

**Dell Lifecycle Controller Integration For Microsoft  
System Center Configuration Manager  
Version 2.0.1 Installation Guide**



# Notes, Cautions, and Warnings



**NOTE:** A NOTE indicates important information that helps you make better use of your computer.



**CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.



**WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

© 2012 Dell Inc.

Trademarks used in this text: Dell™, the Dell logo, Dell Boomi™, Dell Precision™, OptiPlex™, Latitude™, PowerEdge™, PowerVault™, PowerConnect™, OpenManage™, EqualLogic™, Compellent™, KACE™, FlexAddress™, Force10™ and Vostro™ are trademarks of Dell Inc. Intel®, Pentium®, Xeon®, Core® and Celeron® are registered trademarks of Intel Corporation in the U.S. and other countries. AMD® is a registered trademark and AMD Opteron™, AMD Phenom™ and AMD Sempron™ are trademarks of Advanced Micro Devices, Inc. Microsoft®, Windows®, Windows Server®, Internet Explorer®, MS-DOS®, Windows Vista® and Active Directory® are either trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries. Red Hat® and Red Hat® Enterprise Linux® are registered trademarks of Red Hat, Inc. in the United States and/or other countries. Novell® and SUSE® are registered trademarks of Novell Inc. in the United States and other countries. Oracle® is a registered trademark of Oracle Corporation and/or its affiliates. Citrix®, Xen®, XenServer® and XenMotion® are either registered trademarks or trademarks of Citrix Systems, Inc. in the United States and/or other countries. VMware®, Virtual SMP®, vMotion®, vCenter® and vSphere® are registered trademarks or trademarks of VMware, Inc. in the United States or other countries. IBM® is a registered trademark of International Business Machines Corporation.

2012 - 10

Rev. A00

# Contents

<b>Notes, Cautions, and Warnings</b> .....	<b>2</b>
<b>1 Introduction</b> .....	<b>5</b>
<b>2 Prerequisites</b> .....	<b>7</b>
Configuring An Account For Use With Discovery And Handshake.....	7
Configuring User Access To WMI.....	7
Providing User Permissions For DCOM.....	8
Providing User Permissions For DCOM Config WMI.....	8
Setting Namespace Security And Granting Permissions.....	8
Validating User Permissions From The Dell Provisioning Server.....	8
Providing Share And Folder Permissions.....	9
Enabling Remote PowerShell Commands For Dell Provisioning Server.....	9
Software Prerequisites And Requirements.....	10
Component-Specific Prerequisites.....	11
Enabling Or Disabling WMI Traffic Using Firewall.....	13
Providing Read And Execute Permissions To Users Using PowerShell.....	14
<b>3 Installing DLCI For Configuration Manager</b> .....	<b>15</b>
To Install DLCI For Configuration Manager.....	15
Installing Both DLCU And DPS.....	16
Installing DLCU Only.....	16
Installing DPS Only.....	17
Working With DLCI On A User Account Control Enabled System.....	17
To Use DLCI For Configuration Manager On A UAC-Enabled System.....	18
Using The Repair Option In The Installer.....	18
Upgrading DLCI For Configuration Manager From A Previous Version.....	18
Prerequisites For Upgrading.....	18
Upgrading To DLCI For Configuration Manager Version 2.0.1.....	19
Using The Modify Option In The Installer.....	20
Installing A Feature That You Did Not Install Earlier.....	20
Removing A Feature That You Had Installed Earlier.....	20
Uninstalling DLCI For Configuration Manager.....	21
For Microsoft Windows Server 2003.....	21
For Microsoft Windows Server 2008.....	21
<b>4 Troubleshooting</b> .....	<b>23</b>

Errors During Dell Provisioning Service (DPS) Installation On System.....23

# Introduction

This guide provides information on software prerequisites and requirements to install, upgrade, and uninstall Dell Lifecycle Controller Integration (DLCI) for Microsoft System Center Configuration Manager 2007 (Configuration Manager) and Microsoft System Center 2012 Configuration Manager (Configuration Manager).



## Prerequisites


You require familiarity with deploying operating systems using Dell Server Deployment Pack for Microsoft System Center Configuration Manager (DSDP for Configuration Manager version 2.0 or later).

For more information, see the *Dell Server Deployment Pack for Microsoft System Center Configuration Manager User's Guide* available at [support.dell.com/manuals](http://support.dell.com/manuals). Before you install Dell Lifecycle Controller Integration for Configuration Manager 2007/2012, complete the following:

1. Configure an account for use with Discovery and Handshake. For more information, see [Configuring An Account For Use With Discovery And Handshake](#).
2. Make sure that the software prerequisites and requirements are available. For more information, see [Software Prerequisites And Requirements](#).
3. Make sure that the component specific prerequisites are available. For more information, see [Component-Specific Prerequisites](#).

