

Dell License Manager

Version 1.0

# User's Guide



# Notes and Cautions



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



**CAUTION:** A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.

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# Contents

1	About Dell License Manager . . . . .	7
2	Installing Dell License Manager . . . . .	9
	<b>Minimum System Requirements</b> . . . . .	9
	<b>Limitations</b> . . . . .	9
	<b>Installing Dell License Manager</b> . . . . .	10
3	Getting Started With Dell License Manager . . . . .	11
	<b>Starting Dell License Manager</b> . . . . .	11
	<b>Dell License Manager Workflow</b> . . . . .	11
	<b>Dell License Manager User Interface</b> . . . . .	12
	Menu Bar . . . . .	12
	Task Status Bar . . . . .	14
	Help Icon . . . . .	14
	Dell License Manager Views . . . . .	14
	<b>Understanding Licenses</b> . . . . .	16
	Entitlement Identifiers . . . . .	16
	License Descriptions . . . . .	16
	Perpetual Licenses . . . . .	17
	Evaluation Licenses . . . . .	17
	Bound Licenses . . . . .	17

	Upgrade Licenses. . . . .	17
	<b>License Features . . . . .</b>	<b>17</b>
	<b>Filtering Data . . . . .</b>	<b>17</b>
	Filter Options . . . . .	18
<b>4</b>	<b>Working With Licensable Systems . . . . .</b>	<b>19</b>
	<b>Inventorying Licensable Systems . . . . .</b>	<b>19</b>
	<b>Editing an Inventory Range . . . . .</b>	<b>20</b>
	<b>Viewing Inventoried Systems . . . . .</b>	<b>20</b>
	System Inventory Table . . . . .	20
	<b>Removing System Information . . . . .</b>	<b>21</b>
	<b>Deploying Licenses . . . . .</b>	<b>21</b>
	<b>Saving Reports . . . . .</b>	<b>21</b>
<b>5</b>	<b>Managing Licenses . . . . .</b>	<b>23</b>
	<b>Obtaining Licenses. . . . .</b>	<b>23</b>
	<b>Importing Licenses. . . . .</b>	<b>23</b>
	<b>Deploying Licenses . . . . .</b>	<b>24</b>
	<b>Selecting Licenses for Deployment . . . . .</b>	<b>25</b>
	<b>Selecting Systems for Deployment . . . . .</b>	<b>25</b>
	<b>Removing Licenses From Inventory . . . . .</b>	<b>25</b>
	<b>Exporting License Archives . . . . .</b>	<b>25</b>

	<b>Saving Reports</b> . . . . .	<b>26</b>
<b>6</b>	<b>Managing Tasks and Logs</b> . . . . .	<b>27</b>
	<b>Cancelling Tasks</b> . . . . .	<b>27</b>
	<b>Log Entries</b> . . . . .	<b>27</b>
	<b>Clearing Completed Tasks</b> . . . . .	<b>27</b>
	<b>Viewing Dell License Manager Logs</b> . . . . .	<b>28</b>
	<b>Clearing Result Logs</b> . . . . .	<b>28</b>
	<b>Generating Support Log Archives</b> . . . . .	<b>28</b>
	<b>Saving Reports</b> . . . . .	<b>28</b>
<b>7</b>	<b>Troubleshooting</b> . . . . .	<b>29</b>
	<b>License Importing</b> . . . . .	<b>29</b>
	Cannot Import Trial Licenses . . . . .	29
	License or Archive is Corrupt or Unreadable . . . . .	29
	<b>License Inventory/Discovery and License Deployment</b> . . . . .	<b>30</b>
	Invalid Credentials . . . . .	30
	Certificate Error . . . . .	30
	Unable to Connect . . . . .	31
	<b>License Status Warnings</b> . . . . .	<b>32</b>
	Individual Bound License Deployed to Multiple Systems . . . . .	32
	Original License Missing During Upgrade . . . . .	32

8	Systems - Reference . . . . .	33
	<b>System Inventory Table.</b> . . . . .	33
	<b>Systems Details Pane</b> . . . . .	34
	<b>Discovery / Inventory Wizard</b> . . . . .	35
	<b>Communication Settings.</b> . . . . .	35
9	Licenses - Reference. . . . .	39
	<b>Manage Licenses</b> . . . . .	40
10	Tasks - Reference . . . . .	43
11	Logs - Reference . . . . .	45

# About Dell License Manager

Dell License Manager is a one-to-many license deployment and reporting tool for Dell iDRAC licenses.

