Managing PowerEdge Licenses by Using Dell Digital Locker

Dell Technical White Paper

Dell Engineering
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Executive Summary

This document is intended to provide an overview of Dell Enterprise Software that utilizes digital licensing. Several key enterprise products such as Dell integrated Remote Access Controller 8 (iDRAC8), iDRAC7, OpenManage Essentials Server Configuration Management, and the Enterprise versions of Chassis Management Controller (CMC) for VRTX have taken advantage of the ease of use and simplicity to upgrade that digital licensing provides.

While Dell Digital Locker controls all these licenses and more, this paper uses the iDRAC licenses as an example of software licensing and the functionality provided on the Dell Digital Locker.
1 Purchasing PowerEdge Servers with Installed Licenses

Now with Dell’s 12th and 13th generation servers, you can purchase license upgrades from Dell, and the licenses are applied directly in the factory. There is no license to download and install when purchased at the point of sale. To ensure that a key is never lost, Dell also stores a copy of the key and makes it available on the online Dell Digital Locker (www.dell.com/support/licensing). The only additional steps that you need to perform after deploying the new server are to set up My Account and authorize the users to access the digital license on Dell Digital Locker. The online portal is the best way to review all your license keys.
2 Comparing an Enterprise Perpetual License and an Evaluation License

Licenses are defined by the type and duration. You can try the limited features with an Enterprise Evaluation license or use the features indefinitely by purchasing an Enterprise Perpetual license.

- **Perpetual License** – This license is valid for the life of the product. It does not expire and never needs to be renewed. However, it is limited to only one service tag at a time.

- **Evaluation License** – This license is for a 30-day trial of certain features. It can be used on any system (although not recommended in a production environment).

You can install an evaluation license to test out a new feature class before purchasing the perpetual license. An evaluation license is good for 30 days. A status icon in the iDRAC GUI will change from green to yellow when the license has five days remaining. There will also be log entries in the Lifecycle Controller log.

To purchase a perpetual license or obtain free evaluation licenses, customers may contact Dell.

The server service tag is required for a perpetual license and Dell will generate a license that may be downloaded and imported into the iDRAC.
3 Installing an Evaluation License by Using the iDRAC GUI, RACADM or WSMAN

Base and Point of Sale (POS) upgrade licenses are installed in the factory by Dell prior to platform shipment. The base functionality for the particular server model is enabled at POS and does not require an additional file.

The After Point of Sale (APOS) licenses must be installed by using the iDRAC 7/8 interfaces such as the web interface, RACADM, or WSMAN. To do this, log on to the Dell Digital Locker, locate the upgraded license, and choose to have the license file either emailed to an account or downloaded directly to a computer. Once the license file is available, it can be imported to your server from a network share or an external storage device by using the iDRAC Web Interface, RACADM, or WSMAN interfaces.

3.1 iDRAC GUI

To install a license using the iDRAC GUI for either iDRAC7 or iDRAC8:

1. Navigate to the Licenses tab, and then select Import from the drop-down under Device Options.

2. Browse to the license file, and then click Apply.

Note: The license file can be located on the local file system of your management station, or on a share that is accessible.

Figure 1 – iDRAC License Tab
3.2 RACADM

The basic command for RACADM is "racadm license import". This has many possibilities based on whether you are using local, remote or firmware RACADM and where the license file is located.

[SH7757 ~]$ racadm license help import
License import – Import licenses to various devices on the server.

Usage:

RACADM license import –u <username> -p <password> -f <license file name> -l <NFS or CIFS share> -c <FQDD>

Valid Options:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-C</td>
<td>FQDD name of the device to where the license file has to be imported</td>
</tr>
<tr>
<td>-l</td>
<td>Network share location (see the Usage Examples section for NFS or CIFS share) from where the license file must be imported</td>
</tr>
<tr>
<td>-f</td>
<td>License filename</td>
</tr>
<tr>
<td>-u</td>
<td>Username of the remote share from where the file will be imported</td>
</tr>
<tr>
<td>-p</td>
<td>Password for the remote share from where the file will be imported</td>
</tr>
<tr>
<td>-o</td>
<td>Option to override the EULA warning and import the license</td>
</tr>
</tbody>
</table>

Usage Examples:

- Import a license from a CIFS share to a device, in this case Embedded iDrac:
  racadm license import –u admin –p passwd –f License.xml
  -l //192.168.2.140/licshare –c idrac.embedded.1

- Import a license from NFS share to a device, in this case Embedded iDrac:
  racadm license import –f Licen.xml –l 192.168.2.14://share –c idrac.embedded.1

- Import a license by overriding the EULA warning:
  racadm license import –u admin –p passwd –f License.xml
  -l //192.168.2.140/licshare –c idrac.embedded.1 –o

