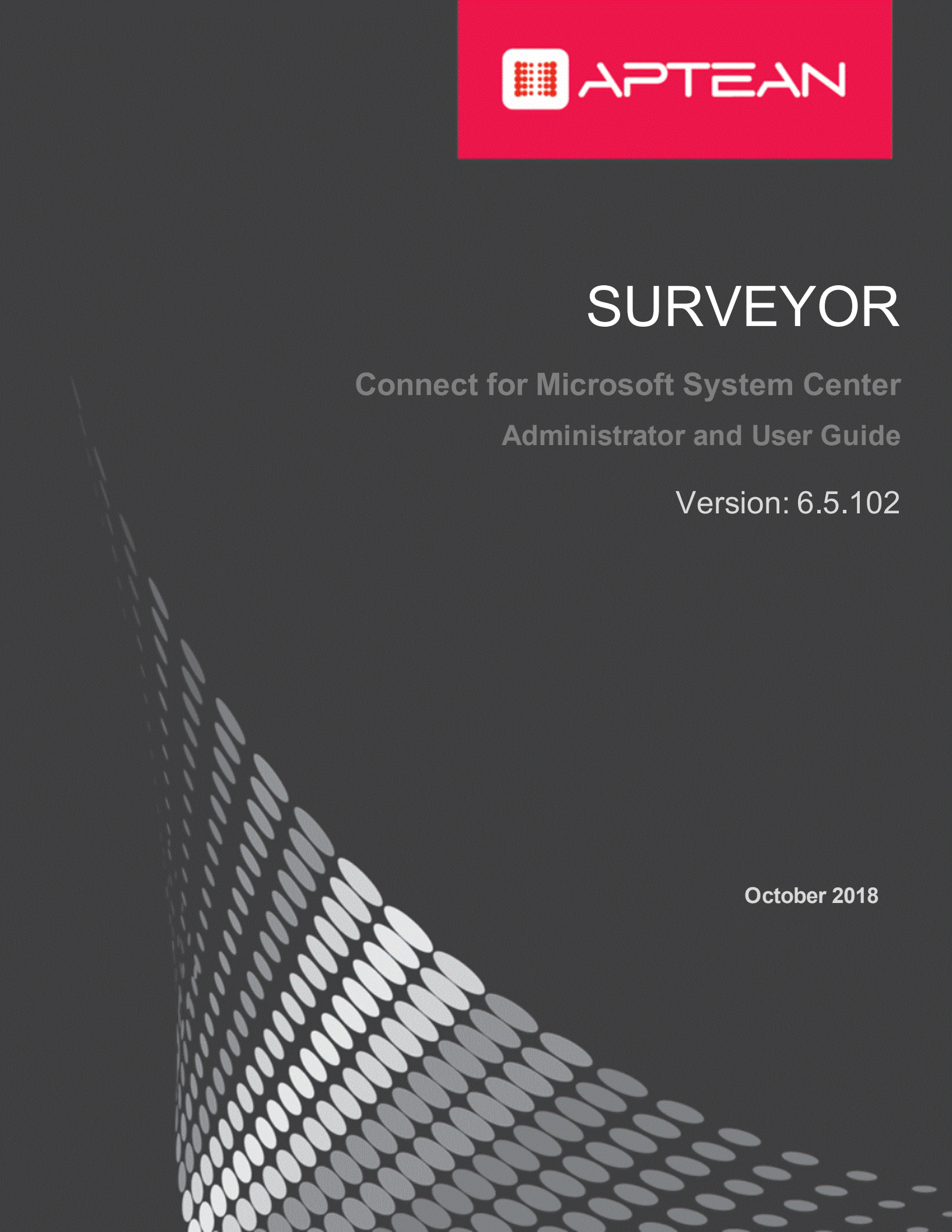

SURVEYOR

Connect for Microsoft System Center

Administrator and User Guide

Version: 6.5.102

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Introduction

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Connect for Microsoft System Center Product Overview

Surveyor Connect for Microsoft System Center enables IT professionals to integrate sophisticated, centralized power-management functionality into Configuration Manager deployments. This guide provides information about installing and validating the Verdiem Integration for SCCM service, Verdiem Integration for SCCM Administrator console, and the Configuration Manager console extension.

This topic briefly describes how Surveyor Connect for Microsoft System Center works and lists the components included with the product.

What It Does

Surveyor Connect for Microsoft System Center works with Surveyor to help organizations manage and measure computer energy use across the network, as well as increase the efficiency of software distribution and patch management tasks.

Connect for Microsoft System Center provides a client wake service, Surveyor Wake on WAN functionality, and a way for any Configuration Manager administrator to perform power state transitions and monitor status directly through the Configuration Manager console.

What Comes With It

Connect for Microsoft System Center includes the following components:

- **Verdiem Integration for SCCM service**: A Windows service that monitors deployments (advertisements) and updates and wakes systems to run them at their scheduled deadlines.
- **Verdiem Integration for SCCM Administrator console**: A console application in which you can manage configuration settings.
- **Configuration Manager console extension**: An extension that enables you to perform power management tasks from within the Configuration Manager console.

Note: During the installation, you can choose to install both the service and console extension or only the console extension. For information, see *Preparing for Connect for Microsoft System Center Installation on page 2-2*.

Connect for Microsoft System Center Installation Options

There are two installation options for Connect for Microsoft System Center:

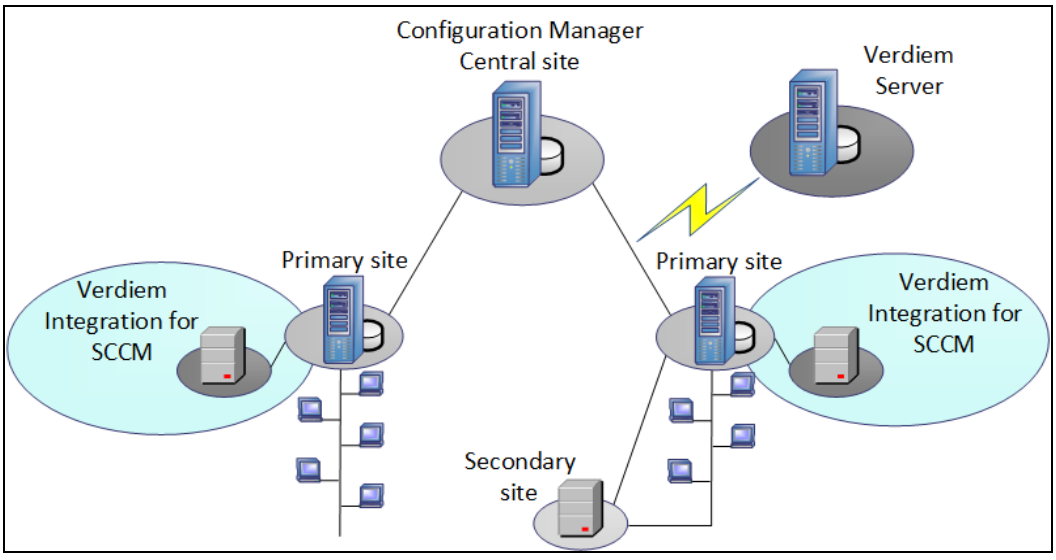
- Install both the **Automated Wake Service for ConfigMgr** and the **ConfigMgr Admin Console - Right-Click Context Menu Add-On** on the on a Configuration Manager primary site server. This installs the Verdiem Integration for SCCM windows service, Verdiem Integration for SCCM Administrator console, and the Configuration Manager console extension on the same server.
- Install the **ConfigMgr Admin Console - Right-Click Context Menu Add-On**, on a separate computer where you will be accessing the Configuration Manager console.

For details, see *Preparing for Connect for Microsoft System Center Installation on page 2-2*.

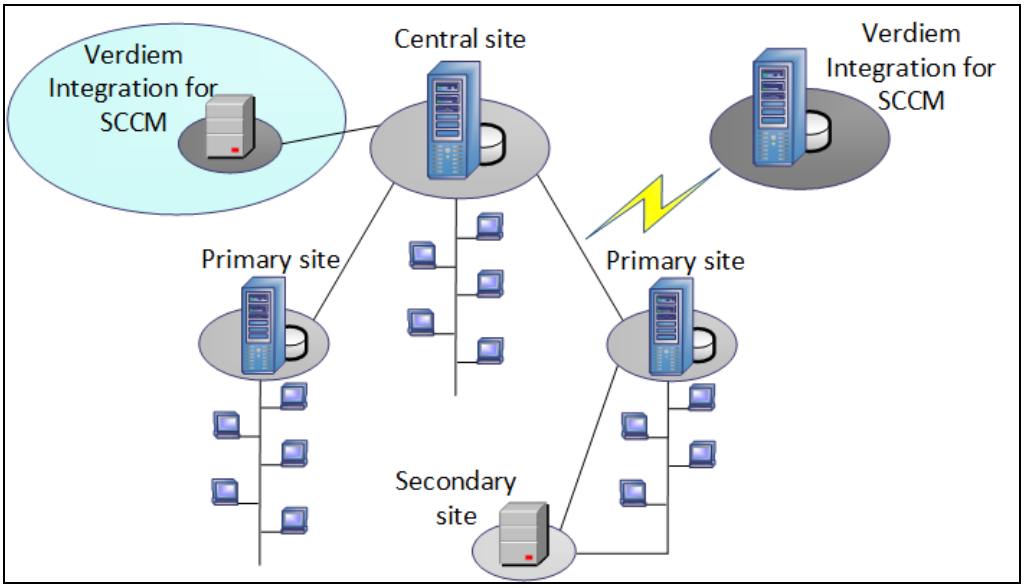
Connect for Microsoft System Center System Architecture

Each instance of the Verdiem Integration for SCCM service connects to a single Configuration Manager site. Where to install the service depends on where you create software distribution packages and updates and where clients are assigned.

For example, if deployments (advertisements) and updates are created on primary sites, and the central site has no clients assigned to it, you would install the Verdiem Integration for SCCM service and console extension on the primary sites, as shown in the first diagram.



Another scenario might be to have clients assigned to the central and primary sites, and all deployments (advertisements) and updates created on the central site. In this case, you could install the Verdiem Integration for SCCM service on only the central site, as shown in the next diagram.



Connection Notes

- Each instance of the Verdiem Integration for SCCM service can wake all clients assigned to its associated primary site. This can also include clients assigned to any primary site that is a child of the associated primary site.
- You can install the Verdiem Integration for SCCM service directly on the computer that hosts the associated Configuration Manager site server, or on a separate computer that remotely connects to the site server.
- Associating the Verdiem Integration for SCCM service with a Configuration Manager secondary site is not supported, because secondary sites do not have clients assigned to them.

How Surveyor Connect for Microsoft System Center Operations Reach Configuration Manager Clients

When Connect for Microsoft System Center issues a wake request, either from the automated wake service or the SCCM Configuration Manager console Verdiem menu (right-click context menu), it communicates with the Surveyor server. The Surveyor server then manages the wake request using its Wake-on-WAN technology.

- For automated wakes prior to deployment (advertisement) start time or software update required time, Connect for Microsoft System Center communicates with the Surveyor server using the identity of the user account the service is running as.

- For SCCM client and *Collection* wakes via the SCCM Configuration Manager console Verdiem menu (right-click context menu), the Verdiem context menu add-on communicates directly with the Surveyor server using the identity of the of the user account executing the SCCM administrator console.

System Requirements

The following lists contain requirements for installing and hosting Surveyor Connect for Microsoft System Center.

Note: Both of these lists assume that the latest patches are installed for all software.

- Access to a Surveyor 6.0 or later deployment.
- System Center Configuration Manager 2012, System Center Configuration Manager 2007 SP2, SMS 2003, or System Center Configuration Manager 1602, 1606, 1610, or 1702 must be deployed on all primary site servers.
- Microsoft .NET 4 (full version)
- Each ConfigMgr client must be running a licensed instance of the Surveyor client agent, version 6.0 or later.
- Client systems that run the policy refresh function must have Configuration Manager 2012, Configuration Manager 2007, or Configuration Manager 1602, 1606, 1610, or 1702 installed.

Supported Operating Systems

Supported operating systems for running the Wake service include:

- Microsoft Windows Server 2008 R2

Note: Windows Server 2008 (non-R2) is not supported.

- Windows Server 2003 SP2 (x86)

For running the console extension:

- Windows 10 (x86 and x64)
- Windows 8 (x86 and x64)
- Windows 7 (x86 and x64)

2

Installing Connect for Microsoft System Center Components

Table 2-1 In this Chapter

Topics
Preparing for Connect for Microsoft System Center Installation
Install Connect for Microsoft System Center

Preparing for Connect for Microsoft System Center Installation

This section describes preparing for and installing both the Verdiem Integration for SCCM service and console extension on a Configuration Manager primary or central site server, or installing only the console extension on a system.

This topic covers the information and permissions you need to complete either a primary site or console extension-only installation.

Information for the Installer

When you run the installer, it will ask you for the following information:

- The **components** that you intend to install:
  - **Automated Wake Service for ConfigMgr** includes the Verdiem Integration for SCCM service and the Verdiem Integration for SCCM Administrator console.
  - **ConfigMgr Admin Console - Right Click Context Menu Add-On** is the console extension that creates the Verdiem right-click menu in System Center ConfigMgr.
- **Server information**:
  - ConfigMgr site server name and site code
  - ConfigMgr site code
  - Surveyor server name
- The **version** of System Center ConfigMgr you will be using (2007, 2012, 1602, 1606, 1610, or 1702)
- The **user account** that you will select to run the Verdiem Integration for SCCM service.

