Dell License Manager
Version 1.3 User's 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.

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About Dell License Manager

Dell License Manager is a one-to-many license deployment and reporting tool for integrated Dell Remote Access Controller (iDRAC) and Dell chassis management controller (CMC) licenses.

Dell License Manager can deploy and backup:

- iDRAC licenses on all Dell's 12th and 13th generation of PowerEdge servers (denoted as *yx2x* and *yx3x*) that are equipped with an iDRAC7 or iDRAC8 Dell Remote Access controller.

  NOTE: For the server name format yxxx; y denotes alphabets, for example, M (modular), R (rack), or T (tower) and x denotes numbers. For example, a PowerEdge R720 is a 12th Generation rack mount 700 series server.
- CMC licenses on Dell PowerEdge VRTX and PowerEdge FX or FX2s chassis.
- OpenManage Essentials perpetual licenses.
- PowerEdge storage sled licenses.

Dell License Manager can also inventory licensable systems to report the licensing status and currently enabled management controller feature level.

Use Dell iDRAC licenses to enable server management capabilities such as the virtual media and remote console support currently available in the Enterprise iDRAC feature set.

Use Dell CMC licenses to enable chassis management capabilities such as console integration, remote access, mutli-chassis management, server cloning, and so on.

You can download licenses from the Dell Online Licensing Portal at **dell.com/support/retail/lkm**. You can purchase licenses when you purchase a server or a chassis.

What is New in This Release

Support for the Dell PowerEdge storage sled.

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Installing Dell License Manager

Minimum System Requirements

Particulars	Requirement
Hard Disk	200 MB (minimum)
RAM	2 GB (minimum)
Operating Systems	Microsoft Windows 7
	Microsoft Windows Server 2008 R2
	Windows Server 2008 (SP2 or later)
	Windows Server 2012
	Windows Server 2012 R2
	Both 64-bit and 32-bit versions are supported.
Network	100 Mbps or higher
Screen Resolution	1024 X 768
Microsoft .NET	4.5
Remote Management	Windows Remote Management (WinRM) 2.0
	This functionality is included in Windows 7 and Windows Server 2008 R2.
	The WinRM prerequisite is available through Microsoft Windows Update.

Limitations

Dell License Manager supports up to 3500 licensable systems and an inventory of up to a class B IP address range (65,536 addresses).

Installing Dell License Manager

1. Download Dell License Manager from **dell.com/support**.
2. Double-click the **License Manager** Windows installer package.
3. Select a language for the installation, and click **OK**.
4. In the **Welcome** screen, click **Next**.
5. In **License Agreement**, select **I accept the terms in the license agreement** and click **Next**.
6. In **Setup Type**, do any of the following:
   - To accept the default installation path, choose the **Typical** installation, and click **Next**.
   - To enable specific program features and change the installation path, select the **Custom** installation option and click **Next**. In **Custom Setup**, select the License Manager features that you require; check for disk space and assign a new location for installing Dell License Manager.
7. In the **Ready to Install the Program** screen, click **Install**.
   The **InstallShield Wizard Completed** page is displayed.
8. If you want to launch License Manager, select **Launch Dell License Manager**, and then click **Finish**.

Getting Started With Dell License Manager

You can access Dell License Manager from the Windows desktop in one of the following ways:

- Windows 8, Windows Server 2012, or later operating systems — Move the mouse pointer to the bottom-left corner, and then click the **Start** icon. On the **Start** screen, click the **License Manager** tile.
- Windows 7, Windows Server 2008, or earlier operating systems — Click **Start→ All Programs→ Dell OpenManage Applications→ License Manager→ License Manager**.
- Double-click the License Manager icon.

NOTE: Local administrator privileges are required to run Dell License Manager.

The **Getting Started with Dell License Manager** screen is displayed with information on getting started with license deployment.

Dell License Manager User Interface

The Dell License Manager contains a menu bar, task status bar, navigation pane, and an active view pane.
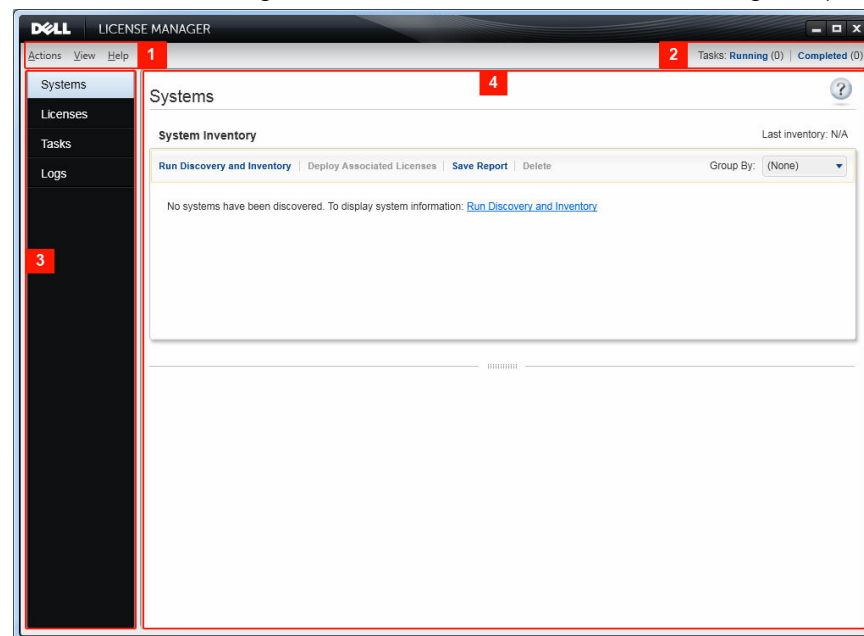

