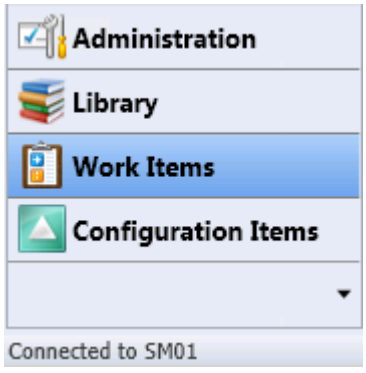
All exercises in this section (4.3 - SCO & SCSM: Create & Test a Runbook) should be completed in order to successful build and test this Runbook.

Estimated time to complete: 3 minutes

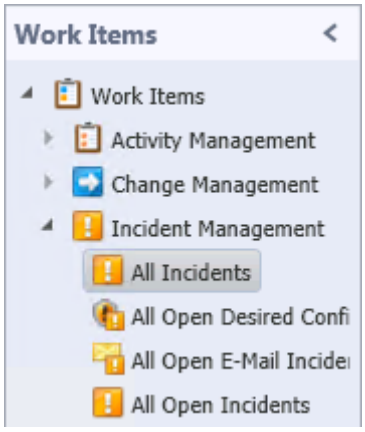
*Perform the following on **SCSM01***

1. From **SCSM01**, open the **Service Manager Console** by selecting the icon from the taskbar.

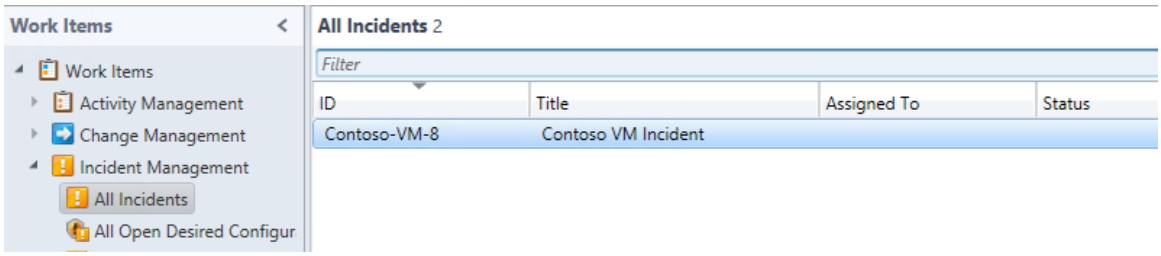
2. Select the **Work Items** workspace.



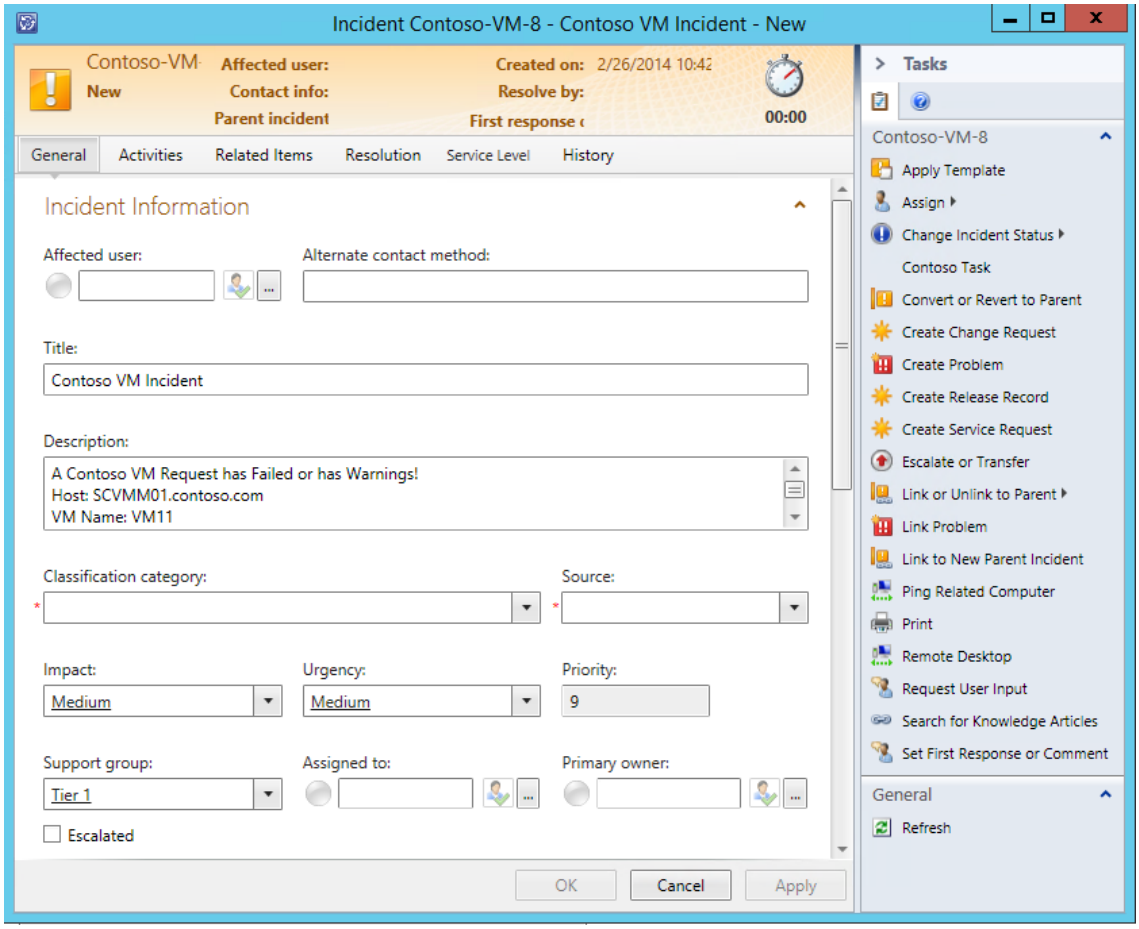
3. Navigate to **Incident Management | All Incidents**.



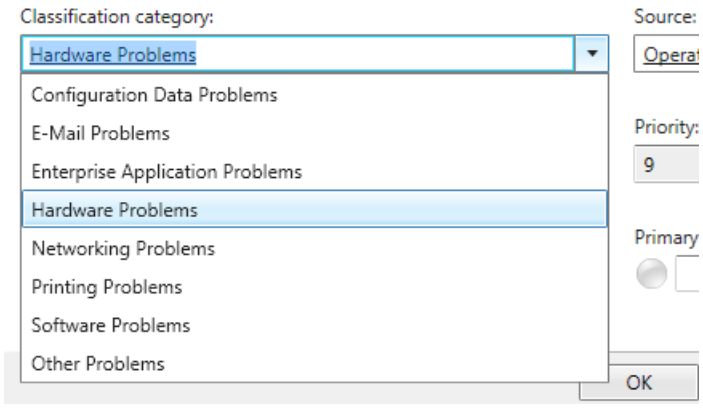
4. In the **All Incidents** list, find the incident that was created in the previous exercise (SCO: Test a Runbook). This should start with **Contoso-VM-**.



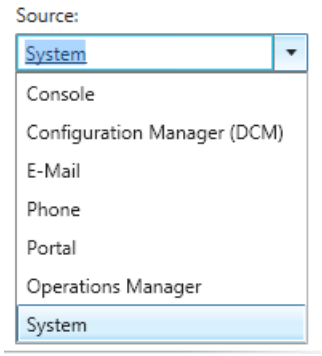
5. Double-click the **Contoso-VM-** incident to open the **Incident Contoso-VM- Service Incident** and review the details of the incident. Note that the information and parameters that were entered in the Orchestrator Runbook Tester appear in the text of this incident.



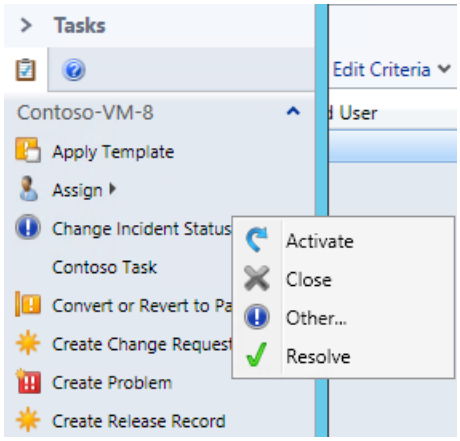
6. Under **Classification category** select **Hardware Problems** from the dropdown.



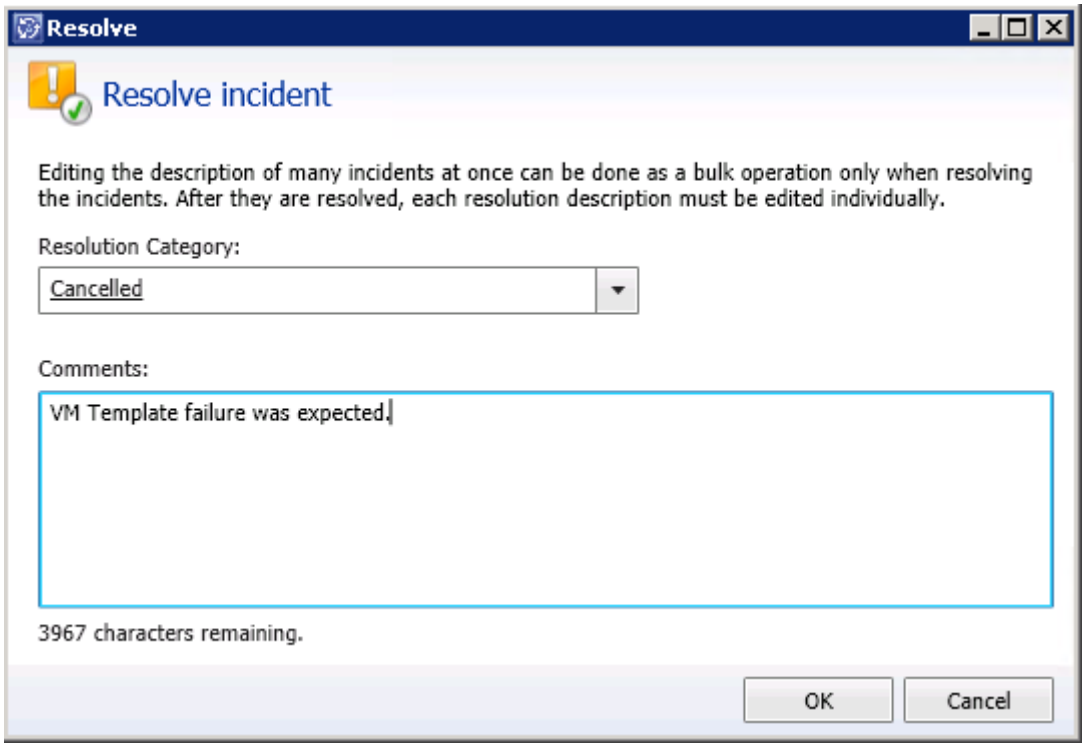
7. Under Source, enter **System** from the dropdown.



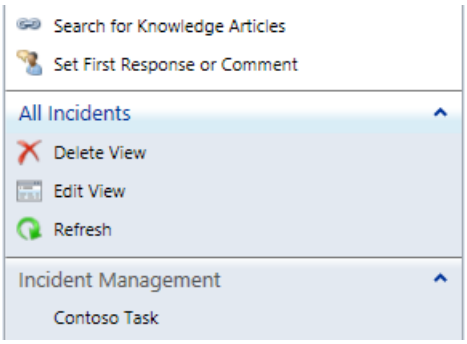
8. In the right **Tasks** toolbar select **Change Incident Status | Resolve**.



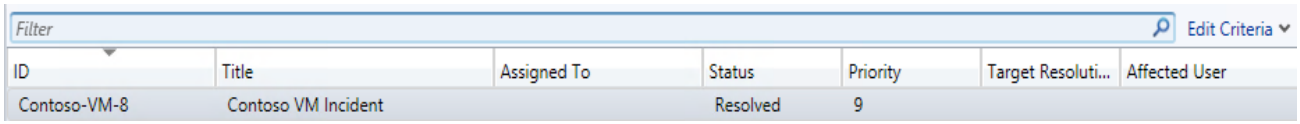
9. The **Resolve** dialog will open. Under **Resolution Category** select the dropdown and type **Cancelled**. Under **Comments** enter **"VM Template failure was expected."**



10. Click **OK**.
11. Click **OK** to close the incident dialog.
12. Under the **Tasks** pane select **Refresh** to update the status of the incidents.



13. The **Status** for **Contoso-VM-** will change to **Resolved**.

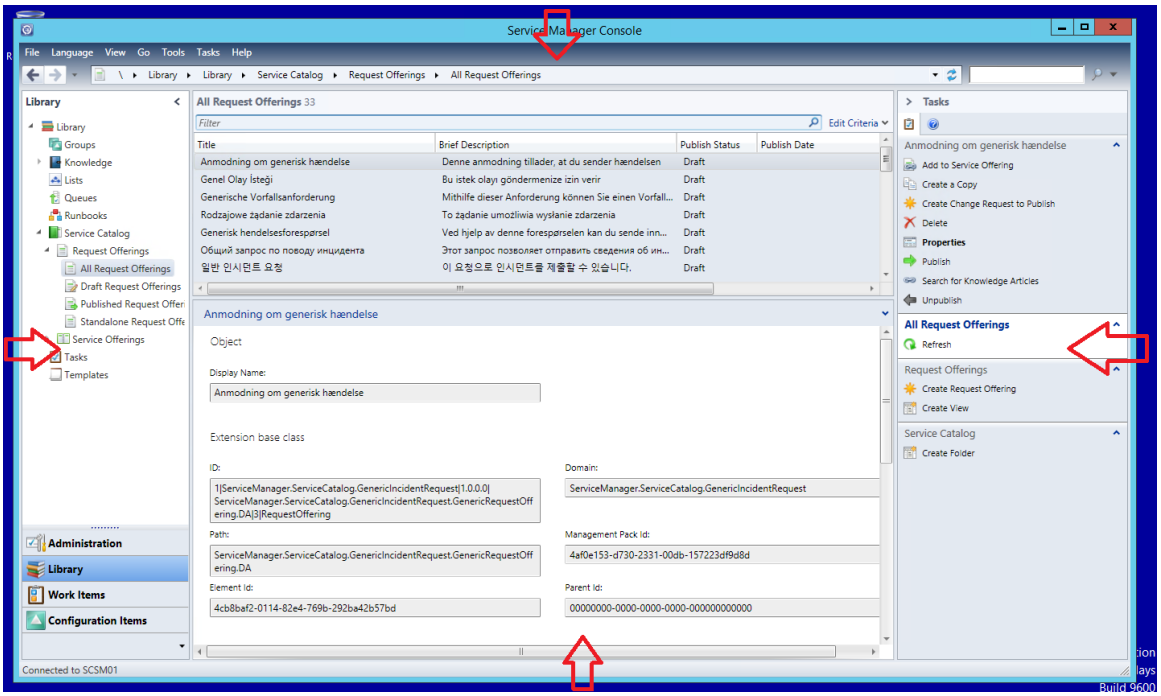


3.4 - SCSM: Publish a Self-Service Offering

3.4.1 - SCSM: Create a Self-Service Offering

In this exercise, a self-service incident request offering will be created using a wizard. After the forms have been completed, this request offering will be published to the Service Manager Portal. Users will now be able to create incidents request through this website.

Note: Some items in the Service Manager console may not display correctly when it is maximized and running in a virtual machine. If any display issues are encountered, resize the Service Manager console so that it is not maximized.

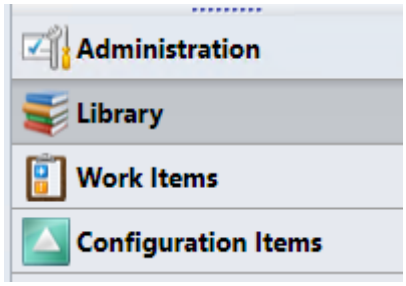


Estimated time to complete: 5 minutes

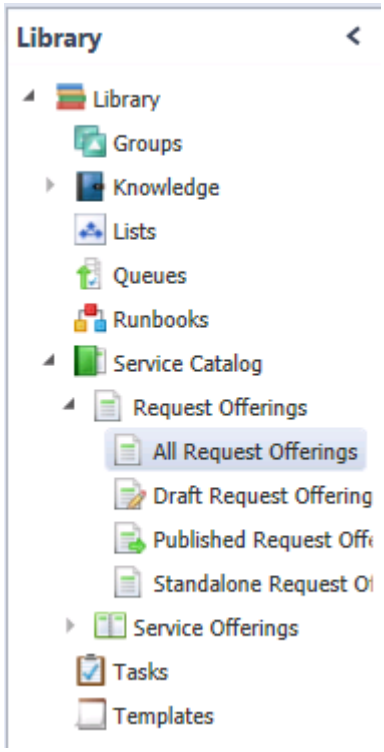
*Perform the following on **SCSM01***

1. From **SCSM01**, open the **Service Manager Console** by selecting the icon from the taskbar.

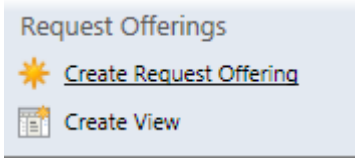
2. Navigate to the **Library** workspace.



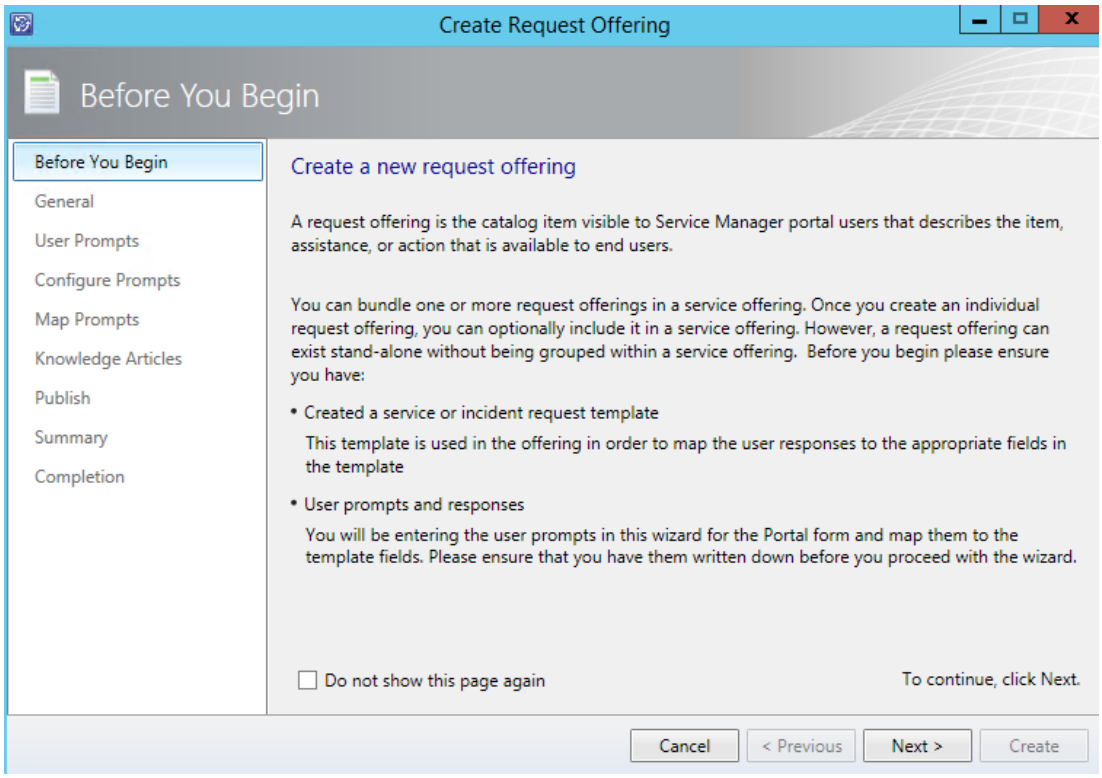
3. Expand **Library | Service Catalog | Request Offering** and select **All Request Offerings**.



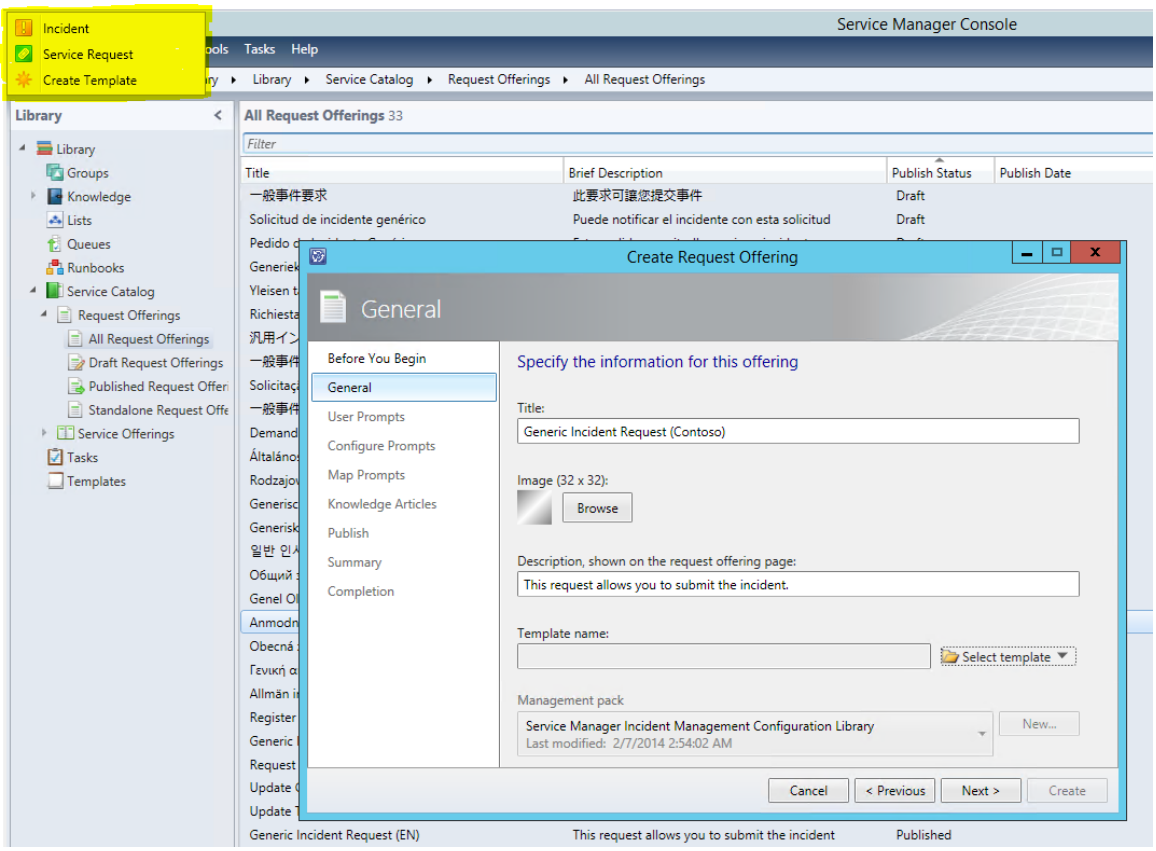
4. Click on **Publish Status** to sort the column. Note the different request offerings which are published.
5. On the right pane, under the **Tasks** menu under **Request Offerings**, click **Create Request Offering**.