Dell License Manager can deploy and backup iDRAC licenses on all Dell 12 Generation PowerEdge servers (denoted as  $yx2x$ ) that are equipped with an iDRAC7 or greater Dell Remote Access controller.



**NOTE:** For the server name format  $yx2x$ ,  $y$  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.

Dell License Manager can also inventory licensable systems to report on the licensing status and currently enabled iDRAC 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.

You can purchase and download licenses from the Dell Online Licensing Portal at [dell.com/support/retail/lkm](https://dell.com/support/retail/lkm). You can also purchase licenses when you purchase a server.





# Installing Dell License Manager

## Minimum System Requirements

**Table 2-1. Minimum System Requirements**

<b>Particulars</b>	<b>Requirement</b>
Hard Disk	200 MB (minimum)
RAM	2 GB (minimum)
Operating Systems	Microsoft Windows 7 Microsoft Windows Vista (SP2 or later) Microsoft Windows Server 2008 R2 Windows Server 2008 (SP2 or later) Both 64-bit and 32-bit versions are supported.
Network	100 Mbps or higher
Screen Resolution	1024 X 768
.NET	4.0 Client Profile (or full version)
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 600 licensable servers and an inventory of up to a class B IP address range (65,536 addresses).

# Installing Dell License Manager

Download Dell License Manager from [support.dell.com](http://support.dell.com).

To install License Manager:

- 1** Run the **License Manager** Windows installer package.
- 2** In the Welcome screen, click **Next**.
- 3** In **License Agreement**, select **I accept the terms in the license agreement** and click **Next**.
- 4** In **Setup Type**, do any of the following:
  - To accept the default installation path, choose the **Typical** installation.
  - 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, assign a new location for installing Dell License Manager.
- 5** In the **Installation readiness** screen, click **Install**.
- 6** After the installation is complete, click **Finish**.

# Getting Started With Dell License Manager

## Starting Dell License Manager

To access Dell License Manager, from the Windows desktop:

- 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 Workflow

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To get started with license deployment:

Discover/Inventory licensable iDRACs [Inventorying Licensable Systems](#)

Download licenses from the Dell Online Licensing Portal at [dell.com/support/retail/lkm](http://dell.com/support/retail/lkm) [Obtaining Licenses](#)

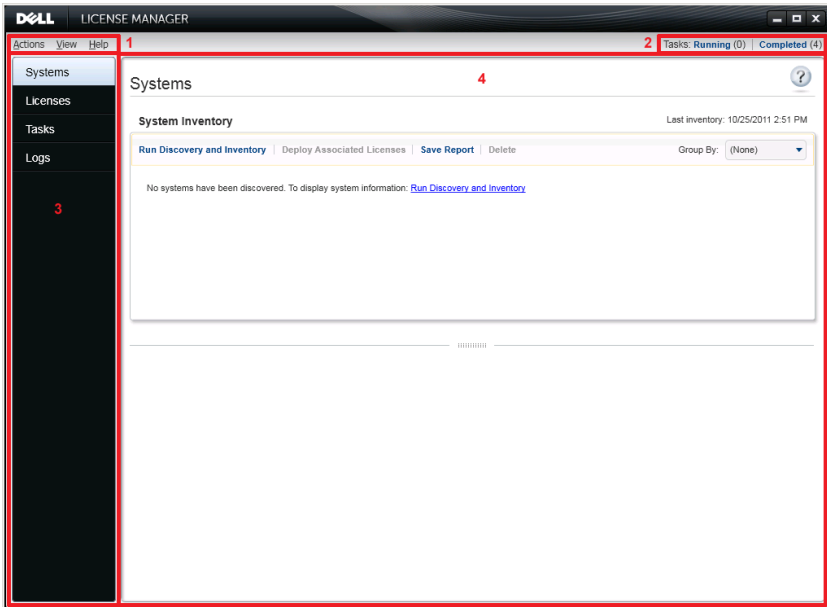
Import your licenses into Dell License Manager [Importing Licenses](#)