## Configuring An Account For Use With Discovery And Handshake

If you do not want to use an administrator account for the Dell Provisioning Service (DPS) to access the Configuration Manager server, create a user account with minimal permissions.


 **NOTE:** If you install DLCI by providing user credentials authenticated in Active Directory, and then perform the discovery and handshake with a target system using a Non-Active Directory authenticated user credentials, the discovery and handshake with the target system fails; to resolve this, disable the Active directory credentials.

To create a user account with minimal user permissions:

1. Create a user account on the domain, as the DPS impersonates this account while writing the Data Discovery Record (DDR) to inbox of the site server.
2. In the Configuration Manager 2007 console, check for the user name under **Security Rights** → **Users**. In the Configuration Manager 2012 console check, for the user name under **Administration** → **Security** → **Administrative Users**. Provide the user with the following permissions:
  - **Collection** — **Read, Modify and Create**
  - **Site** — **Read, and Import computer entry**
3. Configure user access to Windows Management Instrumentation (WMI). For more information, see [Configuring User Access To WMI](#).
4. Provide share and folder permissions to write files to the DDR inbox. For more information, see [Providing Share And Folder Permissions](#).

## Configuring User Access To WMI

To configure user access to WMI remotely:

 **NOTE:** Make sure that firewall of the system does not block the WMI connection.

1. Grant the Dell Provisioning Server user permissions needed for the Distributed Component Object Model (DCOM) on this system, remotely using **dcomcnfg.exe**. For more information, see [Providing User Permissions For DCOM](#).
2. Grant the Dell Provisioning Server user permissions needed for the DCOM Config Windows Management and Instrumentation (WMI) components, using **dcomcnfg.exe**. For more information, see [Providing User Permissions For DCOM Config WMI](#).
3. Set the namespace security and grant permissions. For more information, see [Setting Namespace Security And Granting Permissions](#).
4. From the Dell Provisioning Server, validate user permissions of the account. For more information, see [Validating User Permissions From The Dell Provisioning Server](#).

## Providing User Permissions For DCOM

To grant user permissions for DCOM:

1. Launch **dcomcnfg.exe**.
2. From the left pane, in the **Component Services** console, expand **Computers**, right-click the Provisioning Server Computer, and select **Properties**.
3. On **COM Security**:
  - From **Access Permissions**, click **Edit Limits** and select **Remote Access**.
  - From **Launch and Activation Permission**, click **Edit Limits** and select **Local Launch, Remote Launch, and Remote Activation**.

## Providing User Permissions For DCOM Config WMI

To grant user permissions for DCOM Config WMI:

1. Launch **dcomcnfg.exe**.
2. Expand **My Computer** → **DCOM Config**.
3. Right-click **Windows Management and Instrumentation**, and select **Properties**.
4. On **Security**, from **Launch and Activation Permission**, click **Edit** and select the **Remote Launch and Remote Activation permissions**.

## Setting Namespace Security And Granting Permissions

To set namespace security and grant permissions:

1. Launch **wmimgmt.msc** to set the namespace security.
2. In the **WMI Control** pane, right-click **WMI Control**, select **Properties**, and then select **Security**.
3. Navigate to **ROOT\SMS Namespace**.
4. Select the **Execute Methods, Provide Write, Enable Account, and Remote Enable permissions**.

Alternatively, the Configuration Manager user becomes a member of the **SMS\_Admin** group, and you can grant **Remote Enable** to the existing permissions of the group.

## Validating User Permissions From The Dell Provisioning Server

To validate user permissions:

1. Use **WBEMTest** to verify that you can connect to the Site Server using WMI.



Make sure that you select **Packet privacy** in the **Authentication level** group box when connecting to the **Site\_<sitecode> Namespace**.

2. After establishing the connection, run the query `Select*from SMS_Site`. If permissions are properly assigned, this command returns a record with the site code.

## Providing Share And Folder Permissions

To grant share and folder permissions to write files to the DDR inbox:

1. Do the following:
  - From the Configuration Manager 2007 console, under **Computer Management**, grant the user permission to write to the **SMS\_<sitecode>** share.
  - From the Configuration Manager 2012 console, under Administration, grant the user permission to write to the **SMS\_<sitecode>** share.
2. Using **File Explorer**, go to the share location **SMS\_<sitecode>** share, and then to the **ddm.box** folder. Grant full control to the domain user for the following folders:
  - **SMS\_<sitecode>**
  - **inboxes**
  - **ddm.box**
3. Add a configuration point to provide full control permission at this registry location: **HKEY\_LOCAL\_MACHINE \SOFTWARE\Wow6432Node\DELL\Provisioning Service\Repository**.
4. Validate these permissions by temporarily mapping a drive from the Dell Provisioning Server with user credentials, and then creating, writing, modifying, and deleting a new file.