- Import a license from the local filesystem using local RACADM:
  racadm license import –f License.xml –c idrac.embedded.1
• Import a license from the local filesystem using remote RACADM:
  
  ```
  racadm license import –f C:\Mylicdir\License.xml –c idrac.embedded.1
  ```

3.3 WSMAN

To install a license by using WSMAN:

```powershell
winrm i ImportLicenseFromNetworkShare
"cimv2/root/dcim/DCIM_LicenseManagementService?SystemCreationClassName=DCIM_SPComputerSystem+CreationClassName=DCIM_LicenseManagementService+SystemName=sysems+Name=DCIM:LicenseManagementService:1" –u:%s –p:%s –r:https://%s/wsman –SkipCNcheck –SkipCAcheck –encoding:utf-8 –a:basic –file:d:\xml_files\license_management_import_license_From_Cifs_Network_Share_idrac.xml
```
Purchasing an iDRAC Enterprise License After Server Purchase

iDRAC’s move to digital licensing has eliminated the need to purchase and install hardware on your server to upgrade iDRAC functionality. What used to require server downtime and physical hardware to be shipped can now be done with zero downtime and no impact to the production workload running on the PowerEdge server. The digital license can be purchased by using Dell’s Online Sales Portal or through a Dell Sales Representative.

For 600 series servers and above, you have a choice of ordering either just the software license or the license with the vFlash SD card on the same order, but not bundled under the same SKU. Note that for iDRAC7, both the dedicated NIC port and the SD slot for the vFlash are present on the system, but neither is active until the license key is activated. For iDRAC8, the dedicated NIC is enabled by default. Customers may purchase an SD card locally of any size, 16GB, 32GB, or higher, but partition size is limited to 4GB. Dell also offers 8GB and 16GB vFlash SD cards.
Receiving a Notification That a License is Available to Download

After purchasing a license, you will receive an email indicating that the license is ready to download. The email will contain the information that you would need to retrieve the license such as:

- order number
- order date
- customer number
- entitlement ID
- item description
- URL to access the Dell License Management Portal

The email will contain the electronic download instructions as well as a link to the online portal, for example:

![Example Email with Electronic Download Instructions](image)

Figure 2 – Example Email with Electronic Download Instructions
6  Using Dell Digital Locker

You can utilize the Dell Digital Locker to view the digital licenses, obtain a replacement license, or in some cases, re-assign licenses to different hardware.

6.1 Setting up an Account

In order to access the Dell Digital Locker, an account is required. To create an account:

1. Go to: www.dell.com/support/licensing

![Dell Digital Locker](image)

Figure 3 – Dell Digital Locker
2. Click **Create an Account** and then follow the prompts to create an account. Be sure to use the same email address that was used when placing the order.

![Create an Account](image)

Figure 4 – Create an Account

The license portal end user license agreement is displayed:

![End User License Agreement](image)

Figure 5 – End User License Agreement (EULA)

3. Review the Dell License Agreement and then select **Yes, I Agree** to agree or **No, I Do not Agree** to disagree.

If **Yes, I Agree** is selected, the account is set up and you are redirected to the Dell Digital Locker page.
6.2 License Portal

Once logged on to the Dell Digital Locker, the default Digital Products page is displayed. The Digital Products page provides an overview of the account. It shows the 10 most recent purchases. The grey menu bar on the left side of the screen provides the navigation links to all the functionality on the portal.

6.2.1 Dell Digital Locker

![Dell Digital Locker](image)

**Digital Products**

Purchased digital products associated to your account. Use this page to find downloads, obtain license keys and view instructions.

**Search By**

- **Keyword Search**

**Category Search**

- Select

**Ship Date**

- From: MM/DD/YYYY
- To: MM/DD/YYYY

**Submit**

<table>
<thead>
<tr>
<th>Product name</th>
<th>Identifier</th>
<th>Ship date</th>
<th>Order number</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDRAC 7 Enterprise</td>
<td><a href="#">Details</a></td>
<td>06/12/2015</td>
<td>8295802097</td>
<td>View Details</td>
</tr>
<tr>
<td>OpenManage Power Center</td>
<td><a href="#">Details</a></td>
<td>06/12/2015</td>
<td>0442305222</td>
<td>View Details</td>
</tr>
</tbody>
</table>

Figure 6 - Dell Digital Locker Digital Products

When you initially enter into the Dell Digital Locker, the Digital Products window is displayed by default. This window provides integrated search capabilities.

The Digital Products Selection menu contains the following:

- **Saved Searches** shows the saved search queries for this account. Clicking the Run link will redirect to the saved search.

- **History** displays a list of software orders by order date, starting with the most recent purchase. The View or Get Key link opens the Product Management page to view, configure and download license keys.

- **Groups** allows you to manage all aspects of groups.

