

# Module 9

Implementing Service Management  
for the Cloud

## Module Overview

- Service Manager Architecture Overview
- Upgrading to System Center 2012 R2 Service Manager
- Understanding Service Manager Work Items
- Configuring Service Manager Connectors
- Configuring Service Manager Notifications

## Lesson 1: Service Manager Architecture Overview

- Service Manager Components
- Prerequisites for Service Manager Deployment
- Considerations for Service Manager Deployment
- Considerations for Service Manager Security

## Service Manager Components

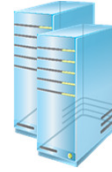
### **The Service Manager components are:**

- Service Manager management server
- Service Manager console
- Service Manager database
- Server Manager data warehouse management server
- Data warehouse database
- Self-Service Portal

## Prerequisites for Service Manager Deployment

### The hardware requirements are:

- Eight core CPU running at 2.6 GHz
- Minimum of 8 GB of RAM for production
- 10 GB of free space on hard disk drive



### The software requirements are:

- .NET Framework 3.5 SP1
- ADO.NET Data Services Update for .NET Framework 3.5 SP1 for Windows Server 2008 R2
- Windows PowerShell 2.0
- Microsoft Report Viewer Redistributable
- Supported version of SQL Server 2008 R2 or SQL Server 2012
- Supported version of Windows Server 2008 R2, Windows Server 2012, or Windows Server 2012 R2
- Supported versions of SharePoint Server



## Considerations for Service Manager Deployment

### Considerations for Service Manager deployment are:

- Plan domain accounts for Service Manager functions
- Create a unique management group name
- Plan resources for Service Manager databases
- Be aware of limitations when deploying Service Manager on the same computer as Operations Manager
- Implement hotfixes

## Considerations for Service Manager Security

### **Considerations for the Service Manager management server are:**

- Local administrator permission for installation
- Sysadmin on SQL Server that hosts database

### **Considerations for the Server Manager data warehouse management server are:**

- Local administrator permission for installation
- Content Manager role in SQL Server Reporting Services
- Sysadmin on SQL Server that hosts database

Create a group of Service Manager administrators, and track port numbers that Service Manager uses.

## Lesson 2: Upgrading to System Center 2012 R2 Service Manager

- Considerations for Upgrading to Service Manager 2012 R2
- Preparing Service Manager Servers for Upgrade

## Considerations for Upgrading to Service Manager 2012 R2

### **Considerations for upgrading to System Center 2012 R2 Service Manager are:**

- You can only upgrade from Service Manager 2012 CU2 for in-place upgrades
- Coexistence is not supported
- Migrations are not supported
- You cannot upgrade the Self-Service Portal from previous versions
- Upgrade System Center data warehouse management servers first

## Preparing Service Manager Servers for Upgrade

### **To prepare the Service Manager data warehouse management server for upgrade, complete the following steps:**

1. List the data warehouse jobs that are running
2. Disable the data warehouse job schedules
3. Confirm that the data warehouse jobs have stopped running
4. Stop the Self-Service Portal

The Service Manager management server does not require any special preparation.

### Lesson 3: Understanding Service Manager Work Items

- Activity and Change Management
- Release Management
- Incident Management
- Problem Management
- Service Request Fulfillment
- Knowledge Management

### Activity and Change Management

**Change management uses change requests, which are generated when the IT infrastructure requires a configuration change**

**For change management, Service Manager:**

- Can automatically collect and process change requests by using workflows and activities.
- Provides change request templates to ease creation of new change requests.
- Provides manual activity templates to ensure that all manual activities are assigned to the user who implements an activity.

## Release Management

**Release management implements changes to IT services while considering all aspects of a change, and all components included in the change process**

**The release management process:**

- Occurs after you receive approval through the change management process.
- Ensures that changes are tested and are safe to deploy.
- Uses release records to define the sequence of parallel, sequential, and individual actions that are required for a release.

## Incident Management

**An incident is a nonstandard event that interrupts service or reduces service quality for one or more users**

Incident management helps restore normal operations as quickly as possible, with the least possible impact.

**Incident settings include:**

- Parent and child incident settings
- Priority calculations
- Target resolution time
- Prefixes
- Length of time a closed incident remains in the database

## Problem Management

**A problem is a recurring event, typically based on incidents, with a root cause that must be determined and eliminated**

In Service Manager, you can create a problem record manually, or by basing it on an existing incident.