Figure 1. Dell License Manager Interface

1. Menu bar

2.	Task status bar

3.	Navigation pane

4.	Active view pane

Menu Bar

The menu bar consists of the Actions, View, and Help menus.

Actions Menu

The Actions menu consists of:

- **Discover and Inventory Systems** — Launches the Discovery/Inventory Wizard. See Inventorying Licensable Systems.
- **Launch Dell Online License Portal** — Select this option to access the Dell Online Licensing Portal at **dell.com/support/retail/lkm**. Before you access the portal, make sure that your system has Internet connectivity. From the online portal you can download Dell licenses.
- **Import Licenses** — Launches the **Import Wizard**. See Importing Licenses.
- **Automatically Deploy Licenses** — Selects all undeployed licenses bound to systems in inventory for deployment and launch the License Management Wizard. See Deploying Licenses.
- **Export License Archive** — Saves an archive containing all licenses in inventory in the compressed file format. See Managing Licenses.
- **Save Report** — Saves a CSV, HTML, or XML informational report from system, license, or log view. See the section on the respective view for more information.
- **Clear Log** — Removes all entries from the activity log.

    NOTE: This option does not remove information on tasks from task view. See Managing Tasks and Logs.

- **Exit** — Closes the Dell License Manager application. This option ends all current tasks.

View Menu

The View menu consists of:

- **Systems** — Navigates to the Systems view.
- **Licenses** — Navigates to the Licenses view.
- **Tasks** — Navigates to the Tasks view.
- **Logs** — Navigates to the Logs view.
- **Getting Started** — Displays the Getting Started with Dell License Manager screen.

Help Menu

The Help menu consists of:

- **Dell License Manager Help** — To access the Dell License Manager help. You can also access the Dell License Manager help by clicking the help icon within each view.
- **Online Support** — To access the Dell Technical Support at **dell.com/support**.
- **Generate Support Log Archive** — To generate an archive of activity logs which Dell Technical Support can use to troubleshoot problems.
- **About** — To view the Dell License Manager version and copyright information.

Task Status Bar

The Task Status bar shows the number of running and completed tasks. Clicking the Task Status bar activates the Task view.

Help Icon

Click the help icon ⑦ to access context-sensitive online help.

Dell License Manager Views

Dell License Manager supports the following primary views:

- Systems view
- Licenses view
- Tasks view
- Logs view

Systems View

The Systems view is accessible through the **Systems** link in the navigation pane. From the Systems View, you can:

- Discover and inventory licensable systems
- Deploy licenses
- View system licensing status
- Remove licenses from systems

For more information on systems view, see [Working With Licensable Systems](#).

Licenses View

The Licenses view is accessible through the **Licenses** link in the navigation pane. From the Licenses View, you can:

- Import downloaded licenses into Dell License Manager
- View information on available licenses
- Deploy licenses
- Export a license archive

For more information on licenses view, see [Managing Licenses](#).

Tasks View

The Tasks view is accessible through the **Tasks** link in the navigation pane. From the Tasks View, you can:

- View archived task results
- Save reports
- Generate support log archives

For more information on tasks view, see [Managing Tasks and Logs](#).

Logs View

The Logs view is accessible through the **Logs** link in the navigation pane. From the Logs View, you can:

- View archived task results
- Save reports
- Generate support log archives

For more information on logs view, see [Managing Tasks and Logs](#).

Working With Views

The systems, licenses, tasks, and logs data view grids allow sorting, grouping, and filtering. You may also choose which columns to display in the data grid.

- Sorting — To sort on a particular column, click the column header. Clicking the header again sorts the column in reverse order.
- Grouping — To group items together, select the column on which to group from the Group By menu in the grid header.
- Filtering — To filter data rows, select the column on which to filter and click the filter icon. Select the filter operation and then enter the filter string. To clear the filter, select the filter icon and click **Clear Filter**.
- Selecting Columns — To select which columns are displayed, click the **Show/Hide Columns** icon. Selected columns are displayed.

Understanding Licenses

Dell Licenses contain the following properties:

- Entitlement Identifiers — Each license has an Entitlement ID, which uniquely identifies that license.
- License Descriptions — The description specifies the level of features enabled in the license. For more information, see [License Descriptions](#).