Deploy your licenses [Deploying Licenses](#)

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# Dell License Manager User Interface

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



1 Menu bar

2 Task status bar

3 Navigation pane


4 Active view pane

## Menu Bar

The menu bar consists of the Actions, Views, 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](http://dell.com/support/retail/lkm). Before you access the portal, connect the system to the Internet. From the online portal you can purchase and 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**—Select this option 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**—Select this option to access the Dell Technical Support at [support.dell.com](https://support.dell.com).
- **Generate Support Log Archive**—Select this option to generate an archive of activity logs which Dell Technical Support can use to troubleshoot problems.
- **About**—Select this option 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  to access context-sensitive online help.

## Dell License Manager Views

Dell License Manager supports these primary views:

- Systems view
- License 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 information on system licensing status

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

### **Licenses View**

The Licenses view is accessible through the **Licenses** link in the navigation pane. From the license 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 license 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:

- Monitor task progress
- Cancel running tasks

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

### **Logs View**

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

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

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

## Working With Views

The system, license, task, and log data view data grids allow for 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
- License Descriptions

### 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 on the iDRAC functionality supported by each feature level, access the online licensing portal at [dell.com/support/retail/lkm](http://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 for 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 to those respective 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 cursor on 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.

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

## Filter Options

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<b>Filter Option</b>	<b>Description</b>
Is equal to	Select to create the <i>same as</i> logic.
Is not equal to	Select to create the <i>different from</i> logic.
Starts with	Select to filter search based on a text chunk's initial alphanumeric character(s). Provide the starting alphanumeric character(s) in the field.
Ends with	Select to filter search based on a text chunk's final alphanumeric character(s). Provide the ending alphanumeric character(s) in the field.
Contains	Select to filter search based on alphanumeric characters present in a text chunk. Provide the alphanumeric character(s) in the field.
Does not contain	Select to include the <i>not present</i> logic in search based on alphanumeric characters present in a text chunk.
Is contained in	Select to include the <i>is present</i> logic in an alphanumeric character string.
Is not contained in	Select to include the <i>not present</i> 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 **Discovery / Inventory Wizard**, click **Add Range or IP** and provide the IP address or range name along with the iDRAC IP address range or individual iDRAC address.
- 4 Click **Ok** and then click **Next**.
- 5 Provide 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](#).
- 6 In **Confirm Settings** screen of the **Discover / Inventory Wizard**:
  - Review the discovery settings you provided. Click **Back** to edit settings.
  - Select **Show task pane after launch** to view inventory task progress in task pane.In systems view, the Inventoried systems are displayed.
- 7 Click **Run Discovery / Inventory**.

## Editing an Inventory Range

Specify the iDRAC 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:

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

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

## Viewing Inventoried Systems

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

### System Inventory Table

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

To view inventoried systems: Select **Systems**.

System inventory information includes the following:

- System Name
- iDRAC Name
- System Model
- Upgrade Available
- Service Tag
- Evaluation Installed
- Current License
- Purchased License
- Entitlement ID

- Additional Information
- Last Inventory

## Removing System Information

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

## Deploying Licenses

See [Deploying Licenses](#).

## 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**.



# 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.

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

## Obtaining Licenses

You can purchase licenses or download licenses from the Dell Online Licensing Portal at [dell.com/support/retail/lkm](http://dell.com/support/retail/lkm). You can also purchase licenses along with the server you purchased. The licenses are installed at 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.

To download licenses from the Dell Licensing Portal:

- 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.

To import licenses from a file system:

- 1 From **Licenses**, select **Import Licenses**.
- 2 In **Select Licenses**, browse to the location where the license files are downloaded, select the license package, and then click **Open**.
- 3 In **Import Licenses**, select valid licenses and 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.



**NOTE:** You cannot remove licenses deployed to iDRAC systems using Dell License Manager. To remove a license from iDRAC, run the appropriate commands using the iDRAC GUI, RACADM, or WS-Man interface. Connect to the iDRAC GUI using the link provided in the System Inventory table. For more information, see the iDRAC documentation.