- **Advanced Solutions** – allows bulk downloading of all entitlements within the account.
• **FAQs** provides access to Frequently Asked Questions to assist in using the portal.

### 6.2.2 Product Search

The Product Search page enables you to search for the software products associated with this account.

**Digital Products**

Purchased digital products associated to your account. Use this page to find downloads, obtain license keys and view instructions.

**Search By**
- **Keyword Search**
- **Category**
- **Ship Data**

**Figure 7 - Dell Digital Locker Product Search**

The Keyword Search, Category, along with the Ship From and To dates enable the end user to narrow the focus of the search.
6.2.3 Purchase History

Figure 8 - Dell Digital Locker Purchase History

History displays the software purchases associated to the account by order date, starting with the most recent. Click View Details to view the product’s license details.
6.2.4 Product Management

Product Management

Associate your hardware to your software. Generate your License Keys. Download or Email your License Keys.

<table>
<thead>
<tr>
<th>Product information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name:</td>
</tr>
<tr>
<td>Order Number:</td>
</tr>
<tr>
<td>License Name:</td>
</tr>
<tr>
<td>Primary ID:</td>
</tr>
<tr>
<td>Assigned To:</td>
</tr>
<tr>
<td>Shipped date:</td>
</tr>
<tr>
<td>Current version:</td>
</tr>
</tbody>
</table>

Figure 9 - Dell Digital Locker Product Management

To access Product Management, click View Details on the Product Management History page.
### 6.2.5 Downloading Keys

1. Click the **Get Key** link to download the license key. The option to download the license key is displayed, along with **Send to Email**.
2. To have the license key sent to email, select the **Send to email** radio button and then click Submit and follow the prompts. The license key is sent to the email address that was used to log in to the Dell Digital Locker.
3. To download the license directly to the system, click **Download** and then click **Submit** and follow the prompts.
6.3 Managing a License Key

Licenses are managed within the product management page. To enter a product management page, click the View Details link next to the license on the Digital Precuts or History windows.

6.3.1 Binding a License

Licenses are bound to the service tag to help easily identify the feature level of each server, which can aid in auditing and accounting. To bind a license to an asset:

1. Click Get Key on the Product Management page to activate a license that has not yet been bound to a device. The Assigned To: field is displayed on the right, where the key can be assigned to the service tag.

2. In the Assigned To: field, type the service tag number of the system that is associated to the license. (To locate the service tag, find a 7-digit number that ends with the numerical 1 that is attached to the server. On tower/rack/modular systems, the tag is typically on the rear wall or the left side if no room is available on the back cover. For blades, the tag is typically on the non-removable section of removable cover surface or on the side opposite the removable cover.)
3. Once the service tag is added, select either Email or Download Software Key, and then click the Submit button. Depending on the selection, the license key is directly downloaded to the system or an email containing the license is sent to the email address mentioned in the account. After receiving the license, install the license key on the designated system.

   Note: If a wrong service tag is entered, the license will need to be unbound. See “Unbinding a License”.

6.3.2 Unbinding a License

A license can be regenerated through an unbind and bind operation in the portal. The unbind/bind process will only change the binding parameter in the license key (Service Tag or Device ID) and the signature block. The unbind/bind process will not change the entitlement ID or the original purchase date.

To unbind a license:
1. Click the **Unassigned Key** link in the product management page. An unassigned license confirmation is displayed to confirm the action. **The Assign To:** field is left empty, to show that the license is unbound.

![Unbinding a License](image)

**Figure 15 - Unbinding a License**
Figure 16 - Unbinding a License Confirmation

Figure 16 - Unbinding a License Completed
6.3.3 Replacing a Part

If a system has an iDRAC upgrade, the license needs to be restored after the motherboard replacement.

1. See “Backing up and Restoring iDRAC license keys” for details on how to backup/restore a license key. The license key needs to be restored after the motherboard replacement.

2. The license file is unique to each service tag. The Dell Authorized Service Provider will set the new motherboard service tag to the original one to ensure full iDRAC functionality after the motherboard replacement.

3. See “Using Dell’s Dell Digital Locker” for instructions on how to obtain the license key.
6.4 Managing Groups and User Access

Once logged into the Dell Digital Locker, user access to digital entitlements can be managed by assigning a user to a user group and then associating the user group to a product group with the entitlements.

Create a new user group and assign user access to custom-created product groups.

1. Click **User Groups**.
2. Click **Add a User Group** and name the new group.
3. Assign the group creator.

Figure 18 - Create New User Group
Figure 19 - Add Users and Roles to New User Group

4. Add users to the group by assigning roles for each. Assignments are done by selecting a role for each person in the user group.
Figure 17 - Assign Product Group to New Users Group

5. Assign a product group that will be managed by the group. (Note: If the custom product group has not been created yet, then do not select this group. After custom product group is created, this step will need to be repeated to add the custom product group.)