License Descriptions

The license description specifies the level of features enabled in the license. For more information on the iDRAC functionality supported by each feature level, access the online licensing portal at **dell.com/support/retail/lkm**. The following licenses are available:

- Perpetual licenses
- Evaluation licenses
- Bound licenses
- Upgrade licenses

Perpetual Licenses

Perpetual licenses are standard licenses that enable iDRAC features and do not expire.

Evaluation Licenses

Evaluation licenses allow a 30-day trial of specific iDRAC features, with an available 30-day extension.

NOTE: You cannot deploy or archive evaluation licenses in Dell License Manager.

Bound Licenses

Dell Perpetual licenses are bound to a particular system Service Tag and you can deploy the licenses only on those systems.

Upgrade Licenses

Some Dell Licenses are upgradeable. An upgrade license includes an Upgrade ID referencing the Entitlement ID of the upgraded license.

License Features

Each license includes a specific set of iDRAC features, that are enabled by the license. The license description summarizes the level of features included in the license.

Filtering Data

The Dell License Manager allows you to filter data in the **Systems**, **Licenses**, **Tasks**, and **Logs** views. To filter data:

1. Place the mouse pointer over the column heading and click the funnel icon .
2. After selecting a filter option from the drop-down list, enter the alphanumeric characters in the field and click the **aA** button to make the filter search case-independent.
3. After you set the filter logic, click **Filter** to run the filter logic.

    NOTE: Click **Clear Filter** to clear a search.

Filter Options

Filter Option	Description
Is equal to	To create the *same as* logic.
Is not equal to	To create the *different from* logic.
Starts with	To filter search based on the initial alphanumeric character in a text chunk. Provide the starting alphanumeric character in the field.
Ends with	To filter search based on the final alphanumeric character in a text chunk. Provide the ending alphanumeric character in the field.

Filter Option	Description
Contains	To filter search based on alphanumeric characters present in a text chunk. Provide the alphanumeric character in the field.
Does not contain	To include the *not present* logic in search based on alphanumeric characters present in a text chunk.
Is contained in	To include the *is present* logic in an alphanumeric character string.
Is not contained in	To include the *not present* logic in an alphanumeric character string.

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Working With Licensable Systems

Inventorying Licensable Systems

Performing discovery and inventory of licensable systems enables you to view the licensing status for those systems. Perform a system's inventory before deploying licenses for the system. The inventory process automatically retrieves the installed non-evaluation licenses for archival purposes.
To inventory systems:

1. In Dell License Manager, click **Systems**.
2. In **Systems**, click **Run Discovery and Inventory**.
3. In the **Select IP Address** page of **Discovery / Inventory Wizard**, click **Add Range or IP**.
4. In **Edit Inventory Range** window, provide a name for the IP range or address, and perform one of the following:
   - To use an IPv4 range for inventorying systems, provide the start address, end address, and subnet mask.
   - To use an individual IP address for inventorying systems, select **Individual Address (IPv4, IPv6, or hostname)**, and provide the IP address or host name.
   - To use a text file for inventorying systems, select **Text file with IP addresses**, click **Load**, navigate and select the text file.

     NOTE: You must select a text file that includes an IP address or host name on each line.

     NOTE: To inventory the PowerEdge storage sleds, provide the IP address of only the chassis. License Manager automatically inventories the PowerEdge storage sleds while inventorying the chassis.

     NOTE: For PowerEdge storage sleds, License Manager displays the license level of the host CMC as the current license.
5. Click **OK**.

   The IP address or range that you provided is added to the **IP Addresses and Ranges** table.

   If you selected a text file, the IP addresses and host names in the text file are verified, and the invalid IP addresses or host names are displayed in the **Validation Report**.

   NOTE:
   - After the IP addresses are added from a text file, they are displayed as individual IP addresses.
   - If there are duplicate IP addresses in the text file or if the IP addresses already exist in the **IP Addresses and Range** table, they are ignored.
   - The text file cannot be edited using License Manager.
6. In the **Select IP Address** page of **Discovery / Inventory Wizard**, click **Next**.
7. In the **IP Scan Settings** page of **Discovery / Inventory Wizard**, provide the user credentials and configure the Internet Control Message Protocol (ICMP) and WS-Man options, and then click **Next**.

   NOTE: For information on certificate settings, see Communication Settings.

8. In the **Confirm Settings** page of the **Discovery / Inventory Wizard**:
   - Review the discovery settings you provided. Click **Back** to edit settings.
   - If you do not want to view the inventory task progress in the task pane, deselect the **Show task pane after launch** option.
9. Click **Run Discovery / Inventory**.

   The **Tasks** view is displayed. You can go to the **Systems** view to see the inventoried systems.

   NOTE: If you deselected the **Show task pane after launch** option in step 8, the **Systems** view is displayed.

Editing an Inventory Range

Specify the management controller IP addresses in the appropriate discovery/inventory tables. Dell License Manager cannot inventory license information from installed server operating systems or hypervisors.
To edit a range:

NOTE: To remove a range from Dell License Manager, select the entry in the table and click **Remove Selected**.