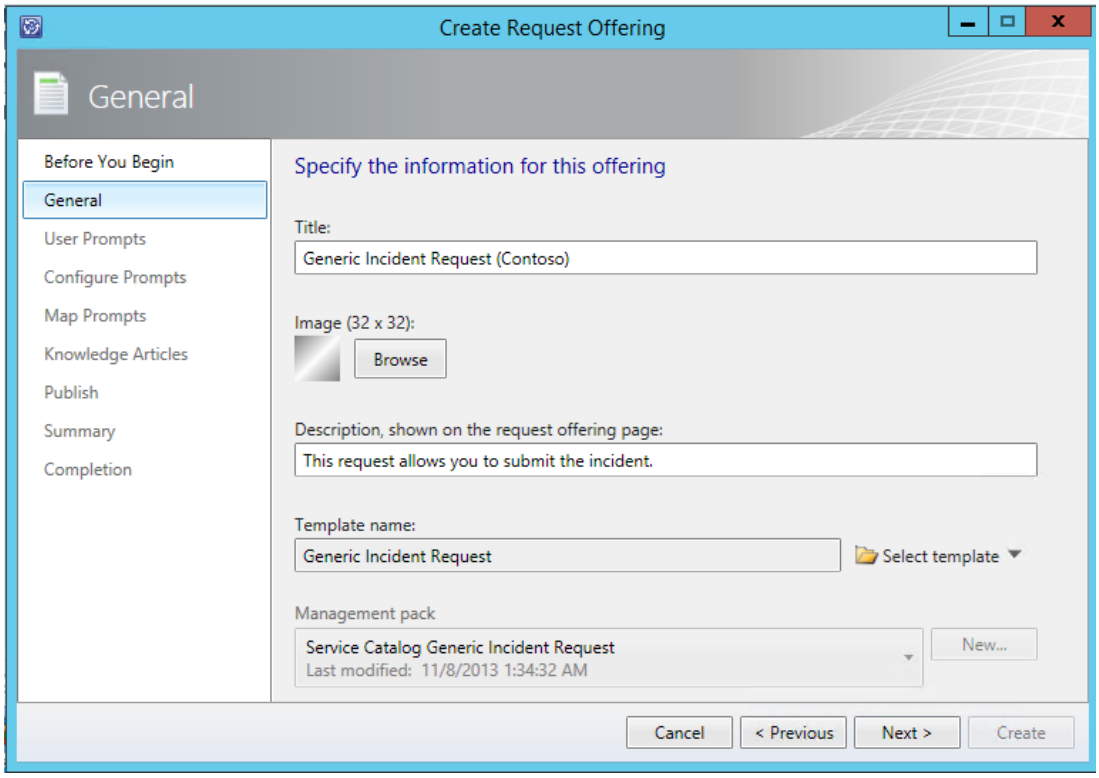
6. Once the **Create Request Offering** wizard appears, select **Next**.



7. On the General page, enter the following:
8. Title: **Generic Incident Request (Contoso)**
9. Description: **This request allows you to submit the incident.**
10. Click the dropdown for **Select Template** and select **Incident**.
11. Note: If the dropdown box does not appear in the expected location, check for the options in the upper left corner of the screen.



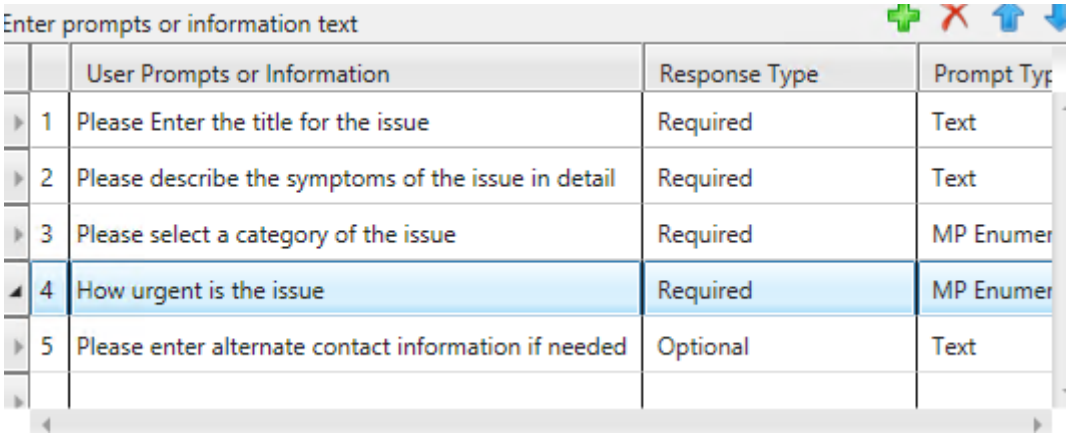
12. Once the **Select Template** dialog appears, select **Generic Incident Request** and click **OK**.



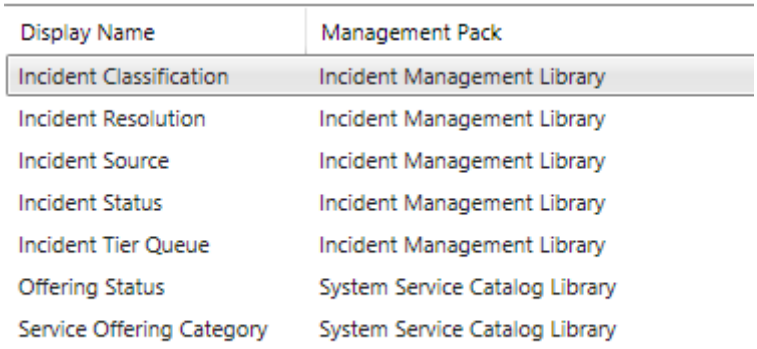
13. After returning to the **General** screen, select **Next**.
14. On the **User Prompts** page, under **Form instructions**, type **Please fill in the form below to submit your request.**
15. Please fill out the following under the **Enter prompts or information text** dialog then click **Next**:

	Enter prompts or information	Response Type	Prompt Type
1	Please enter the title for the issue	Required	Text
2	Please describe the symptoms of the issue in detail	Required	Text
3	Please select a category of the issue	Required	MP Enumeration List

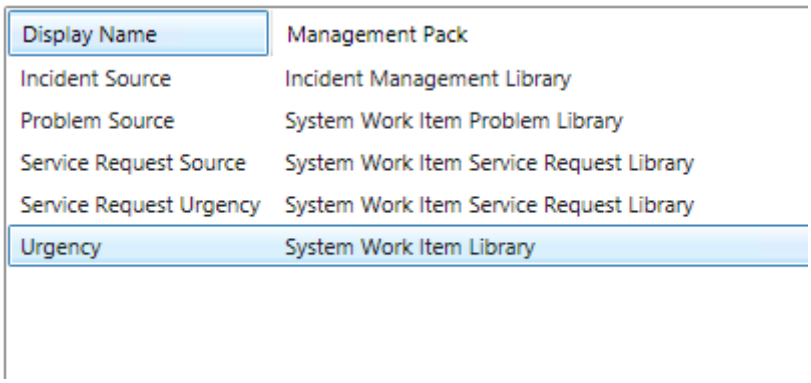
4	How urgent is the issue	Required	MP Enumeration List
5	Please enter alternate contact information if needed	Optional	Text



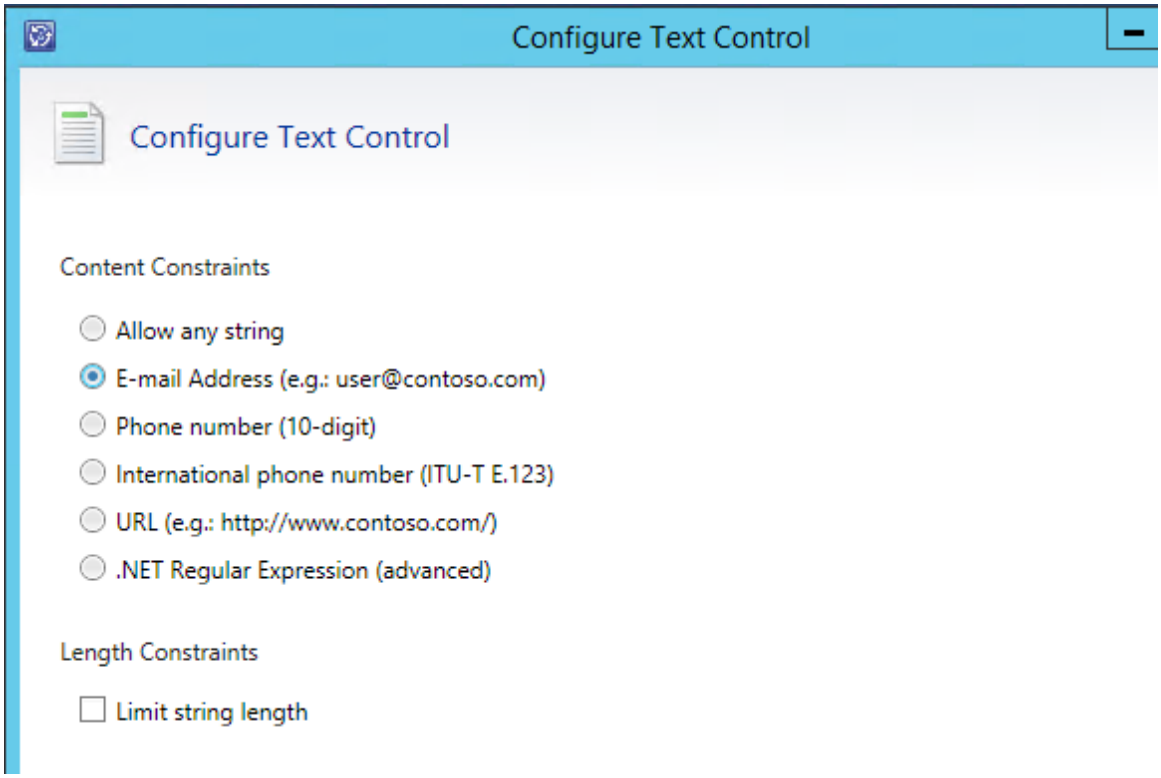
16. On the **Configure Prompt**s screen, select the Prompt Output for 3, and select **Configure**.
17. Once the Configure Enumeration List appears, in the search box, type **incident**.
18. Under Display Name, select **Incident Classification** and select **OK**.



19. Select **Row 4** and click **Configure**.
20. Once the **Configuration Enumeration List** dialog box appears, type **Urgency** and select **Urgency** then click **OK**.



21. Select row **5** and click **Configure**.
22. On the **Configure Text Control** dialog box under **Content Constraints**, select **E-mail Address** and click **OK** then click **Next**.

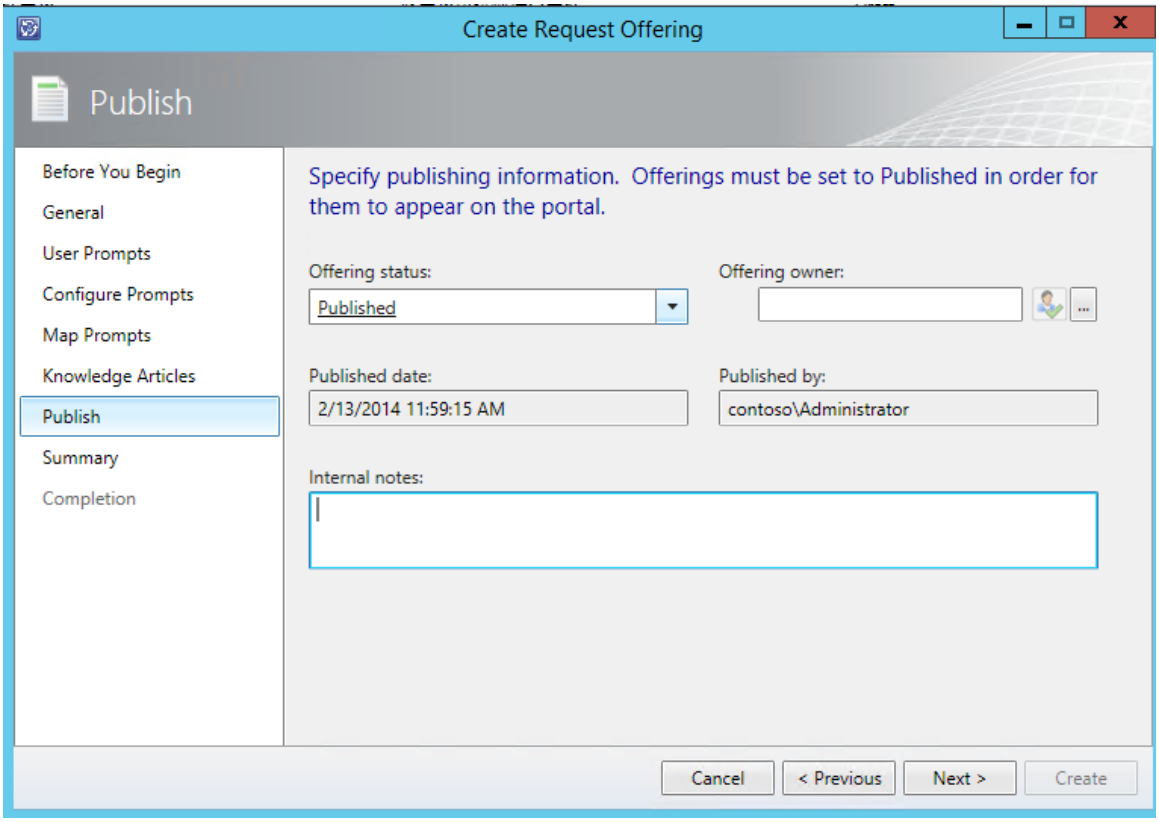


23. On the **Map Prompts** screen, select **Incident** and enter the following information, then click **Next**:

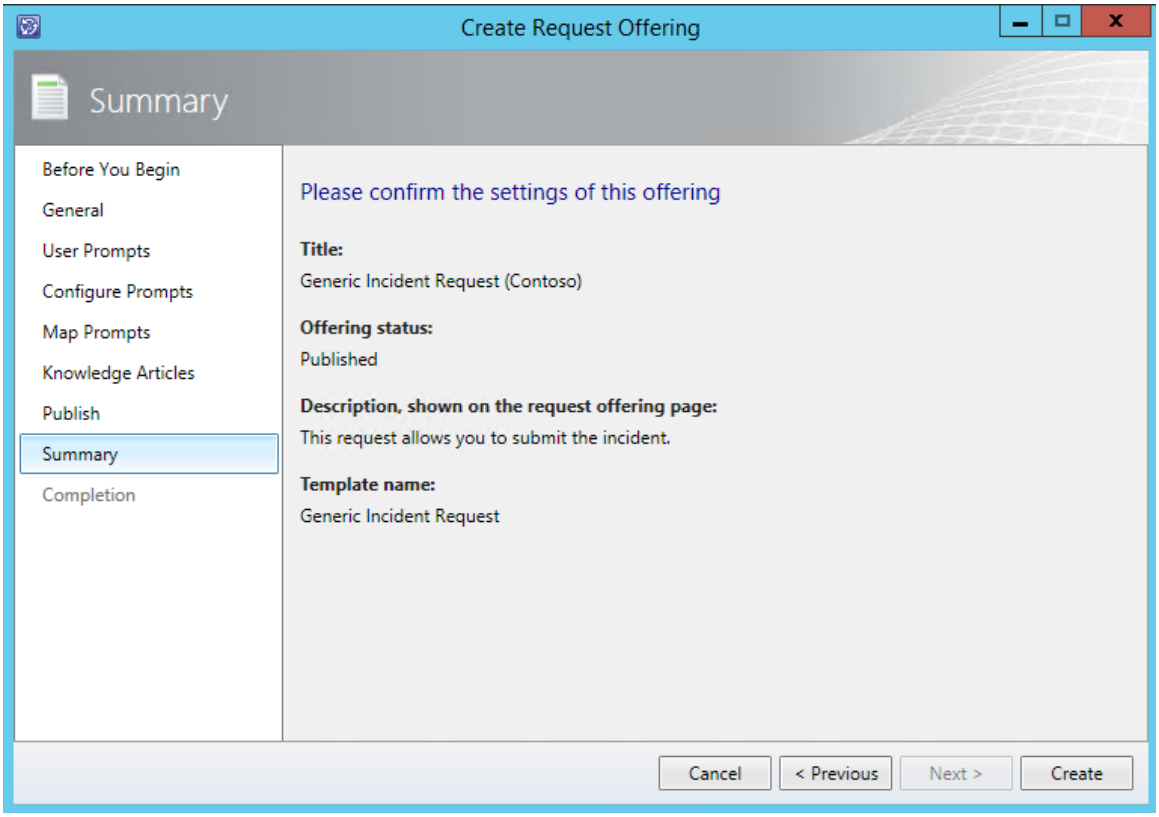
Property	**Default Value**	**Prompt Output**
Support Group		
Classification category		Please select a category of the issue: List Item

		(IncidentClassificationEnum)
Impact	Medium	
Urgency		How urgent is the issues: List item (System.WorkItem.TroubleTicket.UrgencyEnum)
Title		Please enter the title for the issue: String
Description		Please describe the symptoms of the issue in detail: String
Alternate contact method		Please enter alternate contact information if needed: String

24. Under **Knowledge Articles** select **Next**.
25. Under **Offering status**, click the dropdown and change it from **Draft** to **Published** and select **Next**.



26. On the **Summary** screen, review the settings then click **Create**. This will take several minutes to complete. As soon as the progress bar disappears, close the wizard.

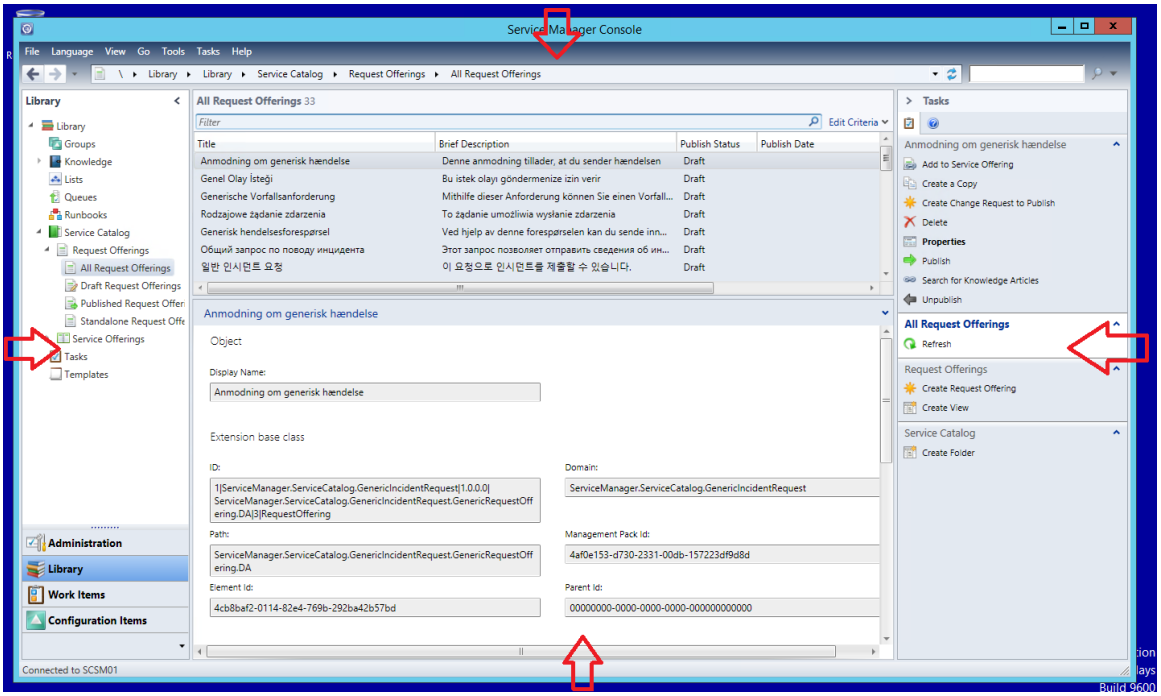

Create Request Offering
Summary
Before You Begin
General
User Prompts
Configure Prompts
Map Prompts
Knowledge Articles
Publish
Summary
Completion
Please confirm the settings of this offering
Title:
Generic Incident Request (Contoso)
Offering status:
Published
Description, shown on the request offering page:
This request allows you to submit the incident.
Template name:
Generic Incident Request
Cancel
< Previous
Next >
Create

3.5 - SCSM: Fulfill a Self-Service Request

3.5.1 - SCSM: Configure a Cloud Offering

In this exercise the Cloud Service Process Pack is configured in Service Manager. This is a preconfigured set of self-service offerings that are published in the Service Manager Portal. This exercise configures the different options which will be made available to users in the portal, such as which virtual networks they can connect to.

Note: Some items in the Service Manager console may not display correctly when it is maximized and running in a virtual machine. If any display issues are encountered, resize the Service Manager console so that it is not maximized.