Figure 21 - Verify Creation of New Users Group

6. Click **Continue** to verify.
Figure 18 - Group Management

Create custom product group and assign user group access to group.

2. Click the link **Groups**.
3. Click **Product Group**.
4. **Click Add a Product Group.**
Figure 24 - Assign New Product Group Name

4. Assign a Product Group name and click **Continue**.
Add Product Group

To add products to the new group, click the check boxes next to the products to be included in the new group and click **Save and Continue**.

**Figure 20 - Add Products to New Product Group**

5. To add products to the new group, click the check boxes next to the products to be included in the new group and click **Save and Continue**.
5. Assign other products as required and click **Done** to verify the creation of the new product group.
To manage your groups:
1. Create a list of users
2. Organize the users into User Groups
3. Create Product Groups from the software products in your account and associate them to User Groups

**Figure 22 - New Product Group Created**

7.
8.
9.

10.

11.
6.4.1 User Groups
Figure 28 - User Groups

Manage user groups

This feature is to view, search for, and delete users in a user group who have the authority to view or manage licenses.

A single default user group is assigned to each unique customer number. Additional user groups can be created to control user access.
6.4.2 User Roles

User access can be restricted within user groups based on the roles defined. Each user must be assigned a role when added to a group. Dell Digital Locker has four pre-defined user roles: viewer, user, administrator and super admin. The administrator or super admin assigns a role to each new user and that role determines what capabilities or tasks the user can perform in the portal. Roles are assigned at the user group level and a user may have different roles for each user group they belong to.

**Viewer**

Viewers have read-only access to the portal and can run reports on products in a product group and users in a user group, receive email notifications when products are added or removed from a product group, and view users and user roles in a user group.

**User**

Users have the same capabilities as viewers and they can also download software updates and license keys for groups to which they belong and receive email notifications when new downloads are available for a product in a product group.

**Administrator**

Administrators have the same capabilities as users and can also add and remove users and viewers; assign user roles; add and remove products from user groups and product groups; and view maintenance contracts.

**Super Admin**

Super admins have the same capabilities as administrators and can also create and delete user and product groups and assign and remove administrators and super administrators from user groups.
6.4.3 Product Groups

A single default product group is assigned to each unique customer number. Additional product groups can be created to control access to entitlements.

6.4.4 Adding New Users

The Software Dell Digital Locker manages user access with unique user groups. You can add new users either by selecting from the existing list of users or by creating a new user.

To add new users to a user group:

1. Click **Edit** for the user group you want to add a user to.

   ![Edit User Group](image)

   **Figure 29 - Adding New Users -- Initial Window**

2. Click **Add New User** on the user group’s management page.
3. Do one of the following:
   - Select a user from the list of users and assign a role from the drop-down list next to their email address and then click **Save**. The new user will have access to this group and all product groups that are currently assigned to it.

   - Click **Add a New User**, input the user name and email, and select a role. This new user will have access to this group and all the product groups associated to it. The newly added user will receive an email with instructions on how to log on to the Dell Digital Locker. If they already have a login the existing login will be added to this group.
Figure 24 - Adding New Users -- Select from List
6.4.5 Removing User Access

User access can be removed from individual user groups or from all the groups that they are assigned to (for example, if the user has left the company).

To remove the user’s access from a single user group:

1. Select a user group and enter the group’s management page to view the list of users.
2. Locate the user and click the **Remove** link next to the user role.
3. Click **Submit**. The user is removed from the group.

Note: The user may be a member of another user group that has access to same products/users and will need to be removed from each group.
To remove a user from all groups:

1. Click **Remove Users** on the left navigation menu.
2. Locate the user to be removed and click the **Remove** link next to their name. A confirmation window is displayed.
Figure 27 - Remove a User from all Groups
3. Click **Ok**. The **user** is removed from all the groups.

### 6.5 Locating Licenses Within the Portal

Licenses can be located in the portal using several methods:

- The Digital Products window shows a listing of the ten most recent purchases with the option to navigate to license management page by clicking the **View Details** link.
The History link on the left navigation menu lists the entire purchase history. By default, this is sorted by order date in descending order. Multiple search options are available at the top of the page. After locating a license, click the View Details link to enter the license management page.