1. Click **Run Discovery and Inventory**.
2. Select the entry in the table and click **Edit**.

   The **Edit Inventory Range** window is displayed.
3. Edit the **IP Range or Address Name**, **IPv4 Range**, or **Individual Address (IPv4, IPv6, or hostname)** based on your preference.
4. Click **OK** to save the changes.

Viewing Inventoried Systems

To view inventoried systems, select **Systems**. Inventoried systems are listed in the **Systems** view. The System Inventory table provides a summary of the inventoried systems and the System Details pane provides additional information on a selected system.

NOTE: For PowerEdge storage sleds, License Manager displays the license level of the host CMC as the current license.

Removing System Information

1. In **Systems**, select the systems you want to remove and click **Delete**.
2. When prompted, click **Yes** to confirm.

Saving Reports

You can save system information into reports in the CSV, XML, or HTML formats.

To save reports:

1. From **Systems**, click **Save Report**.
2. Specify the folder location and file name, and in **Save as type**, select the report format, and then click **Save**.
3. In **Report Saved Successfully**, click **OK**.

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Managing Licenses

Using Dell License Manager you can deploy licenses to licensable systems. Dell License Manager also supports the export of license archives for backup. From Licenses view, you can view the status of available licenses.
Before you deploy licenses:

1. Inventory the licensable systems. See [Inventorying Licensable Systems](#).
2. Obtain licenses from the Dell Online Licensing Portal.
3. Import licenses into Dell License Manager.
4. Deploy the licenses.

   📝 **NOTE:** To work with licenses, from the Dell License Manager, in the navigation pane, click **Licenses**.

Obtaining Licenses

You can download licenses from the Dell Online Licensing Portal at **dell.com/support/retail/lkm**. You can purchase licenses when you purchase a server or chassis. The licenses are installed from the factory. The downloaded license package contains a license archive in a compressed file format (ZIP format). The license archive contains license files in an XML format.

Importing Licenses

Before you import licenses, you must download licenses. You can also import archived licenses. However, you cannot import expired or evaluation licenses.

1. In Dell License Manager, click **Actions → Launch Dell Online Licensing Portal.**
2. From the Dell licensing portal, download the required licenses to a file system.
3. From **Licenses**, select **Import Licenses**.
4. In **Select Licenses**, browse to the location where the license files are downloaded, select the license package, and then click **Open**.

   📝 **NOTE:** If a system has a license with the same Entitlement ID, then the duplicate license is flagged for potential licensing problems.

5. In **Import Licenses**:

   a. If you want to filter the list of validated licenses based on the matching inventoried systems, select **Import only those licenses which match inventoried systems**.
   b. Select valid licenses.

c. Click **Import**.

Deploying Licenses

Dell License Manager can automatically deploy all available licenses to discovered systems. Alternatively, you can select specific licenses or systems for deployment. Before you deploy licenses:

*   Inventory systems on which you want to deploy licenses.
*   Confirm that the inventoried systems are licensable.
*   Confirm that the licenses are downloaded from Dell Online Licensing Portal.
*   Confirm that the required licenses are imported into Dell License Manager.

> **NOTE:** If numerous systems have licenses with the same Entitlement ID, then the duplicate licenses are flagged for potential licensing problems.

To automatically deploy licenses:

1. Select **Licenses → Deploy Licenses → Automatically Deploy Licenses.**
2. In operation selection page, click **Nex**t.
3. In communication settings, provide the management controller credentials, verify communication settings, and then click **Next**.

    > **NOTE:** If no matching system is found for a license, the following message is displayed: **No matching licenses are available**.

    > **NOTE:** You can monitor the deployment in task view. As systems are updated, corresponding information in systems view and license view are updated.

Selecting Licenses For Deployment

1. Click **Licenses → Deploy Licenses → Deploy Selected Licenses.**
2. In the operation selection page, verify licenses you want to deploy and click **Next**.
3. In communication settings, provide the management controller credentials, verify communication settings, and then click **Next**.

    > **NOTE:** You can monitor the deployment in task view. As systems are updated, corresponding information in system view and license view are updated.

Selecting Systems For License Deployment

1. In **Systems**, select the systems on which you want to deploy licenses.
2. Click **Deploy Associated Licenses**.
3. Select the licenses to deploy on the systems and click **Next**.
4. In communication settings, provide the management controller credentials, verify communication settings, and then click **Next**.

    > **NOTE:** You can monitor the deployment in task view. As systems are updated, corresponding information in system view and license view are updated.

Exporting License Archives

You can export an archive of all licenses available in the system. You can use this archive as a backup when a system is repaired and the Dell Licensing Portal is not accessible (due to a security restricted network.) You can also use the archived licenses for transfer among Dell License Manager installations. Dell License Manager retrieves factory-installed licenses during discover and inventory of systems. When you archive licenses, a package containing a compressed file of XML license files, similar to the license package downloaded from the Dell Online Licensing Portal is created.

To export licenses:

1. From **Licenses**, click **Export Archive**.
2. Specify the folder location and click **Save**.

   The licenses are archived in the compressed file format (ZIP format.)