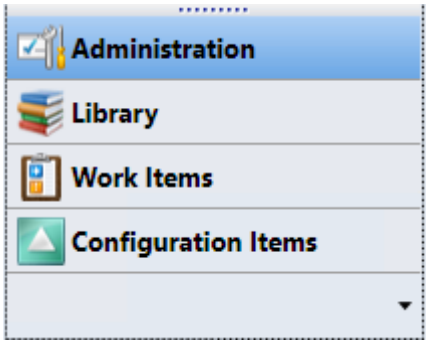


Estimated time to complete: 5 minutes

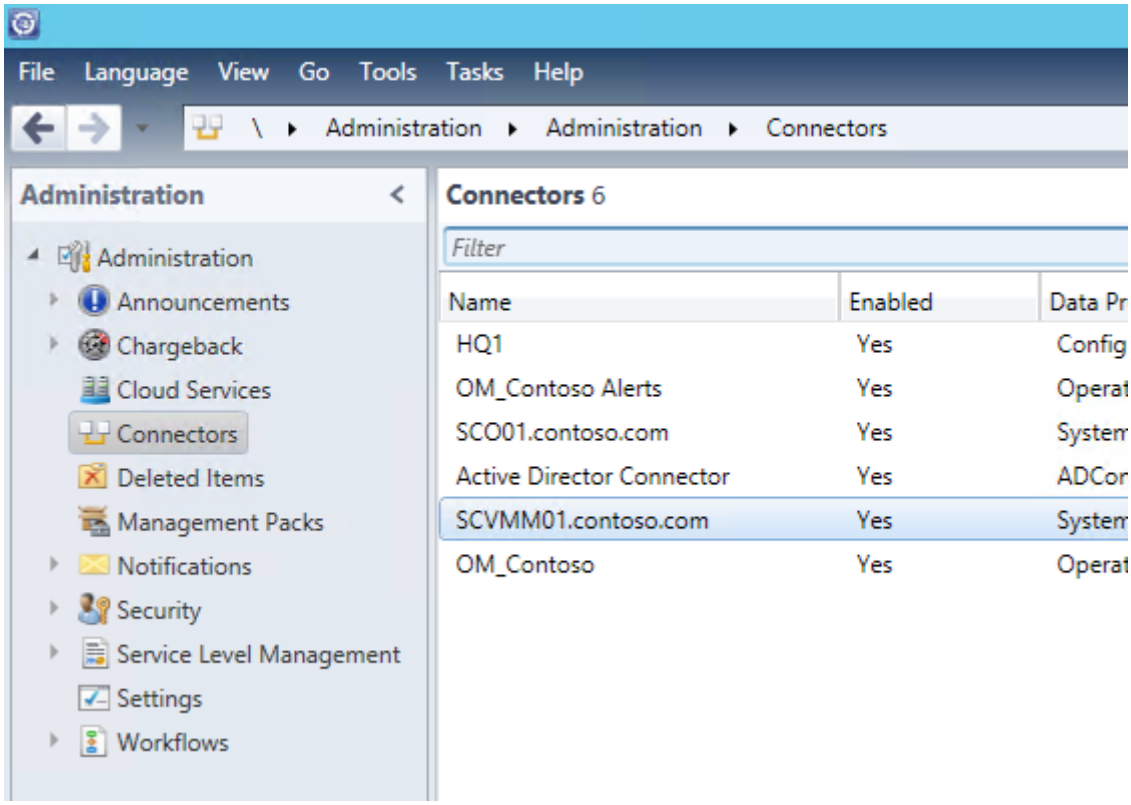
*Perform the following on **SCSM01***

1. From **SCSM01**, open the **Service Manager Console** by selecting the icon from the taskbar.

2. Navigate to the **Administration** workspace.

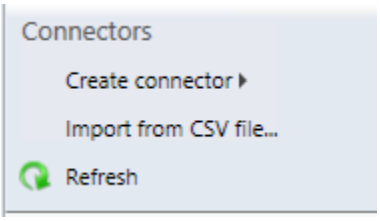


3. Select **Connectors**.
4. Select the Connector named **SCVMM01.contoso.com**.

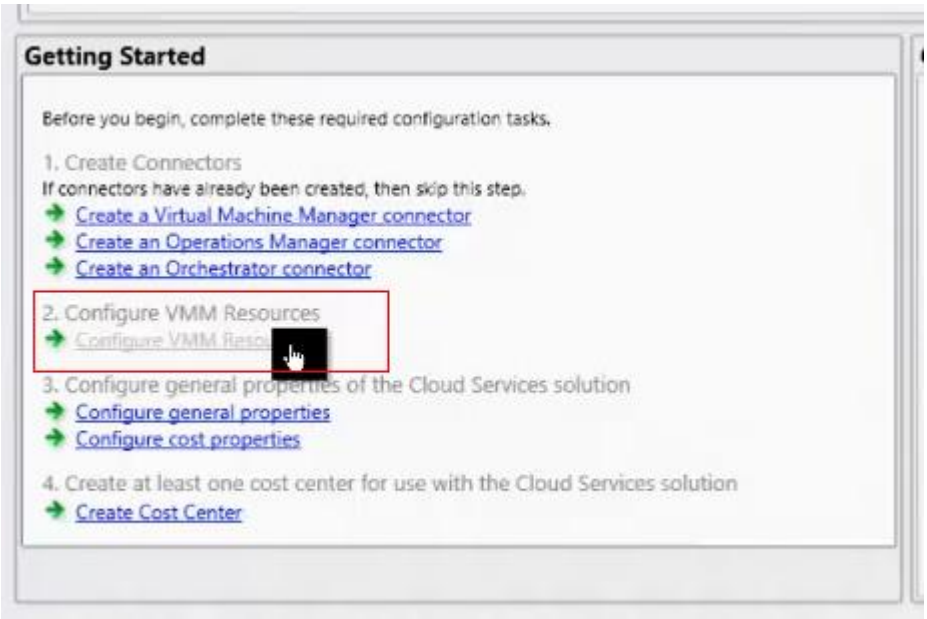


5. On the right pane under **Tasks**, select **Synchronize Now**.

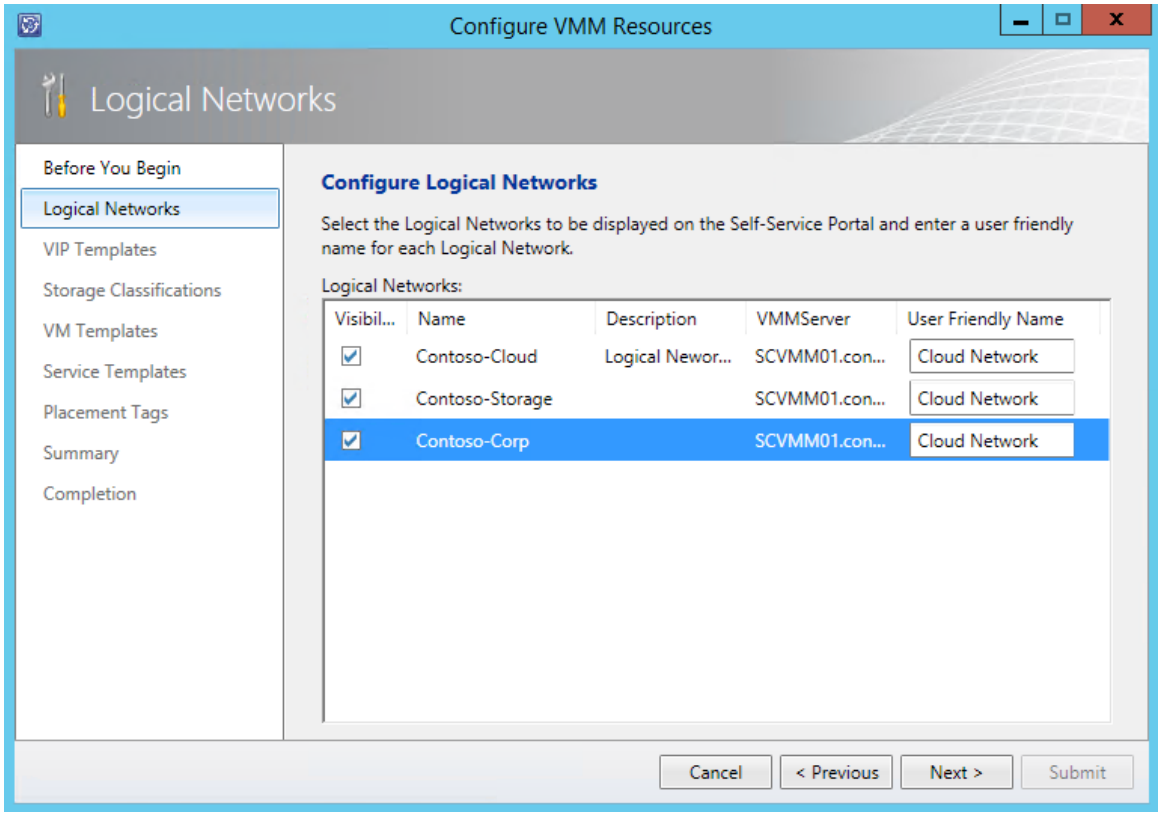
6. When the **Synchronize Now** dialog appears, click **OK** to close it. Wait until synchronization has been completed.
7. From the Task pane under Connectors click **Refresh**.



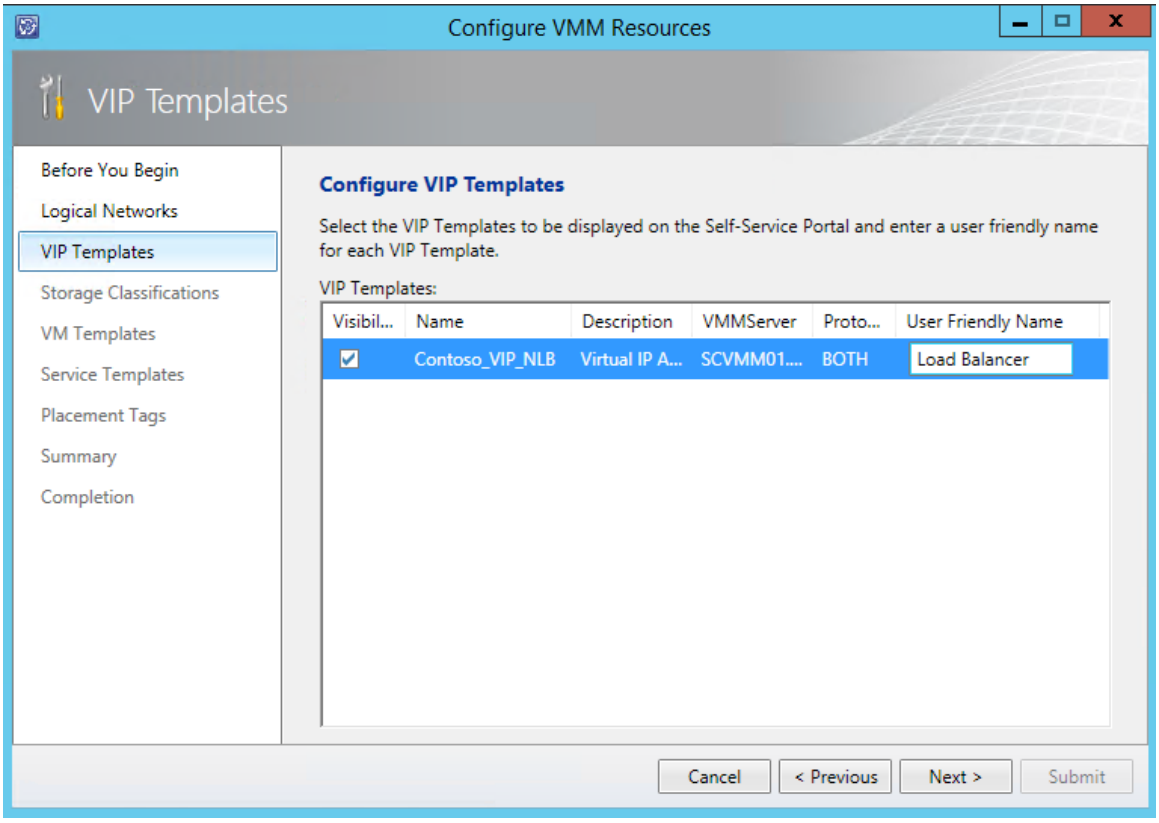
8. Wait until the **SCVMM01.contoso.com** connector for System Center Virtual Machine Manager has been successfully refreshed with the current time stamp.
9. From the navigation pane select **Cloud Services**.
10. Under Cloud Services on the **Getting Started** page, select #**2. Configure VMM Resources**.



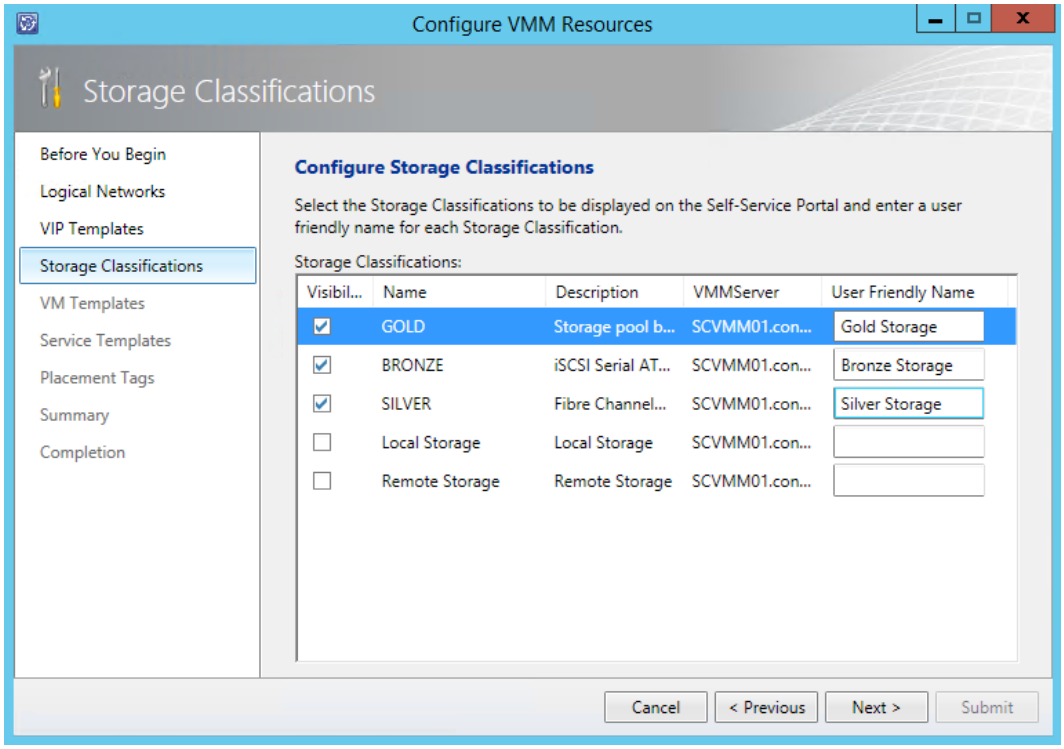
11. Click **Next** on the Before You Begin screen.
12. On the **Logical Networks** page, select the checkboxes next to **Contoso-Cloud**, **Contoso-Storage**, and also **Contoso-Corp**.
13. In the blank box under User Friendly Name, enter **Cloud Network** for all three logical networks. Click **Next**.



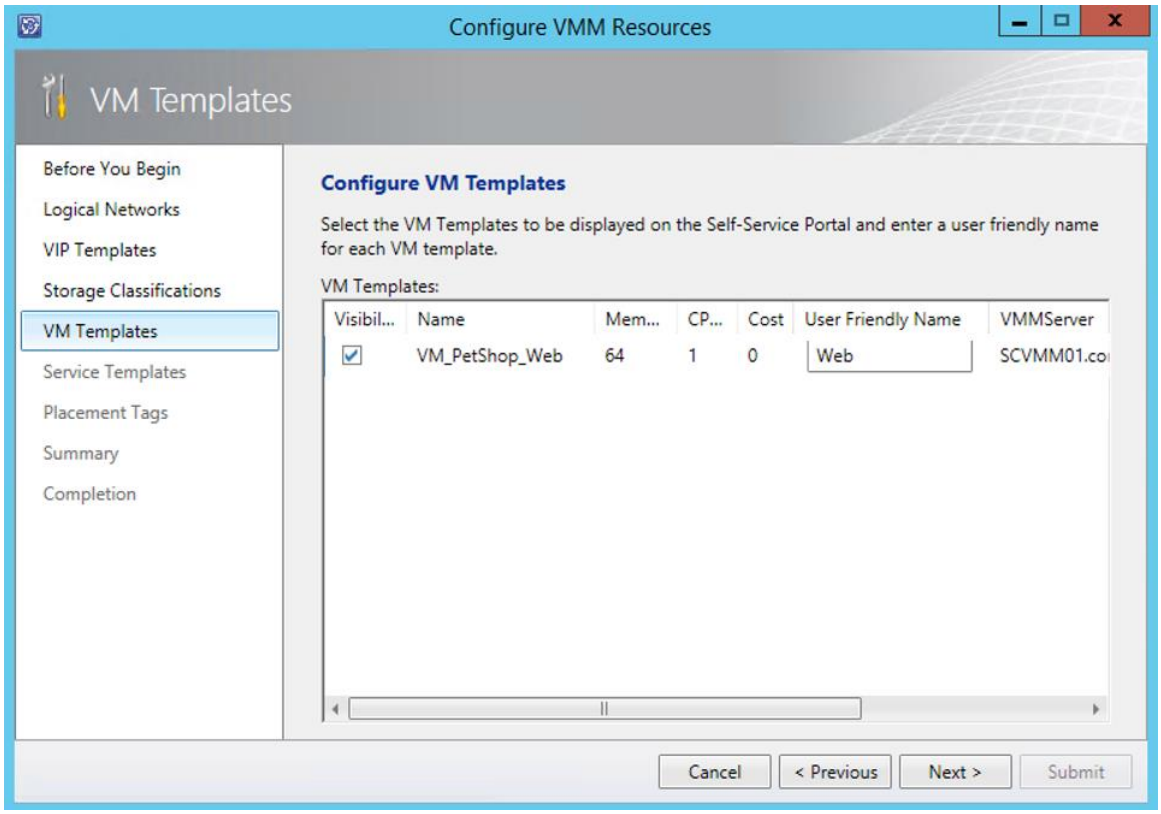
14. On the **Configure VIP Templates** page, select the box next to **Contoso_VIP_NLB**.
15. In the User Friendly Name enter **Load Balancer**. Click **Next**.



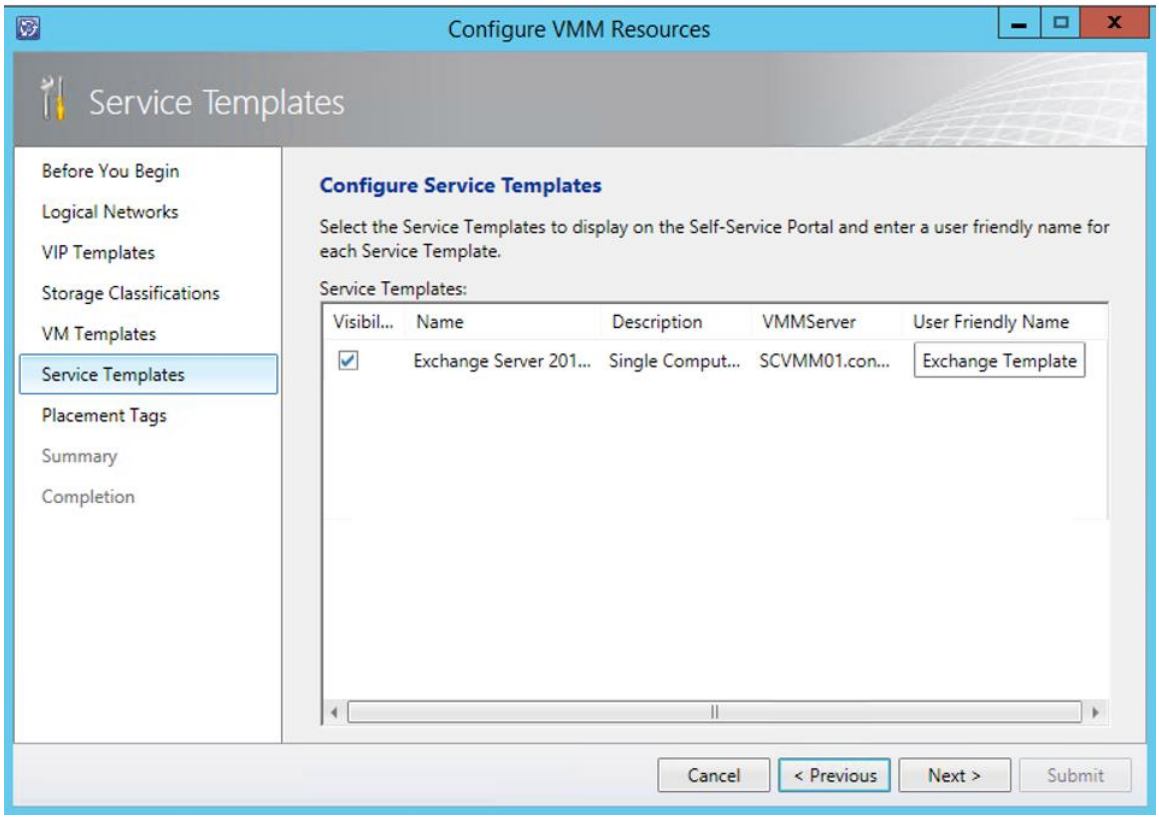
16. Under **Configure Storage Classifications**, select **Gold**, **Silver** and **Bronze**.
17. In the **User friendly Name** text box, enter **Gold Storage**, **Silver Storage**, and **Bronze Storage** in their respective locations. Click **Next**.



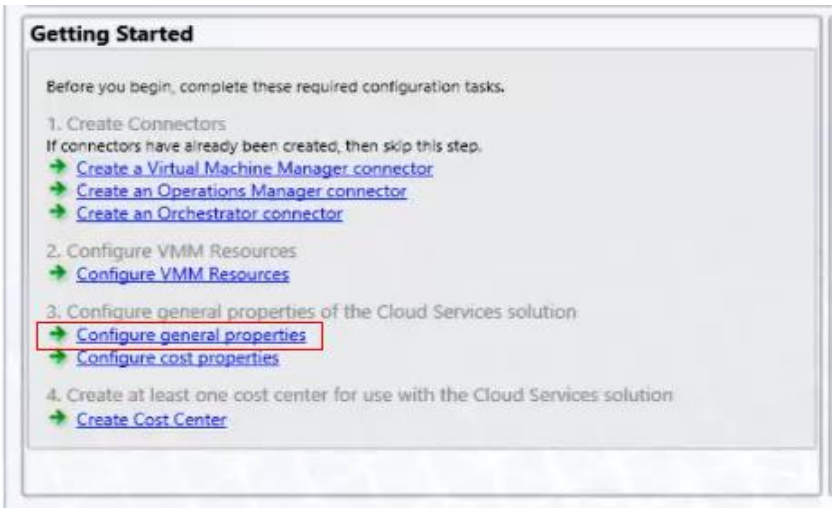
18. Under **Configure VM Templates**, select the check box next to **VM_PetShop_Web**.
19. Under **User Friendly Name** enter **Web** for **VM_PetShop_Web**, then click **Next**.



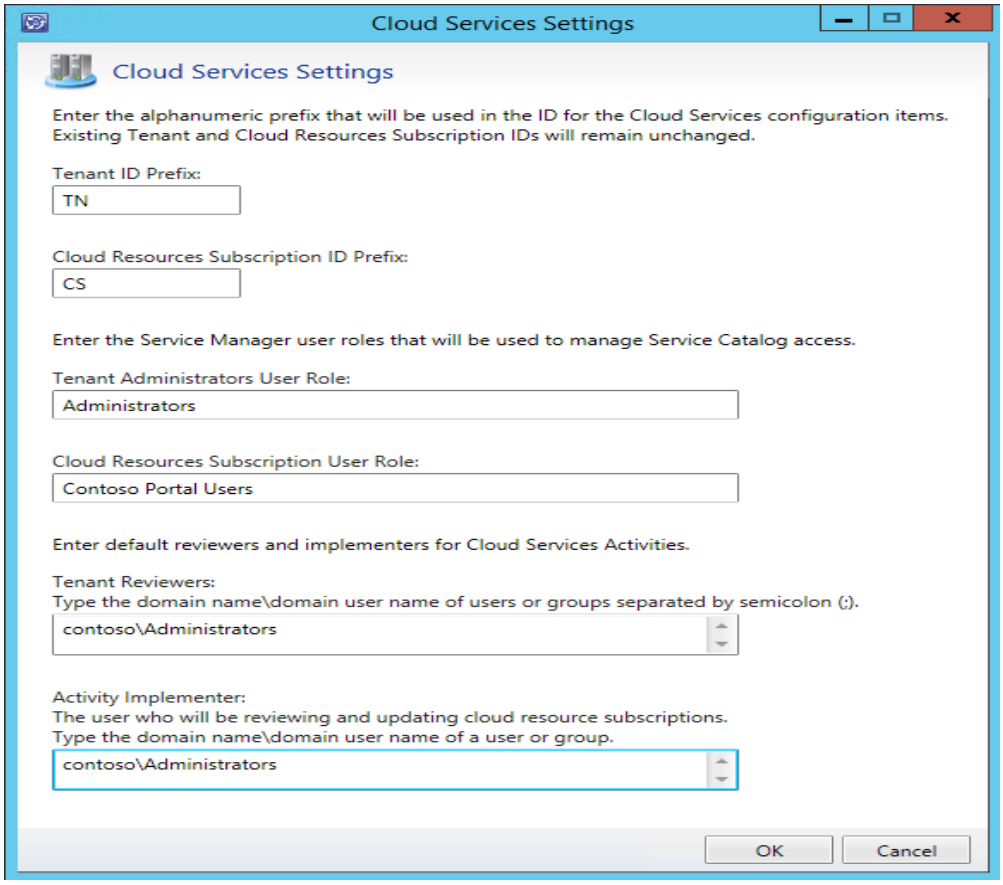
20. On the **Configure Service Templates** page, select the box next to the **Exchange Server 2013 Multi Server** template enter **Exchange Template** as the **User Friendly Name**, then click **Next**.



21. Click **Next** on the **Configure Placement Tags** page.
22. On the **Summary** screen review the information and click **Submit**.
23. Once the completion screen appears click **Close**.
24. After returning to the **Cloud Services Administration Overview** page, under the Getting Started menu, select **Configure General Properties**.



25. Once the **Cloud Services** Settings page loads, under **Tenant Administrators User Role**, enter **Administrators.**
26. Under **Cloud Resources Subscription User Role** enter **Contoso Portal Users**.
27. Under **Tenant Reviewers**, enter **contoso\administrators**.
28. Under **Activity Implementer** also enter **contoso\administrators**. Click **OK**.



3.5.2 - SCSM: Configure Cloud Pricing

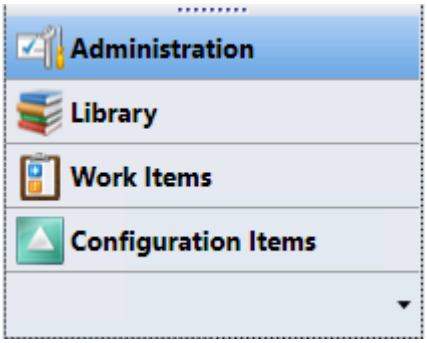
In this exercise the pricing for these cloud services will be configured. First the virtual machine prices will be set for memory, storage, CPU, and other costs. Next a Cost Center will be created which is an organizational unit for collecting data, chargeback, and billing information for providers and consumers of these services.