<table>
<thead>
<tr>
<th>Product name</th>
<th>Identifier</th>
<th>Ship date</th>
<th>Order number</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dell Advanced Infrastructure Manager (AIM)</td>
<td></td>
<td>01/16/2012</td>
<td>525 130795</td>
<td>View Details</td>
</tr>
<tr>
<td>Dell Advanced Infrastructure Manager (AIM)</td>
<td></td>
<td>01/16/2012</td>
<td>525 130795</td>
<td>View Details</td>
</tr>
<tr>
<td>Dell Advanced Infrastructure Manager (AIM)</td>
<td></td>
<td>01/16/2012</td>
<td>525 130795</td>
<td>View Details</td>
</tr>
</tbody>
</table>

Figure 36 - Locating Licenses within the Portal
Product Search on the Digital Products window displays all licenses associated with the logged in user account. Multiple search options are available. Searches can be initiated with a Keyword, Category, and Ship Dates (from / To). After locating a license, click the View Details link to enter the license management page.
Figure 38 - Locating Licenses within the Portal Search
7  Backing up and Restoring iDRAC License Keys

Dell iDRAC license keys can be individually backed up and restored by using the Lifecycle controller, iDRAC GUI, RACADM, or WS-MAN interfaces. Additionally, Dell License Manager can back up and restore licenses on a one-to-many basis. For more information on using DLM to back up and restore licenses, see Using Dell OpenManage License Manager.

Enterprise-level backup and restore is part of the Lifecycle Controller. The backup and restore process backs up and restores all types of licenses.

7.1  Backing up a License File

To initiate a license key backup:

1. Restart your system.
2. Press F10 during POST to enter the Unified Server Configurator.

Ensure that a vFlash SD card is present and select Platform Restore > Export Server Profile. Note: This procedure is for a full system backup. USC does not support incremental backups.

7.2  Exporting a License File

Following a system backup, a license key can be exported to the local file system or to a share from the iDRAC GUI, RACADM, or WSMAN.
7.2.1 iDRAC GUI

To export a license using the iDRAC GUI:

1. Go to the Licenses tab and select Export from the drop-down list under License Options to export all licenses. Click on the plus sign to view a specific license and select Export from the drop-down.

![iDRAC GUI Exporting a License File](image)

Figure 28 - iDRAC GUI Exporting a License File
2. Click Open, Save or Cancel as per the requirement. Click Save if you want the file to go to the default downloads folder or click Save As if you want to select the preferred location.

![Image](image.png)

Figure 29 - iDRAC GUI Exporting a License File Save

### 7.2.2 RACADM

To export a license by using RACADM:

```
$ racadm license help export
```

License export - Exports licenses from various devices on the server.

**Usage:**

```
racadm license export -u <username> -p <password> -f <license file name> -l <NFS/CIFS share> -t <transaction ID>
racadm license export -u <username> -p <password> -f <license file name> -l <NFS/CIFS share> -e <entitlement ID>
racadm license export -u <username> -p <password> -f <license file name> -l <NFS/CIFS share> -c <FQDD>
racadm license export -u <username> -p <password> -f <license file name> -l <NFS/CIFS share> -c <FQDD> -e <entitlement ID> -t <transaction ID>
```

**Valid Options:**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-c</td>
<td>FQDD name of the device from where the license file has to be exported.</td>
</tr>
<tr>
<td>-e</td>
<td>Entitlement ID of the license to be exported.</td>
</tr>
</tbody>
</table>
Managing PowerEdge Licenses by Using Dell Digital Locker

**Table 1 - RACADM Exporting a License File Valid Options**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>-t</strong></td>
<td>Transaction ID of the license to be exported. Note: To locate the transaction ID, Type racadm license view. The ID is displayed. It can also be located by expanding the plus sign next to the license in the GUI.</td>
</tr>
<tr>
<td><strong>-l</strong></td>
<td>Network share location (see “Usage Examples” for NFS or CIFS share) or local file system to which the license file must be exported.</td>
</tr>
<tr>
<td><strong>-f</strong></td>
<td>Destination license filename. If a filename is not entered, the license file is assigned <code>&lt;service tag&gt;_&lt;entitlement ID&gt;.xml</code></td>
</tr>
<tr>
<td><strong>-u</strong></td>
<td>Username of the system where the file will be exported.</td>
</tr>
<tr>
<td><strong>-p</strong></td>
<td>Password of the user on the system where the file will be exported.</td>
</tr>
</tbody>
</table>

**Usage Examples:**

- Export license to a NFS share using transaction ID, in this case transaction 27:
  
  racadm license export -f License.xml -l 192.168.2.140:/licshare -t 27

- Export license to a CIFS share specifying the entitlement ID, in this case abcdxyz:
  
  racadm license export -u admin -p passwd -f License.xml
  
  -l //192.168.2.140/licshare -e abcdxyz

- Export license to a CIFS share specifying the FQDD. While using the -c option and exporting license(s) from a device, more than one license file may be exported. Therefore, if a file name is given, an index will be appended to the end of the file name such as LicenseFile0.xml, LicenseFile1.xml and so on. In this case, the device is Embedded iDrac:
  