To deploy licenses automatically:

- 1 Select **Licenses**→ **Deploy Licenses**→ **Automatically Deploy Licenses**.
- 2 In operation selection page, click **Next**.
- 3 In communication settings, provide iDRAC credentials and verify communication settings and click **Next**.

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 operation selection page, verify licenses you want to deploy and click **Next**.
- 3 In communication settings, provide iDRAC credentials, verify communication settings, and click **Next**.

Monitor the deployment in task view. As systems are updated, corresponding information in system view and license view are updated.

## Selecting Systems for 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 iDRAC credentials, verify communication settings, and click **Next**.

Monitor the deployment in task view. As systems are updated, corresponding information in system view and license view are updated.

## Removing Licenses From Inventory

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

## 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 license information into reports in CSV, XML, or HTML formats. To save reports:

- 1 From **Licenses**, click **Save Report**.
- 2 Specify the folder location and file name, and in **Save as type**, select report format, and then click **Save**.

# Managing Tasks and Logs

From the Tasks view, you can monitor 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 per-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 on 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

Saved result information 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**.

## Clearing Result Logs

To remove all logs from Dell License Manager:

- 1 In **Logs**, click **Clear Logs**.
- 2 In **Confirm Log Removal**, click **Yes**.

## Generating Support Log Archives

When directed by technical support, click **Generate Support Log Archive**. This option generates a zip archive containing the text of each result log. You can provide the log to support as directed.

## Saving Reports

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

To save reports:

- 1 From **Logs**, click **Save Report**.
- 2 Specify the folder location and file name, and in **Save as type**, select report format, and then click **Save**.

# 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 GUI or RACADM CLI. For more information, see the iDRAC 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 once again from the Dell Online Licensing Portal at [dell.com/support/retail/lkm](http://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 GUI. To access the iDRAC GUI, connect to the system IP/hostname using a web browser. If the system does not contain iDRAC7, then ignore this 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 iDRAC 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 iDRAC is connected to the network and assigned the specified address. Verify firewall settings allow you to access the system from the management console.

From the iDRAC 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 this 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](https://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. Purchase additional licenses within the portal to support additional systems.

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 iDRAC 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.



# Systems - Reference

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

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<b>Run Discovery and Inventory</b>	Select to discover and inventory iDRAC systems.
<b>Deploy Associated Licenses</b>	Select to deploy licenses.
<b>Save Report</b>	Select to save license reports.
<b>Delete</b>	Select to remove systems from the License Manager inventory.

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## System Inventory Table

The system inventory table contains a summary of information on 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.

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<b>Selected</b>	Click check box to select the license.
<b>System Name</b>	The host name of the installed operating system, if available.
<b>iDRAC Name</b>	The host name of the management controller. Clicking the link connects to the iDRAC GUI using Microsoft Internet Explorer. The discovery address is shown in parenthesis.
<b>System Model</b>	The system model name.
<b>Upgrade Available</b>	If a license upgrade is available for deployment, a message is displayed.
<b>Service Tag</b>	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.
<b>Evaluation Installed</b>	If applicable, the status of any installed evaluation licenses are shown.

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<b>Current License</b>	<p>The level of functionality currently supported by the iDRAC. Supported levels include:</p> <ul style="list-style-type: none"> <li>• Enterprise</li> <li>• Express</li> <li>• Express for Blades</li> <li>• Basic Management</li> </ul> <p>For more information on iDRAC functionality supported by each feature level or to purchase an upgrade, access the online licensing portal at <a href="http://dell.com/support/retail/lkm">dell.com/support/retail/lkm</a>.</p> <p><b>NOTE:</b> Not all hardware supports all management features. For more information, see the hardware documentation.</p>
<b>Purchased License</b>	<p>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.</p>
<b>Entitlement ID</b>	<p>The unique license identifier.</p>
<b>Additional Information</b>	<p>If a potential EULA violation is detected, it is indicated in this column.</p>
<b>Last Inventory</b>	<p>The date and time the system was last inventoried. The systems will automatically re-inventory when a license operation is conducted on the system.</p>

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## Systems Details 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.