Saving Reports

You can save system information into reports in the CSV, XML, or HTML formats.

To save reports:

1. From **Systems**, click **Save Report**.
2. Specify the folder location and file name, and in **Save as type**, select the report format, and then click **Save**.
3. In **Report Saved Successfully**, click **OK**.

Removing Licenses From The Inventory

To remove licenses from the License Manager inventory:

1. From **Licenses**, select the license you want to delete and click **Delete**.
2. In **Confirm License Removal**, click **Yes**.

Removing Licenses From A System

The **Remove License** option allows you to either remove a specific license or all licenses from a system. To remove licenses:

1. Click **Systems**.

   The **System Details** pane displays the licenses installed on the system.
2. Under **Installed Licenses**, select the licenses you want to remove.
3. Click **Remove License**.

   The **Remove License** window is displayed.

4. Provide the management controller credentials, confirm the communication settings, and then click **Finish**.

Managing Tasks and Logs

From the Tasks view, you can monitor the progress of long-running tasks. The Task Status table includes a summary of executing and recently completed tasks. The **Results** tab includes a summary of operation results and the Execution Logs tab includes the detailed log of the currently selected task or operation.

Cancelling Tasks

Cancelled tasks do not terminate until the operations that are already in-progress are concluded. As such, it may take several minutes for a cancelled task to terminate. In some circumstances, tasks may complete before cancellation can take effect.

To cancel tasks:

1. From **Tasks**, select the task that you want to cancel and click **Cancel Selected Task**.
2. In **Cancel Task**, click **Yes**.

Log Entries

If a task result is selected, the **Execution Log** tab includes detailed information about the selected task log. If a task result is selected, the log is filtered to entries related to that specific result. Log entries consist of the date and time of the entry, a log code, and a detailed log message.

Clearing Completed Tasks

If the Dell License Manager application is closed while tasks are running, then those tasks are terminated. You cannot clear tasks that are in progress.

To clear completed tasks:

1. From **Tasks**, click **Clear Completed Tasks**.
2. In **Clear Completed Tasks**, click **Yes**.

Viewing Dell License Manager Logs

The saved result is available in the Log view. The Result Logs table includes a summary of Dell License Manager activity including discovery and inventory, license import, and license deployment or removal operations. The Log Entries pane shows detailed results of the currently selected activity. Dell License

Manager logs summary based information. The logged information includes status, date and time, unique identifier, and a list of logged events.

To view logs, click **Logs**.

Generating Support Log Archives

When directed by technical support, click **Generate Support Log Archive**. Select the folder where you want to save the archive, and then click **Save**. This option generates a zip archive containing the text of each result log. You can provide the log to technical support as directed.

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Troubleshooting

License Importing

Cannot Import Trial Licenses

Message: `Trial licenses are not supported by the license manager.`

Resolution: Apply a trial license through the iDRAC or CMC GUI or RACADM CLI. For more information, see the iDRAC or CMC documentation.

License Or Archive Is Corrupt Or Unreadable

Messages:

- `Unable to read archive file.`
- `The archive does not contain any license files.`
- `Unable to parse license.`
- `The digital signature is invalid.`

Resolution: Download license archive again from the Dell Online Licensing Portal at **dell.com/support/retail/lkm**.

License Inventory/Discovery And License Deployment

When resolving discovery/inventory errors, verify that the remote address corresponds to an iDRAC7 or greater, by accessing the iDRAC or CMC GUI. To access the iDRAC or CMC GUI, connect to the system IP/hostname using a web browser. If the system does not contain iDRAC7, then ignore the error message.

Invalid Credentials

Message: `Unable to establish communications – Access is denied.`

Resolution: Enter correct credentials. If iDRACs do not share common credentials, you must run multiple discovery/inventory tasks using different credentials.

Certificate Error

Messages:

- `Unable to establish communications - The SSL certificate contains a common name (CN) that does not match the hostname.`

- `Unable to establish communications - The SSL certificate is signed by an unknown certificate authority.`
- `Unable to establish communications - The SSL certificate could not be checked for revocation. The server used to check for revocation might be unreachable.`
- `Unable to establish communications - The SSL certificate is expired.`

Resolution: If the certificate name does not match the hostname, install a certificate matching the address on which the management controller is inventoried. Alternatively, disable certificate name validation in your discovery/inventory settings. For more information, see Communication Settings.

If the certificate authority is not recognized, add the certificate authority to the list of Windows Trusted Root Certification Authorities on the management console. Alternatively, disable certificate authority validation in the discovery/inventory settings. For more information, see Communication Settings.

If you cannot check the certificate for revocation, make sure that the certificate revocation list server is available to the management console. Alternatively, disable certificate revocation list checking in the discovery/inventory settings. For more information, see Communication Settings.

If the certificate has expired, generate and install a new certificate. Dell License Manager cannot connect to iDRACs using an expired certificate.