Estimated time to complete: 5 minutes

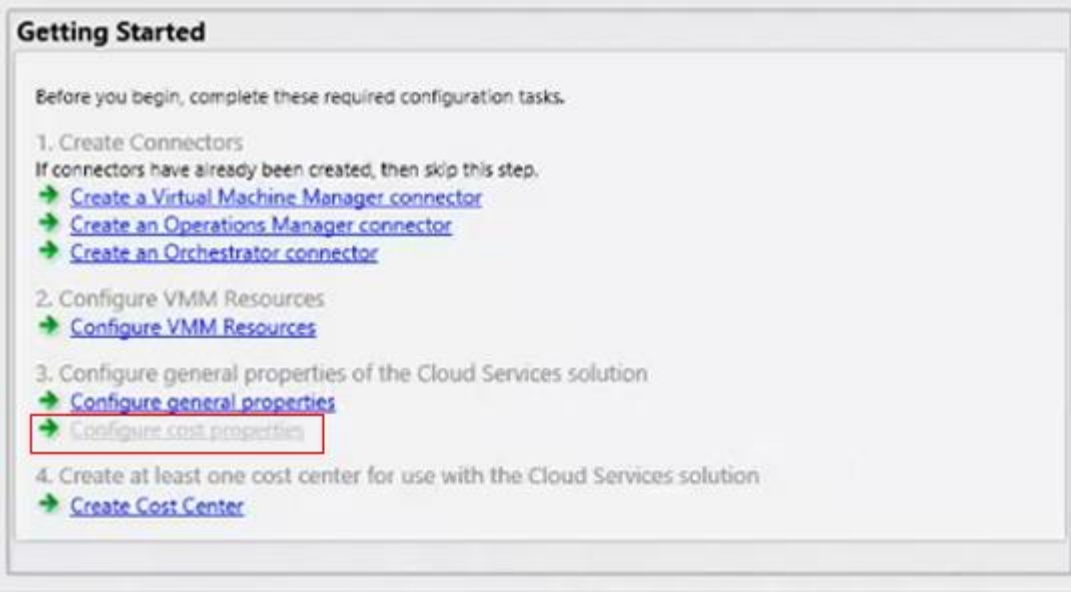
*Perform the following on **SCSM01***

1. From **SCSM01**, open the **Service Manager Console** by selecting the icon from the taskbar.

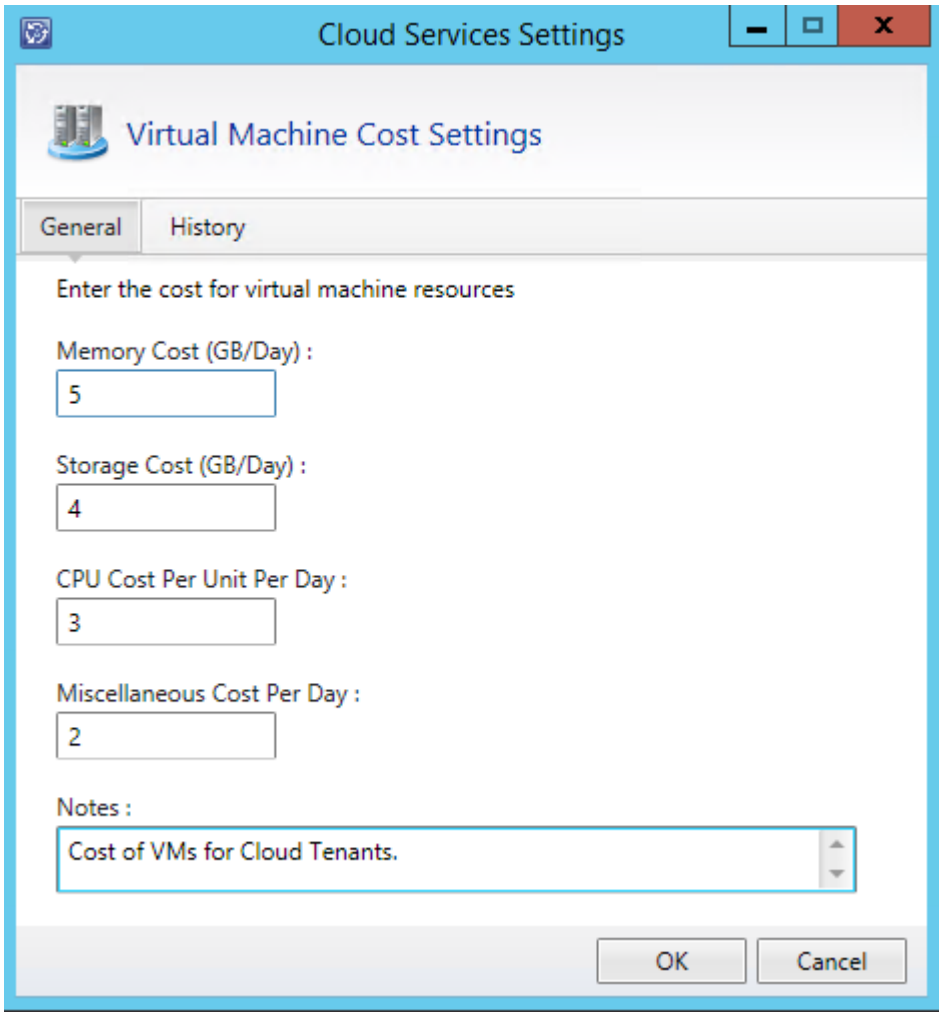
2. Navigate to the **Administration** workspace.



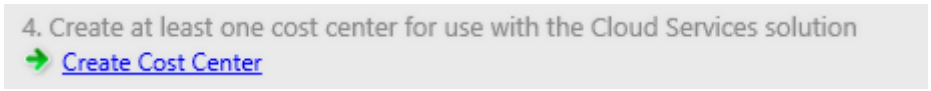
3. Select **Cloud Services**. Under the **Getting Started** menu under the **Configure General Properties of the Cloud Services Solution** select the option **Configure Cost Properties**.



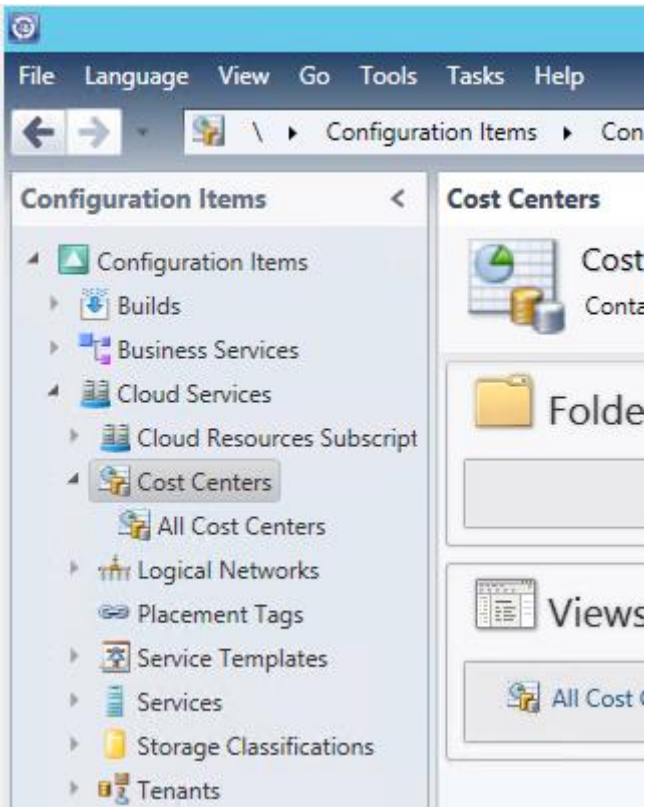
4. When the **Virtual Machine Cost Settings** screen appears, under **Memory Cost** enter: **5**
5. Under **Storage Cos**t enter: **4**
6. Under **CPU Cost** enter: **3**
7. Under **Miscellaneous Cost** enter: **2**
8. In the **Notes** field enter: **Cost of VMs for Cloud Tenants**. Click **OK**.



9. After returning to the **Administration** workspace, under **Cloud services** on the **Getting Started** menu, under #4: **Create at least one cost center for use with the Cloud Services solution**, click **Create Cost Center**.

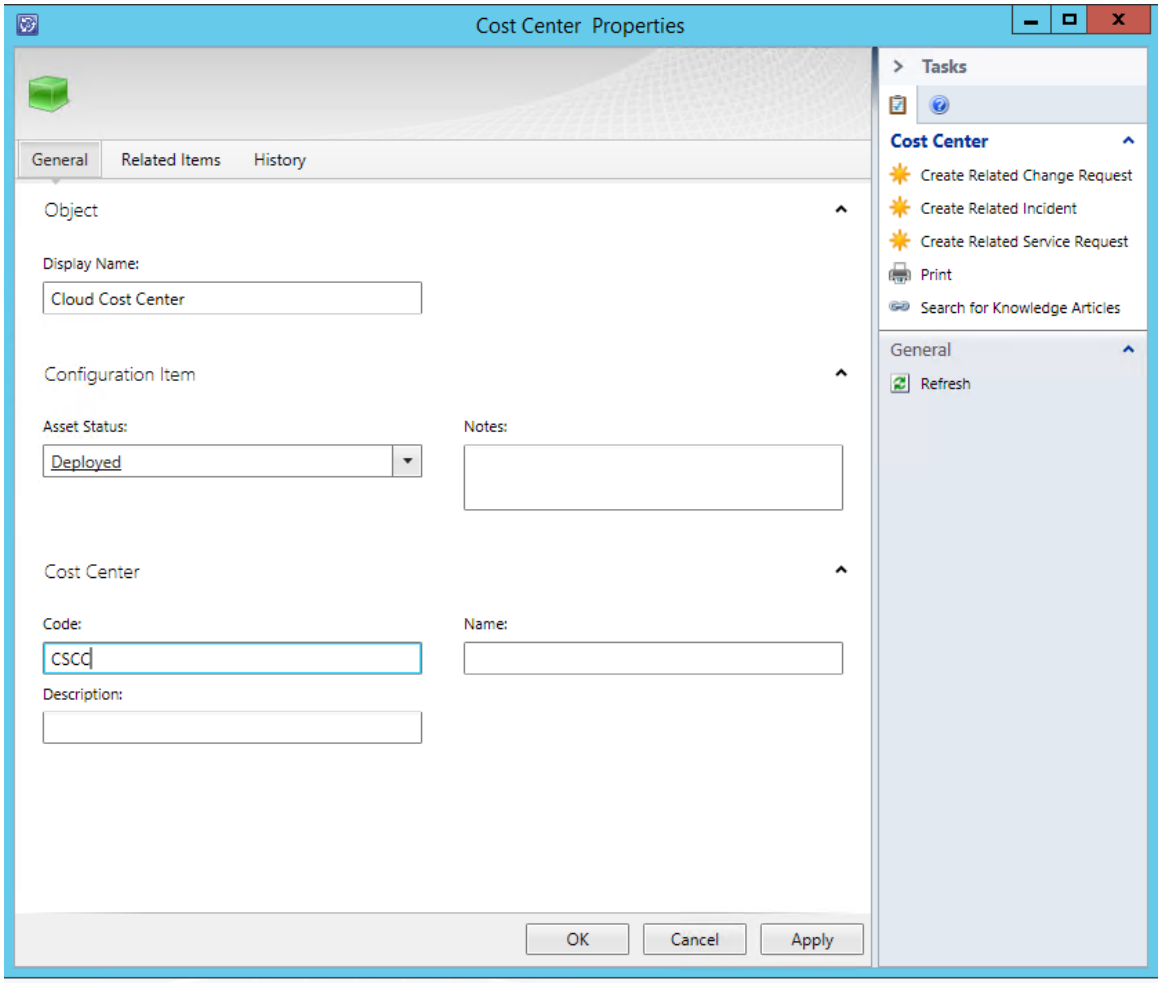


10. Once the configuration items workspace loads, it will focus on the **All Cost Centers** page.
11. From the left hand menu select **Configuration Items | Cloud Services | Cost centers**.

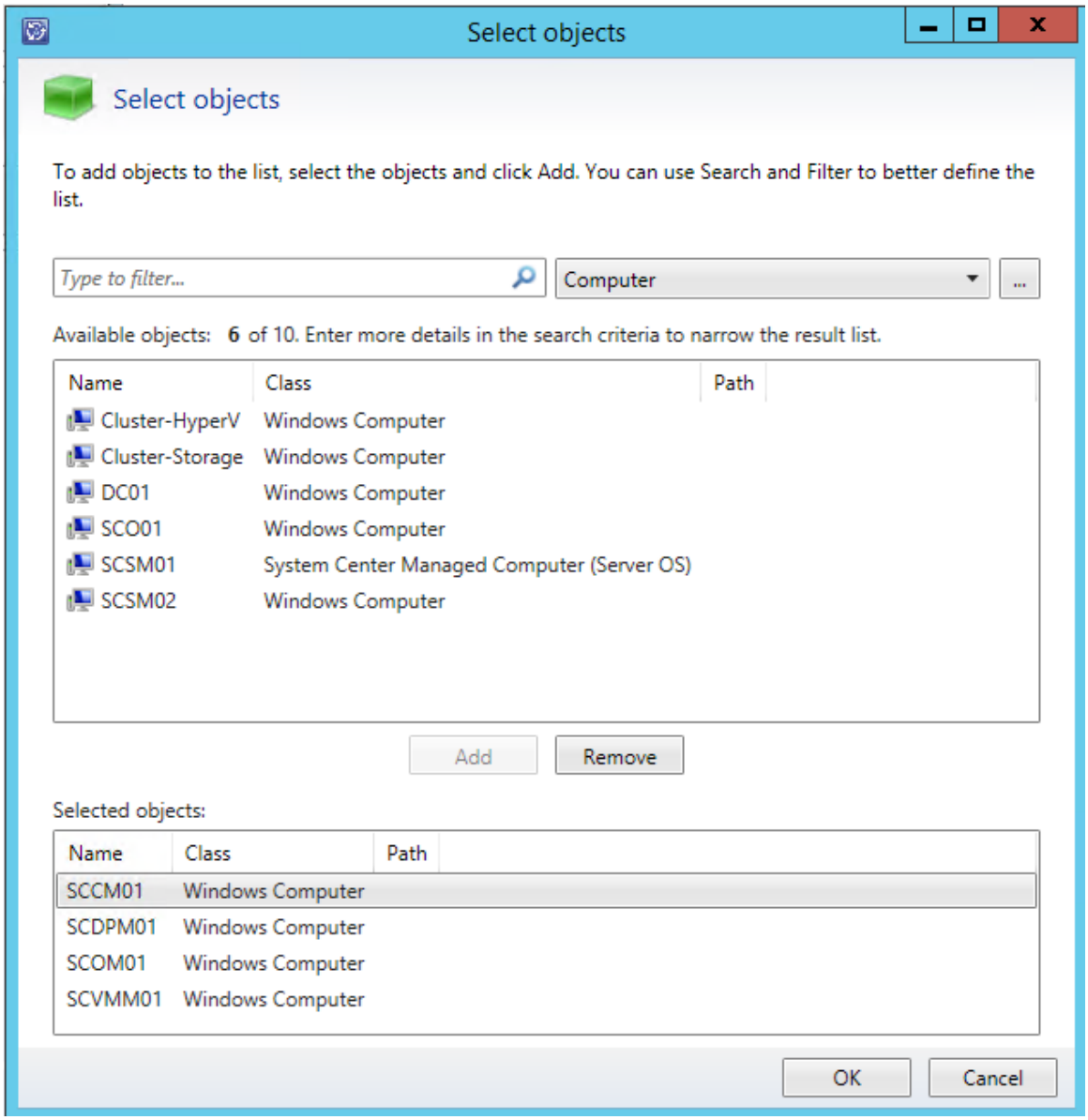


12. In the Tasks pane, click **Create Cost Center**.

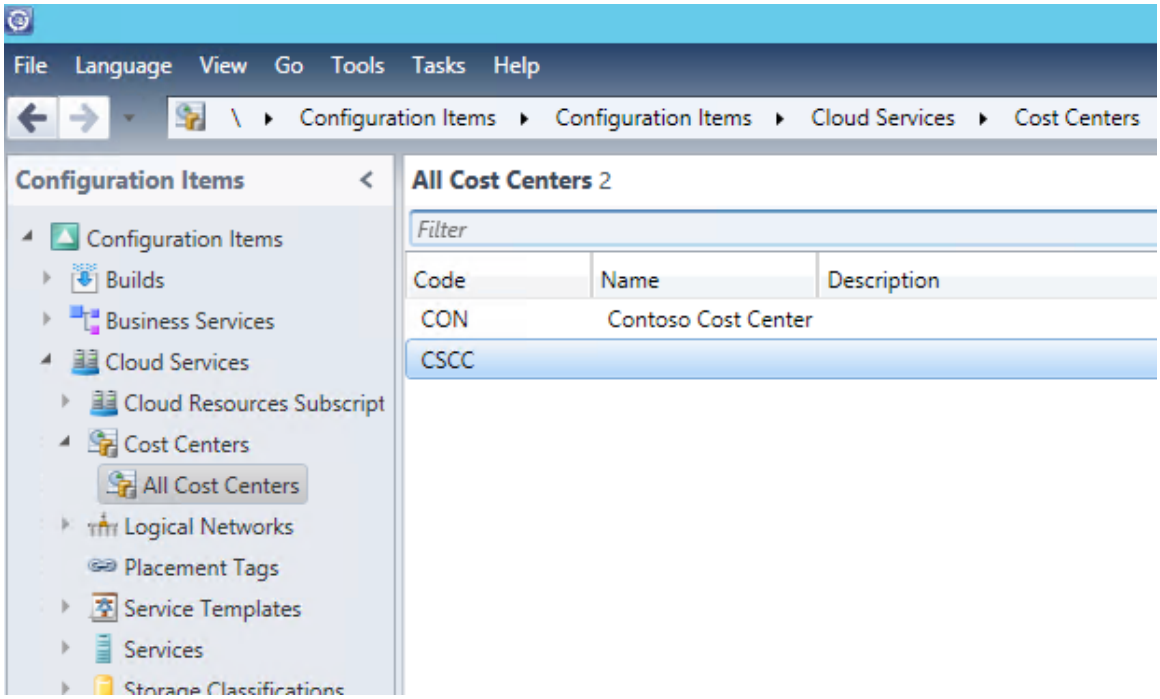
13. When the **Cost Center Properties** page loads, in the **Display Name** enter **Cloud Cost Center**.
14. Under **Configuration** Item set the **Asset Status** to: **Deployed**.
15. Under Code, enter: **CSCC** (all caps).
16. Click **Apply**.



17. From the top menu select **Related Items** tab.
18. Under **Configuration Items: Computers, Services and People** click **Add**.
19. Select **SCCM01**, **SCDPM01**, **SCOM01**, and **SCVMM01** then click **Add**.



20. Click **OK** then Click **Apply** and then **OK** to close the Cost Center Properties.
21. Select **All Cost Centers** and note the newly created Cost Center: **CSCC** is now available.


File
Language
View
Go
Tools
Tasks
Help
\
Configuration Items
Configuration Items
Cloud Services
Cost Centers
Configuration Items
Configuration Items
Builds
Business Services
Cloud Services
Cloud Resources Subscript
Cost Centers
All Cost Centers
Logical Networks
Placement Tags
Service Templates
Services
All Cost Centers 2
Filter
Code
Name
Description
CON
Contoso Cost Center
CSCC

3.5.3 - SCSM: Register a Cloud Tenant

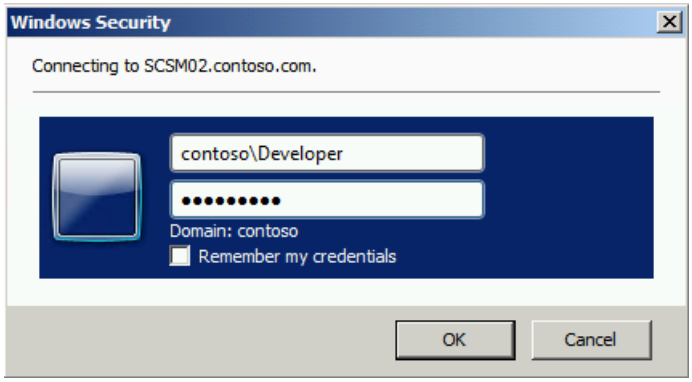
In this exercise a self-service user will sign up for cloud services by registering a new tenant, which allows the tenant to request cloud resources. The administrator will review, then approve the request.

Estimated time to complete: 10 minutes

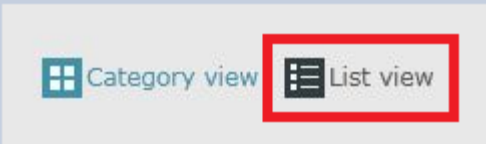
*Perform the following on **SCSM02***

1. From **SCSM02**, open the **Service Manager Portal** by selecting the **Internet Explorer** icon from the taskbar.

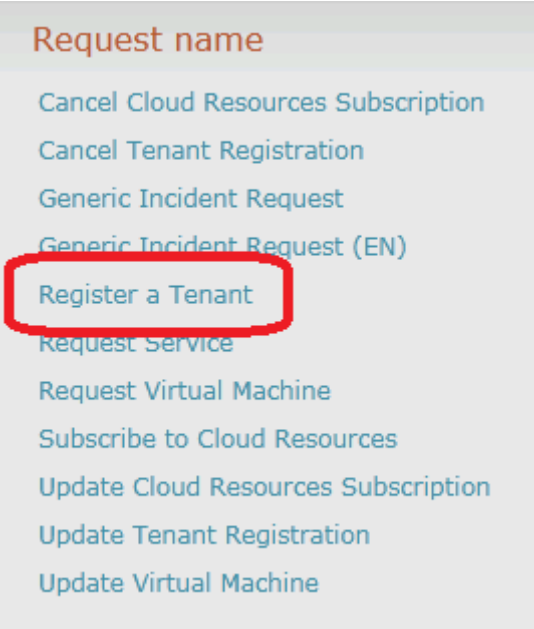
2. If the site does not open, browse to http://SCSM02:81/SMPortal/SitePages/Service%20Catalog.aspx. One or two prompts may appear. Log in with a username of **contoso\Developer** and a password of **Passw0rd!**



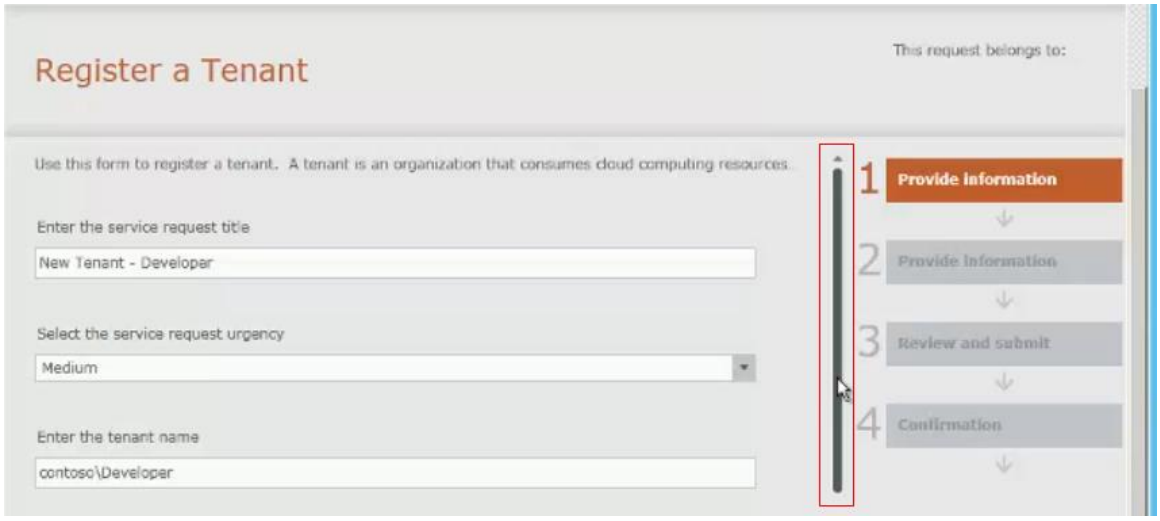
3. Once the **SM Portal** homepage loads, click the **List view** in the upper right corner.