  You can create a user account specifically for this purpose or select the same user that runs the Surveyor system.

Required Permissions

The user that you select to run the Verdiem Integration for SCCM service and any user running the console extension must have a minimum level of permissions on the Configuration Manager primary site and on the Surveyor server.

To perform wake, shutdown, and other operations on client computers, you need a minimum level of permissions on the Configuration Manager primary site and on the Surveyor server.

The Verdiem Integration for SCCM service can be installed local to the Surveyor server, or on the SCCM Primary Site server. If you are using a service account, the account needs permissions to read all objects in SCCM and create status messages, and also needs permissions for all groups to read and wake systems in Surveyor.

Minimum Configuration Manager Primary Site Permissions

Both the service and console extension require a minimum of:

- **Read** access on all objects in Configuration Manager.
- **Read** and **Create** access on the Status Message object class.

Minimum Permissions for Changing Power States

An administrative group Role in Surveyor with **Wake Devices** and **Edit Devices** permissions.

System Center 2012, 1602 1606, 1610, or 1702 Configuration Manager Settings

Connect for Microsoft System Center does not use any System Center 2012 power management settings, but as a best practice, you will want to disable these settings in

SCCM before installing Connect for Microsoft System Center to allow Surveyor to manage power settings and Wake on LAN.

- Do not enable Configuration Manager's power management settings to allow Surveyor and Connect for Microsoft System Center to manage power settings.

  In SCCM 2012, right-click a device, and then click **Properties**. Click the Power Management tab and make sure the **Do not specify power management settings** option is selected.

- Do not enable Wake on LAN for any sites within SCCM, to allow Surveyor's advanced Wake on LAN functionality to wake devices.

  In SCCM 2012, click **Overview > Site Configuration > Sites**. Select a site and click **Properties**. On the Wake on LAN tab, clear the **Enable Wake On LAN for this site** option.

Install Connect for Microsoft System Center

These steps describe how to install the Verdiem Integration for SCCM service and console extension on a ConfigMgr primary site, or installing the console extension on a desktop computer.

Before you run the installation program, complete any necessary procedures in *Preparing for Connect for Microsoft System Center Installation on page 2-2*.

Note: Follow these steps on each Configuration Manager site on which you deploy the Verdiem Integration for SCCM service.

1. Log in as a local administrator to the computer you selected to host Connect for Microsoft System Center.
2. Navigate to the Connect for Microsoft System Center installation folder in the Surveyor installation package (**Surveyor 6_x_xxx\Connect For Microsoft System Center**), and then run `VerdiemIntegrationforSCCMInstaller.msi`.
3. Follow the instructions in the installation wizard to accept the license agreement and select the destination folder.
4. When prompted, select the components to be installed. Click **Browse** to select a different destination folder for the installed components.

   The default configuration is for the Verdiem Integration for SCCM service, Verdiem Integration for SCCM Administrator console, and the ConfigMgr console extension to both be installed on the same local hard drive.

   To install both the service and the console extension:

   Confirm that both the Automated Wake Service for ConfigMgr and ConfigMgr Admin Console - Right-Click Context Menu Add-On components are setup to be installed on the local hard drive .

   To install the console extension only:

   Expand the installation options for **Automated Wake Service for ConfigMgr**, and then select **Entire feature will be unavailable**.

   Note: If you want to install Connect for Microsoft System Center on a computer other than the Configuration Manager primary site server, best practice is to select a computer that resides on the same network segment as the primary site server.

5. On the **Server Information** page, enter your appropriate Configuration Manager server name and site code and the Surveyor server name.
6. On the **Manually Select ConfigMgr Version** page, select the System Center version.
7. On the **Logon Information** page, unless you created a user account specifically for running the Verdiem Integration for SCCM service, use the default selection of **Local System Account**.

For information, see *Preparing for Connect for Microsoft System Center Installation on page 2-2*.

8. Continue following the wizard instructions to complete the installation.

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Validating the Connect for Microsoft System Center Installation

Table 3-1 In this Chapter

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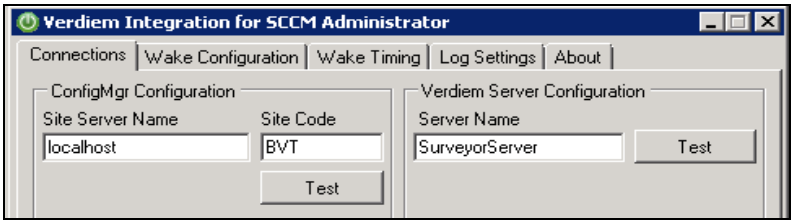
Test Server Connectivity
Test Status Message Logging
Test Power State Changes in the Console Extension
Confirm the Console Extension File Locations
Perform Power Management Tasks with Configuration Manager Console

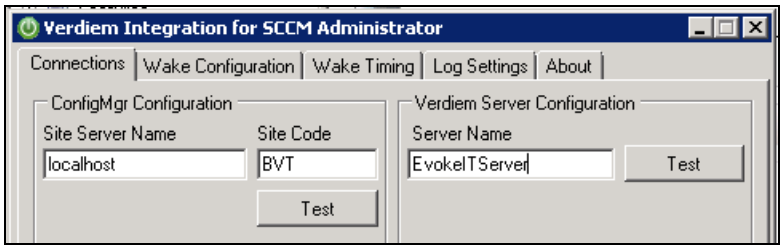
Test Server Connectivity

After you install Connect for Microsoft System Center, you can perform tests to validate connectivity, configuration, and message logging.

To test Verdiem Integration for SCCM connectivity with the server, you use the Connections tab in the Verdiem Integration for SCCM Administrator window.

1. On the Windows **Start menu**, navigate to **Programs / Verdiem / Verdiem Integration for SCCM Administrator**.
2. On the **Connections** tab of the Verdiem Integration for SCCM Administrator, in each configuration section, verify the server name and click **Test**.





A message appears to let you know whether the connection test was successful.

Note: Enter the name of the Configuration Manager site server computer even if the WMI provider for the site server is on another computer, such as the site server's database server. Entering the name of the WMI provider (if different from the site server) causes an error. The Verdiem Integration for SCCM service does use WMI to retrieve information from the Configuration Manager site database; however, it initiates this communication by connecting to the site server.

Confirming Server Connections Upon Startup

The Verdiem Integration for SCCM service starts automatically upon system startup, and you can use the Windows Services management console to stop and start it. When the service starts, connections are established to both the power management server and the Configuration Manager site server.

If either the Surveyor server or Configuration Manager site server is unavailable, the Verdiem Integration for SCCM service will start, but it might fail to connect. To confirm that the connections were made successfully, view the most recent log file, `PowerPackForConfigMgr.log`, created in the location specified on the **Log Settings** tab of the Verdiem Integration for SCCM Administrator console.

Server Connections for *Surveyor Plug-in/ Verdiem Integration for SCCM*

The first step in troubleshooting is to double check that all configuration settings in the Verdiem Integration for SCCM Administrator console are valid, starting with those on the Connections tab.

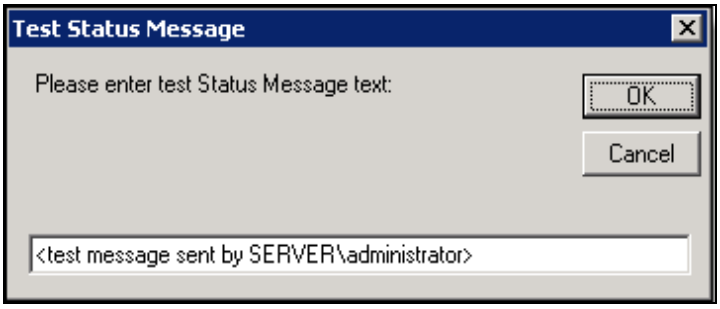
Test Status Message Logging

To confirm that status messages are being logged properly, first you send a test message, and then you view it from the Configuration Manager console.

1. Send a test status message:

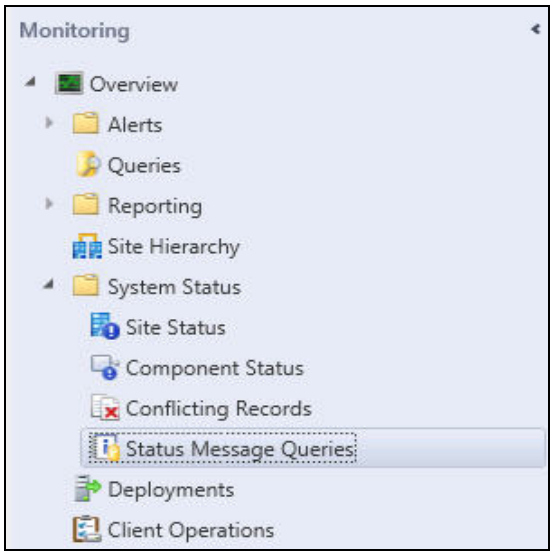
   a. On the **Log Settings** tab, click **Send Test Message**.

   b. In **Test Status Message** dialog box, type sample message text and click OK.



2. View status messages:

   a. In the Configuration Manager console, navigate to (**Monitoring** > **System Status**) and select **Status Message Queries**.



b. In the list of queries that appears, right-click **All Status Messages** and choose **Show Messages**.

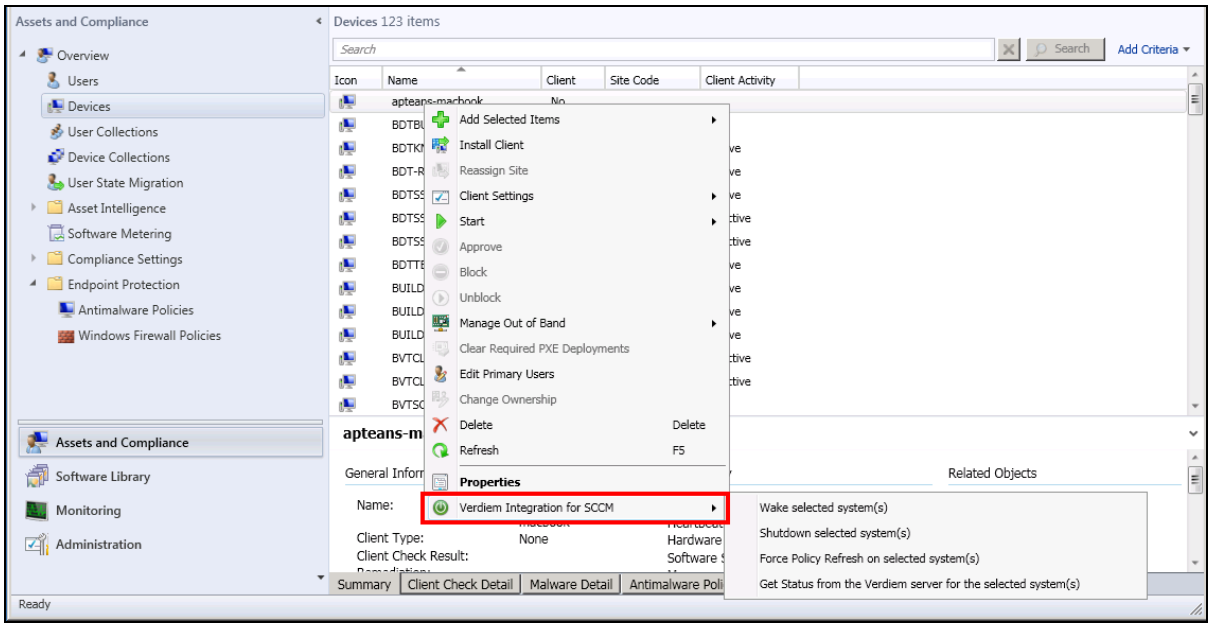
c. In the **All Status Messages** dialog box, specify the time period you are interested in, and click OK.

The **Component** column indicates where a message originated.

Test Power State Changes in the Console Extension

You use the Configuration Manager console extension to perform power state changes from the Configuration Manager console.

1. In the Configuration Manager console, select any view that shows the devices you want to manage.



2. Right-click a device on which you can test power state changes, and then do one of the following:

   - To test shutting down the computer, choose **Verdiem Integration for SCCM/ Shutdown selected system(s)**.
   - To test waking the computer, choose **Verdiem Integration for SCCM / Wake selected system(s)**.

Note: If these commands do not appear, the console extension may not have been installed correctly.

Tip: A status message is logged to Configuration Manager for actions that you perform on individual systems. You can view these messages in the **Status Message Queries** section of the Configuration Manager console.

Confirm the Console Extension File Locations

If the Configuration Manager console is not installed before you install Connect for Microsoft System Center, the Configuration Manager console extension files will be installed to an incorrect location.

To enable the console extension, you can manually move its files to the correct location.

1. Open the Configuration Manager console on the target computer, right-click a device, and look for the Verdiem menu and submenu commands.
2. If these commands appear, the console extension is installed in the correct location, and you do not need to complete the remaining steps.

If these commands do not appear, complete the remaining steps of this procedure.

3. Close and reopen the Configuration Manager console and check again for the menus.
4. If the menus still do not appear, check that the files were installed to the correct location under ..\Program Files (x86)\Microsoft Configuration Manager\AdminConsole\ .