## Enabling Remote PowerShell Commands For Dell Provisioning Server

If you want to set up DPS on one server and, set up Configuration Manager and Dell Lifecycle Controller Utility (DLCU) on another server; then, on the servers where DLCU and DPS are installed, run these PowerShell commands to enable remote calls from DPS.

Support Information:

- DPS for Configuration Manager 2007 does not support Configuration Manager 2012
- DPS for Configuration Manager 2012 does not support Configuration Manager 2007
- DPS for DLCI 1.3 does not support DLCI 2.0.1
- DPS for DLCI 2.0.1 does not support DLCI 1.3

### Prerequisites:

- PowerShell 2.0 is installed and available on the DLCU and DPS servers.
- The servers on which DPS and DLCU are installed, are in the same domain.

To enable remote PowerShell commands:

1. In the DLCU server, in the PowerShell command line, run `enable- PSRemoting`.
2. In the confirmation message, type `Y`. `enable-PSRemoting` configures the DLCU server to receive remote commands.
3. (Optional) if the configuration is distributed, then run `Set-PSsessionConfiguration Microsoft.PowerShell -ShowSecurityDescriptorUI`.
4. In the DPS server, in the PowerShell command line, run `Set- ExecutionPolicy RemoteSigned`.

5. In the confirmation message, type `Y`. `Set-ExecutionPolicy` changes the user preference for the Windows PowerShell execution policy.

## Software Prerequisites And Requirements

Before you install DLCI for Configuration Manager, complete the following prerequisites:

1. Install Microsoft System Center 2012 Configuration Manager, Microsoft System Center Configuration Manager 2007 SP1, R2/SP2, or R3. For details on how to download and install Configuration Manager, see [technet.microsoft.com](http://technet.microsoft.com).
2. Make sure that at least 40 MB of free disk space is available on the system to install DLCI.
3. Install Dell Server Deployment Pack (DSDP) for Configuration Manager version 2.0. For details on how to install DSDP for Configuration Manager, see the *Dell Server Deployment Pack for Microsoft System Center Configuration Manager User's Guide* available at [support.dell.com/manuals](http://support.dell.com/manuals).
4. For Microsoft System Center Configuration Manager 2007 SP1, R2/SP2, or R3, install .NET versions 3.5 SP1 or 4.0.
5. For Microsoft System Center 2012 Configuration Manager, install .NET version 4.0.
6. On Microsoft Windows Server 2008 and 2008 R2 systems where you are installing DPS, install Windows Remote Management (WinRM) and .NET 4.0.
7. Enable PowerShell 2.0 in the system where DPS is installed. For more information see, [Enabling Remote PowerShell Commands For Dell Provisioning Server](#).
8. Make sure that the required KB articles are available:  
If you are installing DLCI on Windows 2003, then do this update: **KB947870** — Error message when you run the **icacls.exe** utility to set ownership of a file or of a folder on a computer that is running Windows Server 2003 SP2: "Access is denied". See [support.microsoft.com/kb/947870](http://support.microsoft.com/kb/947870).  
If you are installing DLCI on Windows 2008 R2 64-bit, then do this update: **KB981506** — "SSL Certificate add failed, Error: 1312" error message when you try to add a CTL in Windows Server 2008 R2 or in Windows 7. See [support.microsoft.com/kb/981506](http://support.microsoft.com/kb/981506).
9. This release of DLCI is licensed. To work with DLCI, you must install and set up Dell Connections License Manager (DCLM).  
For more information on setting up DCLM, see documentation at [support.dell.com/manuals](http://support.dell.com/manuals).  
Once you install and set up DCLM, to work with DLCI, you must procure a license, and import the license into DCLM. This license is required for DLCI to access the target systems.  
To procure the license, contact Dell sales.
10. If you are not a user with administrator privileges and you want to automatically configure Dell Provisioning Server; Also, you are planning on installing DPS on one server and Dell Lifecycle Controller Integration on another server, then consider the following:
  - To configure firewall settings before installing DPS, see [Enabling Or Disabling WMI Traffic Using Firewall](#).
  - On the system where Dell Lifecycle Controller Integration is being installed, provide **Write** permission for the **<Configuration Manager Admin Console Install Dir >\XmlStorage\Extensions\DLPlugin** folder.
  - Provide write permissions using PowerShell, see [Providing Read And Execute Permissions To Users Using PowerShell](#).
11. For working with the deploying non-Windows operating systems on target systems task, complete these prerequisites:
  - For deploying non-Windows operating systems, you require Network File System (NFS); Either Client for NFS or Services for Network File System.  
However, Client for NFS is not available on operating systems such as Windows 7 Professional Edition (without service pack, or with SP1), and Windows Vista Business.
  - Install Client for NFS on the system where site server/admin console or Dell Lifecycle Controller Integration is installed. NFS share name is case-sensitive.