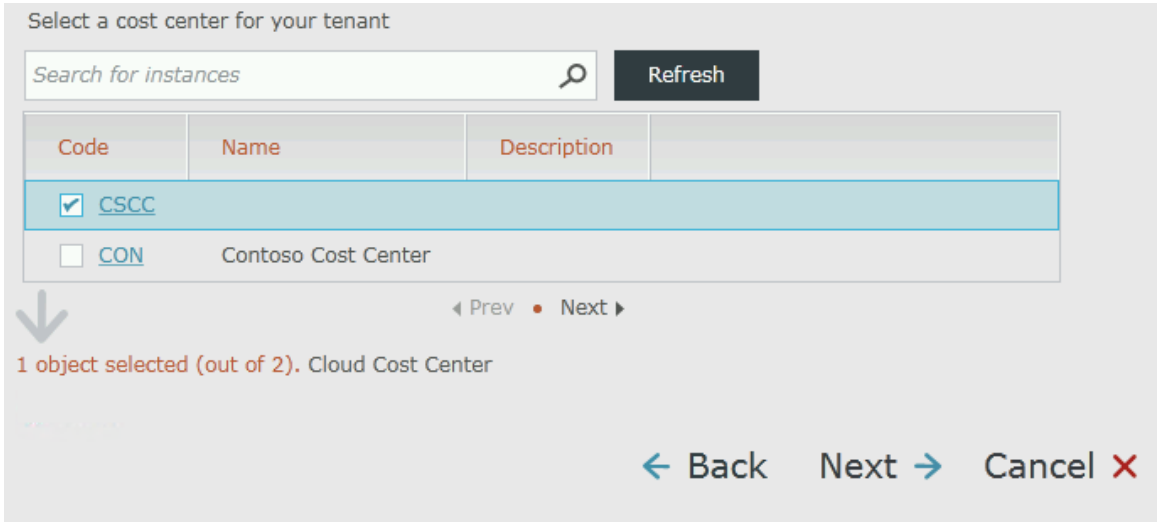
4. Select **Register a Tenant**.



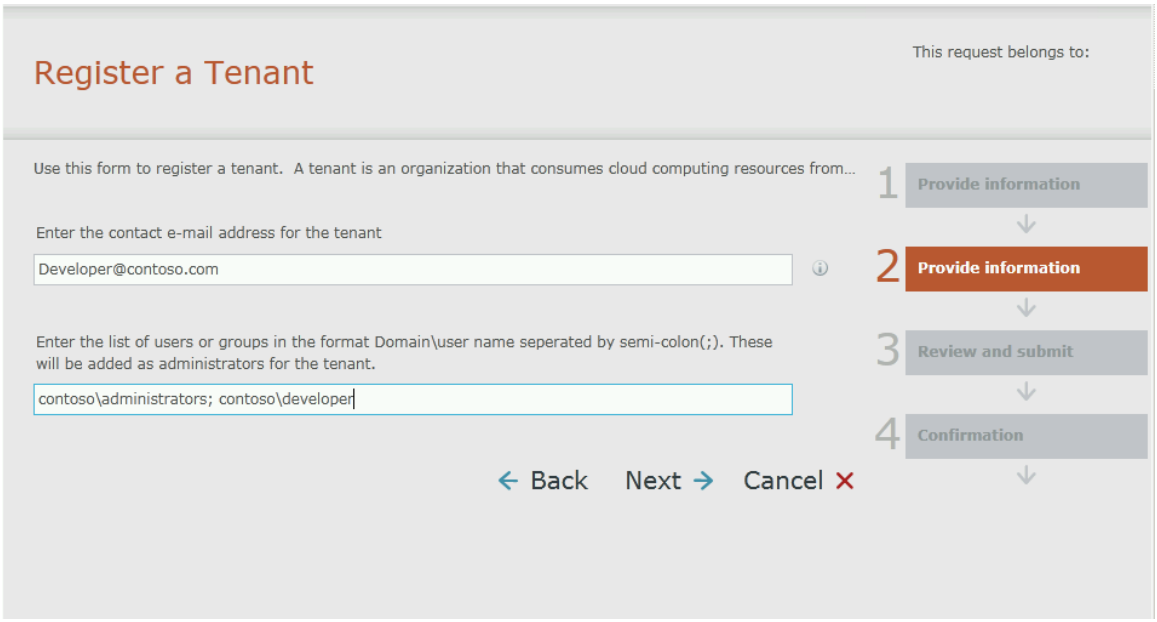
5. Click **Go To Request Form** button.
6. Enter the service request title: **New Tenant- Developer**.
7. Select the service request urgency: **Medium**.
8. Enter the Tenant name: **contoso\Developer.**
9. Enter the tenant code: **TN-Developer**.
10. Scroll down using the inner dark gray scrollbar just to the left of the list of steps.



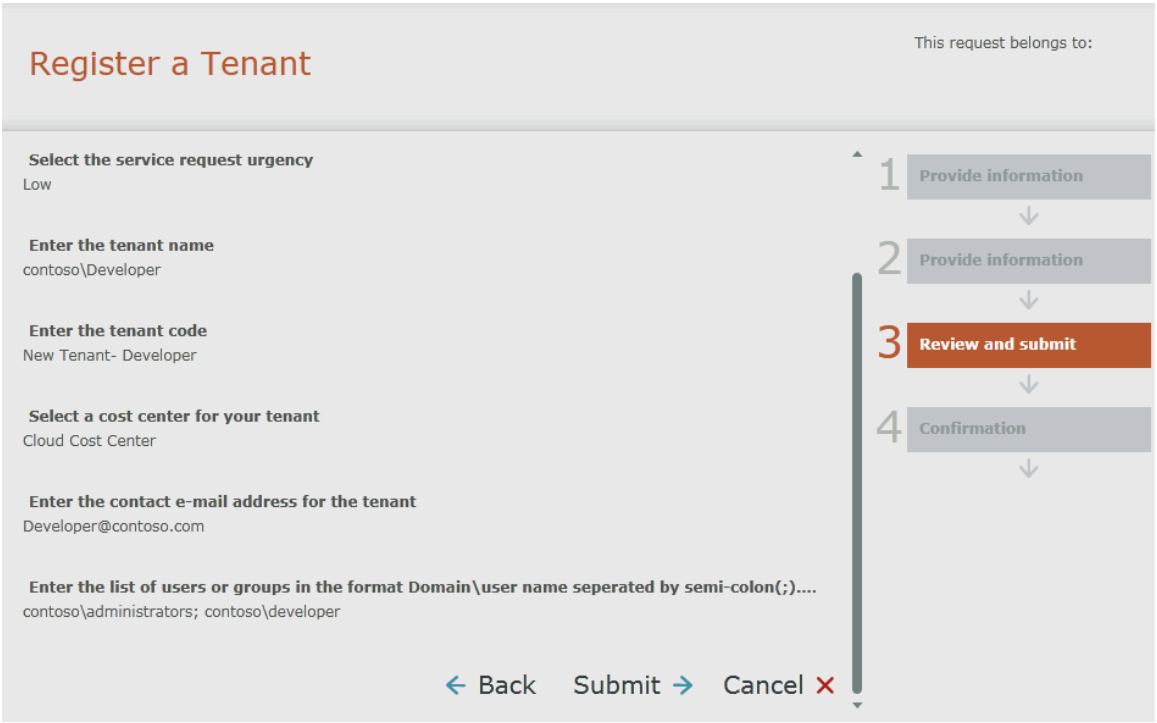
11. Under **Select a cost center for your tenant** select CSCC (if this does not appear in the list, click the Refresh button).
12. Click the **Next** button at the very bottom of the screen with a blue arrow next to it.



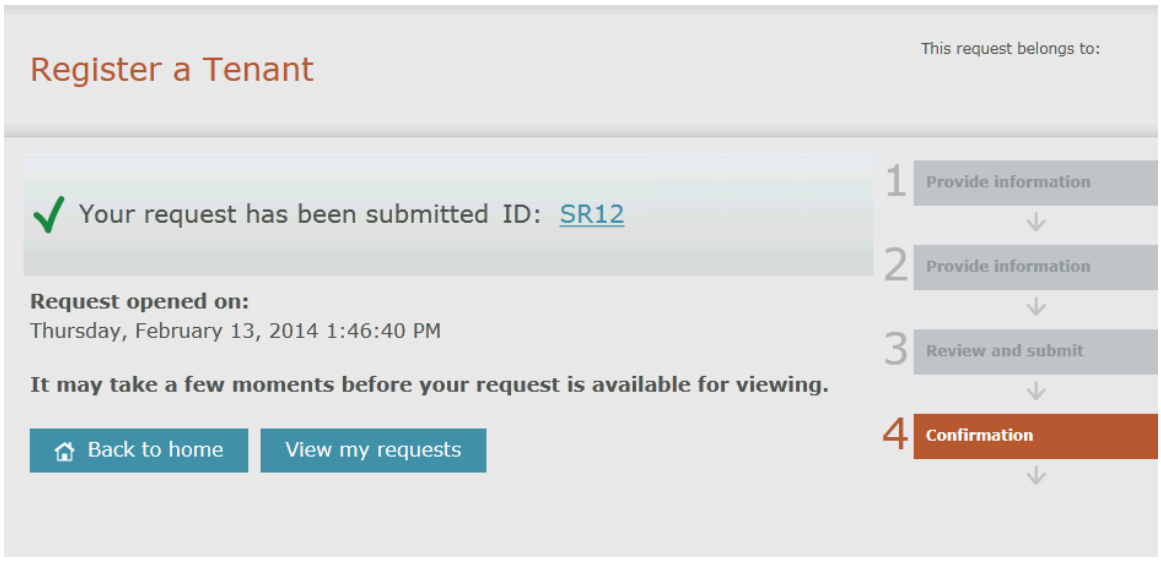
13. Under **Enter the contact e-mail address for the tenant**, enter: **Developer@contoso.com**.
14. Under **Enter the list of users or groups in the formation Domain\user name separated by semi-colon (;). These will be added as administrators for the tenant** enter: **contoso\administrators; contoso\developer**



15. Click **Next**.
16. Review the information and scroll down using the dark gray scrollbar again located just to the left of the steps and click **Submit**.



17. Note the service request has been submitted and it has been given a number.
18. Now click the bottom button that says **View my requests**.

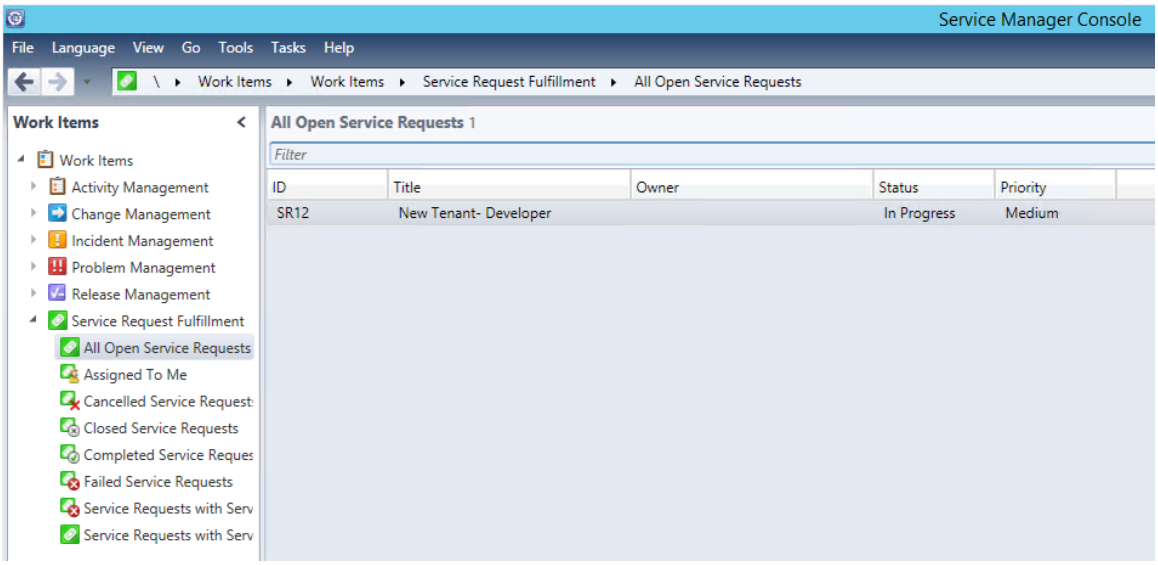


19. Switch to **SCSM01**.

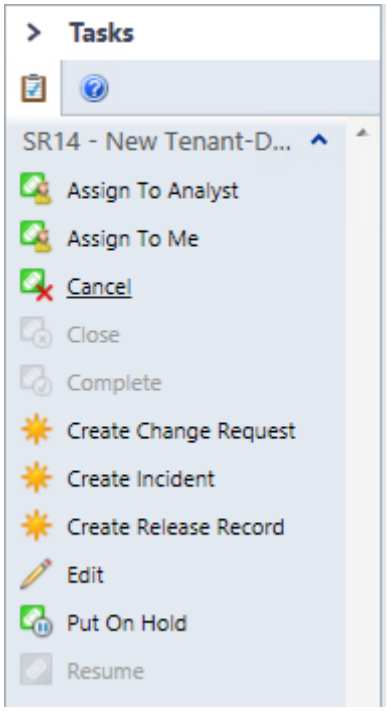
*Perform the following on **SCSM01***

20. From **SCSM01**, open the **Service Manager Console** by selecting the icon from the taskbar.

21. Navigate to the **Work Items** workspace.
22. Expand **Work Items > Service Request Fulfillment**. Select **All Open Service Requests**. Note that the newly created service request should now be displayed. If it is not visible, from the Tasks pane select the Refresh button.



23. From the **Tasks** pane select **Edit**.

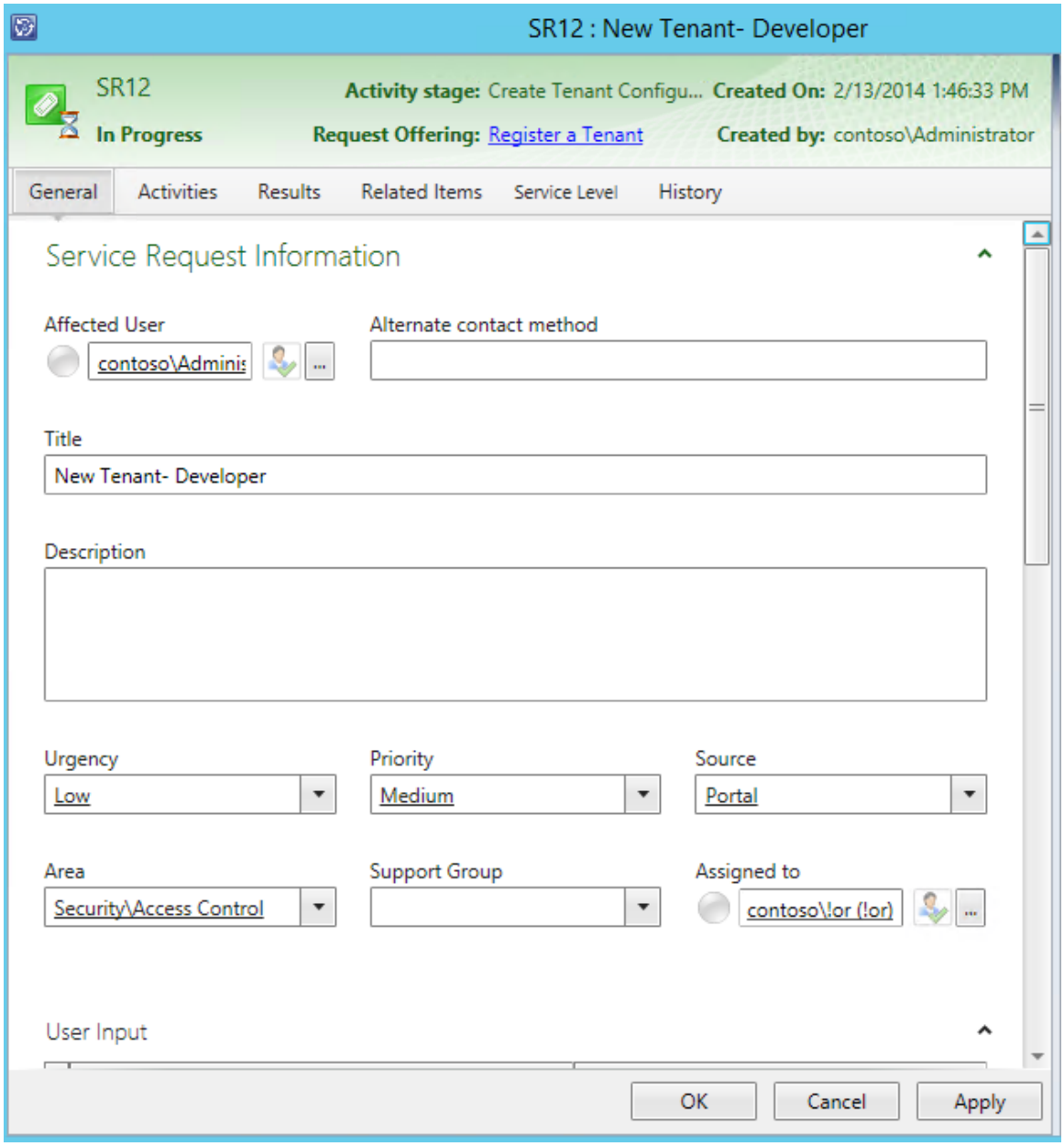


24. After the Service Request form loads, scroll down to **User Input** and review the information.

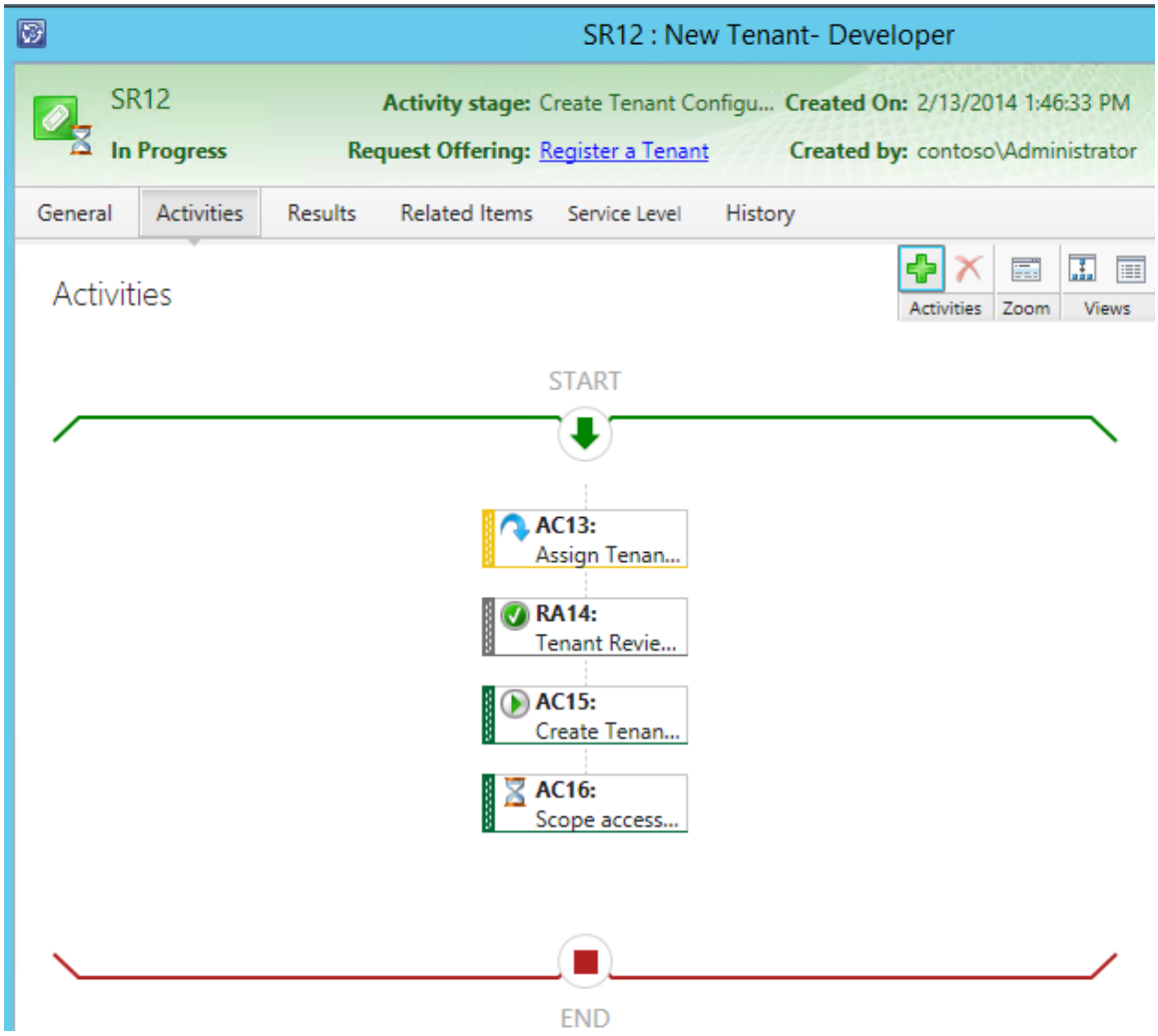
User Input

Question	Value
Enter the tenant name	contoso\Developer
Enter the tenant code	New Tenant- Developer
Select a cost center for your tenant	<Values Count="1"><Value DisplayName="Cloud Cost Center" Id="5891ba8f-bdb8-934a-3b2b-8a3bae71f236" /></Values>
Enter the contact e-mail address for the tenant	Developer@contoso.com
Enter the list of users or groups in the format Domain \user name seperated by semi-colon(;). These will be added as administrators for the tenant.	contoso\administrators; contoso\developer
Enter the service request title	New Tenant- Developer
Select the service request urgency	Low

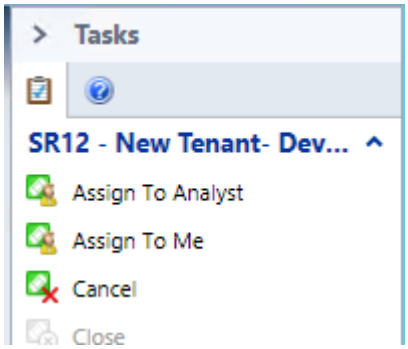
25. Scroll the form back to the top, from the **Source** dropdown, select **Portal**.
26. Under **Area**, expand **Security** and select **Access Control**
27. From the **Assigned To**, click the ellipsis (…) and select **!or** and click **OK.**



28. Click **Apply**.
29. Select the **Activities** tab.



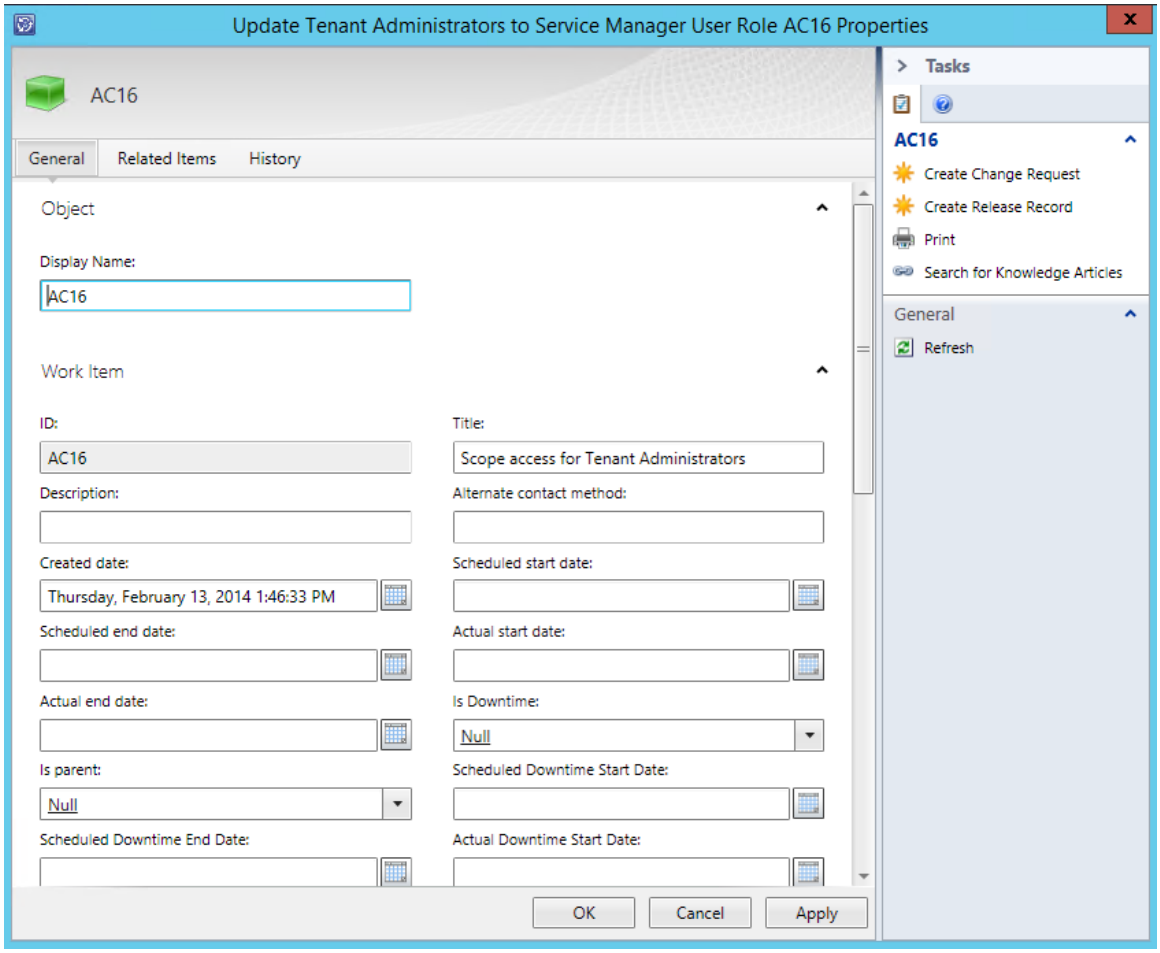
30. Select the first activity (**Assign Reviewer for Tenant Request)** then from the tasks pane on the right select **Assign To Me**.