   The files reside in both of the following directories:

   - **Bin**
   - **XmlStorage\Extensions\Actions**

     (The Actions directory contains four sub-directories with GUIDs for names.)

If the menu commands do not appear, these files will probably be in the incorrect location. To correct the installation, simply copy the files to the corresponding directories in the correct location (if the directories do not exist in the correct location yet, you can copy the full directories or create new directories manually before you copy the files over).

Correct location	Incorrect location
C:\Program Files\Microsoft Configuration Manager\AdminConsole	C:\Program Files\Verdiem\Power Management Pack for ConfigMgr\Bin\SCCM\

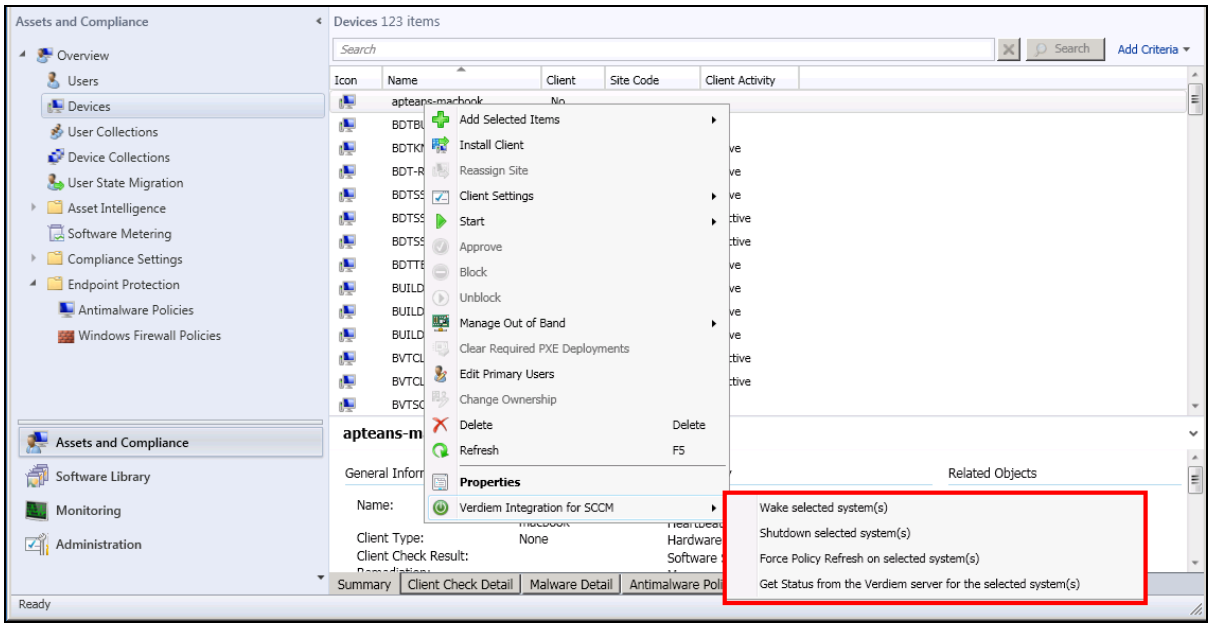
Note: On a 64-bit computer, the files are installed under **Program Files (x86)**.

Perform Power Management Tasks with Configuration Manager Console

When the Connect for Microsoft System Center console extension is installed on a system with Configuration Manager, a Verdiem menu is available from right-clicking a device or device collection in the System Center Configuration Manager.

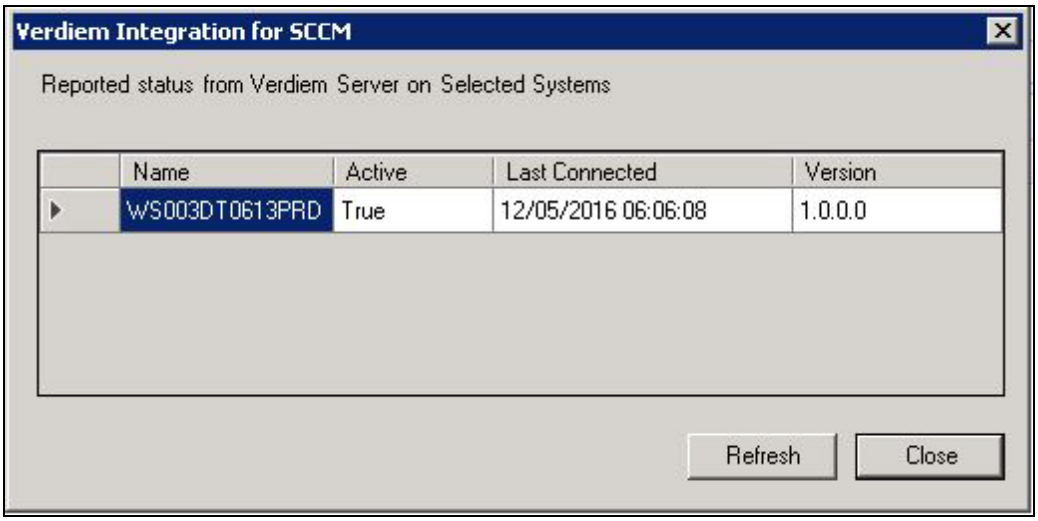
To wake or shutdown systems

Right-click a device or a collection, select **Verdiem**, and then click **Wake select system(s)** or **Shutdown selected system(s)**. These commands send a real-time message to the Verdiem Integration for SCCM service to wake or shutdown the device(s). Devices will receive the command upon the next check-in to Surveyor.



You can also force a policy refresh for the selected systems, or get the connection status from the Surveyor server.

Right-click a device or a collection, select **Verdiem**, and then click **Force Policy Refresh** or **Get Status from the Verdiem server**.



4

Using the Verdiem Integration for SCCM Administrator

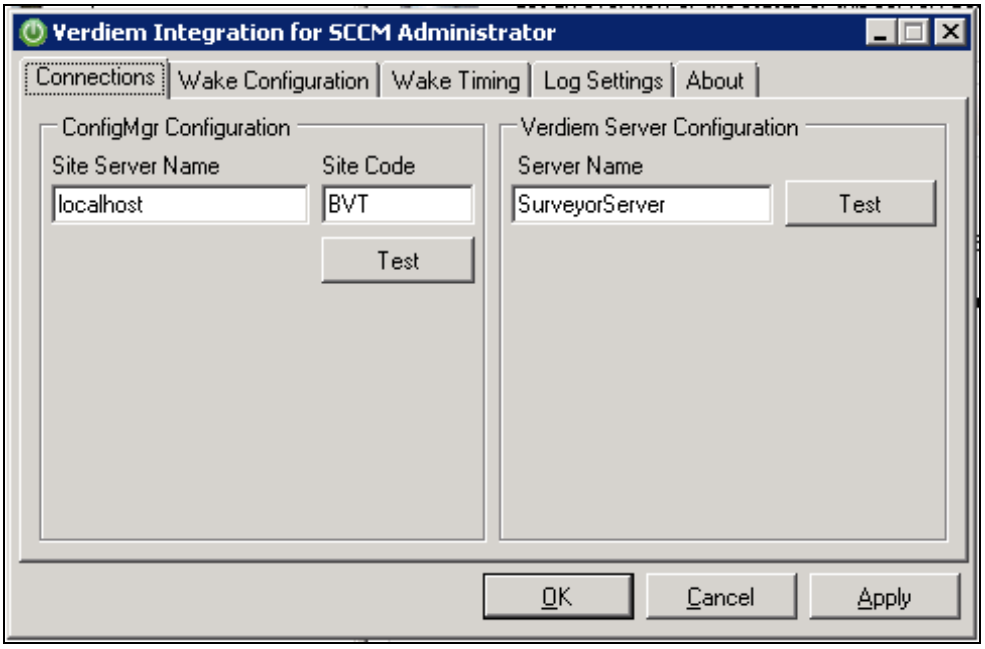
Table 4-1 In this Chapter

Topics
Server and Client Connections and Security
The Log Settings Tab
The Wake Configuration Tab
The Wake Timing Tab
Using Connect for Microsoft System Center for Specific Wake Scenarios

Server and Client Connections and Security

This section describes the settings available in the Administrator console that is installed with Connect for Microsoft System Center.

The settings on the Connections tab specify how Verdiem Integration for SCCM service connects to the Configuration Manager primary site server, the Surveyor server, and Configuration Manager clients.



Configuration Manager Primary Site and Surveyor Server Security

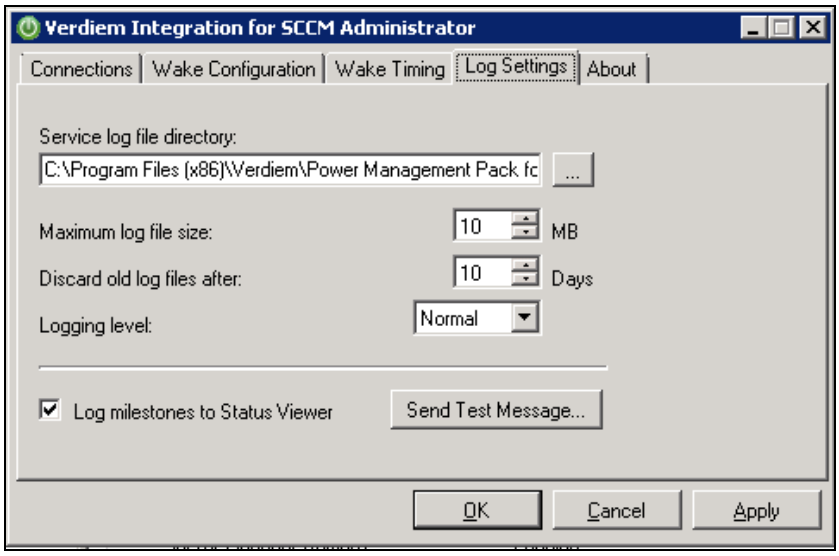
Connections to servers are established according to the following:

- When you run power management operations through the Configuration Manager console, connections to the primary site server and the power management server are made based on the current user's credentials.
- Unless you specified a user for running the Verdiem Integration for SCCM service, the service connects to the Configuration Manager server and the power management server using the local system account.

For additional information about permissions, see *Preparing for Connect for Microsoft System Center Installation on page 2-2*.

The Log Settings Tab

On this tab, you can set file location and size, as well as other event logging parameters.



On the Log Settings tab you can configure the following:

- File path for log files.
- Maximum size of log files stored.
- The number of days to keep a log file.
- Logging level.

  In general, use the **Normal** logging level.

  Use the **Trace** level only when you want to diagnose a specific Verdiem Integration for SCCM service issue, or upon the request of a Technical Support professional as part of the troubleshooting process.

- Connectivity testing, by sending a test message to Configuration Manager.

  If connectivity is functioning properly, you can find the test message by issuing an **All Status Messages** query within the Configuration Manager console.

Viewing Log Files

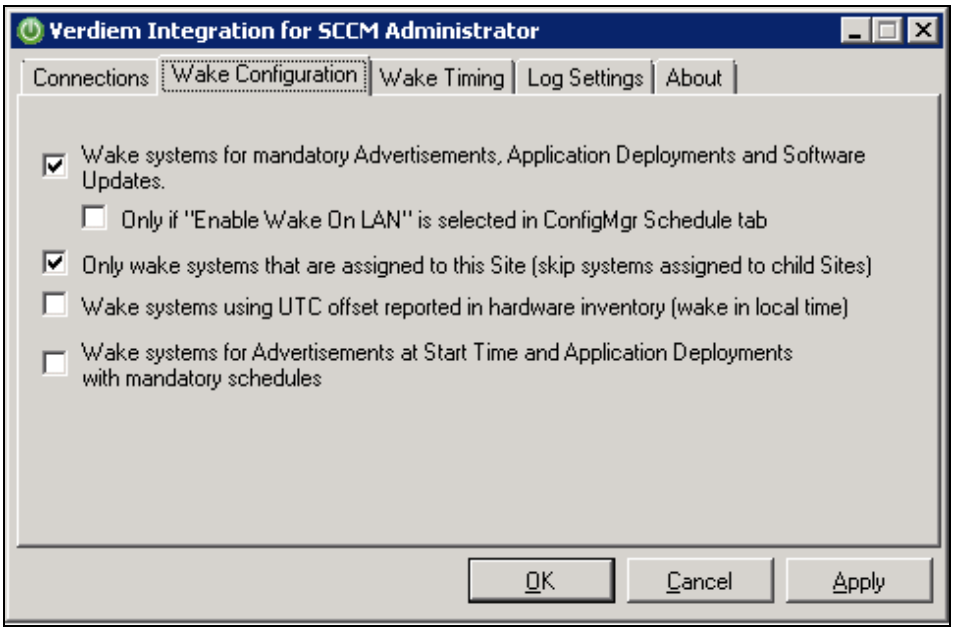
Connect for Microsoft System Center logs activity in the Configuration Manager log file format.

For **System Center Configuration Manager 2012, 1602, 1606, 1610, and 1702**, you can view logs using the **CMTrace** utility. CMTrace.exe is part of SCCM 2012, 1602, 1606,1610, and 1702 and is installed in the **C:\Program Files\Microsoft Configuration Manager\Tools** folder by default.

For **System Center Configuration Manager 2007**, you can view logs using the **Trace32** utility. This utility is part of the **System Center Configuration Manager 2007 Toolkit**, and you can also download it from the Microsoft Download Center.