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### Component Details

<b>Discovery Address</b>	The IP address or hostname at which the iDRAC was discovered.
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<b>Status</b>	The license status: <ul style="list-style-type: none"> <li>• Green—The license is ok.</li> <li>• Yellow—The license has a potential problem.</li> <li>• Red—License is not functional.</li> </ul>
<b>Description</b>	The license description.
<b>Entitlement ID</b>	The unique license identifier.
<b>Expiration</b>	The license expiration date, if applicable.
<b>Term</b>	The license terms.

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## Discovery / Inventory Wizard

Provide these values to set IP range and host information.

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<b>Inventory</b>	Click the check box to select the IP address.
<b>Range / Address Name</b>	Enter a unique name describing the range.
<b>Start / Individual Address</b>	Enter the IPv4 address beginning the range or the individual IP address.
<b>End Address</b>	Enter the IPv4 address ending the range.
<b>Subnet Mask</b>	(Optional) Use subnet mask to exclude network and broadcast addresses from inventory attempts. If omitted, each address is treated as a host.
<b>Description</b>	(Optional) You can enter a description. Each inventory range can include at most a Class B network (65,536 addresses).

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## 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.

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<b>Credentials</b>	You must specify the credentials to conduct discovery inventory. Credential information is not persistent across task executions.
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<b>iDRAC User name</b>	Provide iDRAC user name. If using Active Directory authentication, enter username in the format Domain\User name.  <b>NOTE:</b> The iDRAC Login privilege is required to perform system inventory.
<b>iDRAC Password</b>	Provide iDRAC password.
<b>Ping (ICMP) Settings</b>	
<b>Require successful ping before attempting inventory</b>	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.
<b>Retries</b>	The number of times to re-attempt a ping before excluding the system from inventory. The default is 3 retries (4 total attempts).
<b>Timeout</b>	The time in which a ping response is received before the ping attempt fails. The default is 5 seconds.
<b>WS-Man Settings</b>	Dell License Manager uses the iDRAC WS-Man interface to obtain inventory information.
<b>Validate Certificate Name</b>	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.

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<b>Validate Certificate Authority</b>	<p>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 in order 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.</p> <p>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.</p>
<b>Validate Certificate Revocation List</b>	<p>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.</p>
<b>Retries</b>	<p>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).</p>
<b>Timeout</b>	<p>The time within which the WS-Man host must begin to return data before the communication attempt fails. The default is 30 seconds.</p>
<b>Port</b>	<p>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.</p>

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## Licenses - Reference

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

<b>Import Licenses</b>	Click to import licenses from a file system.
<b>Export Archive</b>	Select to archive licenses.
<b>Deploy Licenses</b>	Select to deploy licenses matched to a licensable system. The options include: <ul style="list-style-type: none"> <li>• Deploy Selected Licenses</li> <li>• Automatically Deploy Licenses</li> </ul>
<b>Save Report</b>	Select to save the license report.
<b>Delete</b>	Select to remove licenses from License Manager.
<b>Selected</b>	Click to select a license.
<b>Description</b>	Details of the type of license; Enterprise License, bound, unbound, or upgraded.
<b>Term</b>	The license term. For more information, see <a href="#">Understanding Licenses</a> .
<b>Bound Service Tag</b>	The Service Tag to which the license is bound. You can only deploy this license on the system with the specified tag.
<b>Deployed</b>	The deployment status: <ul style="list-style-type: none"> <li>• Yes—The license is deployed.</li> <li>• No—The license is not deployed.</li> <li>• Unknown—The corresponding system is not in inventory.</li> </ul>
<b>Matching System</b>	The system to which you can assign this license. <ul style="list-style-type: none"> <li>• Yes—Indicates the associated system is in inventory.</li> <li>• No—Indicates the system is not in inventory.</li> </ul>

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<b>Origin</b>	The manner in which the license was added: <ul style="list-style-type: none"> <li>• Imported—The license was imported into Dell License Manager.</li> <li>• Retrieved—The license was obtained during inventory.</li> </ul>
<b>Date Purchased</b>	The date the license was purchased.
<b>Date Imported</b>	The date the license was imported.