  racadm license export -u root -p calvin -f LicenseFile.xml
  
  -l //192.168.2.140/licshare -c idrac.embedded.1

**7.2.3 WSMAN**

To export a license using WSMAN:

```bash
winrm i ExportLicense
  "cimv2/root/dcim/DCIM_LicenseManagementService?SystemCreationClassName=DCIM_SPComputerSystem+CreationClassName=DCIM_LicenseManagementService+SystemName=systemmc+Name=DCIM:LicenseManagementService:1" -u:root -p:calvin -r:https://172.27.99.61/wsman -SkipCNcheck -SkipCAcheck
  -encoding:utf-8 -a:basic -file:c:\xml_files\license_management_export_license_idrac.xml
```

```bash
# ExportLicenseToNetworkShare Method (NFS / Linux Share)

winrm i ExportLicenseToNetworkShare
  "cimv2/root/dcim/DCIM_LicenseManagementService?SystemCreationClassName=DCIM_SPComputerSystem+CreationClassName=DCIM_LicenseManagementService+SystemName=systemmc+Name=DCIM:LicenseManagementService:1" -u:root -p:calvin -r:https://172.27.99.61/wsman -SkipCNcheck -SkipCAcheck
  -encoding:utf-8 -a:basic -file:c:\xml_files\license_management_export_license_idrac.xml
```

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### ExportLicenseToNetworkShare Method (CIFS / Windows Share)

```bash
winrm i ExportLicenseToNetworkShare
"cimv2/root/dcim/DCIM_LicenseManagementService?SystemCreationClassName=DCIM_SPComputerSystem+CreationClassName=DCIM_LicenseManagementService+SystemName=systemmc+Name=DCIM:Licen
```

```bash
e:managementService:1" -u:root -p:calvin -r:https://172.27.99.61/wsman -SkipCNcheck -SkipCAcheck -encoding:utf-8 -a:basic -
```

```bash
file:c:\xml_files\license_management_export_license_to_network_share_idrac_nfs.xml
```

#  DeleteLicense Method (IDRAC.Embedded.1)

```bash
winrm i DeleteLicense
"cimv2/root/dcim/DCIM_LicenseManagementService?SystemCreationClassName=DCIM_SPComputerSystem+CreationClassName=DCIM_LicenseManagementService+SystemName=systemmc+Name=DCIM:Licen
```

```bash
e:managementService:1" -u:root -p:calvin -r:https://172.27.99.61/wsman -SkipCNcheck -SkipCAcheck -encoding:utf-8 -a:basic -
```

```bash
file:c:\xml_files\license_management_delete_license_idrac_cifs.xml
```

#### 7.3 Restoring a License

To restore a 1 X 1 license, the license key that was exported can be imported from the iDRAC GUI, RACADM or WSMAN. See the previous sections discussing the "import commands" usage.
Validating End User License Agreement (EULA) Compliance

To validate license compliance and verify which licenses are installed for all your iDRAC, Dell provides several tools:

- For the one-to-one small business customers:
  - iDRAC GUI
  - RACADM command line
  - WSMAN

Use one of the above interfaces to view the installed license(s).

- For the one-to-many larger business customers:
  - DLM
  - Dell Management Essentials / DLM

To check your systems compliance using DLM, see “Viewing License Status and Compliance Information”.

To prevent systems from being out of compliance, we recommend binding the service tag to the entitlement. See “Binding a License.”
9 Using the Dell OpenManage License Manager

Dell License Manager is a one-to-many license deployment and reporting tool for Dell iDRAC and other licenses. DLM can deploy and backup licenses as well as report on licensing status, including the currently enabled iDRAC feature level.

9.1 Obtaining and Installing DLM

To download the latest version of DLM, go to: www.dell.com/learnmore/iDRAClicenses.

DLM is compatible with Microsoft Windows 7, Windows Vista, Windows Server 2008 R2, and Windows Server 2008. The .NET 4.0 Client Profile and Windows Remote Management (WinRM) 2.0 or later are required.

To install DLM, launch the downloaded installer and follow the installation prompts.

9.2 Inventorying Licensable Systems

To use DLM, you will first need to discover and inventory your licensable 12th generation iDRACs. To discover your systems’ iDRACs:

1. Click Run Discovery and Inventory from Systems view.

Figure 41 - Run Discovery and Inventory
2. In the 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. Click **OK** when complete. When you have finished entering all your iDRAC IPs, click **Next** to advance to the next screen.

![Figure 30 – Select / Edit IP Range](image)

3. Enter your iDRAC credentials and verify your communication settings, and click **Next**.

![Figure 31 - Enter iDRAC Credentials](image)
4. Confirm your settings and click **Run Discovery / Inventory**.