The Wake Configuration Tab

On the Wake Configuration tab you can specify the behavior of Connect for Microsoft System Center when a required deployment (mandatory advertisement) or update schedule is pending.

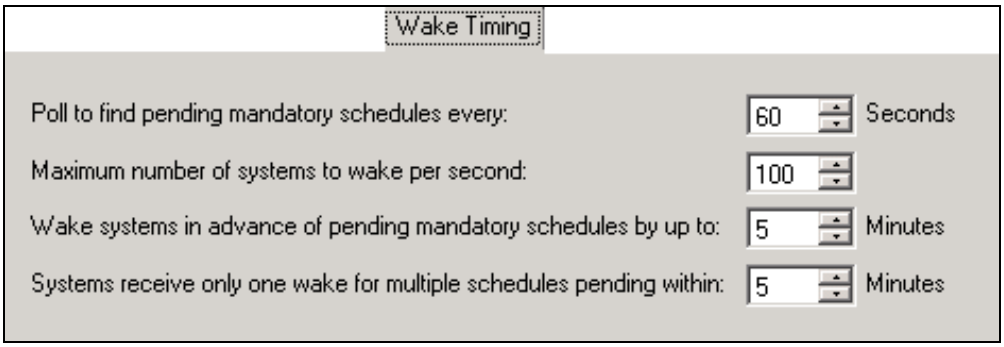


Setting	Default value	Description
Wake systems for mandatory Advertisements, *Application* Deployments and Software Updates	Selected	Select this box to wake systems that receive required deployments (mandatory advertisements) or scheduled updates. If this box is not selected, Verdiem Integration for SCCM will not wake any system.
Only if “Enable Wake on LAN” is selected in ConfigMgr Schedule tab	Not selected	If you selected **Wake system for pending mandatory Advertisements and Software Updates**, select this box as well to wake only the deployments (advertisements) and updates that have the Wake on LAN setting enabled in Configuration Manager for deployments (advertisements) or updates.
Only wake systems that are assigned to this site (skip systems assigned to child sites)	Selected	If this box is not selected, the Verdiem Integration for SCCM will wake systems assigned to child sites.
Wake systems using	Not selected	Select this check box to wake systems for deployments

Setting	Default value	Description
UTC offset reported in hardware inventory (wake in local time)		(advertisements) or updates using the local time zone set in the hardware inventory for those systems. If this check box is not selected, deployments (advertisements) run in the time zone set on the computer that runs the Verdiem Integration for SCCM service. **Note:** This setting is effective only if Configuration Manager hardware inventory is enabled, and only for required deployments (mandatory advertisements) and updates that are not explicitly set in the Configuration Manager to run in UTC time.
Wake systems for Advertisements at Start Time and Application Deployments with mandatory schedules	Not selected	Select to wake systems at deployments' (advertisements') start and mandatory times if a mandatory time is specified. If a mandatory time is not specified, this setting is ignored. If a *Maintenance window* is set, systems wake at the time of the maintenance window.

The Wake Timing Tab

These settings determine when Connect for Microsoft System Center will wake systems targeted by a deployment (advertisement) with a pending mandatory assignment or scheduled software update.



Setting	Default Value	Description
Poll to find pending mandatory schedule every	60 seconds	Set the frequency with which the Verdiem Integration for SCCM service checks with Configuration Manager for new or changed deployments (advertisements) and software updates
Maximum number of systems to wake	100	Use this setting to specify the rate at which to wake systems

Setting	Default Value	Description
per second		for a mandatory schedule if, for example, you want to distribute the load on the Configuration Manager site server or for whatever other reason you do not want to wake all machines at once.
Wake systems in advance of pending mandatory schedules by up to	5 minutes	Specify the maximum number of minutes that can elapse between system wake time and the time of each scheduled required deployment (mandatory advertisement) or update. This value depends on how quickly systems power up and establish network connections. Give systems sufficient time to wake and connect before each deployment (advertisement) or update, but not so much time that they could transition back to sleep before the deployments (advertisement) or update is run.
Systems receive only one wake for multiple schedules pending within	5 minutes	Specify the number of minutes in which you want to allow multiple deployments (advertisements) or updates to complete on overlapping sets of systems, instead of issuing a separate wake request for each.

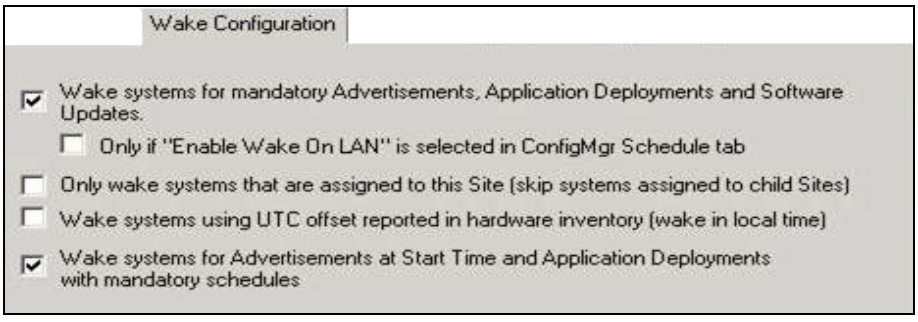
Using Connect for Microsoft System Center for Specific Wake Scenarios

This section lists a few common Configuration Manager scenarios and how Connect for Microsoft System Center coordinates with them.

Wake Clients at Advertisement Start and Mandatory Times

On the Wake Configuration tab, enable the following settings to wake clients at advertisement start time to begin downloading a package, and then again at the mandatory time to run the program.:

- Wake systems for mandatory Advertisements, Application Deployments and Software Updates.
- Wake systems for Advertisements at Start Time and Application Deployments with mandatory schedules.



- Enable other settings as appropriate for your system.

Change the Start Time or Target Collection in an Existing Advertisement

After a program is advertised to the collection specified, you might want to advertise the same program on a different collection or on the same collection at a different time.

If you change the start time or collection on an advertisement, Connect for Microsoft System Center adapts to the new settings.

For example, say you create an advertisement with the following attributes:

Mandatory Schedule	ASAP
Start Time	Jan. 1 and 10:00pm
Target	Collection A

Then on Jan. 2 at 10:00am, you modify the attributes with the following changes:

Start Time	Jan. 2 and 10:00pm
Target	Collection B

Connect for Microsoft System Center wakes Collection A on Jan. 1 at 10:00pm, and then wakes Collection B on Jan 2 at 10:00pm.

Waking Clients for Maintenance Windows

If you use maintenance windows in Configuration Manager, Connect for Microsoft System Center wakes clients for those maintenance windows.

Given a maintenance window of 2:00am to 6:00am on each day of the week:

- If you create an advertisement on a Tuesday and set the mandatory assignment schedule to ASAP, the clients wake at 2:00am on Wednesday (or shortly before, according to the timing you set on the **Wake Timing** tab in the Verdiem Integration for SCCM Administrator console).
- If you create an advertisement on Wednesday and set its mandatory schedule for Friday at 10:00pm, clients wake at 2:00am on Saturday.

Note: If you set an advertisement to ignore maintenance windows, Connect for Microsoft System Center wakes clients according to the schedule you set in the advertisement. See also, *Wake Clients at Advertisement Start and Mandatory Times on the previous page*.

5

Usage of Verdiem Integration for SCCM

Table 5-1 In this Chapter

Topics
Configuring Maintenance Window
Adding Application/Package
Deployment of Application/Package through SCCM
Deployment Scenarios

Configuring Maintenance Window

Configuring Maintenance Window for 2012, 1602, 1606, 1610, and 1702

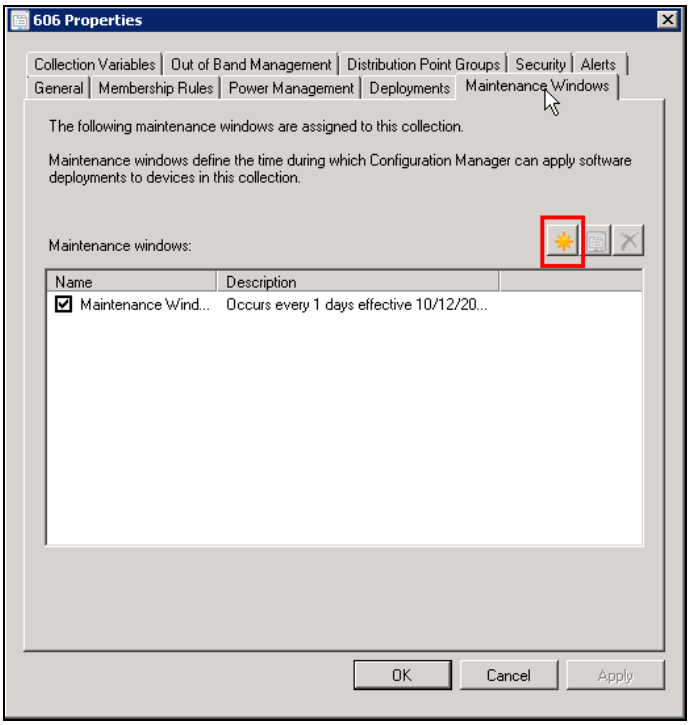
Maintenance windows in System Center 2012 Configuration Manager provide a means by which administrative users can define a time period when various Configuration Manager operations can be carried out on members of a device collection. The process of maintenance includes updating existing applications or deploying new ones.

Maintenance windows are configured for a collection with a start date, a start and finish time, and a recurrence pattern. By default, computer restarts caused by a deployment are not allowed outside of a maintenance window, but you can override the default in the settings for each deployment.

The key point in terms of SCCM application deployment is that the deployment can only occur if the time of deployment falls in the limit of the maintenance window. So, it's an important aspect of the deployment process.

Steps for configuring Maintenance Window

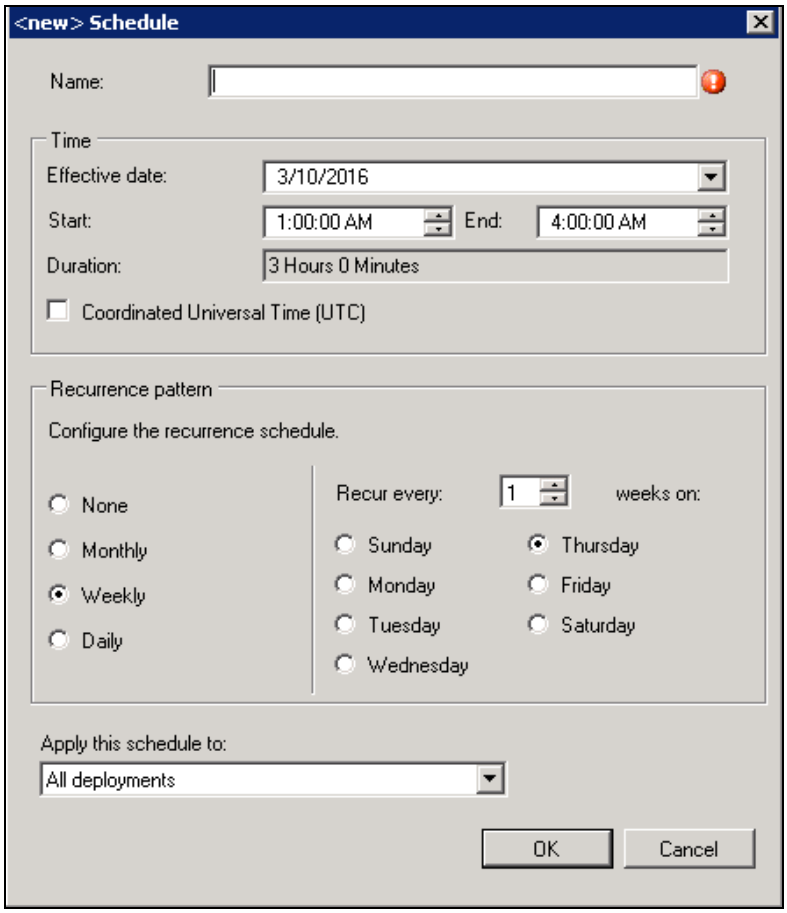
1. In the **Configuration Manager console**, click **Assets and Compliance**.
2. In the **Assets and Compliance** workspace, click **Device Collections**.
3. In the **Device Collections** list, select the collection for which you want to configure a maintenance window. Right click and select **Properties**.
4. The Properties screen appears. Select the **Maintenance Windows** tab.
5. In the **Maintenance Windows** tab of the Properties dialog box, click the **New** icon.



6. In the **<new> Schedule** dialog box, specify a name, a schedule, and a recurrence pattern for the maintenance window. You can also enable the option to apply the schedule to only task sequences.

   Tick the option “Coordinated UTC” if user wishes to use UTC timing else use the local time of the client machines.

7. From the **Apply this schedule** to drop-down list, select whether this maintenance window applies to **All deployments**, **Only software updates**, or **Only task sequences**.
8. Click **OK**.