- NFS is configured to have Anonymous/Unmapped read access for all systems. The NFS has read and write access for site server and Admin console. Confirm that the site server, Admin console, and the system on which the NFS share is present are in the same domain. NFS must contain at least 60% of free space. It is recommended that NFS share is hosted on a private network with no access to Internet. However, make NFS accessible from site server, admin console, and all the iDRACs.

To configure NFS:

- \* For Windows 2008, see [technet.microsoft.com/enus/library/cc753302\(v=ws.10\).aspx](http://technet.microsoft.com/enus/library/cc753302(v=ws.10).aspx)
- \* For Windows 2008, R2 see [technet.microsoft.com/enus/library/dd758767\(v=ws.10\).aspx](http://technet.microsoft.com/enus/library/dd758767(v=ws.10).aspx)
- Status messages are received at port 4434. Confirm that a firewall exception is set for this port, else the TaskViewer will not receive any operating system deployment status messages from the server on which the operating system is being installed.  
To change the port on which TaskViewer can get the status messages: In the **DLCTaskManager.exe.config** configuration file, modify key= "NON\_WIN\_OSD\_STATUS\_PORT" and for example, value="4434".  
Ensure that the new port is not in use.
- Connect the network adapter to the network for the server on which the operating system is deployed.
- Confirm that virtual disk is available on the target system.
- Servers with ESXi deployed are moved to another collection Managed Dell Lifecycle Controller (ESXi 5).
- If DHCP lookup fails while deployment then the server times out and it is not moved into **Managed Dell Lifecycle Controller (ESXi 5)**.

It is recommended that the network adapter is connected to the network port in the server on which the operating system is being deployed. For information on component-specific software prerequisites and requirements, see [Component-Specific Prerequisites](#).

## Component-Specific Prerequisites

The DLCI for Configuration Manager installer verifies the following prerequisites before installation:

### During Initial Startup

- **Regsrv32.exe**
- WinRM
- Client for NFS
- PowerShell 2.0
- For Configuration Manager 2007
  - Microsoft Windows Server 2003 SP1 or later
  - Microsoft .NET version 3.5 SP1 or 4.0
- For Configuration Manager 2012
  - Microsoft Windows Server 2008 R2 or later
  - Microsoft .NET version 4.0

### For DLCU

- Installation on primary Site Server or Configuration Manager Admin console
- Dell Server Deployment Pack 2.0 or later
- Windows Automation Install Kit (Windows AIK)
- For working with non-Windows operation system deployment feature, on a server running Red Hat Linux operating system, preferably use Network File System version 3.0 (NFSv3).

## For DPS

- Internet Information Services (IIS) 6, IIS 7, or IIS 7.5
- IIS WMI compatibility is enabled on IIS 7
- IIS6 WMI Metabase compatibility is enabled on IIS 7
- **icacls.exe**
- For Configuration Manager 2007
  - Microsoft Windows Server 2003 SP2 or later
- For Configuration Manager 2012
  - Microsoft Windows Server 2008 R2

DPS and DLCU are present in the same domain.










## Supported Operating Systems
















The following table provides information on supported operating systems for the Dell Provisioning Server. The matrix presented in the table lists the operating systems supported to install DLCI for Configuration Manager.

For information, on the supported configurations for Configuration Manager 2007, see: [technet.microsoft.com/en-us/library/cc161860.aspx](http://technet.microsoft.com/en-us/library/cc161860.aspx).

For information, on the supported configurations for Configuration Manager 2012, see: [technet.microsoft.com/en-us/library/gg682077.aspx](http://technet.microsoft.com/en-us/library/gg682077.aspx).

**Table 1. Support Matrix for Dell Provisioning Server**

Operating Systems	Dell Provisioning Service
The following operating systems are supported for Configuration Manager 2007 only.	
Windows Server 2003 SP1 — Standard and Enterprise x86 Editions	
Windows Server 2003 SP1 — Standard, Enterprise, and Datacenter x64 Editions	
Windows Server 2003 SP2 — Standard and Enterprise x86 Editions	
Windows Server 2003 SP2 — Standard, Enterprise, and Datacenter x64 Editions	
Windows Server 2003 R2 SP2 — Standard and Enterprise x86 Editions	
Windows Server 2003 R2 SP2 — Standard, Enterprise, and Datacenter x64 Editions	
Windows Server 2008 — Standard and Enterprise x86 Editions	
Windows XP SP2 x86 Professional Edition	
Windows XP SP3 x86 Professional Edition	