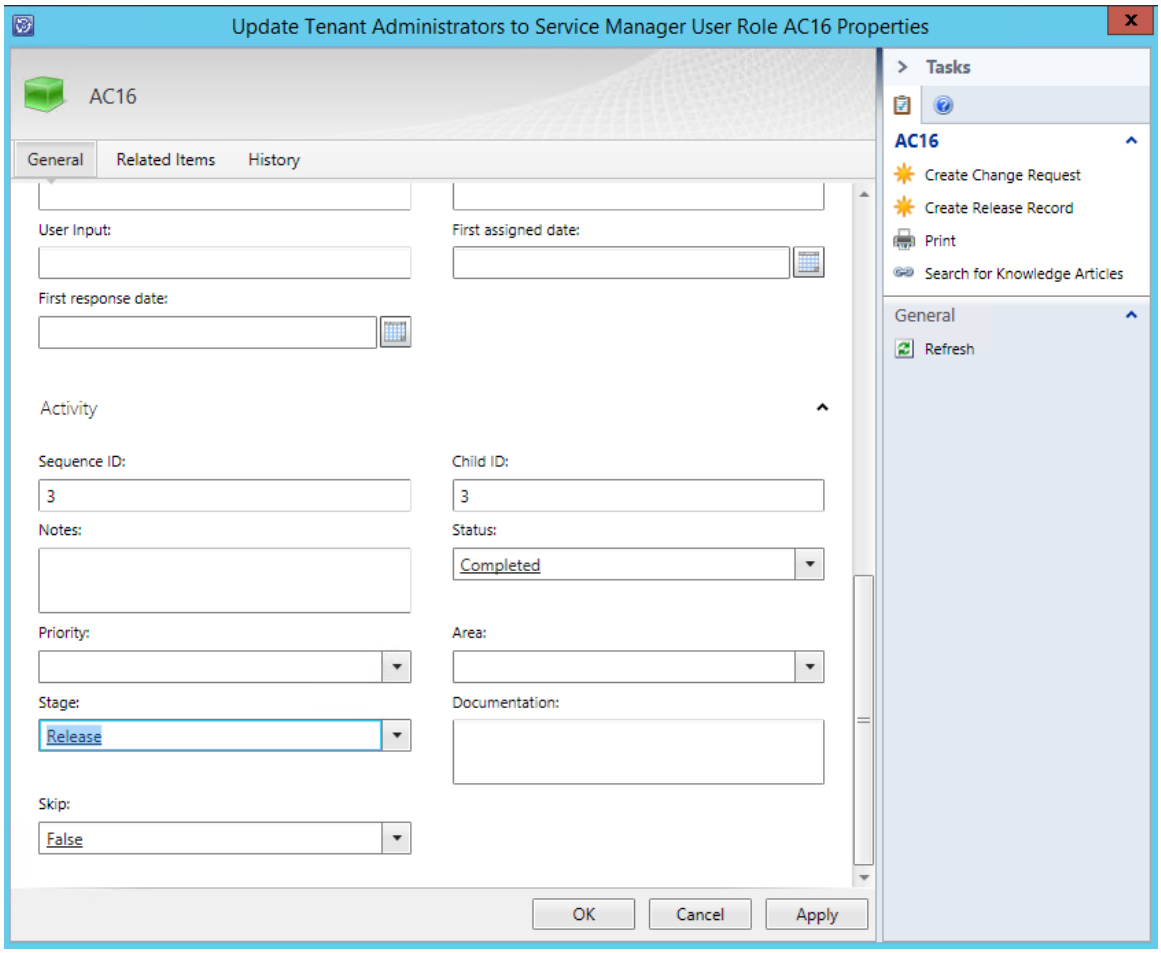
31. Click **Apply.**
32. ***Note**: If you see a pop-up saying **"Failed to execute Submit operation. Fix the reported error before…"** Click **Close.** Click **cancel** to close the service request from the last saved point. From the*

*Work Items Service Request fulfillment > all open service request view, return to the service request you were working on, click **edit** from the **Tasks** pane and continue from the last saved point.*

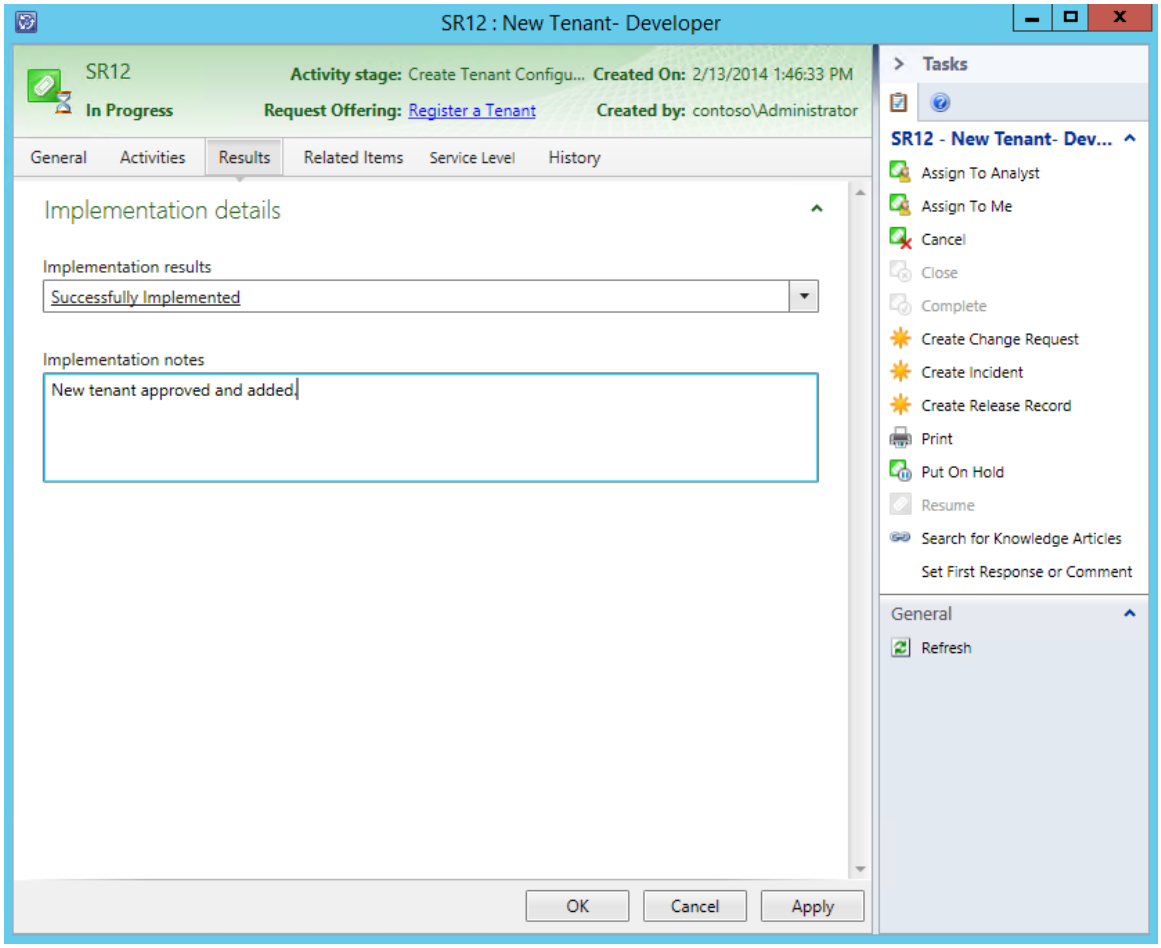
33. On the **Tasks** pane on the right select **Refresh**.
34. Select the 3rd item on the list which says the "**Create Tenant Configuration**". Right-click it and select **Skip Activity**.
35. Under comments enter ***Skipping to speed up the lab*** and click **OK**.
36. Select the bottom item on the list: **Scope access for Tenant Administrators**.
37. Right-click and select **Open**.



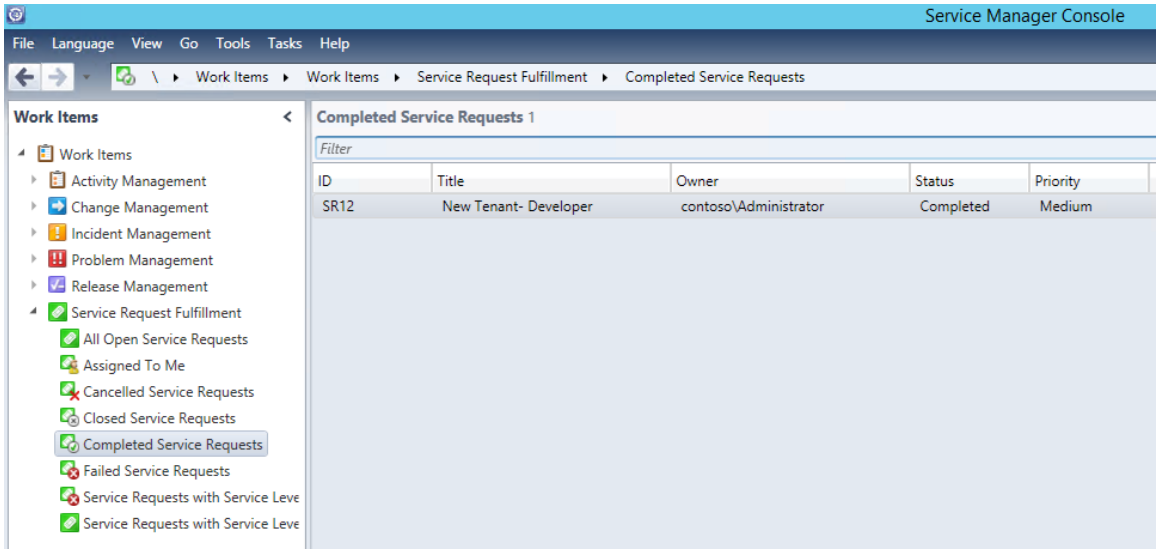
38. Scroll down to the bottom under **Activity** and under **Status** change the status to **Completed**.
39. Under **Stage** change the status to **Release**. Click **Apply**.
40. ***Note**: If you see a pop-up saying **"Failed to execute Submit operation. Fix the reported error before…"** Click **Close.** Click **cancel** to close the service request from the last saved point. From the Work Items Service Request fulfillment > all open service request view, return to the service request you were working on, click **edit** from the **Tasks** pane and continue from the last saved point.*



41. Click **OK**.
42. After returning to the **New Tenant Developer service request**, click **Apply**.
43. Select the **Results** tab.
44. Under **Implementation results** select the dropdown and select **Successfully Implemented**.
45. In the Implementation notes enter: **New tenant approved and added.**



46. Click **Apply** then click **OK**.
47. After returning to the **All Open Service Requests** window, the service request has disappeared.
48. Navigate to **Work Items > Service Request Fulfillment** > **Completed Service Requests** and you will note that the service requests has now been completed.

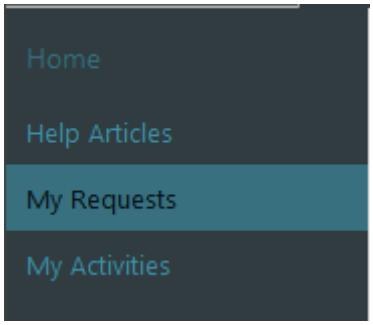


49. Return to **SCSM02**.

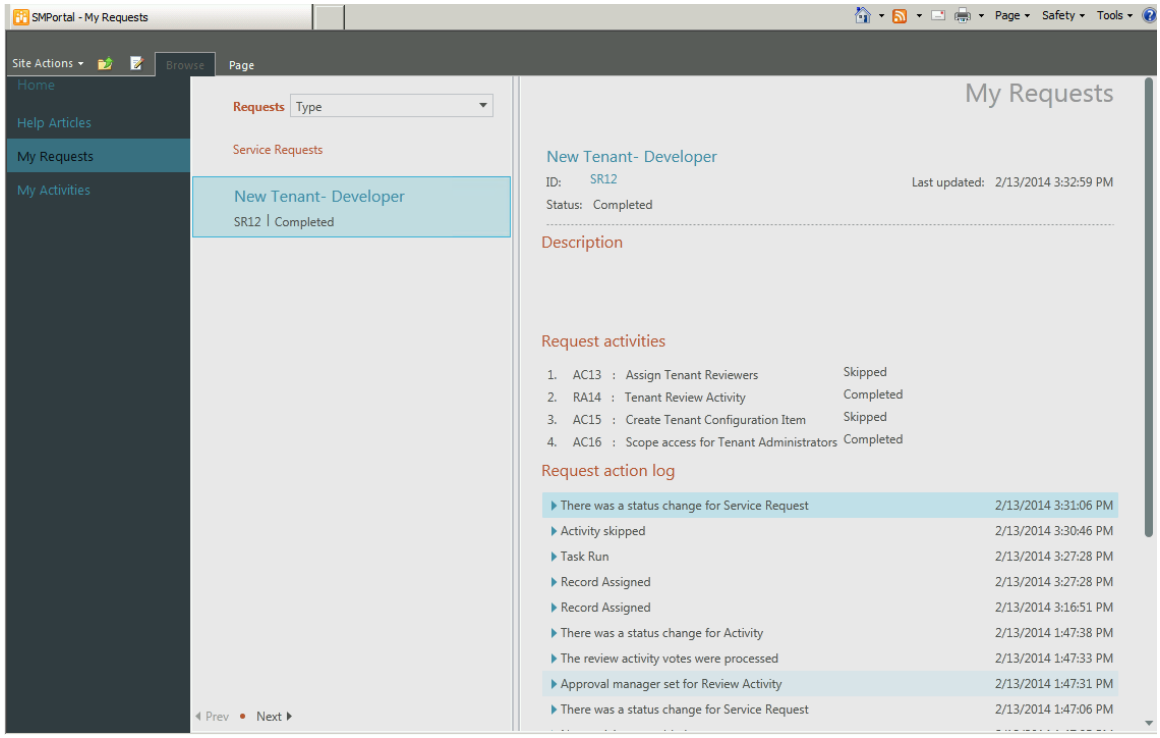
*Perform the following on **SCSM02***

50. From **SCSM02**, open the **Service Manager Portal** by selecting the **Internet Explorer** icon from the taskbar.

51. Select **My Requests.** To launch the service manager portal, if it does not launch automatically visit http://scsm02:81/smportal/sitepages/service%catalog.aspx



52. Select the request that was just completed for **New Tenant-Developer.**
53. Note that in the Information Pane, status is **Completed**. All actions are detailed for the end-user to see.



3.5.4 - SCSM: Subscribe to a Cloud Service

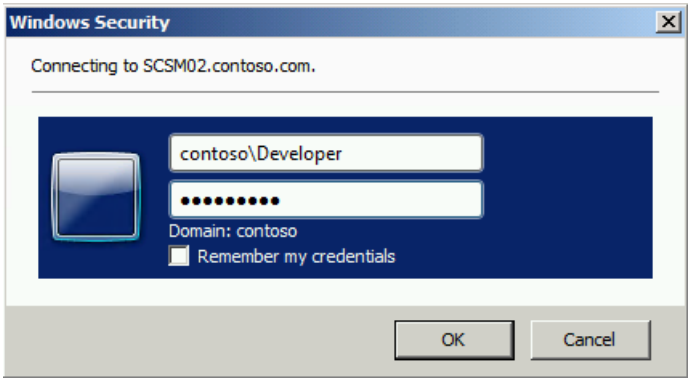
In this exercise a self-service user will request access to a particular set of cloud resources, and the administrator will review the request.

Estimated time to complete: 5 minutes

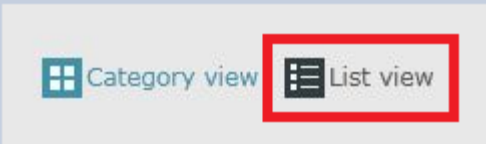
*Perform the following on **SCSM02***

1. From **SCSM02**, open the **Service Manager Portal** by selecting the **Internet Explorer** icon from the taskbar.

2. If the site does not open, browse to http://SCSM02:81/SMPortal/SitePages/Service%20Catalog.aspx. One or two prompts may appear. Log in with a username of **contoso\Developer** and a password of **Passw0rd!**

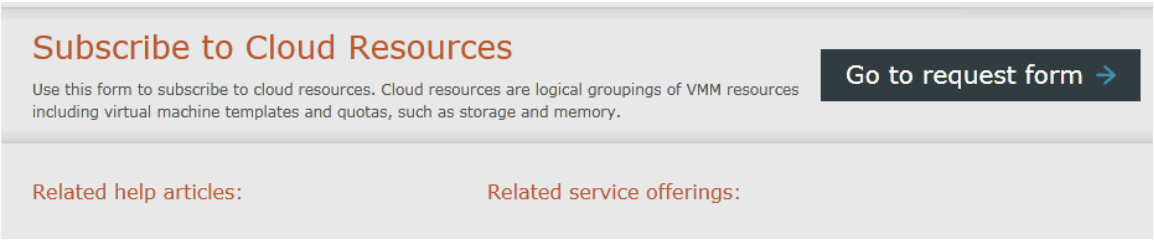


3. Note that the site may already be open. If so, look on the Home page, in the upper right corner, to ensure that it is logged in as contoso\Developer. If not, log out and log back in using the correct credentials.
4. On the Home page, select **List View**.

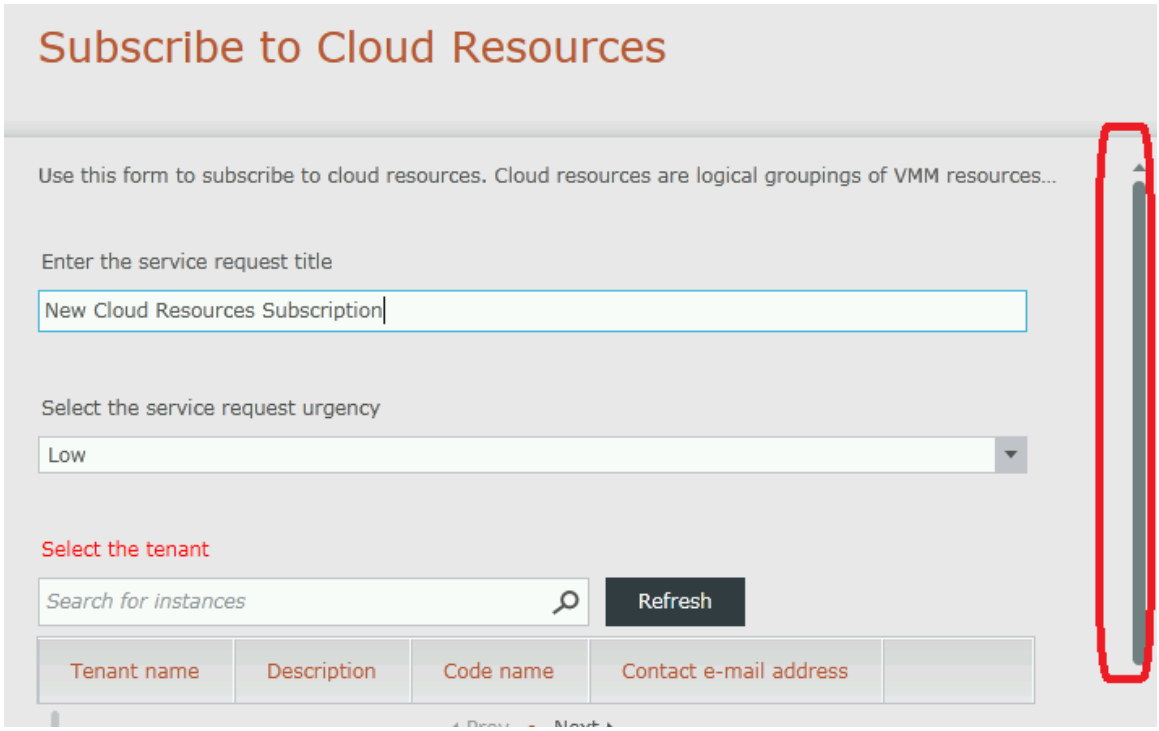


5. Click **Subscribe to Cloud Resources**.

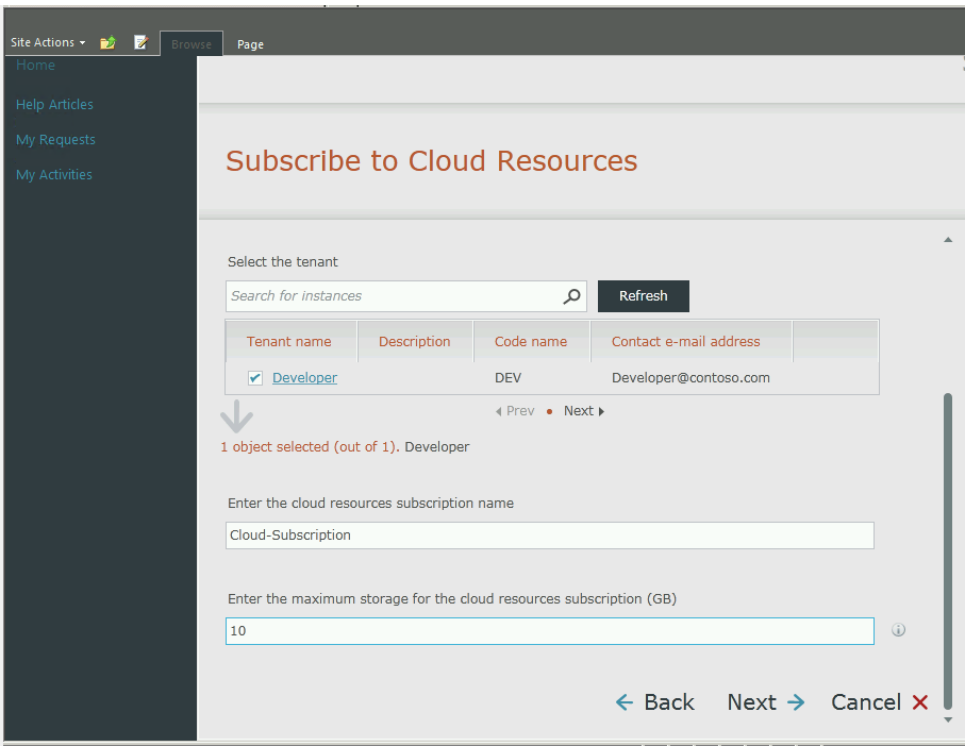
6. Select the button **Go To Request Form**.