**Problems include the following problem settings:**

- Category
- Impact and Urgency
- Action Log
- Related Items
- Status

## Service Request Fulfillment

**Service requests are requests for existing, preauthorized services and features**

Service request fulfillment in Service Manager functions as follows:

- Service Manager treats each service request as a work item
- End-users create service requests in Service Manager by accessing the service catalog on the Self-Service Portal, or by email
- Administrators use the Service Manager console to review and approve activities related to service requests



## Knowledge Management

**Knowledge management provides accurate and reliable information through an internal knowledge base made up of knowledge articles**

### **Knowledge articles:**

1. Are created in the Service Manager console
2. Are found by using the Self-Service Portal
3. Include the following properties:
  - Title
  - Keywords
  - External URL
  - Feedback
  - Description
  - Knowledge article owner
  - Internal Content
  - Related Items

## Lesson 4: Configuring Service Manager Connectors

- The Active Directory Connector
- The Configuration Manager Connector
- The Operations Manager 2012 R2 Connectors
- The Orchestrator Connector
- The Virtual Machine Manager Connector
- Demonstration: Configuring the Active Directory Connector

## The Active Directory Connector

**The Active Directory connector allows you to import Active Directory objects into the Service Manager database**

**Service Manager integration with AD DS functions as follows:**

- The Active Directory connector imports all domain objects, or only those objects based on a filter.
- You can map Active Directory security groups to Service Manager user roles.
- Active Directory objects become configuration items in Service Manager.
- You can view the imported objects in the Service Manager console.

## The Configuration Manager Connector

**The Configuration Manager connector allows you to import configuration data from Configuration Manager 2007 SP1, Configuration Manager 2007 R2, and Configuration Manager 2012**

**Service Manager integration with Configuration Manager functions as follows:**

- The hardware and software Configuration Manager objects become configuration items in Service Manager
- You can use configuration baselines to create incidents
- You must complete the data warehouse registration process before creating this connector
- You can also collect mobile device data

## The Operations Manager 2012 R2 Connectors

### **The Configuration item connector:**

- Imports objects discovered by Operations Manager into the Service Manager database
- Requires you to import Operations Manager management packs into Service Manager before you create this connector
- Synchronizes according to a schedule

### **The Alert connector:**

- Automatically creates incidents based on alerts imported from Operations Manager
- Supports Windows Azure
- Does not import user information
- Allows you to create alert-routing rules

## The Orchestrator Connector

**Orchestrator uses procedures called runbooks to automate resource creation, monitoring, and deployment**

### **The Orchestrator connector:**

- Imports runbook objects into the Service Manager database
- Allows Service Manager to invoke Orchestrator runbooks through the use of workflows
- Allows you to map activities from service requests to runbook activities

## The Virtual Machine Manager Connector

**The VMM connector allows you to import objects such as clouds, templates, and virtual machines into the Service Manager database**

**Service Manager integration with VMM functions as follows:**

- You can import objects directly from VMM or by using the Operations Manager Configuration item connector.
- Service Manager uses VMM objects for service offerings.

## Demonstration: Configuring the Active Directory Connector

In this demonstration you will see how to configure the Active Directory Connector in Service Manager.



## Lesson 5: Configuring Service Manager Notifications

- Configuration Notification Channels
- Configuring Notification Subscriptions
- Configuring Notification Templates

## Configuration Notification Channels

### **In Service Manager, notification channels:**

- Only use the email notification channel
- Must be enabled before you can use them
- Support using more than one SMTP server as a failover mechanism

## Configuring Notification Subscriptions

### **To create a notification subscription, do the following:**

1. Choose your primary criteria
2. Choose more granular criteria as needed
3. Select the email template
4. Select the recipients

### **The primary criteria settings are:**

- Object of the selected class is created
- Object of the selected class is updated
- Objects meet defined criteria

## Configuring Notification Templates

### Service Manager:

- Provides several email templates that you can use to send notifications
- Allows you to create your own templates
- Provides several variables that you can use to create your own templates
- Adds the template to the subscription

## Lab: Implementing Service Management for a Cloud

- Exercise 1: Configuring Service Manager Basic Settings
- Exercise 2: Configuring Service Manager Connectors
- Exercise 3: Configuring the Self-Service Portal
- Exercise 4: Configuring Notifications

Logon Information

**Virtual Machines:** 20247D-LON-DC1, 20247D-LON-SQ1, 20247D-LON-OM1, 20247D-LON-AP1, 20247D-LON-VM1, 20247D-LON-SM1, 20247D-LON-DW1. 20247D-LON-OR1

**User Name:** Contoso\Administrator

**Password:** Pa\$\$w0rd

Estimated Time: 75 minutes

## Lab Scenario

Contoso, Ltd wants to implement service management so that it can better manage change, release, incident and problem management.

Management has decided to use Service Manager, because Service Manager can integrate with its existing infrastructure, provide self-service functionality to its core users, and send email notifications to key users when incidents are assigned to them.

You must configure Service Manager, and then integrate it with a private cloud system.

## Lab Review

- Why is it important to create a priority calculation matrix for incidents?
- Which connector requires a connection to the Service Manager data warehouse management server?



## Module Review and Takeaways

- Review Question(s)
- Real-world Issues and Scenarios