Cisco UCS Integration Pack Suite Installation and Configuration Guide, Release 1.1

For Microsoft System Center 2012, Configuration Manager
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Preface

This preface includes the following sections:

About this document

This document covers the features and functionalities of the Cisco UCS Integration Pack Suite. It also guides you on how to install and use the Cisco UCS Integration Pack Suite in a typical scenario. This document does not cover:

- All the scenarios or ways in which the Cisco UCS Integration Pack Suite can be used.
- Information on System Center Configuration Manager, its installation, or features and functionalities. For details on System Center Configuration Manager, see the Microsoft TechNet site at technet.microsoft.com.

Audience

This guide is intended primarily for data center administrators with responsibilities and expertise in one or more of the following:

- Server administration
- Storage administration
- Network administration
- Network security

Conventions

This document uses the following conventions:

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

Note Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the manual.

Tip Means *the following information will help you solve a problem*. The tips information might not be troubleshooting or even an action, but could be useful information, similar to a Timesaver.

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

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

Warning **IMPORTANT SAFETY INSTRUCTIONS**

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of

each warning to locate its translation in the translated safety warnings that accompanied this device.

SAVE THESE INSTRUCTIONS

Cisco UCS Communities

Cisco UCS Communities is a platform to discuss, share and learn about the Cisco UCS products and technologies. For blogs, discussion forums and documents related to UCS integrations with partner ecosystem, visit https://communities.cisco.com/ucsintegrations.

Related Cisco UCS Documentation

Documentation Roadmaps

For a complete list of all B-Series documentation, see the *Cisco UCS B-Series Servers Documentation Roadmap* available at the following URL: Cisco UCS B-Series Servers Documentation Roadmap

For a complete list of all C-Series documentation, see the *Cisco IMC Servers Documentation Roadmap* available at the following URL: *Cisco UCS C-Series and Cisco C880 Series Documentation Roadmap*.

For a complete list of all E-Series documentation, see the *Cisco IMC Servers Documentation Roadmap* available at the following URL: Documentation Guide for Cisco UCS E-Series Servers

Other Documentation Resources

An ISO file containing all B and C-Series documents is available at the following URL: http://www.cisco.com/cisco/software/type.html?mdfid=283853163andflowid=25821. From this page, click **Unified Computing System (UCS) Documentation Roadmap Bundle**.

The ISO file is updated after every major documentation release.

Follow Cisco UCS Docs on Twitter to receive document update notifications.

Documentation Feedback

To provide technical feedback on this document, or to report an error or omission, please send your comments to ucs-docfeedback@cisco.com. We appreciate your feedback.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see *What's New in Cisco Product Documentation* at: http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html.

Subscribe to *What's New in Cisco Product Documentation*, which lists all new and revised Cisco technical documentation, as an RSS feed and deliver content directly to your desktop using a reader application. The RSS feeds are a free service.

Text Part Number:

Overview

This chapter includes the following sections:

About the Cisco UCS Integration Pack Suite

Cisco UCS Integration Pack Suite, Release 1.1.1 is a unified installer which includes Cisco UCS Manager Integration Pack, and Cisco IMC Integration Pack. It installs the integration pack as a plug-in the System Center 2012 Configuration Manager. It helps to simplify the server management tasks, such as hardware provisioning, operating system deployment processes on the Cisco UCS B, C and E series servers.

System Requirements

Before installing **Cisco UCS Integration Pack Suite**, ensure the system meets or exceeds the following minimum requirements:

Software Requirements

- .NET Framework 4.5 or higher
- Java Version 1.6 Update 45 or higher
- Following version of System Center 2012 Configuration Manager Primary Site or Admin Console Installations:
  - System Center 2012 Configuration Manager

  - System Center 2012 Configuration Manager SP1
  - System Center 2012 R2 Configuration Manager
  - System Center 2012 R2 SP1 Configuration Manager
  - System Center 2012 Configuration Manager SP2

Supported Operating Systems and Versions

The Cisco UCS Integration Pack Suite supports the following operating systems:

- Microsoft Windows Server 2012 R2 (64-bit)
- Microsoft Windows Server 2012 (64-bit)
- Microsoft Windows Server 2008 R2 (64-bit)

Supported Hardware Platforms

Cisco UCS Manager Integration Pack

The supported UCS Manager B-Series and C-series platforms depends on the running UCS Manager version. For information on supported hardware and software for UCS Manager components, see the **Hardware and Software Interoperability for UCSM Managed Servers**.