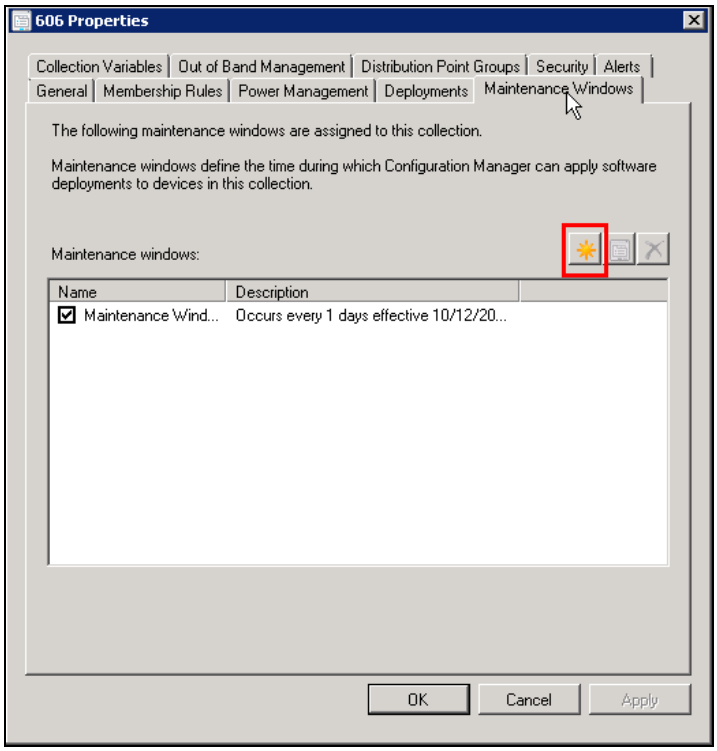


9. Close the **Properties** dialog box.

Configuring Maintenance Window for 2007

1. In the Configuration Manager console, navigate to **System CenterConfiguration Manager**> **Site Database** > **Computer Management** > **Collections**.

2. Right-click the collection for which you want to set a maintenance window, and click **Modify Collection Settings**.
3. On the **Maintenance Windows** tab, click the **New** icon.



4. In the **Name** box, type a name for this maintenance window.
5. In the **Time** area, select an effective date for the window, as well as a start and end time for the window. The duration of the maintenance window is shown below the selected start and end times.
6. Select the **UTC** check box if you want the maintenance windows to be on a Coordinated Universal Time schedule rather than local time.

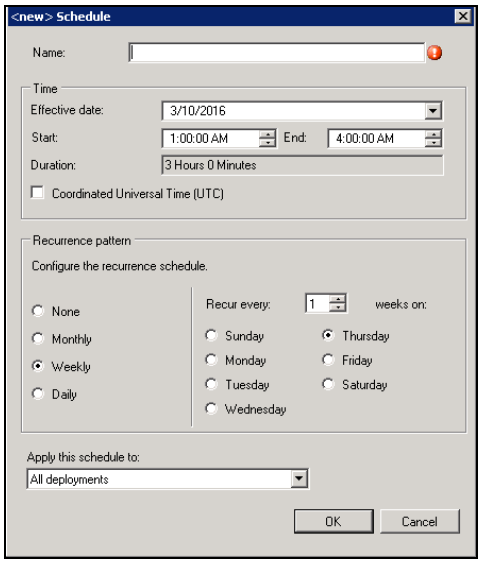
   Tick the option “Coordinated UTC” if user wishes to use UTC timing else use the local time of the client machines.

7. If desired, select a recurrence pattern for the maintenance window.

   For more information about recurrence patterns in custom schedules, see Custom Schedule Dialog Box.

8. If desired, select the **This schedule applies only to operating system deployment task sequences option**.

9. Click **OK**.

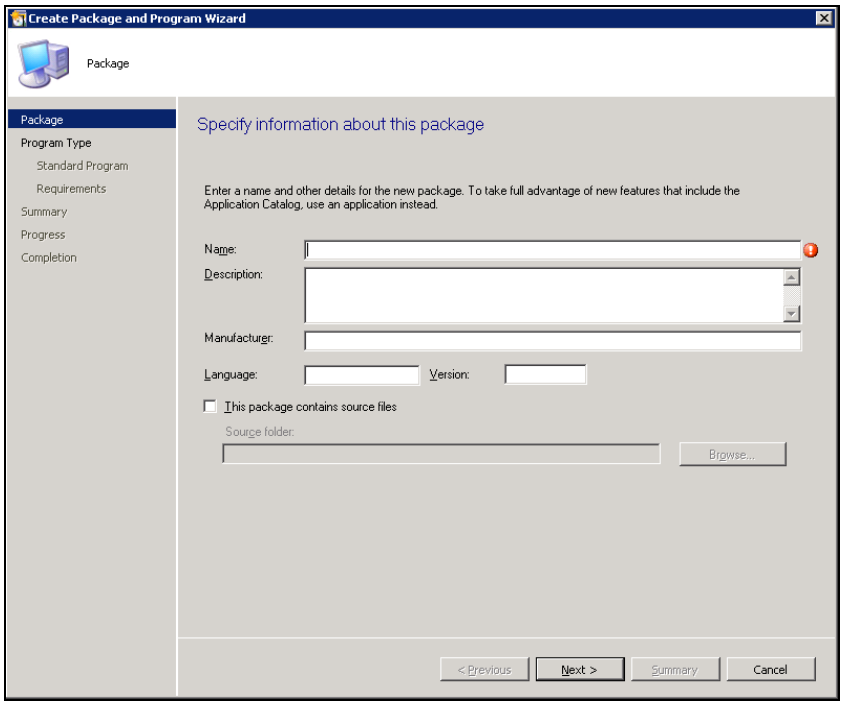


10. Close the **Properties** dialog box.

Adding Application/Package

The following steps are to be followed for adding an Application/*Package* on SCCM 2012, 1602, 1606, 1610, and 1702.

1. In the Configuration Manager console, click **Software Library**.
2. In the Software Library workspace, expand **Application Management**, and click **Packages**.
3. In the **Home** tab, in the **Create** group, click **Create Package**.
4. On the Package page of the **Create Package and Program Wizard**, specify the following fields:



Note: The source folder that you specify to the computer account of the site server must have read access permissions.

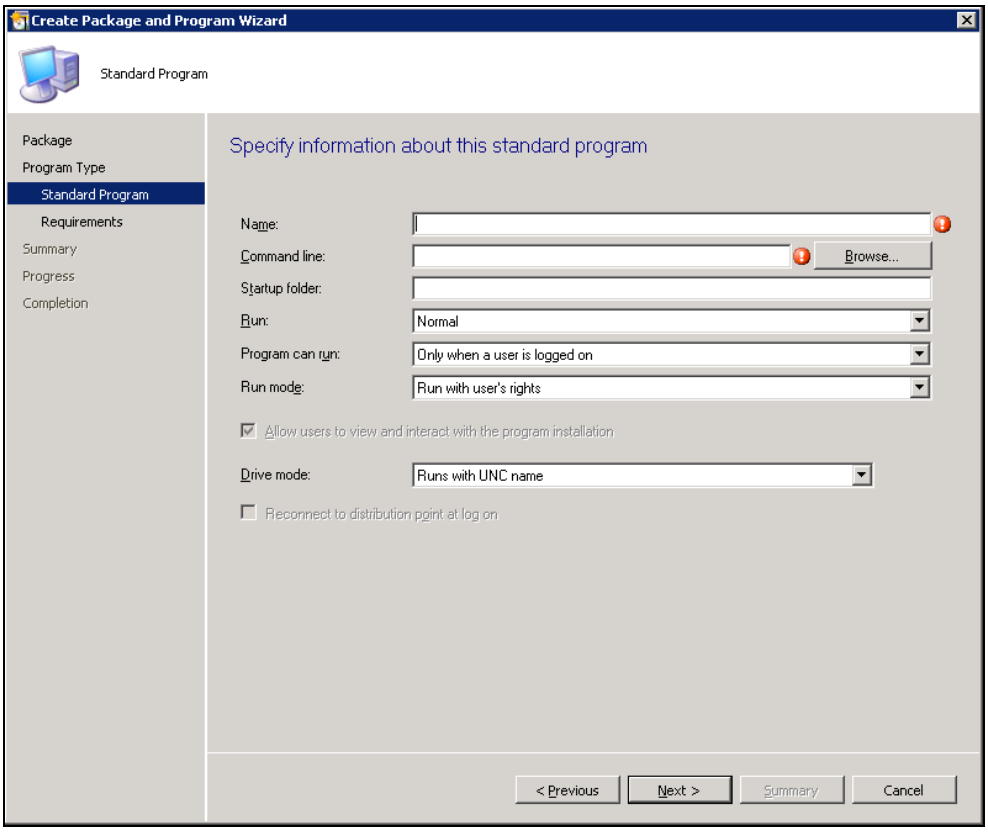
5. On the **Program Type** page of the **Create Package and Program Wizard**, select the type of program to create, and click **Next**.

Note: You can create a program for a computer or device, or you can skip this step and create a program later.

6. Use one of the following procedures to create a standard program or a device program.

To create a standard program

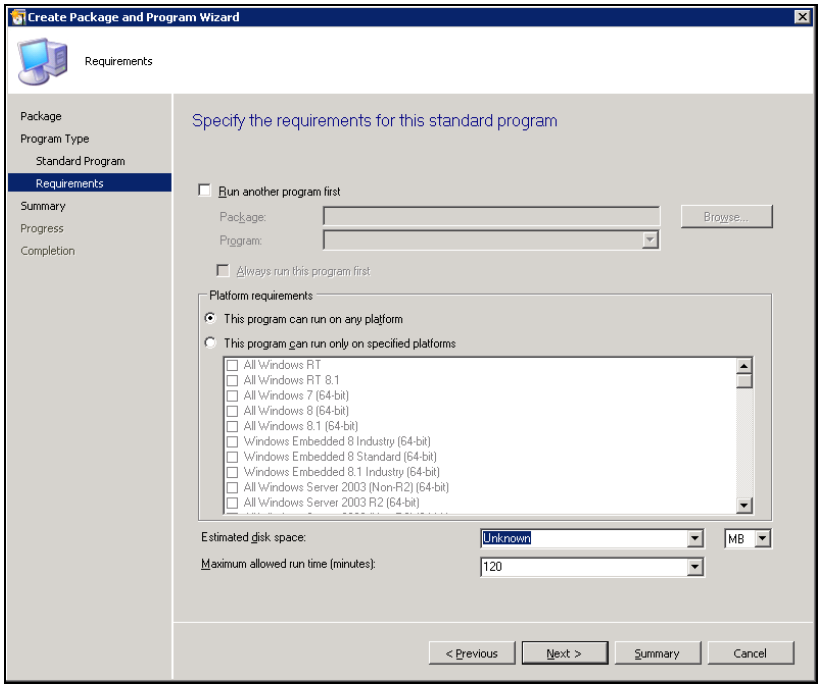
1. On the Program Type page of the Create Package and Program Wizard, select Standard Program, and then click Next.
2. On the Standard Program page of the Wizard, specify the following fields:



- **Name:** Specify a name for the program with not morethan 50 characters.
- **Command Line:** Enter the command line to be used to start this program, or click **Browse** to browse to the file location.
  If a specified file name does not have an extension specified, Configuration Manager attempts to use .com, .exe, and .bat as possible extensions.
  When the program is run on a client, Configuration Manager first searches for the command-line file name within the package, searches next in the local Windows folder, and then searches in local %path%. If the file cannot be found, the program fails.
- **Startup folder:** Optionally use this field to specify the folder from which the program runs, with not more than 127 characters. This folder can be an absolute path on the client or a path relative to the distribution point folder that contains the package.
- **Run:** Specifies the mode in which the program will run on client computers. Select one of the following:

  - **Normal:** The program runs in the normal mode based on system and program defaults. This is the default mode.
  - **Minimized:** The program runs minimized on client devices. Users might see installation activity in the notification area or taskbar.
  - **Maximized:** The program runs maximized on client devices. Users will see all installation activity.
  - **Hidden:** The program runs hidden on client devices. Users will not see any installation activity.
- **Program can run:** Specify whether the program can run only when a user is logged on, run only when no user is logged on, or run regardless of whether a user is logged on to the client computer.
- **Run mode:** Specify whether the program will run with administrative permissions or with the permissions of the currently logged on user.
- **Allow users to view and interact with the program installation:** Use this setting, if available, to specify whether to allow users to interact with the program installation. This check box is available only when **Only when no user is logged on** or **Whether or not a user is logged** on is selected for **Program can run** and **Run with administrative rights** is selected for **Run** mode.
- **Drive mode:** Specify information about how this program will runs on the network. Choose one of the following:
  - **Runs with UNC name:** Indicates that the program runs with a Universal Naming Convention (UNC) name. This is the default setting.
  - **Requires drive letter:** Indicates that the program requires a drive letter to fully qualify its location. For this setting, Configuration Manager can use any available drive letter on the client.
  - **Requires specific drive letter (example: Z:):** Indicates that the program requires a specific drive letter that you specify to fully qualify its location. If the specified drive letter is already used on a client, the program does not run.
- **Reconnect to distribution point at log on:** Use this check box to indicate whether the client computer reconnects to the distribution point when the user logs on. By default, this check box is cleared.