![Confirm Settings](image)

Figure 32 - Confirm Settings

Discovery/Inventory progress will be displayed in Task view. You may view the inventoried systems’ iDRACs in Systems view when complete.
9.3 Importing Licenses

After you have obtained your licenses from the Dell Digital Locker, you may import them into DLM for deployment. To import licenses:

In the License Manager window, click Licenses > Import Licenses.

![Importing Licenses](image)

Figure 33 - Importing Licenses
1. Select the license archives (zip) or license files (xml) you want to import and click **Open**. Note: Multiple files may be selected at once.

![Figure 34 - License Archives](image)

2. Review the license validation results and click **Import**.

![Figure 35 - Review License Validations](image)
The imported licenses are displayed.

9.4 Deploying Licenses

Once an inventory of licensable systems is complete and licenses are imported, they can be deployed. To deploy licenses:

1. To deploy all the licenses to the systems in the inventory, from the Licenses view, select **Automatically Deploy Licenses**. Alternatively, you can select individual licenses to deploy from the License view grid and select **Deploy Selected Licenses** or select systems from the System view grid and click **Deploy Associated Licenses**.

![Automatically Deploy Licenses](image)

**Figure 36 - Automatically Deploy Licenses**

2. Confirm the licenses to deploy and click **Next**.
3. Enter your credentials and verify your communication settings, click **Next**.

![Figure 49 - Confirm License Deployment](image)

![Figure 37 - License Deployment Credential Input](image)
4. Once deployment starts, you can monitor the progress in the Task view. Detailed logs of license operations are retained and are visible in the Log view.

9.5 Backing-Up Licenses

Dell License Manager (DLM) retains the licenses imported from the file system and automatically retrieves perpetual licenses during the Discovery/Inventory process.

Additionally, DLM has the ability to save a complete license archive to the file system. The archive is in zip format, containing XML license files named by Entitlement ID. The license archive may be directly imported into any instance of DLM for redeployment, or the individual licenses can be extracted and redeployed individually. To export an archive:

1. Select the Export Archive tab from the License view.
2. Confirm the export file location and name and click **Save**.

![Figure 39 - Backing-up Licenses Confirm Export](image)

### 9.6 Restoring Licenses

To restore a license by using DLM:

1. Re-inventory the iDRACs on which the licenses should be restored, as specified in the subsection “Inventorying Licensable Systems” earlier in this document. This will ensure that DLM does not consider the licenses to be already deployed.

2. If the licenses to be restored are not already present in DLM (visible in License view), import the license archives or license files as specified in “Importing Licenses”. Licenses from a backup archive are processed identically to those obtained from the licensing portal.

3. Restore the licenses by using the process for deploying licenses specified in “Deploying Licenses”. “
9.7 Viewing License Status and Compliance Information

Dell License Manager allows you to view a variety of information on licensable systems in the System view.

The information can be sorted, filtered and grouped as required.

- To sort a column, click on the column header.
- To apply a filter, hover over the column header, click the filter icon when it appears, and enter the filter criteria.
- To group by a column, select the column name in the Group By box.

The Upgrade Available column indicates that a license is ready for deployment. These licenses can be deployed by using the steps in Deploying Licenses.

The Evaluation Installed column indicates if an evaluation license is active or has expired. Systems with an evaluation license installed will require a perpetual license to retain the functionality being evaluated after the evaluation license expires.
The Current License column indicates the currently active license level on the system. For example, you can use this grouping to locate which systems are at the Express-licensed level and could benefit from an upgrade.

The Purchased License column specifies the highest perpetual license class bound to a system. Both installed licenses and licenses available for deployment are included in this calculation.