Cisco IMC Integration Pack

The Cisco IMC Integration Pack is supported on the following hardware platforms:

Supported C-Series Servers

- Cisco UCS C220 M4 Server
- Cisco UCS C240 M4 Server
- Cisco UCS C460 M4 Server
- Cisco UCS C22 M3 Server
- Cisco UCS C24 M3 Server
- Cisco UCS C220 M3 Series Server
- Cisco UCS C240 M3 Series Server
- Cisco UCS C260 M2 Server
- Cisco UCS C420 M3 Server
- Cisco UCS C460 M2 Server

Supported E-Series Servers

- Cisco UCS E160D-M1/K9
- Cisco UCS E160DP-M1/K9
- Cisco UCS E140D-M1/K9
- Cisco UCS E140S-M1/K9

UCS Manager Releases

Cisco UCS Manager Integration Pack is supported on the following UCS Manager releases:

- Release 2.1
- Release 2.2

Cisco IMC Releases

The Cisco IMC Integration Pack is compatible with Cisco Integrated Management Controller (IMC) Version 1.5(2) or higher for C-Series servers and Version 2.3(x) and higher for E-Series servers.

Cisco IMC 1.5(1) supports the following features:

- Import Cisco Servers
- Import Driver Packages
- RAID Configuration
- OS Deployment

Note Configuring BIOS on Cisco UCS C-series servers requires Cisco IMC version of 1.5(4) or higher.

Cisco Drivers Package Support Matrix

Following table provides details of the Cisco UCS Driver Zip support matrix for the integration packs:

	Windows Server 2008 R2	Windows Server 2012	Windows Server 2012 R2
Cisco UCS Manager Integration Pack	1.5(4) and higher	1.5(4) and higher	1.5(4) and higher
Cisco IMC Integration Pack	1.5(3) and higher	1.5(3) and higher	1.5(4) and higher

Note For Cisco UCS C-Series and B-Series M4 servers, minimum version of driver zip supported is 2.0(3) and higher for all the supported operating systems.

Note For Cisco UCS E-Series server, 2.0(1a) is the supported driver package version to deploy Windows Server 2008 R2.

Installation Requirements

Note Upgrade from previous versions of Cisco UCS Manager Integration Pack, Cisco IMC Integration Pack is not supported. Uninstall any previous versions of Integration packs before installing the Cisco UCS Integration Pack Suite.

To install or uninstall the Cisco UCS Integration Pack Suite on the systems with User Account Control (UAC) enabled, open a Command Prompt using Run as Administrator and navigate to the directory where the MSI is located and launch the installer.

Installing Cisco UCS Integration Pack Suite

This chapter includes the following sections:

Installing the Cisco UCS Integration Pack Suite

Step 1 Download the **Cisco UCS Integration Pack Suite** installer from cisco.com.

Step 2 Double-click the installer to launch **Cisco UCS Integration Pack Suite** setup file.

Note If the **Configuration Manager Console** is open and you launch the installer, a corresponding error stating *Installation/Uninstallation of product is not possible when the Configuration Manager administrator console is open, Do you want to close the console and continue?* Click yes to close the console and continue with the installation.

Step 3 In the **Setup Wizard** screen, click **Next**.

Step 4 In the **License Agreement** screen, do the following:

a. Review the End User License Agreement.

b. Click the **I accept the terms in the License Agreement** radio button.

c. Click **Next**.

Step 5 Click the **Setup Type**.

This can be one of the following:

- **Complete**—Installs UCS Manager, and Cisco IMC Integration Packs
- **Custom**—Allows you to install the integration pack you want

Step 6 Click **Next**.

Step 7 For custom install, following these steps;

a. Select the integration pack which you do not want to install.

b. From the drop-down list, click **This feature will not be available**.

After the **Cisco UCS Integration Pack Suite** is successfully installed, the **InstallShield Wizard Completed** screen displays.

Step 8 Click the **Finish** button to exit.

Modifying and Repairing Cisco UCS Integration Pack Suite Installation

Step 1 Navigate to **Start > Control Panel > Programs and Features**.

Step 2 Select **Cisco UCS Integration Pack Suite** from the list of programs installed.

Step 3 Click **Change**.

The Cisco UCS Integration Pack Suite - Installation Wizard opens.

Step 4 Click **Next**.