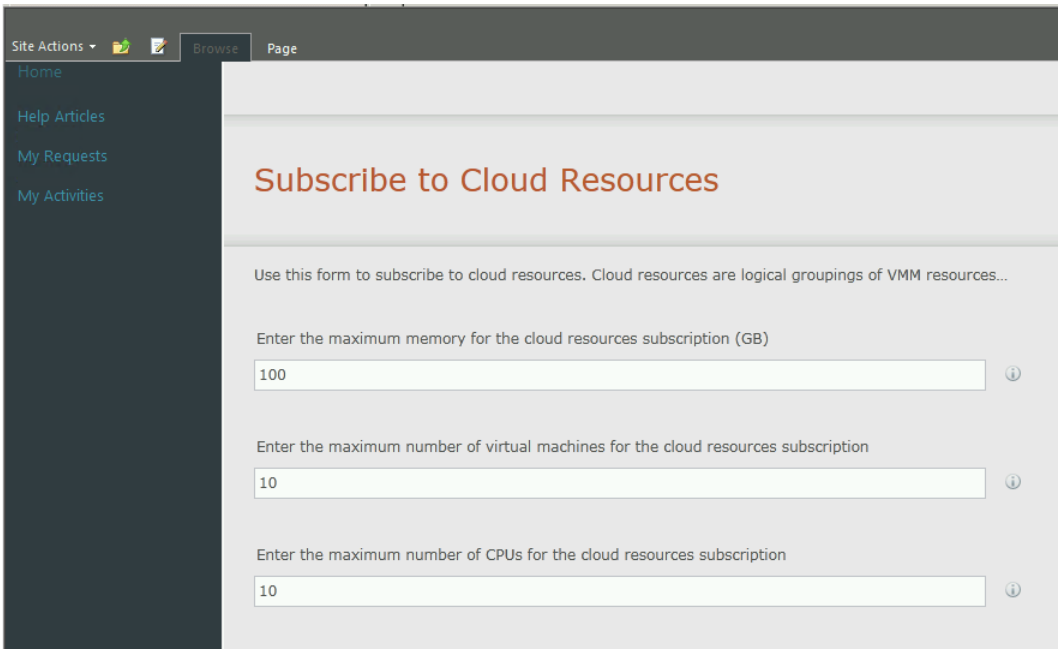
7. Under: **Enter service request title** enter: **New Cloud Resources Subscription**.
8. Under **Select the service request urgency** enter: **Low**.
9. Scroll down using the inner dark gray scrollbar just to the left of the list of steps.



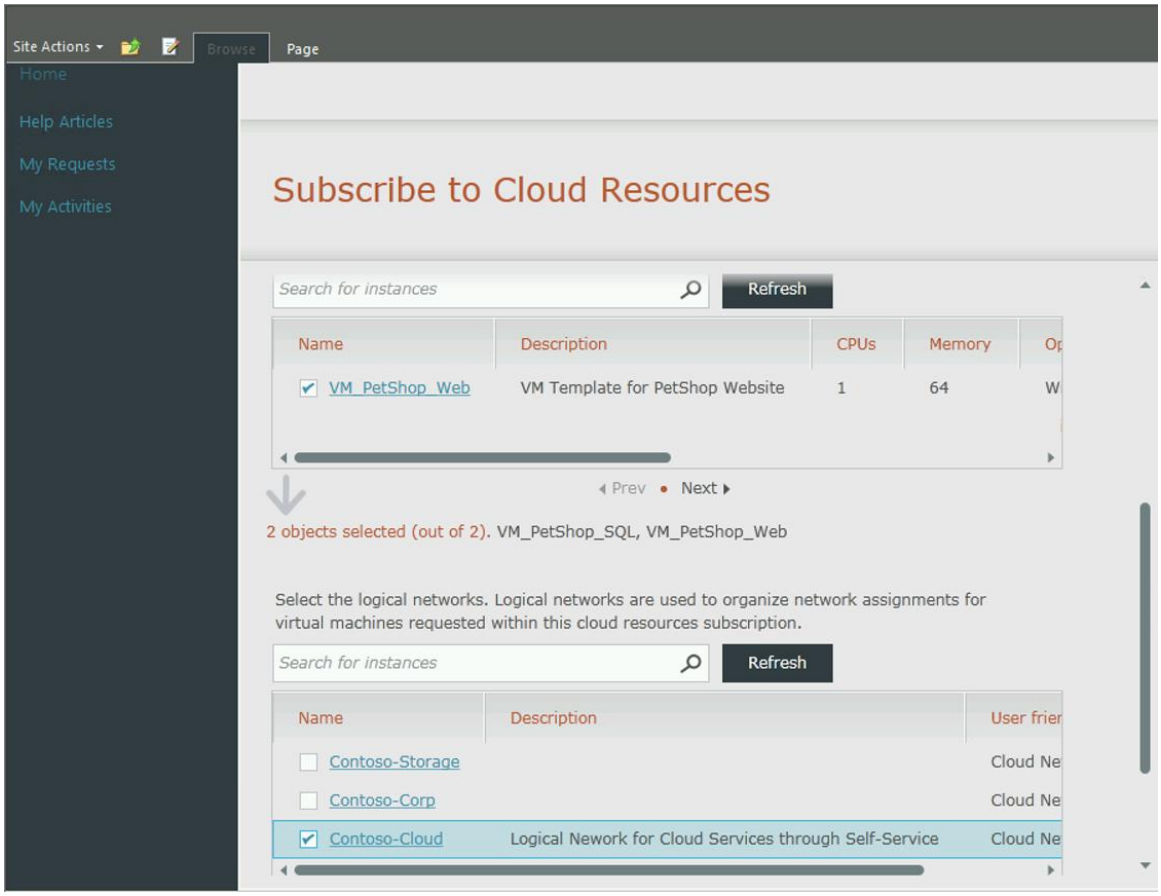
10. Under **Select the Tenant** check **Developer.** If this does not appear under Tenant Name, click the **Refresh** button.
11. Under **Enter the cloud resources subscription name**, enter: **Cloud-Subscription**.
12. Under **Enter the maximum storage for the cloud resources subscription (GB)**, enter: **10**.



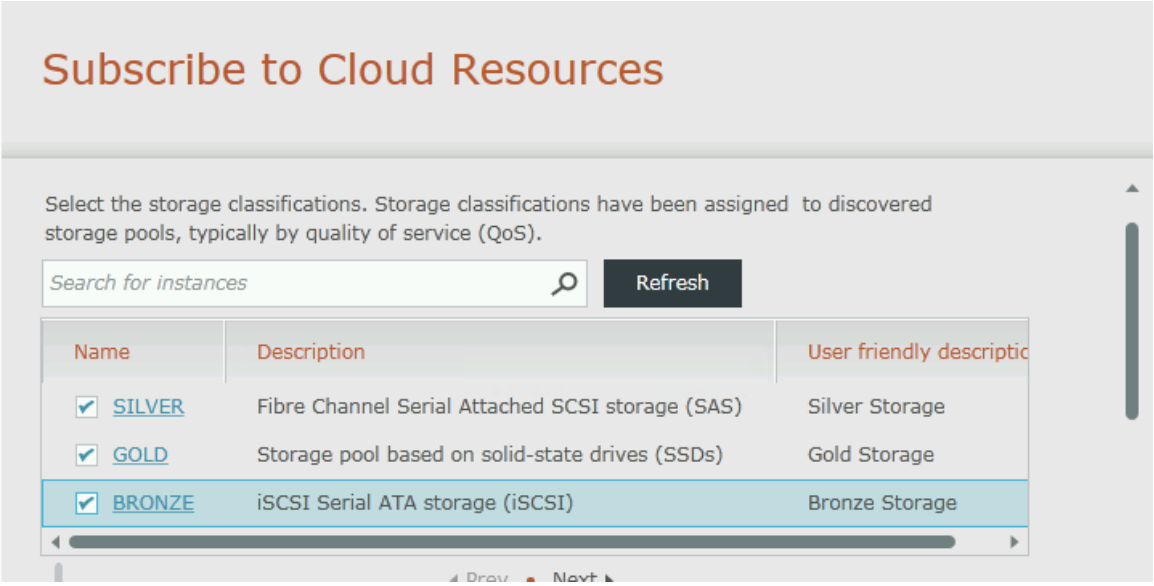
13. Click **Next**.
14. Under **Enter the maximum memory for the cloud resources subscription (GB),** enter: **100.**
15. Under **Enter the maximum number of virtual machines for the cloud resources subscription,** enter **10.**
16. Under **Enter the maximum number of CPUs for the cloud resources subscription,** enter: **10.**



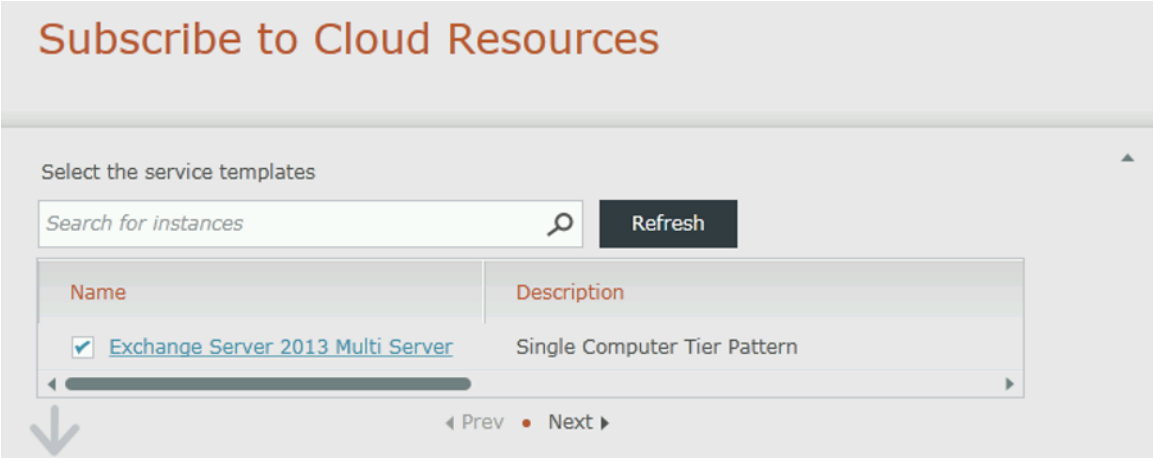
17. Under **Select the virtual machine templates,** select **VM_PetShop_Web**, then click Next. Scroll-down as necessary using the inner dark gray scroll bar.
18. Under **Select the logical networks**, select **Contoso-Cloud.**



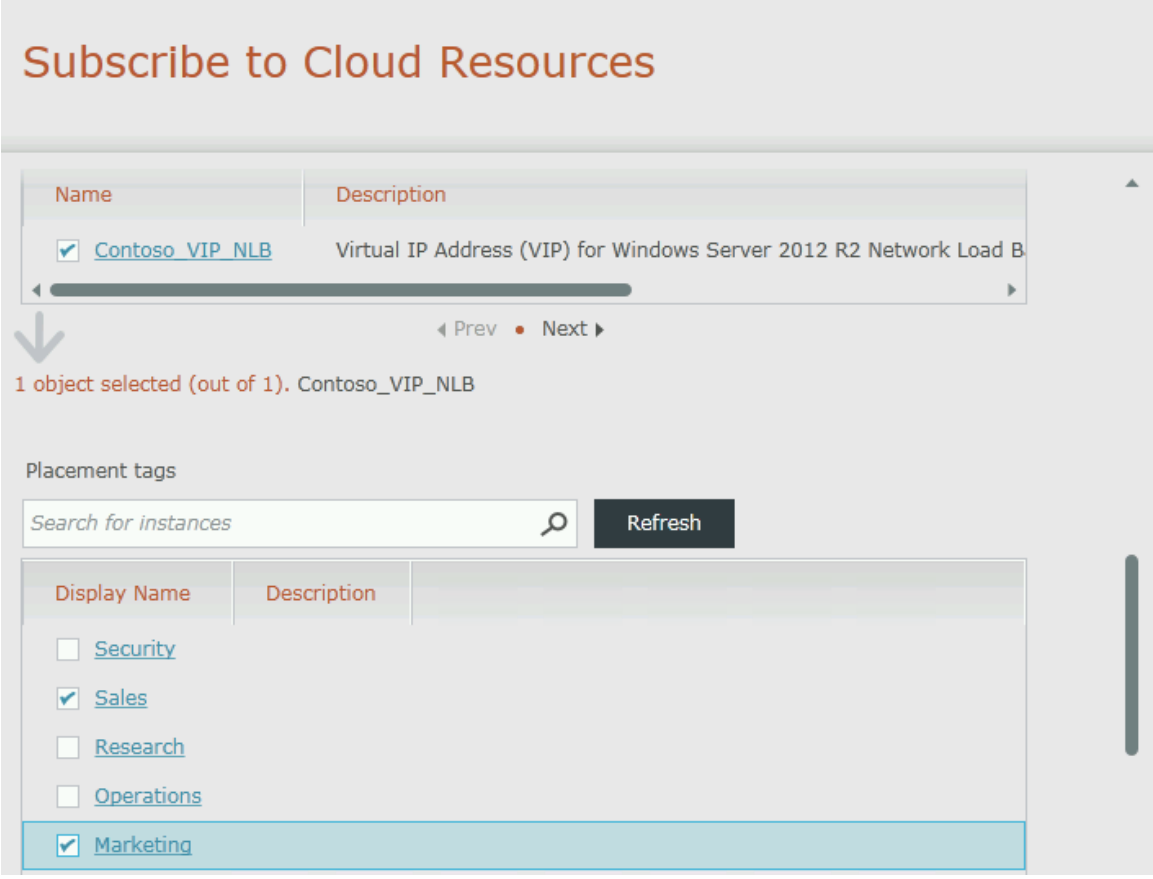
19. Select **Next**.
20. On the **Subscribe to Cloud Resources** page, under **Select the storage classifications,** click **Gold, Silver and Bronze.**



21. Under **Select the service templates,** select **Exchange Server 2013 Multi Server**.



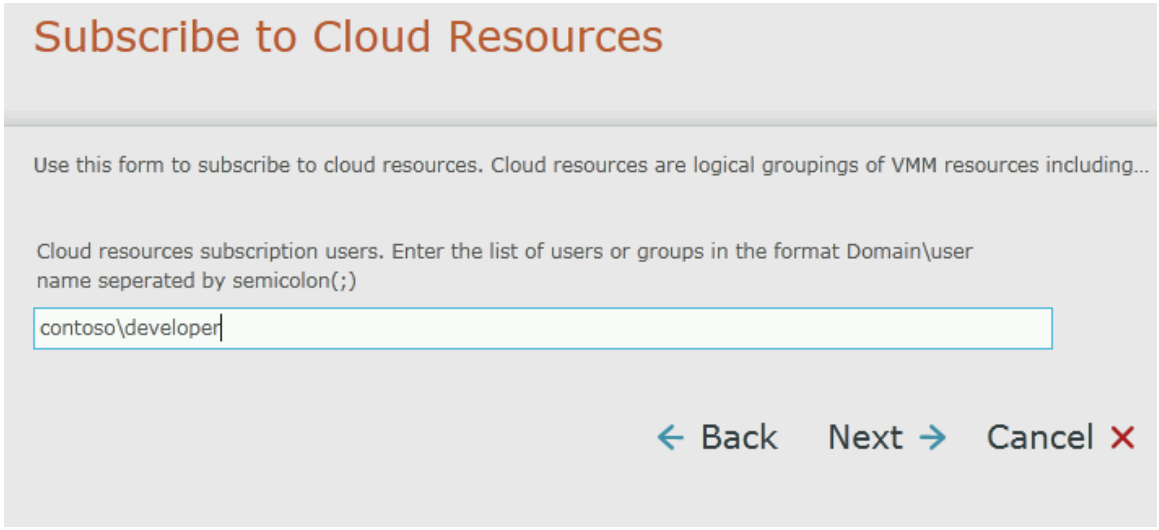
22. Under **Select the load balancer requirements,** check **Contoso_VIP_NLB.**
23. Under **Placement Tags** select the checkboxes for **Sales** and **Marketing.**



24. Under **Should virtual machines in this cloud resources subscription be requested through Service Manager?** Select **Yes** from the drop-down. Enabling this option would also allow a user to

provision VMs using Service Manager connected to Orchestrator. It is also possible to request and provision VMs through App Controller.

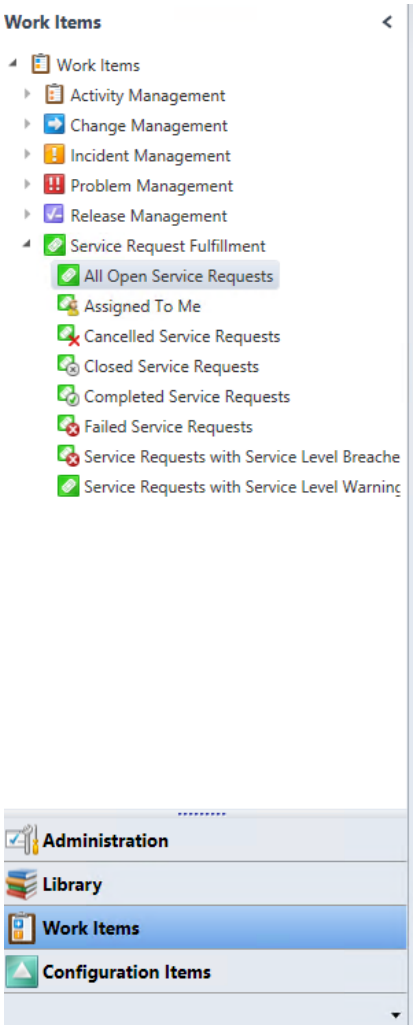
25. Click **Next**.
26. Under the **Cloud Resources subscription users**, enter: **contoso\developer**. Click **Next**.



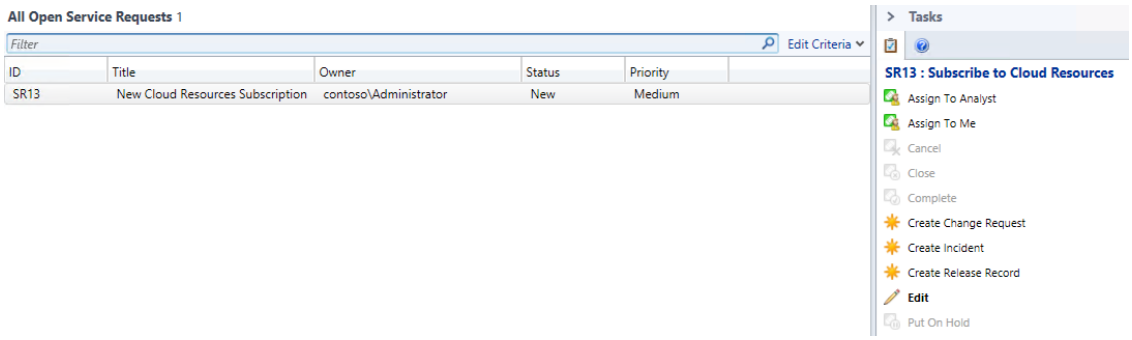
27. Review the information then scroll down and click **Submit**.
28. After the request has been submitted, select **View My Requests** button.
29. Switch to **SCSM01**.

*Perform the following on **SCSM01***

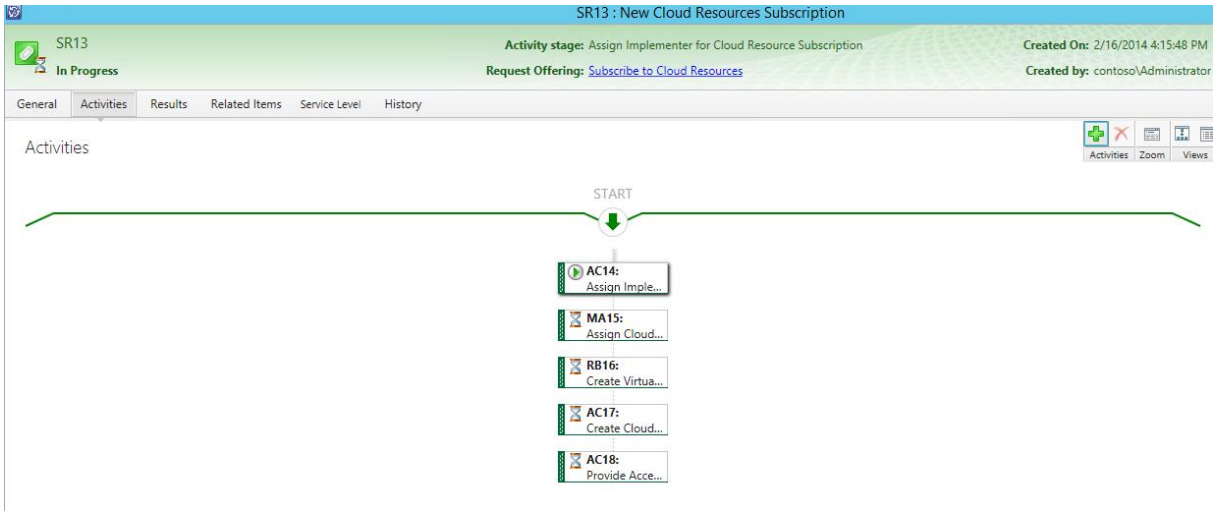
30. From **SCSM01**, open the **Service Manager Console** by selecting the icon from the taskbar.
31. Navigate to the **Work Items** workspace.
32. Go to **Work Items** > **Service Request Fulfillment** > **All Open Service Requests**.



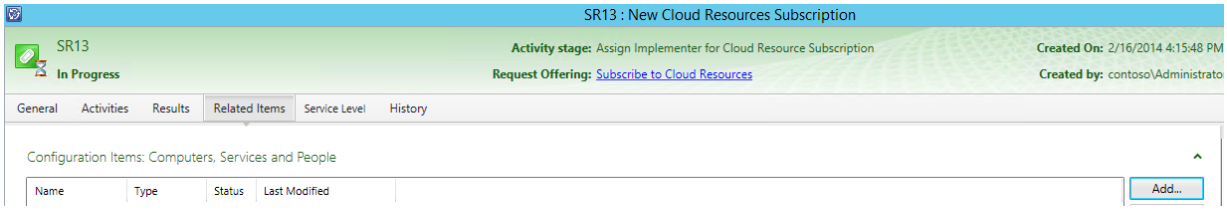
33. Select the newly created **Service Request**. If it is not yet visible, from the **Tasks** pane click **Refresh**.
34. Click **Edit**.