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<b>License</b>	The license identification number is displayed and the following details are available for the license.
<b>Entitlement ID</b>	The unique ID of the license.
<b>Upgrade ID</b>	In the case of an upgrade license, the ID of the license to which the upgrade applies.
<b>Expiration</b>	Date on which the license expires (if applicable).
<b>License Features</b>	The features supported by the selected license.

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## Manage Licenses

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<b>Selected</b>	Click to select license.
<b>Operation Status</b>	Details on whether the license is available for deployment.
<b>Entitlement ID</b>	The ID of the license to deploy.
<b>License Description</b>	The description of the license to deploy.
<b>System</b>	The name of the system on which to deploy the license. If available, the host name is used, otherwise the iDRAC name is used.
<b>Service Tag</b>	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.  <b>NOTE:</b> Licenses already deployed to a system do not appear in the Operation Selection page.
<b>Active License</b>	The class and term of the highest class license installed on the system.



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## Credentials

iDRAC User name	<p>Provide iDRAC user name. If you are using Active Directory authentication, enter the user name in the format Domain\User name.</p> <p><b>NOTE:</b> The iDRAC login privilege is required to perform system inventory.</p>
iDRAC Password	<p>Provide the iDRAC password.</p>
WS-Man Settings	<p>Dell License Manager uses the iDRAC WS-Man interface to obtain inventory information.</p>
Validate Certificate Name	<p>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 iDRAC. However, if the certificate name is not validated, Dell License Manager cannot authenticate the identity of the remote system.</p>
Validate Certificate Authority	<p>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 in order for Dell License Manager to communicate with iDRAC. However, if the certificate authority is not validated, Dell License Manager cannot authenticate the identity of the remote system.</p> <p>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.</p>
Validate Certificate Revocation List	<p>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.</p>

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<b>Retries</b>	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).
<b>Timeout</b>	The time within which the WS-Man host must begin to return data before the communication attempt fails. The default is 30 seconds.
<b>Port</b>	<p>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.</p> <p>To save changes and proceed with discovery/inventory, click Next.</p>
<b>Task Settings</b>	
<b>Show task pane after launch</b>	Select to view the task progress in <b>Tasks</b> .

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## Tasks - Reference

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

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<b>Cancel Selected Task</b>	Select to cancel a listed task.
<b>Clear Completed Task</b>	Select to purge completed task information.

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<b>Status</b>	Status type of the task is listed. <ul style="list-style-type: none"> <li>• Normal—The task is successfully completed.</li> <li>• Failure—The task is not completed.</li> </ul>
<b>ID</b>	Unique ID assigned to the task.
<b>Task</b>	Description of the task.
<b>Summary</b>	Description of the task's status.
<b>Progress</b>	Indicator of the task's progress.
<b>Start Time</b>	Starting time of the task.
<b>End Time</b>	Ending time of the task.
<b>Task Results</b>	Provides status, operation, and result information. It includes the following tabs: <ul style="list-style-type: none"> <li>• Results</li> <li>• Execution Log</li> </ul>
<b>Status</b>	<ul style="list-style-type: none"> <li>• Green—The task is successfully completed.</li> <li>• Yellow—The task is completed with warnings.</li> <li>• Red—The task completed with errors.</li> </ul>
<b>Operation</b>	The description of the operation

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<b>Result</b>	The summary of the operation result. <b>NOTE:</b> 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.
<b>Execution Log</b>	The <b>Execution Log</b> 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.

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<b>Clear Logs</b>	Select to purge logged information.
<b>Generate Support Log Archive</b>	Select to archive logged information.
<b>Save Report</b>	Select to save log report.

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<b>Result</b>	Status type of the task listed: <ul style="list-style-type: none"><li>• Normal—The task is successfully completed.</li><li>• Failure—The task is not completed.</li></ul>
<b>ID</b>	Unique ID assigned to the task.
<b>Summary</b>	Summary description of the logged event.
<b>Date</b>	Date and time at which the task completed.

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<b>Log Entries</b>	Details of the logged information.
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