If DLM detects that a perpetual license is installed on more than one system, a compliance warning is displayed in the Additional Information column in the System view. The systems can be sorted by installed Entitlement ID in order to determine which systems may be out of compliance with a particular license.
## Frequently Asked Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
</table>
| **How do I transfer the iDRAC license to a new machine?**               | 1. Log on to Dell Digital Locker.  
2. Click on the **Manage Licenses** tab.  
3. In the search box, enter the service tag of the system the license is currently installed on. The license should appear in the data grid.  
4. Click on the **Unassign** button to notify Dell that the license will no longer be used on the old system.  
5. Click on the **Activate License** tab. The license that you just unassigned should be visible.  
6. Click on the **Assign** button.  
7. Enter the service tag of the new system where you want to install the license.  
8. Click the **Download** or **Send Email** button to get the new license key.  
9. On the old system, remove the old license key by using the iDRAC GUI or command line tools.  
10. On the new system, install the newly downloaded license using the iDRAC GUI or command line (link to iDRAC usage section). |
| **Why is the license bound to a service tag?**                          | Licenses are bound to a service tag to help identify which servers have what feature levels, which can aid in auditing and accounting. |
| **What do I do if I have a motherboard failure?**                      | If you have an iDRAC7 upgrade, your license key will need to be restored after a motherboard replacement.  
1. You will need to back up and then restore your license key after a motherboard is replaced. See “**Backing up and Restoring iDRAC License Keys**.”  
2. Your license file is unique to your service tag. The Dell Authorized Service Provider will set the new |
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>motherboard service tag to the original one to ensure full iDRAC function...</td>
<td>3. See “Using Dell’s Dell Digital Locker” if you do not have an upgraded license backup available in order to download it again or have it emailed to you. If you have an iDRAC8 upgrade, the iDRAC license is automatically backed up and stored, and will be automatically replaced after a motherboard exchange.</td>
</tr>
<tr>
<td>I just logged in to the online portal and can’t find my license key?</td>
<td>It may be that you have an iDRAC that does not have a physical license key and it is not necessary to download or import the key. In that case, you would not see a license in the license key portal.</td>
</tr>
<tr>
<td>I just purchased a used PowerEdge server. How do I access the online Dell Digital Locker and iDRAC license keys for my server?</td>
<td>See “Using Dell’s Dell Digital Locker.”</td>
</tr>
<tr>
<td>The person who purchased all our servers just left my company. How do I remove his/her online access to my company’s iDRAC licenses?</td>
<td>See “Removing User Access.”</td>
</tr>
<tr>
<td>What does digital licensing mean to me when I order a new PowerEdge Server?</td>
<td>Starting with Dell’s 12th Generation servers, both iDRAC7 and iDRAC8 have the capability to enable features simply by entering a digital license. This option is not available with previous versions of iDRAC, since upgrades required opening the server and installing a hardware component.</td>
</tr>
</tbody>
</table>
2. Type iDRAC in the search field at the top of the page.  
3. Locate and select the license you prefer. A link to the license will be sent to you via email. The evaluation license is good for 30 days. An email will be sent containing your entitlement and a link to www.dell.com/support/retail/lkm |
<table>
<thead>
<tr>
<th>I lost my Enterprise license. How do I get it replaced?</th>
<th>If you have misplaced your original copy and need another license downloaded or emailed to you, see “Using Dell's Dell Digital Locker”.</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do I determine who has access to my company’s licenses?</td>
<td>Use Dell’s Online Dell Digital Locker to verify access. See “Using Dell’s Dell Digital Locker”.</td>
</tr>
<tr>
<td>How do I determine if a license was removed or installed on my iDRAC?</td>
<td>Import and delete actions are logged in the LC Log, which can be viewed in the iDRAC GUI or with the RACADM or WSMAN command-line tools.</td>
</tr>
<tr>
<td>I purchased my Dell server from a Value Added Reseller or other 3rd party, who do I contact for support?</td>
<td>Please contact the VAR or other 3rd party for support.</td>
</tr>
<tr>
<td>If I return a system to Dell that has a digital license key, what happens to the license?</td>
<td>The Letter of destruction will be read and agreed to by the customer: “You are requesting the return of certain software licenses to Dell for a refund, pursuant to the terms and conditions of sale and the return policy between you and Dell. You agree that you are relinquishing all rights to use or upgrade the software whose licenses you are returning and you agree that you have removed or destroyed all copies of such software and/or the license keys, as applicable. You understand that you will not be entitled to any support for software whose licenses you have returned. You are responsible for any claims arising from or related to your unauthorized use of the returned licenses. If you are returning on behalf of an organization, you confirm that you have appropriate authority to agree to these terms on behalf of the organization.”</td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Does my PowerEdge server have an iDRAC license installed on it?</td>
<td>The initial offering of Dell 12th generation servers will be shipped with the “Express” or “Express for Blades” feature set enabled. Note that this feature set is enabled automatically, and no xml license file is actually present. You can see the word “Express” or “Express for Blades” at the top of the login screen and also at the top of the iDRAC GUI. If you see “Express” or “Express for Blades”, then no Enterprise license has been installed. If you see “Enterprise”, then you have either an Enterprise Evaluation or an Enterprise Perpetual license. For more details go to the GUI Licenses tab and click on the “plus sign” to view the license details. From racadm, type “racadm license view”. Using WSMAN, you would execute the enumerate command, for example: winrm e &quot;cimv2/root/dcim/DCIM_License&quot; -u:root -p:calvin -r:<a href="https://xxx.xxx.xxx.xxx/wsman">https://xxx.xxx.xxx.xxx/wsman</a> -SkipCNcheck -SkipCAcheck -encoding:utf-8 -a:basic.</td>
</tr>
<tr>
<td>Is the Dell Digital Locker different from the Dell License Management Portal?</td>
<td>The Dell Digital Locker is an updated version of the Dell License Management Portal. The same information is available with a new Graphical User interface (GUI) providing ease of use and better functionality.</td>
</tr>
</tbody>
</table>