The Cisco UCS Integration Pack Suite - Installation Wizard opens.

a. Click **Next**.

Custom Setup page appears.

b. Select the integration pack you want to add or remove from the existing installation, and choose the corresponding option from the drop-down list.

Step 5 To repair the installation, click **Repair > Next**.

Step 6 Click **Install**.

Step 7 Click **Finish**.

Uninstalling the Cisco UCS Integration Pack Suite

Step 1 (Optional) Ensure that the Configuration Manager application is not running. If it is, close the program.

Step 2 Choose **Start > Control Panel > Program and Features**. The **Program and Features** window appears.

Step 3 From the list of programs, select **Cisco UCS Integration Pack Suite** and click **Uninstall**.

Note If the **Configuration Manager Console** is open and you launch the uninstaller a corresponding error stating *Installation/Uninstallation of product is not possible when the Configuration Manager administrator console is open, Do you want to close the console and continue?* Click yes to close the console and continue with the uninstallation.

The **Cisco UCS Integration Pack Suite** is uninstalled.

Driver Management and Task Sequence

This chapter includes the following section:

Importing Driver Packages

The **Cisco UCS Driver Package** wizard allows you to import driver zip packages from Cisco.com or local file system for both Cisco IMC and UCS Manager. The driver catalog is located in the **Software Library** workspace and comprises the following two nodes:

- Drivers — The **Drivers** catalog lists all the imported drivers. You can view details of each driver, what driver package or boot image a driver belongs to. You can also enable or disable a driver, and so on.
- Driver Packages — The **Driver Packages** catalog lists all the driver packages you created. You can create these packages when you import drivers into the **Drivers** catalog, or you can create them directly in the **Driver Packages** catalog.

Following table provides details of the zip support matrix based on the server model and Operating System version:

	Windows Server 2008 R2	Windows Server 2012	Windows Server 2012 R2
Cisco UCS C-Series Servers	1.5(3) and above	1.5(3) and above	1.5(4) and above
Cisco UCS E-Series Servers	2.0(1a)	1.5(3) and above	1.5(4) and above

Note For Cisco UCS C-Series M4 servers, minimum version of driver zip supported is 2.0(3) and higher for all the supported operating systems.

Step 1 Select **Start > All Programs > Microsoft System Center> Configuration Manager > Microsoft Configuration Manager Console**.

The **Microsoft Configuration Manager Console** screen displays.

Step 2 From the left pane of the console, select **Software Library > Overview > Operating Systems > Driver Packages** catalog.

Step 3 Right-click the **Driver Packages** catalog, and select **Cisco UCS Configuration > Create Cisco UCS Driver Package**.

The **Create Cisco UCS Server Driver Package** wizard is displayed.

Note Alternatively, you can select the **Create Cisco UCS Driver Package** option from the top ribbon bar.

Step 4 On the **Get Drivers tab**, you can import the drivers by one of the following ways:

To import driver packages using **Download driver zip from Cisco.com,** follow these steps:

- Click **Browse** and navigate to the location where driver must be downloaded, and click **OK**.
- From the **Select OS** drop-down list, select the operating system depending on the driver package.
- Click **Download Details**, enter the credentials for Cisco.com, and provide proxy server details in the corresponding fields.
- Click **OK**.

Note If the credentials provided are valid, then the UI displays all the available driver versions for download. If not, the following error message is displayed 'Failed to get the download details from Cisco.com'.

- Select a driver version from the drop-down list.

For importing driver packages using **Select driver zip file from local share**, click **Browse,** navigate to the zipped file with updated driver and click **Open**.

Note Download the driver packages from Cisco.com for importing the driver package using **Select driver zip file from local share option**.

To download the driver from Cisco.com, click **Support > Downloads > Products > Server-Unified Computing**. From the list, select the driver you want to download, and click the **Download** button.

Step 5 Click **Next**.

Step 6 In the **Save Drivers**, provide the locations where the driver zip file and the driver package must be downloaded.

a. To save the file, click **Browse** against the **Destination for Driver Zip** box and navigate to the location where you want to save the driver zip file.

Provide a unique name for each package.

b. To save the driver package folder, click **Browse** against the **Destination for Driver Package**, and navigate to the location where you want to save the driver package folder on the network shared drive.

Note The location of the driver zip file and driver package folder must not be the same.

Caution Keep the driver source file on a network share.

Step 7 Click **Next**.