Operating Systems	Dell Provisioning Service
Windows XP SP2 x86 Business Edition	
Windows XP SP3 x86 Business Edition	
Windows Vista x86 Business Edition	
Windows Vista SP1 x86 Business Edition	
Windows 7 x86 Edition	
Windows Server 2008 SP2 — Standard and Enterprise x86 Editions	
The following operating systems are supported for Configuration Manager 2007/2012.	
Windows Server 2008 — Standard, Enterprise, and Datacenter x64 Editions	
Windows Server 2008 SP2 — Standard, Enterprise, and Datacenter x64 Editions	
Windows Server 2008 R2 — Standard, Enterprise, and Datacenter Editions	
Windows XP SP2 x64 Professional Edition	
Windows XP SP3 x64 Professional Edition	
Windows XP SP2 x64 Business Edition	
Windows XP SP3 x64 Business Edition	
Windows Vista x64 Business Edition	
Windows Vista SP1 x64 Business Edition	
Windows 7 x64 Edition	

## Enabling Or Disabling WMI Traffic Using Firewall

If firewall is enabled on Dell Lifecycle Controller Utility for Configuration Manager 2012, then, to run remote PowerShell commands for the WMI class, you must enable the WMI traffic.

To enable WMI traffic using firewall user interface:

1. In **Control Panel**, click **Security** and then click **Windows Firewall**.
2. Click **Change Settings**, and then click **Exceptions**.

3. In **Exceptions**, to enable WMI traffic, select **Windows Management Instrumentation (WMI)**, to disable WMI traffic, clear **Windows Management Instrumentation (WMI)**.

## Providing Read And Execute Permissions To Users Using PowerShell

Non-administrator users require permissions to configure Dell Provisioning Server.

To provide permissions in PowerShell:

1. In PowerShell, run this command: `Set-PSSessionConfiguration Microsoft.PowerShell - ShowSecurityDescriptorUI.`
2. In the confirmation message, type `Y`.  
The window with options to add users and set permissions is displayed.
3. Add the non-administrator users, and provide them permissions.

# Installing DLCI For Configuration Manager

The Dell Lifecycle Controller Integration (DLCI) for Configuration Manager installer contains two components — Dell Lifecycle Controller Utility (DLCU) and Dell Provisioning Service (DPS).

DLCU is a plug-in for Configuration Manager; select this option when you have Configuration Manager installed on a site server.

DPS is a component for provisioning Dell servers into Configuration Manager. Configuration Manager installation is not required.

The server on which DPS is installed is known as Dell Provisioning Server.

You can install both the components together or install them individually on separate systems.

It is recommended that you close Configuration Manager before installing, upgrading, or uninstalling the DLCI for Configuration Manager.


## To Install DLCI For Configuration Manager

1. Go to [support.dell.com](http://support.dell.com) → **Drivers & Downloads**.
2. Select the product, which is ideally a Dell PowerEdge  $\gamma x 2 x$  (12th generation or 12 G) system.  
In the server name format  $\gamma x x x$ ;  $\gamma$  denotes alphabets, for example M, R, or T; and  $x$  denotes numbers.
3. Select the operating system.
4. In **Category**, select **All**.
5. Click **Lifecycle Controller** from the list displayed.
6. Click **Download** against **Dell Lifecycle Controller Integration**.
7. Download **Dell\_Lifecycle\_Controller\_Integration\_2.0.1\_Axx.zip** and extract the contents to a folder on the system.
8. To install the package, if UAC is enabled see, [Working With DLCI On A User Account Control Enabled System](#), else double-click **Dell\_Lifecycle\_Controller\_Integration\_2.0.1.xxx.msi**.  
The **Welcome** screen is displayed.
9. Click **Next**.  
The license agreement is displayed.
10. Accept the license agreement and click **Next**.  
The **Custom Setup** screen is displayed.
11. Select the option to install either the **Dell Lifecycle Controller Utility** or the **Dell Provisioning Service**, or both.  
If you are installing DPS on a system where Configuration Manager is not available, both the options, DLCI for Configuration Manager 2007 and DLCI for Configuration Manager 2012 are available. When you clear either option, the space required on the hard drive is incorrect in **Feature Description**.  
You can select from the following custom options based on your requirement:
  - [Installing Both DLCU and DPS](#)
  - [Installing DLCU Only](#)
  - [Installing DPS Only](#)

## Installing Both DLCU And DPS


To install the DLCU and DPS on a Site Server or Admin Console:

1. From **Custom Setup**, select both **Dell Lifecycle Controller Utility** and **Dell Provisioning Service** and click **Next**.  
The **Custom Setup Confirmation** screen showing both the options is displayed.
2. Click **Next**.  
The **Dell Provisioning Service User Credentials for Configuration Manager Access** screen is displayed.
3. Perform one of the following actions:
  - a) On a Site Server, enter an account (with required privileges) for use by Dell Provisioning Service to access Configuration Manager, on all newly discovered systems with iDRAC, and click **Next**.
  - b) On a Configuration Manager Admin Console with IIS, enter the primary site server name, user name, and password that is provisioned on all newly discovered systems with iDRAC, and click **Next**.  
To automatically configure the Dell Provisioning Server, select **Automatically configure Dell Provisioning Server user permissions**.