3. On the Requirements page of the Create Package and Program Wizard, specify the following fields:



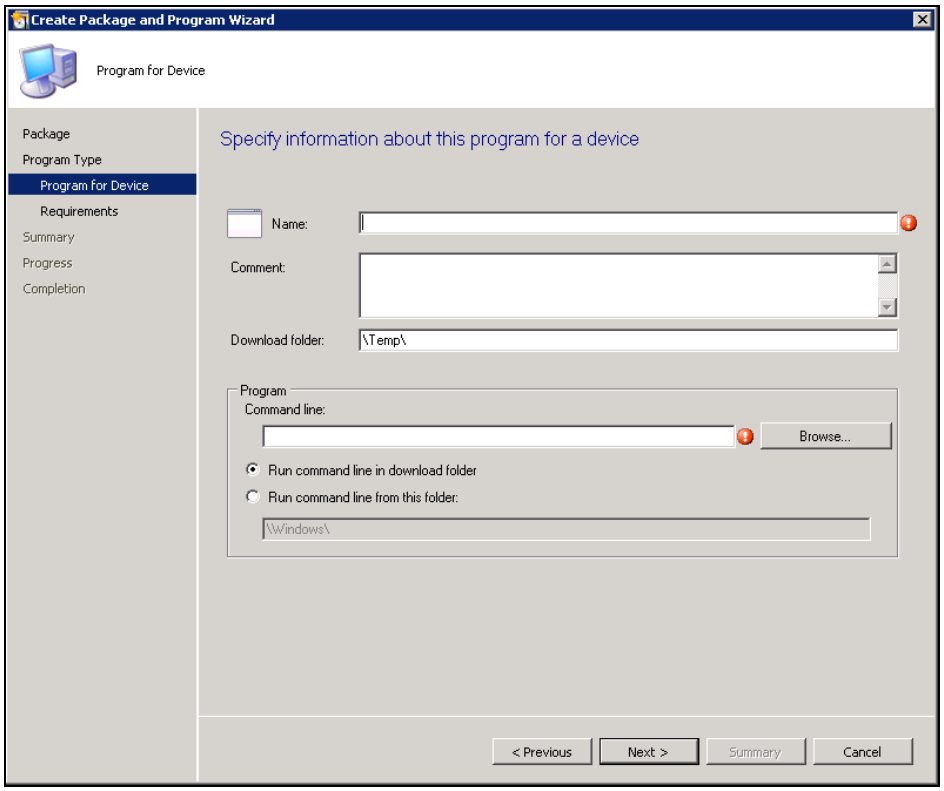
- **Run another program first:** You can use this setting to identify a package and program that will be run before this package and program will be run.
- **Platform requirements:** Select This program can run on any platform or select This program can run only on specified platforms and then choose the operating systems that clients must be running to be able to install the package and program.
- **Estimated disk space:** Specify the amount of disk space that the software program requires to be able to run on the computer. This can be specified as **Unknown** (the default setting) or as a whole number greater than or equal to zero. If a value is specified, units for the value must also be specified.
- **Maximum allowed run time (minutes):** Specify the maximum time that the program is expected to run on the client computer. This can be specified as **Unknown** (the default setting) or as a whole number greater than zero.

  By default, this value is set to 120 minutes.

4. Click **Next** and continue to *To complete the Create Package and Program Wizard*.

To create a device program

1. On the **Program Type** page of the **Create Package and Program Wizard**, select **Program for device**, and then click **Next**.
2. On the Program for Device page of the Wizard, specify the following fileds:

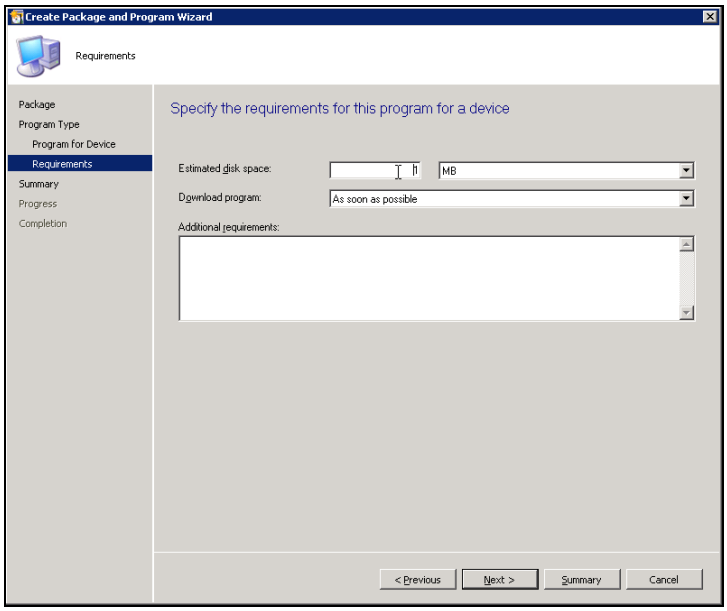


- **Name:** Specify a name for the program with not morethan 50 characters.

Note: The program name must be unique within a package as you cannot modify its name once the program is created.

- **Comment:** Optionally, specify a comment for this device program with not morethan 127 characters.
- **Download folder:** Specify the name of the folder on the Windows CE device in which the package source files will be stored. The default value is **\Temp**.
- **Command Line:** Enter the command line to use to start this program, or click **Browse** to browse to the file location.
- **Run command line in download folder:** Select this option to run the program from the previously specified download folder.
- **Run command line from this folder:** Select this option to specify a different folder from which to run the program.

3. On the **Requirements** page of the Wizard, specify the following fields:



- **Estimated disk space:** Specify the amount of disk space required for the software. This will be displayed to users of mobile devices before they install the program.
- **Download program:** Specify information regarding when this program can be downloaded to mobile devices. You can specify **As soon as possible**, **Only over a fast network**, or **Only when the device is docked**.
- **Additional requirements:** Specify any additional requirements for this program. These will be displayed to users before they install the software. For example, you could notify users that they need to close all other applications before running the program.

4. Click **Next**.

To complete the Create Package and Program Wizard

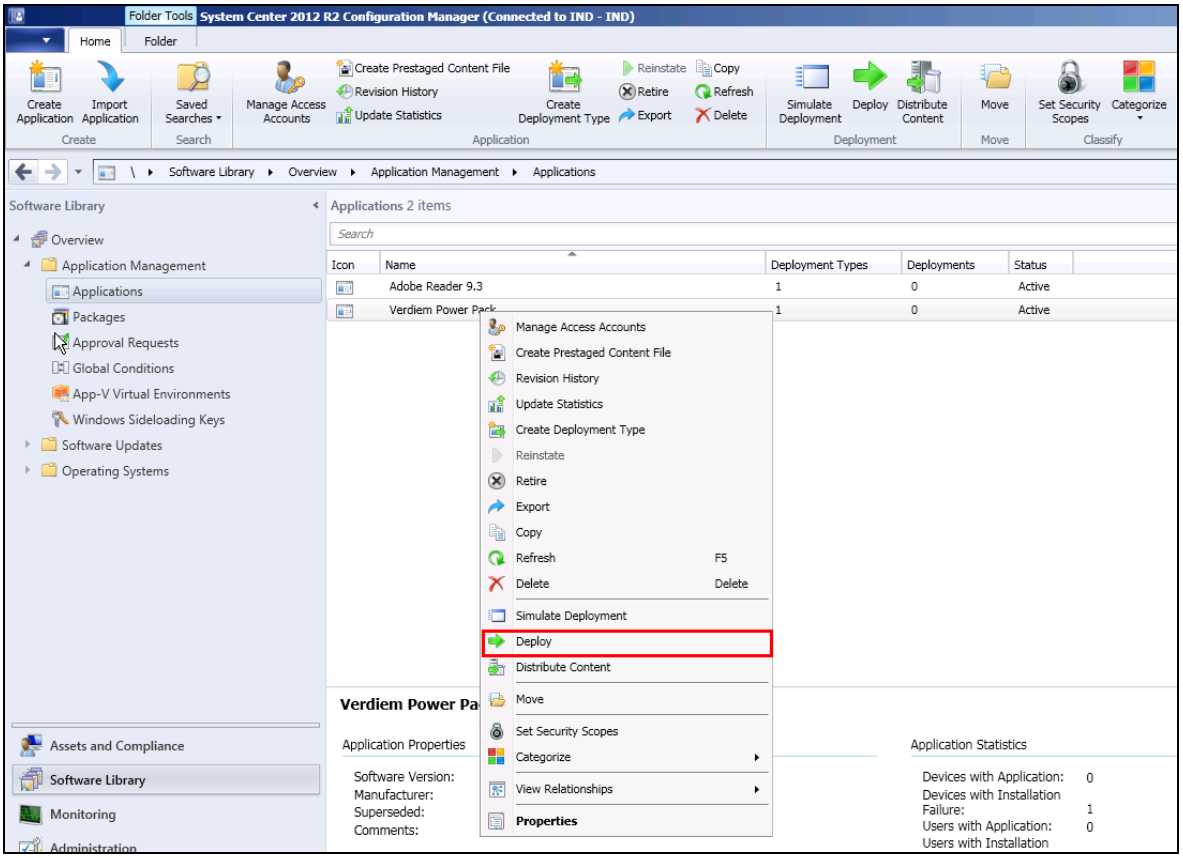
1. On the **Summary** page of the Wizard, review the actions that will be taken, then complete the Wizard.
2. Optionally, verify that the new package and program is displayed in the **Packages** node of the **Software Library** workspace.

Note: For adding an Application/Package in SCCM 2007 see https://technet.microsoft.com/en-us/library/bb632946.aspx.

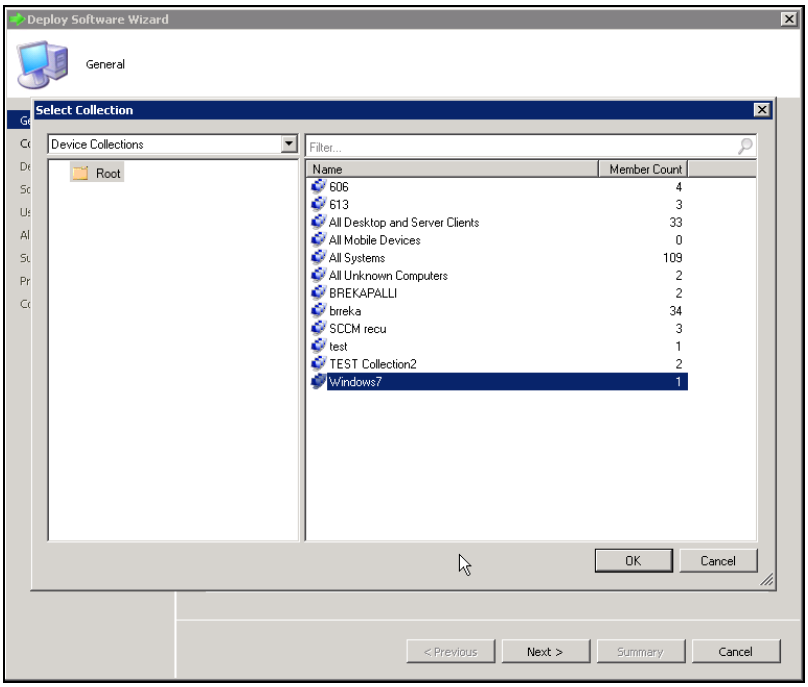
Deployment of Application/Package through SCCM

The following steps are to be followed for a scheduled deployment through SCCM 2012, 1602, 1606, 1610, and 1702:

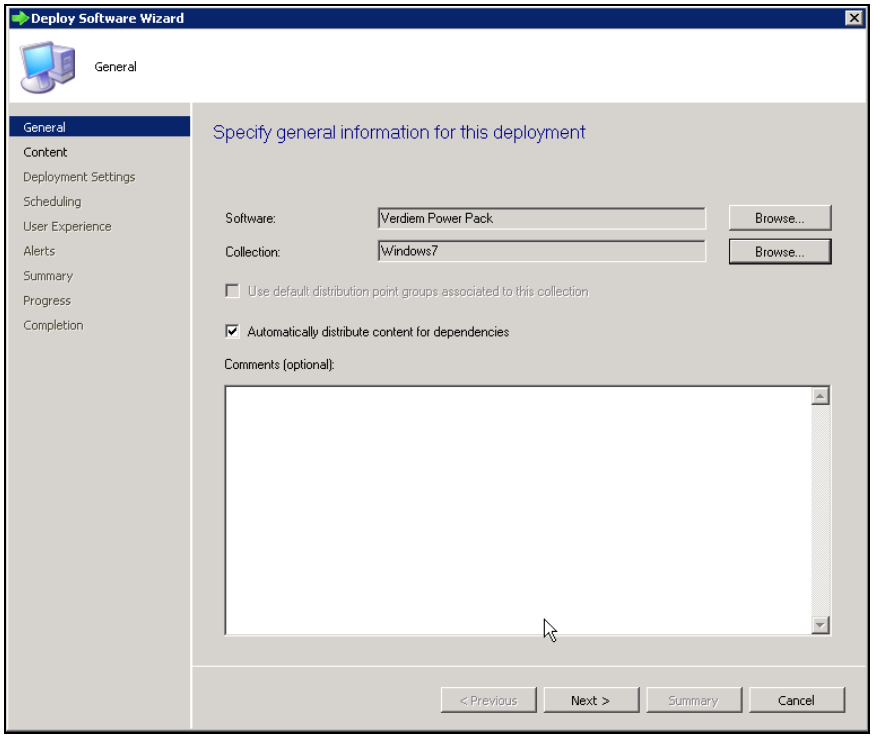
1. Log into the SCCM Server.
2. Click Start and select **Configuration Manager Console**.
3. Select **Software Library** in the left-hand panel. Expand **Applications Management** and Click on **Applications** or **Package**.
4. Right click on the application which need to be deployed and select **Deploy**.