35. When the form loads, scroll down to review the information.
36. Select the **Activities** tab and click on each of the box items under START to review the details in the bottom of the pane.



37. Select the **Related Items** tab.
38. Scroll down to **Configuration Items** and note the automatic association that was created.



39. Close the service request and click **Cancel**. This advanced service request will not be completed through each step end-to-end due to time constraints of this lab. Continue to the next exercise, where the user will already have been granted access to these cloud resources.

3.5.5 - SCSM: Request a Cloud Service

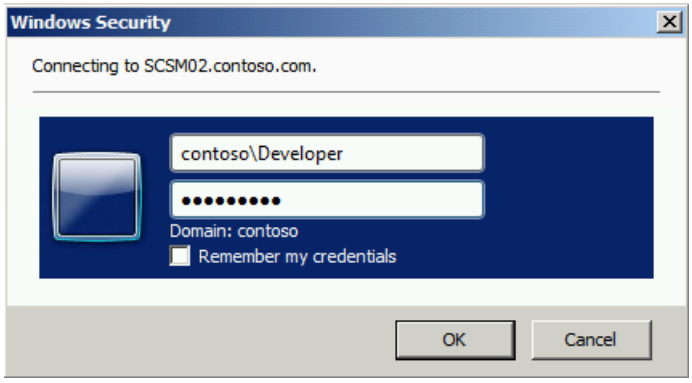
In this exercise a self-service user will request a new virtual machine, using their cloud subscription. After specifying information about the VM, the administrator will review and approve the request.

Estimated time to complete: 5 minutes

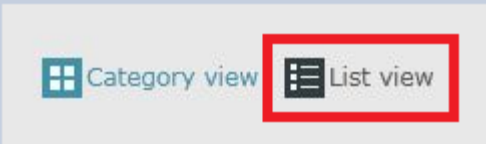
*Perform the following on **SCSM02***

1. From **SCSM02**, open the **Service Manager Portal** by selecting the **Internet Explorer** icon from the taskbar.

2. If the site does not open, browse to http://SCSM02:81/SMPortal/SitePages/Service%Catalog.aspx. One or two prompts may appear. Log in with a username of **contoso\Developer** and a password of **Passw0rd!**



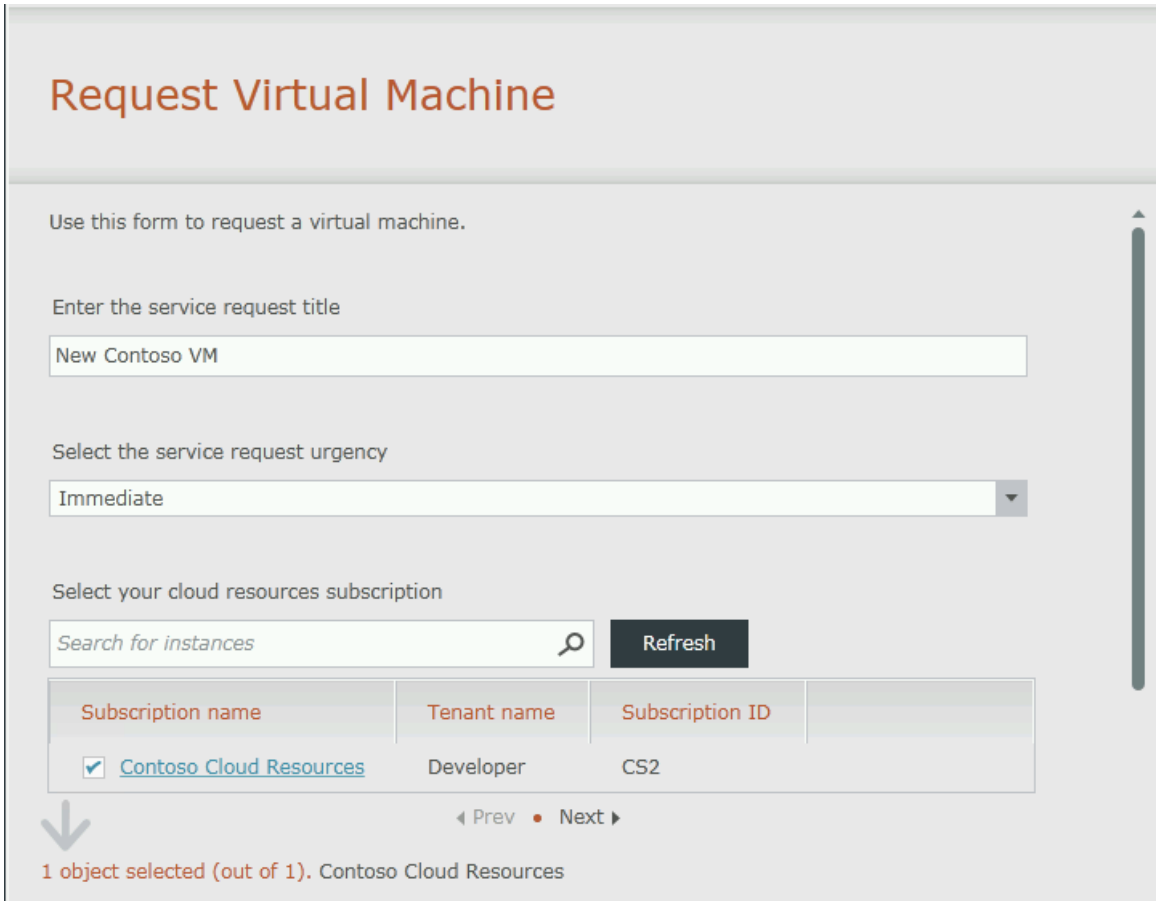
3. Note that the site may already be open. If so, look on the Home page, in the upper right corner, to ensure that it is logged in as contoso\Developer. If not, log out and log back in using the correct credentials.
4. On the Home page, select the **List View**.



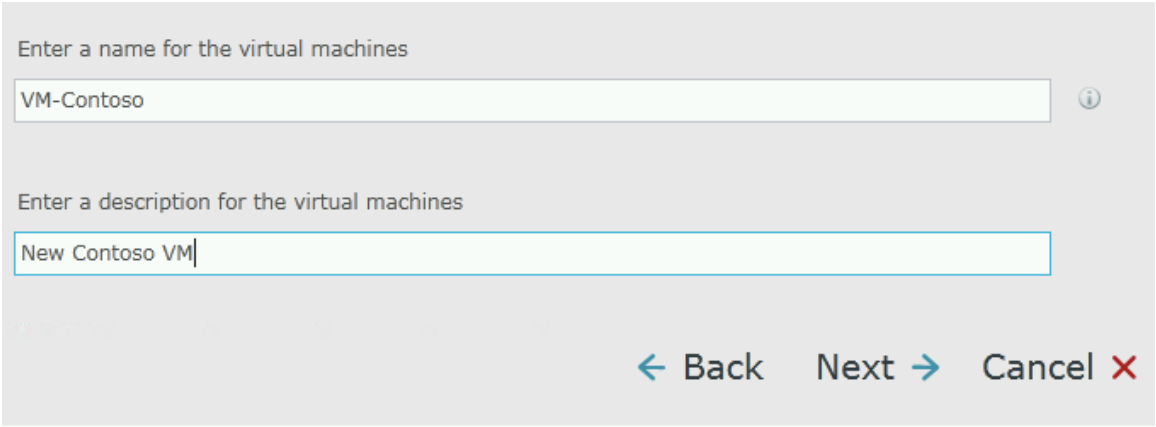
5. Select **Request Virtual Machine**.

6. Select **Go to request form** button.

7. Under **Enter the service request title** enter **New Contoso VM**.
8. Under **Select the service request urgency** select **Immediate**.
9. Under **Select your cloud resources subscription** select **Contoso Cloud Resources**. If this choice is not available yet, click the **Refresh** button.

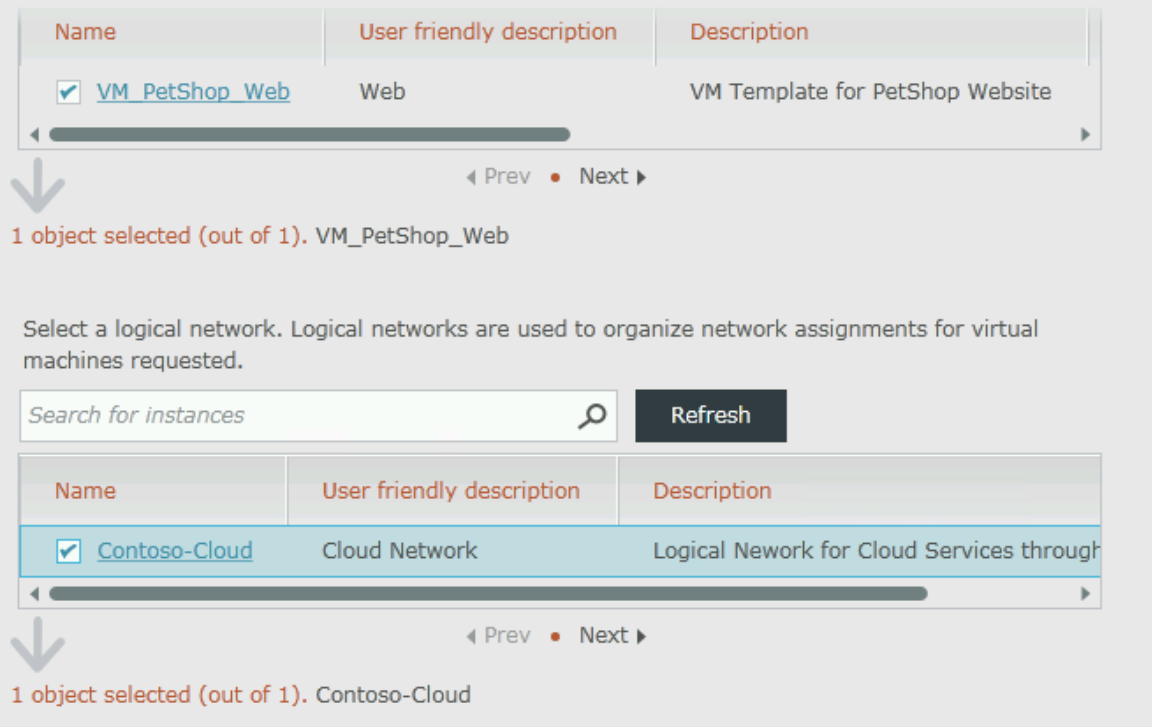


10. Scroll down using the inner dark gray scroll bar just to the left of the numbered steps.
11. Under **Enter a name for the virtual machines,** enter **VM-Contoso**.
12. Under **Enter a description for the virtual machines**, enter **New Contoso VM.**

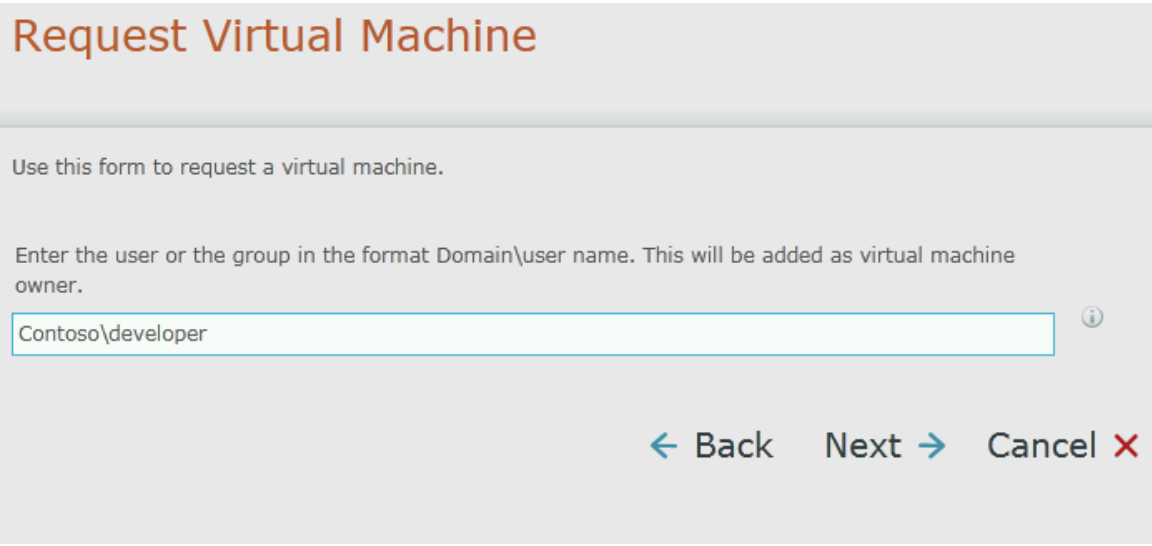


13. Select **Next**.
14. Under **How many virtual machines should be created** enter: **2**.

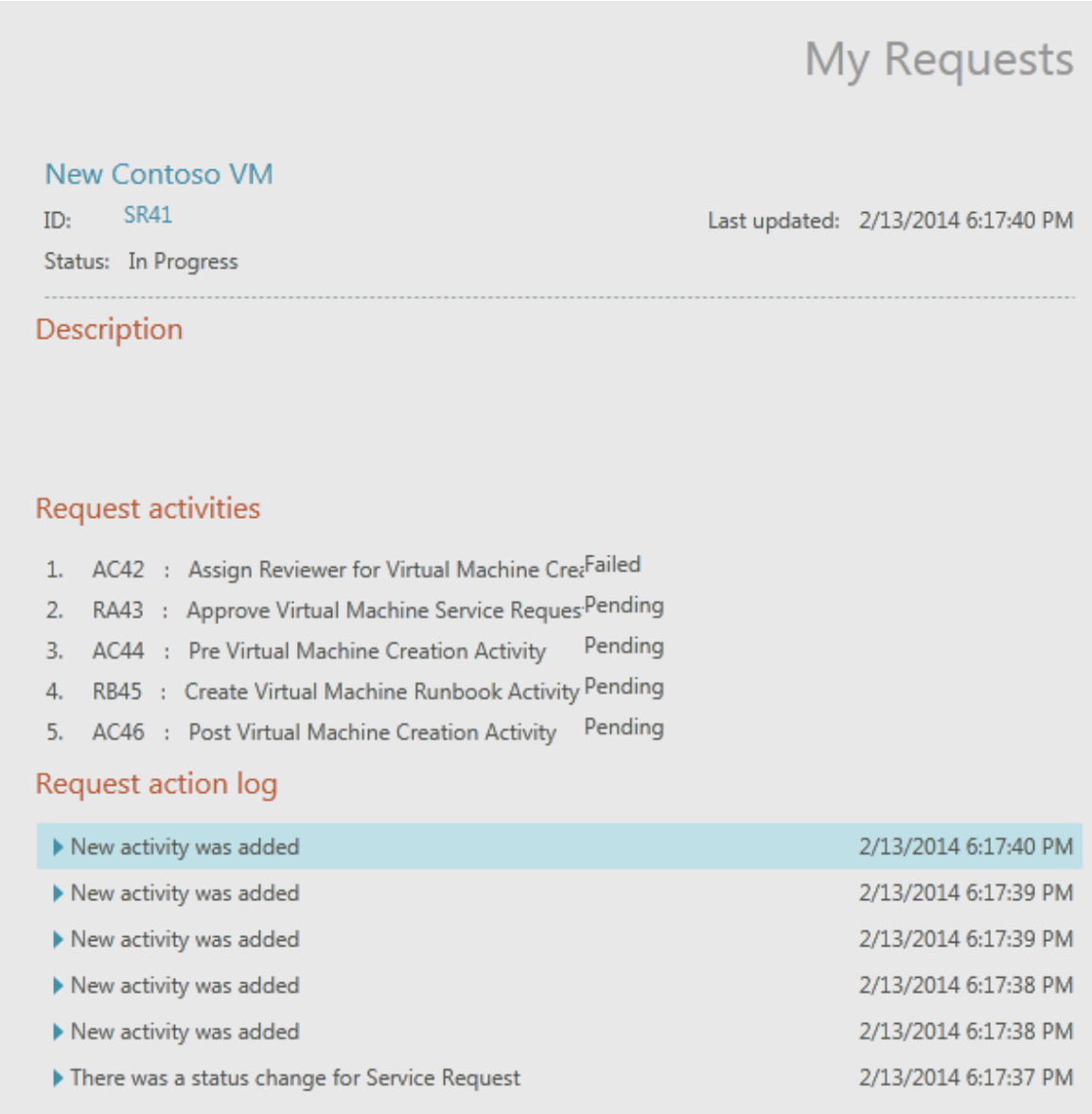
15. Under **Enter the virtual machines' suffix,** enter**: 1.**
16. Under **Select a virtual machine template** select: **VM_PetShop_Web.** If this option is not visible, click **Refresh.**
17. Under **Select a logical network,** select **Contoso-Cloud.** If this option is not visible, click **Refresh.**



18. Under **Select a decommissioning date for the virtual machine** keep the default and click **Next.**
19. Under **Enter the user or group in the format Domain\user name,** enter **Contoso\developer** and click **Next**.



20. Review the information and click **Submit**.
21. After the request has been submitted, click **View My Requests** button.
22. Note the various activities that have been created.

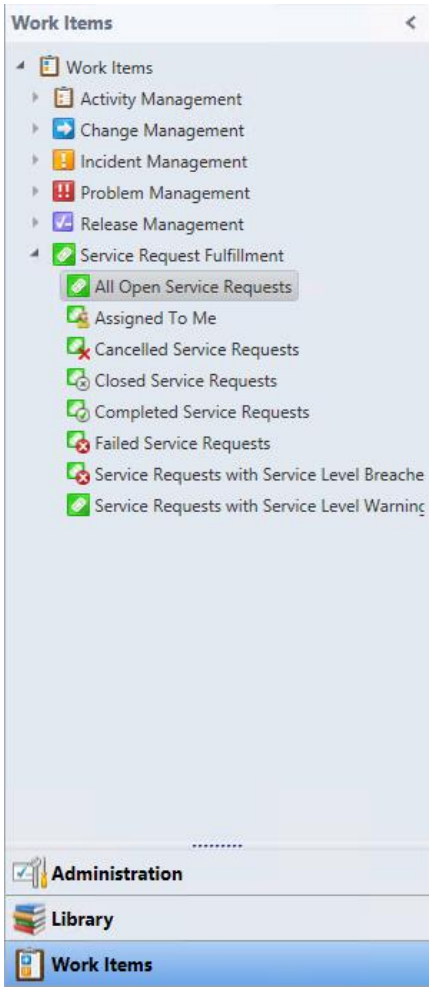


23. Return to **SCSM01**.

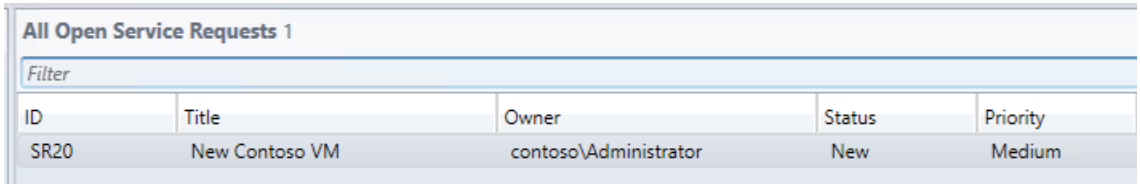
*Perform the following on **SCSM01***

24. From **SCSM01**, open the **Service Manager Console** by selecting the icon from the taskbar.

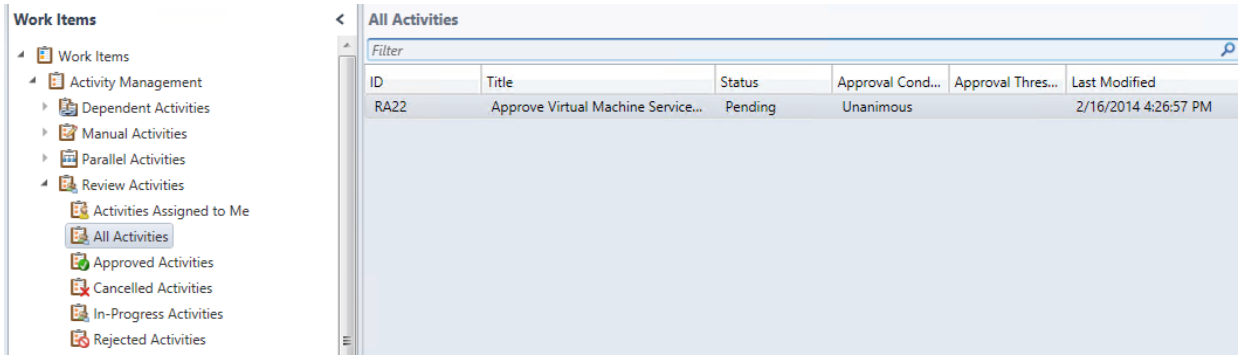
25. Navigate to the **Work Items** workspace**.**



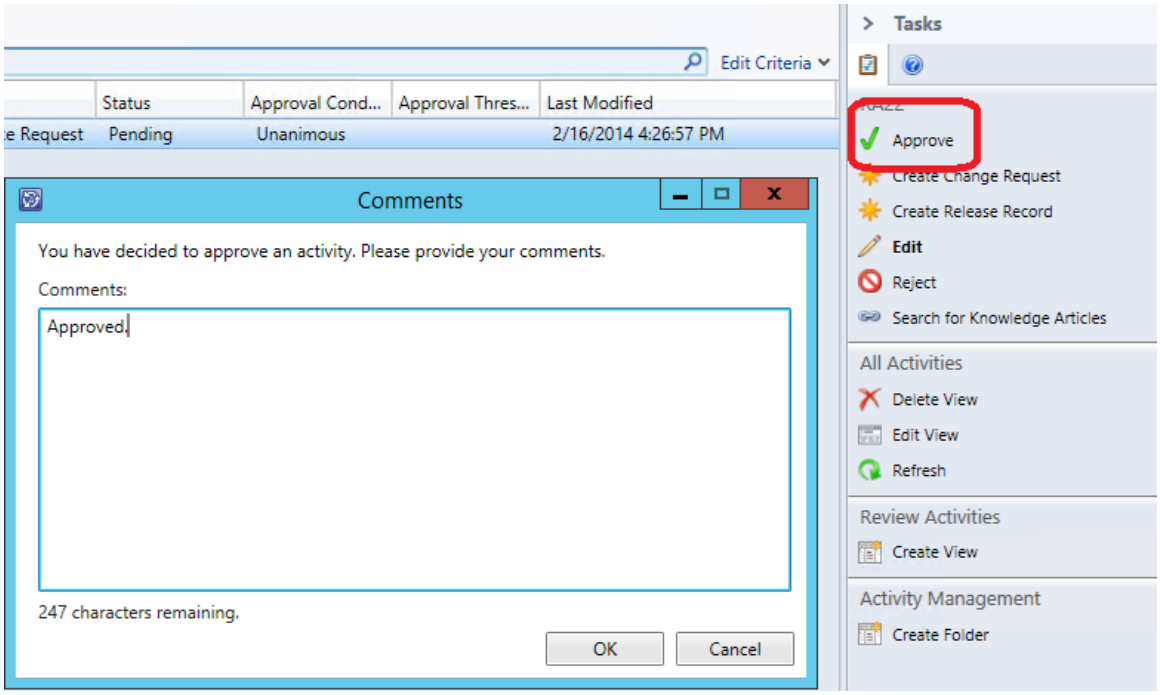
26. Expand **Work Items | Service Request Fulfillment | Open All Service Requests** and note the new service request: **New Contoso VM**. If it has not yet appeared, click **Refresh**.



27. Navigate to **Work Items | Activity Management | Review Activities | All Activities**.
28. Find and select the review activity called **Approve Virtual Machine Service Request**.



29. From the **Tasks** pane click **Approve**.
30. In the **Comments** box enter **Approved**, then click **OK**.



31. After the dialog box closes, click **Refresh.** This is the end of the lab, however there are multiple other steps which can be performed in any pre-defined fashion by the Administrator.