 **NOTE:** If the user name is not part of **SMS\_Admins** group, then you must provide additional permissions to the WMI namespace, for more information see, [Setting Namespace Security And Granting Permissions](#).

The **Dell Lifecycle Controller Utility User Credentials for iDRAC Access** screen is displayed.

4. Enter the iDRAC credentials, retain the default settings for skipping CN and CA checks, and then click **Next**.  
The **Change Firewall Setting** screen is displayed.
5. Select the **Add Provision Web Site Port in the firewall exception list** option. This enables the DPS to discover the target systems even when firewall is enabled.


 **NOTE:** This screen is displayed only when you select the **Dell Provisioning Service** in the installer.

6. Click **Next**.  
The **Ready to Install the Program** window is displayed.
7. Click **Install**.  
The Progress bar is displayed. After installation, the completion message is displayed.
8. Click **Next**.
9. In **Installation Completed Successfully**, click **Finish**.

 **NOTE:** As part of the installation, a provisioning website is created and configured under Internet Information Services (IIS).

## Installing DLCU Only

For information on component-specific requirements, see [Component-Specific Prerequisites](#).


 **NOTE:** Make sure that you install the DLCU on the Site Server before using it on the Admin Console.

To install only the DLCU:

1. In **Custom Setup**, select **Dell Lifecycle Controller Utility**, clear **Dell Provisioning Service**, and click **Next**.  
In the **Custom Setup Confirmation** screen, the selected component is displayed.
2. Click **Next**.
3. In **Dell Lifecycle Controller Utility User Credentials for iDRAC Access**, enter the user name and password for out-of-band controller management. This account is provisioned on the iDRAC.



Retain the default settings for skipping CN and CA checks.

 **NOTE:** This screen is displayed only if you are installing DLCI for Configuration Manager on a Site Server.


4. Click **Next**.  
The **Ready to Install the Program** screen is displayed.
5. Click **Install**.  
The Progress bar is displayed. After installation, the completion message is displayed.
6. Click **Next**.
7. In **Installation Completed Successfully**, click **Finish**.

## Installing DPS Only


For information on component-specific requirements, see [Component-Specific Prerequisites](#).

To install only the DPS:

1. In **Custom Setup**, select **Dell Provisioning Service**, clear **Dell Lifecycle Controller Utility** and click **Next**.  
In the **Custom Setup Confirmation** screen, the selected component is displayed.
2. Click **Next**.
3. In the **Dell Provisioning Service User Credentials for Configuration Manager Access** screen, enter the primary site server name or IP of the server, user name, and password.  
To automatically configure the **Dell Provisioning Server**, select **Automatically configure Dell Provisioning Server user permissions**.

 **NOTE:** If the user name is not part of **SMS\_Admins** group, then you must provide additional permissions to the WMI namespace, for more information see, [Setting Namespace Security And Granting Permissions](#).

4. Click **Next**.  
The **Change Firewall Setting** screen is displayed.
5. Select **Add Provision Web Site Port in the firewall exception list**. This enables the DPS to discover the target systems even when firewall is enabled.

 **NOTE:** This screen is displayed only when you select the **Dell Provisioning Service** in the installer.

6. Click **Next**.  
The **Ready to Install the Program** message is displayed.
7. Click **Install**.  
The Progress bar is displayed. After installation, the completion message is displayed.
8. Click **Next** and then click **Finish**.

## Working With DLCI On A User Account Control Enabled System

The minimum permissions required to install or uninstall the DLCU feature on a site server are as follows:

- You are a local administrator or a domain administrator on the server.
- On a Microsoft Windows Server 2008 operating system with User Account Control (UAC) enabled, launch the msi file from a command prompt using **Run As Administrator**.
- The minimum permissions on Configuration Manager are:
  - Site = Read
  - Package = Read, Delete, and Create


## To Use DLCI For Configuration Manager On A UAC-Enabled System

1. Right-click **Command Prompt** and select **Run As Administrator**.
2. Run **Dell\_Lifecycle\_Controller\_Integration\_2.0.1.xxx.msi** from the folder where you have extracted it.
3. Follow the instruction in the installation wizard to install DLCI on the system.

## Using The Repair Option In The Installer

1. To repair the installation of DLCI for Configuration Manager, if UAC is enabled see, [Working With DLCI On A User Account Control Enabled System](#), else double-click **Dell\_Lifecycle\_Controller\_Integration\_2.0.1.xxx.msi**.  
The **Welcome** screen is displayed.
2. Click **Next**.
3. In **Program Maintenance**, select **Repair** and click **Next**.  
The **Ready to Repair the Program** screen is displayed.
4. Click **Install**.  
A progress screen displays the progress of the installation. Once the installation is complete, the InstallShield Wizard Completed window is displayed.
5. Click **Finish**.