Unable To Connect

Messages:

- `Unable to ping system - Timed Out`
- `Unable to establish communications - Connection to host timed out`

Resolution: Verify that the management controller is connected to the network and assigned the specified address. Verify that the firewall settings allow you to access the system from the management console.

From the iDRAC or CMC GUI, verify that the address corresponds to a system that contains iDRAC7 or a later version. To access the GUI, connect to the system IP/hostname from a web browser. If the system does not contain iDRAC7, then ignore the error message.

License Status Warnings

Individual Bound License Deployed To Multiple Systems

Message: One or more licenses with the same Entitlement ID are bound to other service tags and are currently deployed.

Resolution: Install each individual bound license, distinguished by a unique Entitlement ID, on a single system specified by its service tag. By using the Dell Online Licensing Portal at **dell.com/support/retail/lkm**, determine that a license is properly associated with the system. Remove license instances deployed to systems other than those specified in the portal.

You may determine to which systems an Entitlement is deployed by sorting or filtering the Entitlement ID column within the System Inventory table. Improperly deployed licenses can be removed using the management controller GUI. If multiple perpetual licenses are installed on the same system their Entitlement IDs are not displayed in the table. You must inspect such systems individually and review the installed licenses listed in the System Details pane.

Original License Missing During Upgrade

Message: The license is designated as an upgrade, however the original license is not currently installed.

Resolution: Make sure that the original license is not reassigned to another system. If the original license is not present due to service performed on the system, then, ignore this message.

Unable to View the Help Content in Internet Explorer

Message: The Dell License Manager help content cannot be viewed in some versions of Microsoft Internet Explorer.

Resolution: Enable active scripting under security settings and then retry the operation.

1. In Internet Explorer, click **Tools → Internet Options**.
    The **Internet Options** window is displayed.
2. Click the **Security** tab, and then click **Custom level**.
    The **Security Settings** window is displayed.
3. In the **Settings** pane, scroll down until you find **Scripting** and **Active Scripting**.
4. Click **Enable**, and then click **OK**.
    The **Security Settings** window is closed.
5. In the Internet Options window, click **OK**.

Systems — Reference

From Systems, you can discovery and inventory systems, deploy licenses, and save reports.

Field	Description
Run Discovery and Inventory	Select to discover and inventory the supported management controllers.
Deploy Associated Licenses	Select to deploy licenses.
Save Report	Select to save license reports.
Delete	Select to remove systems from the License Manager inventory.

System Inventory Table

The system inventory table contains a summary of licensable systems. You can sort or resize each column. Select a system to view additional information or perform tasks on that system. You can also select multiple systems deployment tasks or removal.

Field	Description
Selected	Click check box to select the system.
System Name	The host name of the installed operating system, if available.
Management Controller	The host name of the management controller. Clicking the link opens the management controller GUI using Microsoft Internet Explorer. The discovery address is shown in parenthesis.
System Model	The system model name.
Upgrade Available	If a license upgrade is available for deployment, a message is displayed.
Service Tag	The factory-assigned system Service Tag that uniquely identifies each system. Each license is bound to a particular service tag indicating the system on which it is deployed.
Evaluation Installed	If applicable, the status of installed evaluation licenses are shown.
Current License	The level of functionality currently supported by the management controller. Supported levels include: • Enterprise

Field	Description
	• Express • Express for Blades • Basic Management For more information on the management controller functionality supported by each feature level, access the online licensing portal at **dell.com/support/retail/lkm**. NOTE: Not all hardware supports all management features. For more information, see the hardware documentation.
Purchased License	The highest license class of any perpetual license bound to the system is shown. Both installed licenses and licenses in inventory awaiting deployment are included when calculating the purchased license class.
Entitlement ID	The unique license identifier.
Additional Information	If a potential EULA violation is detected, it is indicated in this column.
Last Inventory	The date and time the system was last inventoried. The systems will automatically re-inventory when a license operation is conducted on the system.
Modular System	Name of the modular system (chassis) in which the server or sled is installed.
Node ID	The unique identifier of the server or sled installed in a modular system (chassis). Typically, the Service Tag of a server or the server node identifier of a sled.
Slot	The slot occupied by the server or sled in the modular system (chassis).

Systems Detail Pane

The system details pane shows information on a licensable system, including the installed licenses and licensable components of that system. The system details contains component details and license details.

Field	Description
System Name	The host name of the installed operating system, if available.
Management Controller	The host name of the management controller.
Model	The system model.
Service Tag	The service tag of the system.
Discovery Address	The IP address or hostname at which the management controller was discovered.
Purchased License	The highest license class of any perpetual license bound to the system is shown. Both installed licenses and licenses in inventory awaiting deployment are included when calculating the purchased license class.

Field	Description
Current License	The current license on the system.
Installed Licenses	The list of licenses that are installed on the system.
Remove License	Select a license in the **Installed License** grid, and click Remove license to remove a license installed on the system.
Selected	Click check box to select the license.
Status	The license status: • Green — The license is ok. • Yellow — The license has a potential problem. • Red — The license is not functional.
Description	The license description.
Entitlement ID	The unique license identifier.
Expiration	Date on which the license expires (if applicable).
Term	The license term. For more information, see [Understanding Licenses]().
Date Purchased	The date the license was purchased.
Date Imported	The date the license was imported.