Step 8 In the **Select Boot Images**, select the boot image on which the drivers must be applied.

To select all the boot images, check the **Select All** check box.

Note On importing drivers for Windows 2008 R2 on Configuration Manager 2012 SP1and Windows 2008 R2 and Windows 2012 on Configuration Manager 2012 R2, no boot image is listed in the Select Boot images screen. It is an expected behavior.

Step 9 Select the **Update distribution point** to update the boot image on the distribution points in the **Configuration Manager Console**.

Step 10 Click **Import Drivers**.

Step 11 Click **Download Credentials**.

Note If the progress bar is not updated, tasks involving importing of drivers might take time.

Step 12 The import status displays in the **Summary of Driver Import Wizard**.

Step 13 Click **Close,** and **Exit** to return to the **Microsoft Configuration Manager Console**.

Step 14 To verify if the import drivers operation is successful, select **Software Library > Overview > Operating Systems > Drivers** catalog.

The drivers list is refreshed and is shown in the **Name** column of the content pane.

Step 15 To verify if the import driver package operation is successful, select **Software Library > Overview > Operating Systems > Driver Packages** catalog.

The driver packages list is refreshed and is shown in the **Name** column of the content pane.

Note After the driver is imported and driver package operation is successful, the corresponding boot image is also updated with the new drivers.

To view the updated drivers of a boot image, follow these steps:

a. Select **Software Library > Overview > Operating Systems > Boot Images** catalog.

b. Select the boot image for which you want to view the updated drivers.

c. Right-click the boot image and click **Properties**.

The **Boot Image Properties** dialog box displays.

a. Click the **Drivers** tab to view the list of updated drivers.

The driver package can be used in a **Task Sequence**.

Creating and Editing Task Sequences

You create task sequences to support the deployment of operating systems. Add or edit the following task sequence steps to a task sequence. You can add ot edit while creating a custom task sequence or editing an existing task sequence. This helps the deployment of operating systems:

- Format and Partition Disk

- Apply Operating System Image
- Apply Network Settings
- Apply Windows Settings
- Apply Driver package
- Setup Windows and ConfigMgr

Creating a Custom Task Sequence

Step 1 From the left pane of the **Configuration Manager** console, select **Software Library > Overview > Operating Systems > Task Sequence** catalog.

Step 2 Right-click on the **Task Sequence** catalog and select **Create Task Sequence**.

The **Create Task Sequence Wizard** displays.

Step 3 In the **Create Task Sequence Wizard**, select **Create a new custom task sequence**, and click **Next**.

Step 4 In the **Specify task Sequence information**, complete the following fields:

- **Task sequence name**—Enter a name for the task sequence
- **Description**—Enter a brief description about the task sequence
- **Boot image**—Click **Browse**, to select the boot image from the **Select a Boot Image** screen and click **OK**.

Step 5 Click **Next**.

Step 6 In **Summary**, review the settings and click **Next.**

If you want to modify the settings, click **Previous**.

Step 7 Once the task sequence is created, click **Close** to exit the **Create Task Sequence** wizard.

You can view the task sequence in the **Name** column of the content pane.

Editing a Task Sequence

Step 1 From the left pane of **Microsoft Configuration Manager Console**, select **Software Library > Overview > Operating Systems > Task Sequences** catalog.

The task sequences are listed in the content pane.

Step 2 Right-click the task sequence, and select **Edit**.

The **Task Sequence Editor** page displays.

Step 3 From the drop-down list, select **Add > Disks > Format and Partition Disk**.

The **Format and Partition Disk** item is flagged with a red X check mark.

Step 4 On the **Properties** tab, complete the following fields:

- **Name**—Enter a name for the task to be performed
- **Description**—Enter brief description for the task to be performed
- **Volume**—Create a new partition.

To create a new partition, follow these steps:

a. In the **Volume** area, click the  icon.

The **Partition Properties** page displays.

b. Enter a name for the partition and check the **Make this the boot partition** check box.

c. Check the **Quick format** check box.

- **Variable**—Enter a name for the environment variable for the logical drive. For example, OSDRIVE.

Step 5 Click **OK**.

The **Format and Partition Disk** task sequence is now flagged with a green check mark.

Step 6 From the drop-down list of the **Task Sequence Editor**, select **Add> Images > Apply Operating System Image**.

The **Apply Operating System Image** item is flagged with a red X check mark.