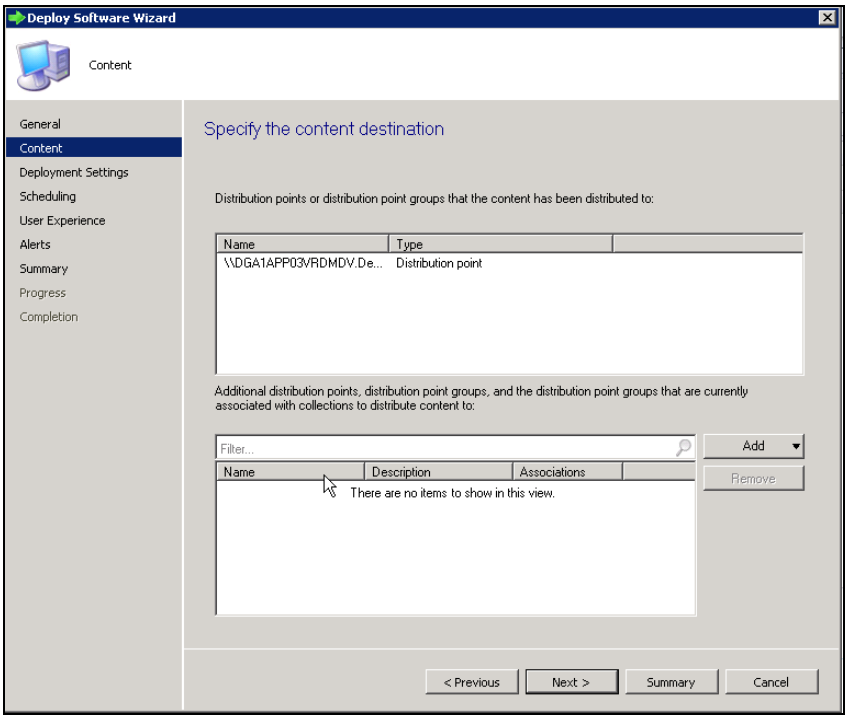
5. Select **Device Collections** at top-left, and then select the appropriate target Collection on the right, click **OK**, and click **Next**.



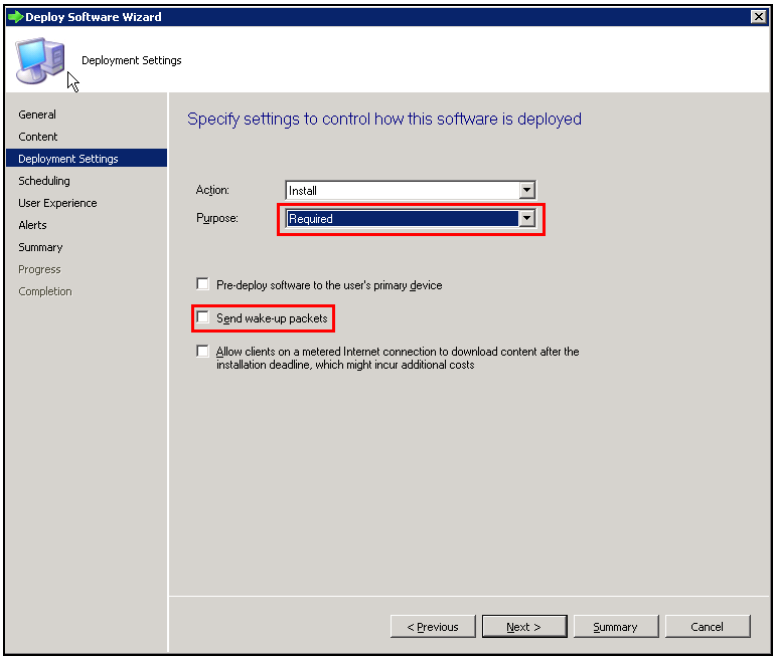
6. Once you have selected the Software (Application) and the Collection, you now have the option of entering some comments to describe this particular Deployment if you desire. Click **Next** to continue.



7. On the **Content** page, confirm the Distribution Point selections, or click **Add** to select additional Distribution Points or Distribution Point Groups if desired, and click **Next** to continue.



8. On the **Deployment Settings** page, select **Required** for the Purpose and check **Send *Wake-up packet***. Click **Next**.



9. On the **Scheduling** page, you can specify a date and time for the Deployment to begin, as well as setting a specific deadline date.

   a. **Schedule when this deployment will become available:** This option is used to specify the time and date from which the application will become available. The time is set according to UTC time zone.If user decides to not select the UTC time, make sure to give the local time of Client machines.

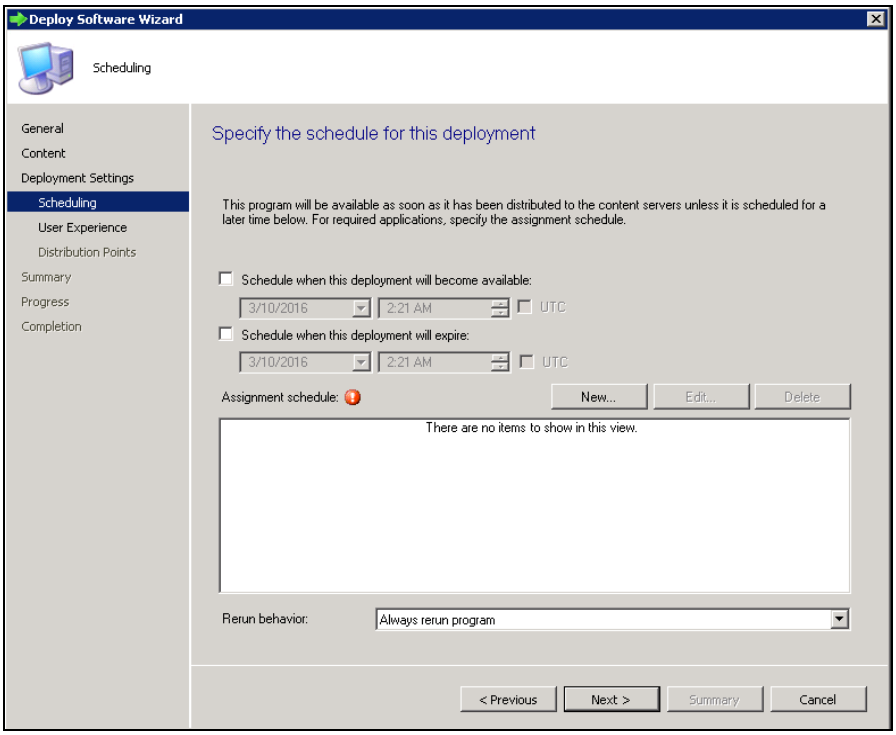
   b. **Schedule when this deployment will expire:** This option is used to specify the time up to which the deployment is available. If user decides to not select the UTC time, make sure to give the local time of expiry client machines.

   Note: It is not recommended to specify the expiry timing of the application.

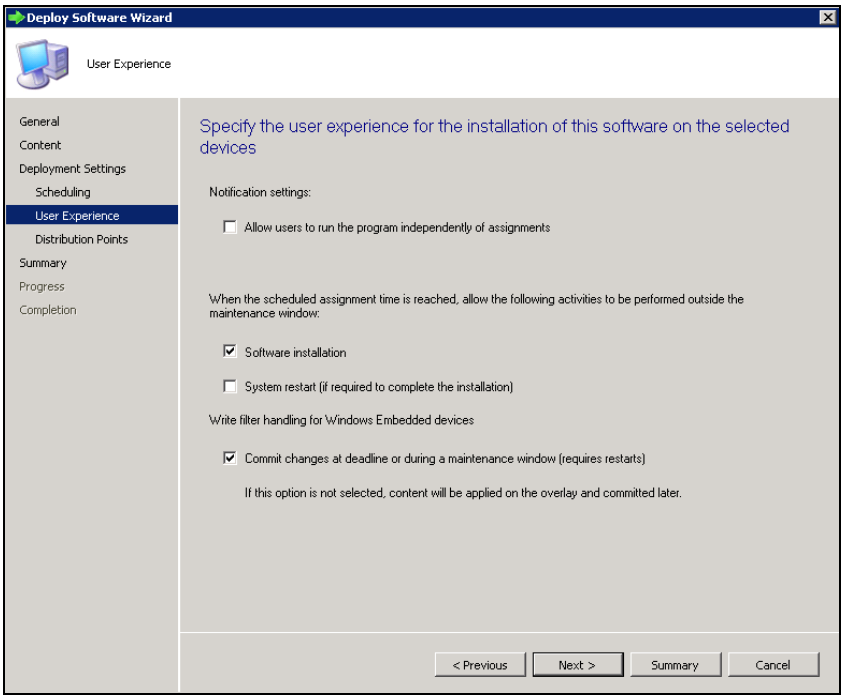
   c. **Assignment Schedule:** This specifies a schedule for an advertised program that is mandatory for a specific collection. If the program has not been run on individual clients within the collection by the scheduled time specified in this dialog box, it will automatically run at that time.

   If user decides to not select the UTC time, make sure to give the local time of client machines. Again, the time should have the difference of 6-8 minutes in the time as stated in the “Schedule when this deployment will become available” setting.

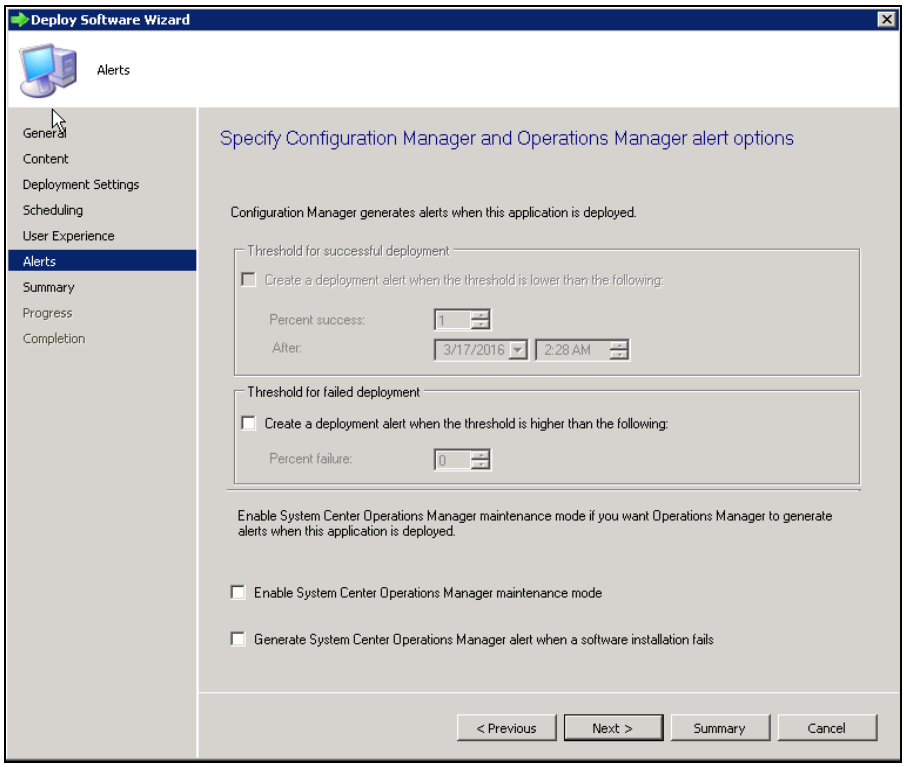
10. Click **Next**.



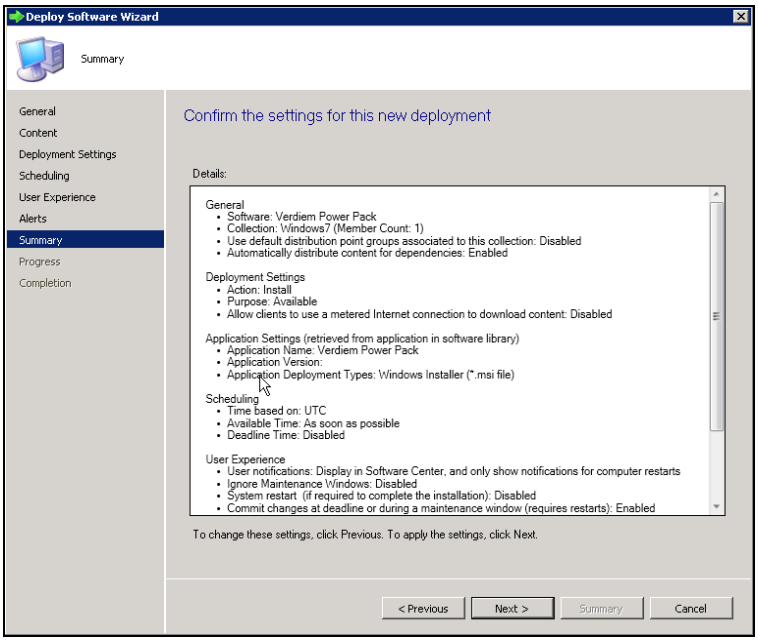
11. In **User Experience** page, check Software Installation and click **Next**.