Discovery/Inventory Wizard

Provide these values to set IP range and host information.

Field	Description
Add Range or IP	Click to open the **Edit Inventory Range** window for adding a new discovery range.
Edit	Select an existing range and click to open the **Edit Inventory Range** window.
Remove Selected	Click to remove the selected range.
Inventory	Click the check box to select the IP address.
Range / Address Name	Enter a unique name describing the range.
Start / Individual Address	Enter the beginning range of the IPv4 address or the individual IP address.
End Address	Enter the ending range of the IPv4 address.

Field	Description
Subnet Mask (Optional)	Use subnet mask to exclude network and broadcast addresses from inventory attempts. If omitted, each address is treated as a host.
Description (Optional)	Enter a description. Each inventory range can include at most a Class B network (65,536 addresses).

Edit Inventory Range

Field	Description
IP Range or Address Name	Enter a unique name describing the range.
Enter an IP Range, an Individual Address, or a List of Addresses	
IPV4 Range	Select to provide an IPv4 address range.
Start Address	Enter the beginning range of the IPv4 address or the individual IP address.
End Address	Enter the ending range of the IPv4 address or the individual IP address.
Subnet Mask	Enter the subnet mask for the provided IPv4 address.
Individual IP Address (IPv4, IPv6, or hostname)	Select to provide an individual IP address.
Text file with IP addresses	Select to create an inventory range using a text file that includes an IP address or host name in each line.
Load	Click to browse and select the text file.
Description (Optional)	Enter a description.

Communication Settings

Optimal parameter values depend on the characteristics of a network. In communication settings, you can provide credentials, Ping (ICMP) Settings, and WS-Man Settings.

Field	Description
Credentials	You must specify the credentials to conduct discovery inventory. Credential information is not persistent across task executions.
Management Controller Username	Provide the management controller user name. If using Active Directory authentication, enter username in the format Domain\User name. **NOTE:** The management controller login privilege is required to perform system inventory.

Field	Description
Management Controller Password	Provide management controller password.
Ping Settings (ICMP)	
Require successful ping before attempting inventory	When enabled, a ping response is received from an address before attempting WS-Man inventory communications. This can improve the performance of the inventory process. However, disable this option if the network blocks ping requests. This option is enabled by default.
Retries	The number of times to re-attempt a ping before excluding the system from inventory. The default is 3 retries (4 total attempts).
Timeout	The time within which a ping response is received before the ping attempt fails. The default is 5 seconds.
WS-Man Settings	Dell License Manager uses the management controller WS-Man interface to obtain inventory information.
Validate Certificate Name	If enabled, this ensures that inventory communications are conducted only with systems identifying themselves based on a certificate that matches the address used to communicate with that system. If the iDRAC certificate does not match the discovery address, then disable certificate name validation for Dell License Manager to communicate with the iDRAC. However, if the certificate name is not validated, Dell License Manager cannot authenticate the identity of the remote system.
Validate Certificate Authority	If enabled, this ensures that the inventory communications are conducted only with systems identifying themselves based on a certificate issued by a trusted source. If the iDRAC certificate is not issued by a trusted authority, then disable validation for Dell License Manager to communicate with the iDRAC. However, if the certificate authority is not validated, Dell License Manager cannot authenticate the identity of the remote system. For validation, include a trusted certificate authority as part of the Trusted Root Certification Authorities list in Microsoft Windows. For more information, see the Microsoft Windows documentation.
Validate Certificate Revocation List	If enabled, this ensures that communications are not conducted with a system identifying itself using a certificate that is revoked. If the management console cannot communicate with a certificate revocation list server, then disable this option for communicating with iDRAC. However, if the certificate revocation list is not validated, Dell License Manager cannot authenticate the identity of the remote system.
Retries	The number of communication retry attempts made, if temporary WS-Man communication errors occur before the inventory attempt fails. The default is 1 retry (2 total attempts).
Timeout	The time within which the WS-Man host must begin to return data before the communication attempt fails. The default is 30 seconds.

Field	Description
Port	The HTTPS communication port configured on the iDRACs. The default port is 443. On this port, ensure that firewall settings allow HTTPS communication between the management station and the iDRACs.

9

Licenses — Reference

From Licenses, you can import and deploy matching licenses, archive exported license, and save reports.