## Upgrading DLCI For Configuration Manager From A Previous Version

 **NOTE:** DLCI for Configuration Manager supports upgrading from version 1.3 to later versions. To upgrade from version 1.0, or version 1.1, you must first uninstall version 1.0 or 1.1 and then install version 2.0.1. When you uninstall version 1.0 or 1.1, the previous settings are not retained and you must rediscover the target systems after you install version 2.0.1.

### Prerequisites For Upgrading


Before you upgrade to DLCI for Configuration Manager version 2.0.1, you must upgrade the firmware on the target systems. If the blade servers are part of the Chassis, then upgrade the Chassis Management Controller (CMC) firmware before upgrading other firmware.

If you are using Dell Update Packages (DUPs) to perform the updates on the  $\gamma x \lambda x$  (11th generation or 11G servers), then update firmware as follows:

 **NOTE:** In the server name format  $\gamma xxx$ ,  $\gamma$  denotes alphabets, for example M, R, or T; and  $x$  denotes numbers.

1. Upgrade the BIOS of the target systems to the latest version.
2. Upgrade Lifecycle Controller on the target systems to version 1.5.5 or later. For more information, see the *Dell Lifecycle Controller USC/USC-LCE Version 1.5 User's Guide* available at [support.dell.com/manuals](http://support.dell.com/manuals). To upgrade Lifecycle Controller, use the Firmware Upgrade Tool in DLCI for Configuration Manager version 2.0.1. Lifecycle Controller version 1.5.5 is delivered as part of iDRAC version 1.9 for rack and tower servers and iDRAC version 3.4 for blade servers.
3. Upgrade iDRAC on the target systems to version 1.9 or later for monolithic systems and iDRAC version 3.4 or later for modular systems. For more information, see the *Integrated Dell Remote Access Controller 6 (iDRAC7) Version 1.9 User's Guide*, and the *Integrated Dell Remote Access Controller 6 (iDRAC6) Enterprise for Blade Servers Version 3.4 User's Guide* available at [support.dell.com/manuals](http://support.dell.com/manuals).


4. Enable PowerShell 2.0 in the system where DPS is installed. For more information see, [Enabling Remote PowerShell Commands For Dell Provisioning Server](#).

 **NOTE:** You cannot abort the upgrade process by closing the installation wizard. If you close the installation wizard, the following message is displayed: Are you sure you want to cancel Dell Lifecycle Controller Integration installation? The upgrade process continues irrespective of the selection you make on the message box.

If you are updating iDRAC firmware to version 3.0 or greater from an iDRAC on version less than 2.3, then first update the iDRAC firmware to version 2.3 before updating to version 3.0 or greater on 11G servers.

If you are using Dell Update Packages (DUPs) to perform the updates on the *yx2x* (12th generation or 12G servers), then update the firmware as follows:

1. Upgrade Lifecycle Controller on the target systems to version 1.0.8 or later. For more information, see the *Dell Lifecycle Controller 2 Version 1.00 User's Guide* available at [support.dell.com/manuals](http://support.dell.com/manuals). To upgrade Lifecycle Controller, use the Firmware Upgrade Tool in DLCI for Configuration Manager version 2.0.1.
2. Upgrade the BIOS of the target systems to the latest version.
3. Upgrade iDRAC on the target systems to version 1.20.20. For more information, see the *Integrated Dell Remote Access Controller 7(iDRAC7) Version 1.20.20 User's Guide* available at [support.dell.com/manuals](http://support.dell.com/manuals).
4. Enable PowerShell 2.0 in the system where DPS is installed. For more information see, [Enabling Remote PowerShell Commands For Dell Provisioning Server](#).

 **NOTE:** You cannot abort the upgrade process by closing the installation wizard. If you close the installation wizard, the following message is displayed: Are you sure you want to cancel Dell Lifecycle Controller Integration installation? The upgrade process continues irrespective of the selection you make on the message box.

## Upgrading To DLCI For Configuration Manager Version 2.0.1

In DLCI for Configuration Manager version 1.3 or version 2.0, if Platform Restore is run on a collection where servers are identified by hostname (instead of service tag) and the server profiles are exported to a share, then to import the server profiles after upgrading to DLCI 2.0.1.

1. Open the share location where profiles are exported.
2. For the filename formats <prefix>-<hostname>. Rename the filename format to <prefix>-<servicetag>.
3. Do step 2 to all exported files.

If you have scheduled a firmware update in DLCI for Configuration Manager version 1.3 or version 2.0, and the hostname is changed (due OS deployment), then after upgrade to DLCI 2.0.1, the firmware update schedule will not run. Configure the firmware update schedule and run the schedule again.