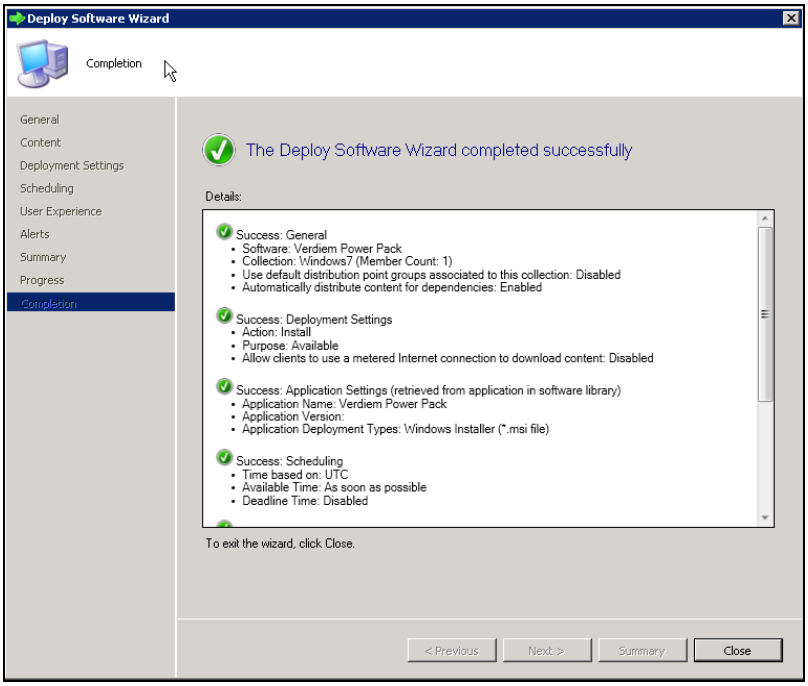
12. On the **Alerts** page, you should select the first two threshold options so that you can properly monitor the Deployment when it becomes active. Click **Next**.



13. On the **Summary** page, click **Next**.



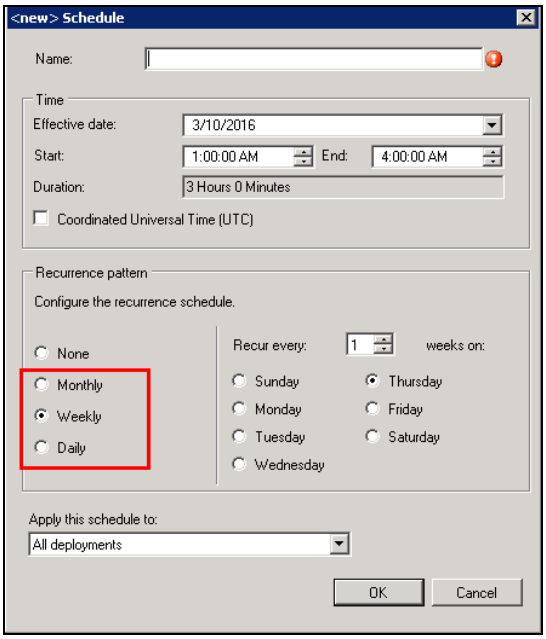
14. After the progress bar finishes, you should see a successful Confirmation. Click **Close**.



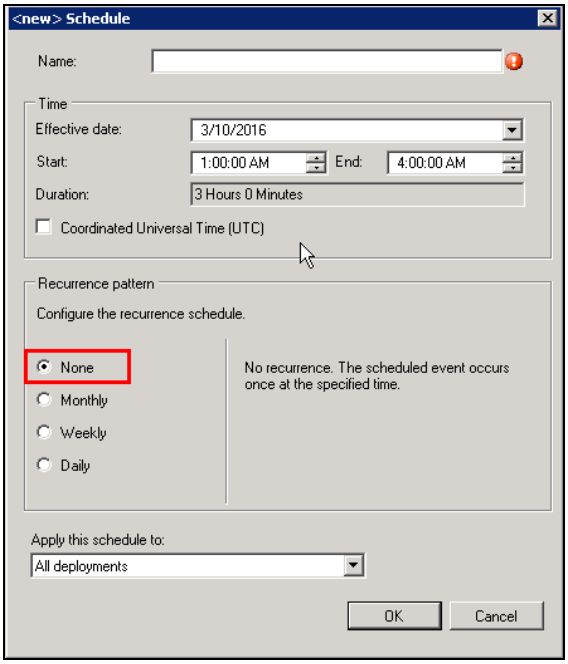
Note: For Deployment of Application/Package through SCCM 2007, see https://technet.microsoft.com/en-in/library/bb693597.aspx.

Types of Deployments Schedule

Recurring Deployment scheduling: Whenever the user need to deploy an application repeatedly, the user can customize the recurrence pattern by selecting the option of Monthly/Weekly/Daily.



Non-recurring Deployment scheduling: Whenever the user does not want the deployment to repeat, the user need to select None in the recurrence pattern.



Deployment Scenarios

The following are the examples for deployment scenarios:

1. Package is deployed using UTC time zone. Time zones of client machines and SCCM server are different.

Example Scenario: If the time zone of SCCM server is EST and the time zone of client machines is CST:

- In Surveyor **Verdiem Integration for SCCM Administrator console**, under **Wake Configuration** tab, clear the **Wake system using UTC offset reported in hardware inventory (wake in local time)** check box. *The Wake Configuration Tab on page 4-4*
- While creating the deployment in **Deploy Software Wizard**, select the **Scheduled with UTC** check box. See *Deployment of Application/Package through SCCM on page 5-13*

2. Package is deployed using UTC time zone. Time zone of client machines is a mix of different time zones

Example Scenario: If time zone of SCCM server is CST and time zone client machines is a mix of EST and CST:

- In Surveyor **Verdiem Integration for SCCM Administrator console**, under **Wake Configuration** tab, select the **Wake system using UTC offset reported in hardware inventory (wake in local time)** check box. See *The Wake Configuration Tab on page 4-4*
- While creating the deployment in the **Deploy Software Wizard**, select the **Scheduled with UTC** check box. See *Deployment of Application/Package through SCCM on page 5-13*

3. Package is deployed using local time. Time zone is the same for client machines and SCCM server.

Example Scenario: If time zones of SCCM server and client machines are EST:

- In Surveyor **Verdiem Integration for SCCM Administrator console**, under **Wake Configuration** tab, clear the **Wake system using UTC offset reported in hardware inventory (wake in local time)** check box. See *The Wake Configuration Tab on page 4-4*
- While creating the deployment in the **Deploy Software Wizard**, clear the **Scheduled with UTC** check box. See *Deployment of Application/Package through SCCM on page 5-13*

4. Package is deployed using local time. Time zone of client machines is a mix of different time zones.

Example Scenario: If time zone of SCCM server is CST and time zone of client machines is a mix of EST and CST:

- In Surveyor **Verdiem Integration for SCCM Administrator console**, under **Wake Configuration** tab, select the **Wake system using UTC offset reported in hardware inventory (wake in local time)** check box. *The Wake Configuration Tab on page 4-4*
- While creating the deployment in **Deploy Software Wizard**, clear the Scheduled with UTC check box. See *Deployment of Application/Package through SCCM on page 5-13*

6

Troubleshooting

Table 6-1 In this Chapter

Topics
Troubleshooting

Troubleshooting

This topic describes the various location that provide troubleshooting information for wake or server connection issues.

Log Files

If you find any abnormalities with Surveyor plug-in or Surveyor server, view the log files present in the default location:

```
Program Files\Verdiem\Power Management Pack for ConfigMgr\Logs
```

Connect for Microsoft System Center produces three types of logs. Log files are saved in the location you specify on the **Log Settings** tab of the Verdiem Integration for SCCM Administrator console.

The beginning of each log file name indicates the component that generated the logging information, as described in the following table.

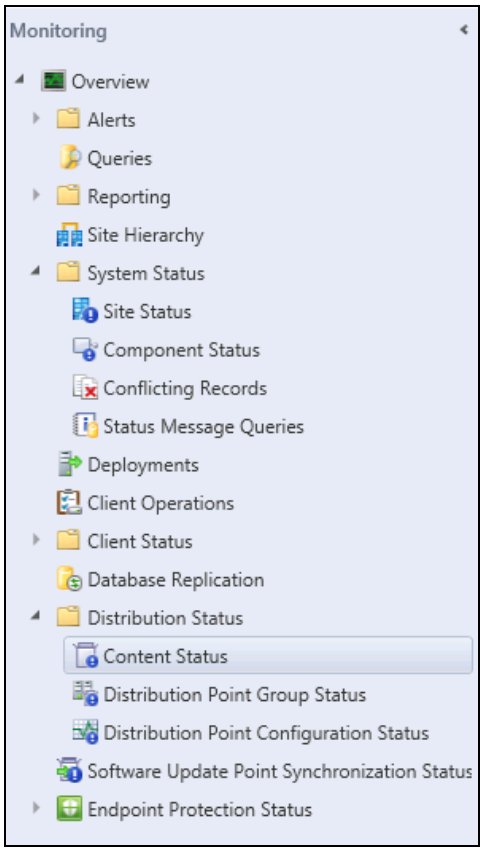
Log file name	Component
PowerPackForConfigMgrConsoleIntegration.log	Stores messages created by the Connect for Microsoft console extension component.
PowerPackForConfigMgrAdmin.log	Stores messages created by Verdiem Integration for SCCM Administrator console.
PowerPackForConfigMgr.log	Stores messages created by the Verdiem Integration for SCCM service.

When a log file reaches its maximum size, the current date and the number of the file are appended to the end of the file name.

Activity from Mandatory Deployments and Software Updates

The Verdiem Integration for SCCM service logs activity from deployments and updates.

To view messages for troubleshooting wake operations, you can navigate to the **Monitoring > Distribution Status** section in the Configuration Manager console.



Checklist for successful wake.

- Test the connectivity of the SCCM Server with the Surveyor Server in the Verdiem Integration for SCCM Administrator. For further information refer *Administation Guide*
- Check the permissions in the SCCM Server and the Surveyor Server.
- Check Maintenance Window. For further information on Maintenance Window refer *Configuring Maintenance Window on page 5-2*

Wake is not happening, and the PowerPackForConfigMgrAdmin log says the user lacks permission for the Verdiem Integration for SCCM service.

This error occurs due to lack of permissions. If Solution 1 does not solve your issue, move to Solution 2.

Solution 1 - Giving appropriate privileges:

a. Log into the SCCM machine with Administrative privileges (make sure that the user account has same privileges in the Surveyor Server as well).

b. Navigate to **Administration**>**Overview**>**Security**>**Administrative**

c. Select Full Administrator and Application Administrator as the security roles.

Solution 2 - Running the Verdiem Integration for SCCM service as a current user account:

a. Go to **Run** and type **services.msc**.

b. Right-click on Verdiem Integration for SCCM service and click **Properties**.

c. On the Properties window, select **Log ON** tab.

d. On the Log ON tab, choose **This account**.

e. Provide credentials.

Wake is not happening the possible reasons are as follows:

- Incorrect configuration of the Maintenance Window

  One of the reasons for wake failure from the Verdiem Integration for SCCM is the mismatch in the deployment schedule and maintenance window. Please make sure that the deployment is scheduled within the maintenance window. For further information on Maintenance Window refer *Configuring Maintenance Window on page 5-2*.

- Incorrect input in the Deployment Schedule Wizard for UTC time zone and Local Time zone

  The time input in the Deployment Schedule Wizard can either be UTC or Local time depending on your preference.

  If you choose UTC, follow the steps as given in *Deployment of Application/Package through SCCM on page 5-13*

  If you choose Local Time, follow the steps as given in *Deployment of Application/Package through SCCM on page 5-13*.

  Scheduled deployment link for Local Time

Note: Always ensure the sufficient time between package/application creation and deployments.
To check the minimum required time difference between Package Availability and its Deployment Time:
a). Click Start and open Verdiem Integration for SCCM Administrator.
b). In Verdiem Integration for SCCM Administrator, click the Wake Timings tab.
c). Check the number of minutes in Wake systems in advance of pending mandatory schedules by up to.
The time gap is depeneded upon the number of client manchines which need to be wake for the deployment.

Failure of Recurring Deployments.

Failure of Recurring Deployments occurs because the maintenance window has different recurring patterns. Please make sure to give the same recurring pattern as the advertisement to the maintenance window.

If this does not solve your issue, please contact www.aptean.com.

Glossary

Term	Definition
Automatic deployment rule	It is a very powerful feature that lets you fully automate the software update deployment process. The rule contains information about the run time, what updates to download, where to store the updates, and whether the deployment will be automatically enabled.
Collection	A set of resources in the Configuration Manager hierarchy. These are the group of Client Systems connecting to the SCCM Server.
Application	An application state that is associated with the deployment of package, such as Available or Required.
Maintenance window	A period of time, defined by administrators, when changes can be made on the computers that are members of a Configuration Manager collection.
Package	A Configuration Manager object that contains the content files and instructions for distributing programs, software updates, boot images, operating system images, and drivers to Configuration Manager clients.
Surveyor Plug-in/ Verdiem Integration for SCCM	Plug ins are installed along with SCCM. It acts as an interface between the Surveyor Server and SCCM Server. This is the basic requirement to achieve Wake Operations from SCCM and Surveyor Server together.
Software update group	It is a group of updates that can be deployed to devices. They can also be used to track update compliance. A software update group can be created automatically using the Automatic Update Rule feature or manually by selecting the updates.
Software update templates	It can be controlled by the use of templates. You should create one template for each unique deployment scenario.
Wake-up packet	A packet that is sent by a Configuration Manager primary site server to bring computers out of a sleep state so that they can perform a management function, such as installing a required software update.