Step 7 In the left pane of the **Task Sequence Editor**, click **Apply Operating System Image** which is flagged with a red X check mark.

Step 8 On the **Properties** tab, complete the following fields:

- **Name**—Enter a name for the task to be performed
- **Description**—Enter a description for the task to be performed
- **Apply operating system from a captured image**—Click **Browse** to open the **Select an Operating System Image** dialog box. Select the existing image package you want to install.

  If multiple images are associated with the specified **Image package**, use the drop-down list to specify the associated image to be used for this deployment.
- From the **Destination** drop-down list, select **Logical drive letter stores in a variable** and enter the variable name created in the **Format and Partition Disk** step. For example, OSDRIVE.

Note See, Technet documentation for importing **Operating System Images into Configuration Manager**.

Step 9 Click **OK**.

The **Apply Operating System Image** task sequence is now flagged with a green check mark.

Step 10 From the drop-down list of the **Task Sequence Editor**, select **Add> Settings > Apply Network Settings**.

The **Apply Network Settings** item is flagged with a red X check mark.

Step 11 Click **Apply Network Settings** which is flagged with a red X check mark.

Step 12 On the **Properties** tab, complete the following fields:

- **Name**—Enter a name for the task to be performed
- **Description**—Enter a description for the task to be performed
- **Join a workgroup**—Select this option to join the destination computer with the specified workgroup. Enter the name in the **Workgroup** field. Override the value with the value entered in the Capture Network Settings task sequence step.
- **Join a domain** — Select this option to have the destination computer join the specified domain.
- **Account** — Click **Set** to specify an account with the necessary permissions to join the computer to the domain.

- **Adapter settings** — Specify network configurations for each network adapter in the computer. Click **New** to open the **Network Settings** dialog box, and then specify the network settings.

Step 13 Click **OK**.

The **Apply Network Settings** task sequence is now flagged with a green check mark.

Step 14 In the left pane of **Task Sequence Editor**, select **Add> Settings > Apply Windows Settings**.

The **Apply Windows Settings** item is flagged with a red X check mark.

Step 15 In the left pane of the **Task Sequence Editor**, click **Apply Windows Settings** which is flagged with a red X check mark.

Step 16 In the right pane of the **Task Sequence Editor**, under **Properties,** enter information for the following:

- **Name** — Enter short user-defined name that describes the action taken in this step.
- **Description** — Enter a more detailed information about the action taken in this step.
- **User name** — Specify the registered username that is associated with the destination computer.
- **Organization name** — Specify the registered organization name that is associated with the destination computer.
- **Product key** — Specify the product key that is used for the Windows installation on the destination computer.
- Select the radio button for **Enable the account and specify the local administrator password**. An alternate account can be used for logging in with the local administrator password.
- **Time Zone** — Specify the time zone to configure on the destination computer.

Step 17 Click **OK**.

The **Apply Windows Settings** task sequence is now flagged with a green check mark.

Step 18 In the left pane of **Task Sequence Editor**, select **Add> Drivers > Apply Driver Package**.

The **Apply Driver Package** item is flagged with a red X check mark.

Step 19 In the left pane of the **Task Sequence Editor**, click **Apply Driver Package** which is flagged with a red X check mark.

Step 20 In the right pane of the **Task Sequence Editor**, in **Properties**, click **Browse** next to the **Driver Package** box. Select the driver package created using the **Create UCS C-Series Driver Package wizard**.

Step 21 Click **OK**.

The **Apply Driver Package** task sequence is now flagged with a green check mark.

Note The package contains all the drivers to be made available during operating system deployment.

Step 22 In the left pane of **Task Sequence Editor**, select **Add> Images > Setup Windows and ConfigMgr**.

The **Setup Windows and ConfigMgr** item is flagged with a red X check mark.

Step 23 In the left pane of the **Task Sequence Editor**, click **Setup Windows and ConfigMgr** which is flagged with a red X check mark.

Step 24 In the right pane of the **Task Sequence Editor**, under **Properties**, click **Browse** next to the **Package** box.

The **Select the Deployment Package** page displays.

Step 25 In the **Select the Deployment Package** page, under **Deployment packages**, select the required deployment package.

Note Refer to **Microsoft Technet** documentation on details for **Creating a Deployment Package**.

Step 26 Click **OK**.

The **Setup Windows and ConfigMgr** task sequence is now flagged with a green check mark.

Step 27 Click **Apply**.