Field	Description
Import Licenses	Click to import licenses from a file system.
Export Archive	Select to archive licenses.
Deploy Licenses	Select to deploy licenses matched to a licensable system. The options include: • Deploy Selected Licenses • Automatically Deploy Licenses
Save Report	Select to save the license report.
Delete	Select to remove licenses from License Manager local database.
Selected	Click to select a license.
Description	Details of the type of license; Enterprise License, bound, unbound, or upgraded.
Term	The license term. For more information, see Understanding Licenses.
Bound Service Tag	The Service Tag to which the license is bound. You can only deploy this license on the system with the specified tag.
Deployed	The deployment status: • Yes — The license is deployed. • No — The license is not deployed. • Unknown — The corresponding system is not in inventory.
Matching System	The system to which you can assign this license. • Yes — Indicates the associated system is in inventory. • No — Indicates the system is not in inventory.
Origin	The method in which the license was added: • Imported — The license was imported into Dell License Manager. • Retrieved — The license was obtained during inventory.
Date Purchased	The date the license was purchased.
Date Imported	The date the license was imported.
License	The license identification number and the details of the license.
Entitlement ID	The unique license identifier.

Field	Description
Upgrade ID	In the case of an upgrade license, the ID of the license to which the upgrade applies.
Expiration	Date on which the license expires (if applicable).
License Features	The features supported by the selected license.

Manage Licenses

Field	Description
Selected	Click to select license.
Operation Status	Details on whether the license is available for deployment.
Entitlement ID	The ID of the license.
License Description	The description of the license.
System	The name of the system on which to deploy the license. If available, the host name is used, otherwise the iDRAC name is used.
Service Tag	The factory-assigned system Service Tag, which uniquely identifies each system. Each license is bound to a particular Service Tag indicating the system on which the license is deployed. NOTE: Licenses already deployed on a system do not appear in the Operation Selection page.
Active License	The class and term of the highest class license installed on the system.
Credentials	
Management Controller Username	Provide the management controller user name. If you are using Active Directory authentication, enter the user name in the format Domain\User name. NOTE: The management controller login privilege is required to perform system inventory.
Management Controller Password	Provide the management controller password.
WS-Man Settings	Dell License Manager uses the management controller WS-Man interface to obtain inventory information.
Validate Certificate Name	If enabled, this ensures that inventory communications are conducted only with systems identifying themselves based on a certificate that matches the address used to communicate with that system. If the iDRAC certificate does not match the

Field	Description
	discovery address, then disable certificate name validation for Dell License Manager to communicate with iDRAC. However, if the certificate name is not validated, Dell License Manager cannot authenticate the identity of the remote system.
Validate Certificate Authority	If enabled, this ensures that inventory communications are conducted only with systems identifying themselves based on a certificate issued by a trusted source. If the iDRAC certificate is not issued by a trusted authority, then disable validation for Dell License Manager to communicate with the management controller. However, if the certificate authority is not validated, Dell License Manager cannot authenticate the identity of the remote system. For validation, include a trusted certificate authority as part of the Trusted Root Certification Authorities list in Microsoft Windows. For more information, see the Microsoft Windows documentation.
Validate Certificate Revocation List	If enabled, this ensures that communications are not conducted with a system identifying itself using a certificate that is revoked. If the management console cannot communicate with a certificate revocation list server, then disable this option to communicate with iDRAC. However, if the certificate revocation list is not validated, Dell License Manager cannot authenticate the identity of the remote system.
Retries	The number of communication retry attempts made if temporary WS-Man communication errors occur before the inventory attempt fails. The default is 1 retry (2 total attempts).
Timeout	The time within which the WS-Man host must begin to return data before the communication attempt fails. The default is 30 seconds.
Port	The HTTPS communication port configured on the iDRACs. The default port is 443. On this port, ensure that the firewall settings allow HTTPS communication between the management station and iDRACs. To save changes and proceed with discovery/inventory, click **Next**.
Task Settings	
Show task pane after launch	Select to view the task progress in **Tasks**.

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Tasks — Reference

From Tasks, you can view discovery and inventory, and license deployment task information.

Field	Description
Cancel Selected Task	Select to cancel a listed task.
Clear Completed Task	Select to purge completed task information.
Status	Status type of the task is listed. • Normal—The task is successfully completed. • Failure—The task is not completed.
ID	Unique ID assigned to the task.
Task	Description of the task.
Summary	Description of the task's status.
Progress	Indicator of the task's progress.
Start Time	Starting time of the task.
End Time	Ending time of the task.
Task Results	Provides status, operation, and result information. It includes the following tabs: • Results • Execution Log
Status	• Green—The task is successfully completed. • Yellow—The task is completed with warnings. • Red—The task is completed with errors.
Operation	The description of the operation
Result	The summary of the operation result. NOTE: When generating results for a discovery/inventory IP range, result entries are not created for addresses where communication is not established or where a non-licensable system is detected. For result information on such systems, consult the execution log tab.
Execution Log	The **Execution Log** tab provides detailed information from the selected task log.

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Logs — Reference

From Logs, you can view License Manager activities, clear log results, and save reports.

Field	Description
Clear Logs	Select to purge logged information.
Generate Support Log Archive	Select to archive logged information.
Save Report	Select to save log report.
Result	Status type of the listed task: • Normal—The task is successfully completed. • Failure—The task is not completed.
ID	Unique ID assigned to the task.
Summary	Summary description of the logged event.
Date	Date and time at which the task completed.
Log Entries	Details of the logged information.