In DLCI for Configuration Manager 1.3 or version 2.0, in the **System Viewer** utility, the cached network paths in the Export Lifecycle Controller Logs, Firmware Update, and Platform Restore workflows saved after hostname is changed are not retained after upgrading to DLCI 2.0.1.

## Upgrading DLCI For Configuration Manager From Version 1.3 To Version 2.0.1

To upgrade DLCI for Configuration Manager from version 1.3 to version 2.0.1:

1. Run the **Dell\_Lifecycle\_Controller\_Integration\_2.0.1.xxx.msi** file from the folder where you have extracted it.
2. A dialog box displays the message that another version of DLCI for Configuration Manager is found; asking you if you want to upgrade. Click **Yes** to continue.  
The **Welcome** screen is displayed.
3. Click **Next**.  
The license agreement is displayed.

4. Accept the license agreement and click **Next**.  
The **Custom Setup** screen is displayed.
5. Select one or both the components. Follow the steps provided:
  - [Installing Both DLCU And DPS](#)
  - [Installing DLCU Only](#)
  - [Installing DPS Only](#)

 **NOTE:** You cannot abort the upgrade process by closing the installation wizard. If you close the installation wizard, the following message is displayed: Are you sure you want to cancel Dell Lifecycle Controller Integration installation? The upgrade process continues irrespective of the selection you make on the message box.

## Using The Modify Option In The Installer

The **Modify** option in the DLCI for Configuration Manager installer, modifies the program features that are installed. This option enables you to perform the following actions:

- [Installing A Feature That You Did Not Install Earlier](#)
- [Removing A Feature That You Had Installed Earlier](#)

If you uninstall DLCU in the DLCI server using the **Modify** option, then uninstall DPS and install again.

### Installing A Feature That You Did Not Install Earlier

To install a feature that you did not install earlier:

1. Run **Dell\_Lifecycle\_Controller\_Integration\_2.0.1.xxx.msi** from the folder where you have extracted it.
2. Click **Next**.  
The installer displays three options.
3. Select the **Modify** option.  
The **Custom Setup** screen is displayed.
4. In **Custom Setup**, select the feature that you did not install earlier.
5. Click **Next**.
6. In **Ready to Modify the Program**, click **Install** to begin installing the feature.  
When the installation process completes, click **Finish** to exit the installer.

### Removing A Feature That You Had Installed Earlier

To remove a feature that you had installed earlier:

1. Run **Dell\_Lifecycle\_Controller\_Integration\_2.0.0.xxx.msi** from the folder where you have extracted it.
2. Click **Next**.  
The installer displays three options.
3. Select the **Modify** option.  
The **Custom Setup** screen is displayed.
4. In **Custom Setup**, select the feature that you want to remove.
5. Click the feature and select the option **This feature will not be available** and click **Next**.

6. Click **Install**.

The installer removes the feature.

## Uninstalling DLCI For Configuration Manager

To uninstall the DLCI for Configuration Manager:

### For Microsoft Windows Server 2003

1. Click **Start** → **Control Panel** → **Add or Remove Programs** .
2. Select **Dell Lifecycle Controller Integration 2.0.1** and click **Remove**.
3. Follow the instructions to complete the uninstallation.

Or, if you are uninstalling by using the package that you downloaded and if UAC is enabled, see [Working With DLCI On A User Account Control Enabled System](#), else double-click **Dell\_Lifecycle\_Controller\_Integration\_2.0.1.xxx.msi**, select **Remove**, and follow the instructions on the screen.

### For Microsoft Windows Server 2008

1. Click **Start** → **Control Panel** → **Add or Remove Programs** .
2. Select **Dell Lifecycle Controller Utility 2.0.1** and click **Uninstall**.
3. Follow the instructions to complete the uninstallation.

Or, if you are uninstalling by using the package that you downloaded and if UAC is enabled, see, [Working With DLCI On A User Account Control Enabled System](#), else double-click **Dell\_Lifecycle\_Controller\_Integration\_2.0.1.xxx.msi**, select **Remove**, and follow the instructions on the screen.



# Troubleshooting

## Errors During Dell Provisioning Service (DPS) Installation On System

When installing DPS on a system other than the site server, if you specify incorrect system name or user credentials for accessing the site server, the information is not authenticated by the installer, and the installation is completed.

However, when DPS is trying to access the site server, failure to access the site server occurs. When such failure occurs; from the DPS installation directory location, in the file import.log, check the log information for this error message:

```
ERROR2011-10-14 03:01:02 - SCCMProxy::Connect()-Failed to connect - Error The  
RPC server is unavailable. (Exception from HRESULT: 0x800706BA) at  
Microsoft.ConfigurationManagement.ManagementProvider.WqlQueryEngine.WqlConnectio  
nManager.Connect(String configMgrServerPath)
```

If the error message is present, then install DPS again and provide the correct system name.