

Introduction

This section includes the following topics:

- [About License Management Service](#)
- [High-level working](#)

About License Management Service

License Management Service is a single centralized console for viewing and managing InfoScale Classic licenses. License Management Service can be installed as a standalone product or along with InfoScale Operations Manager. License Management Service can also be installed within AWS and Azure cloud.

Key features of License Management Service are:

- **Licensing and compliance:** The primary function of License Management Service is to simplify and automate license management. The console provides a comprehensive view of InfoScale hosts and their license compliance. It enables you to better manage licensing, plan for upgrades, renewals, and new purchases. Ensure that your company is in full compliance with all its software obligations and prevents unexpected license costs.
- **Auto-sync license to hosts:** License Management Service simplifies license deployment within your environment. After you upload InfoScale license key to License Management Service, it automatically syncs the license to all the hosts that are added to License Management Service making it easier to manage license deployment and ensure license compliance.
- **Reports:** Provides detailed reports about your environment, including details about InfoScale hosts.

High-level working

The primary function of License Management Service is to simplify and automate license management and ensure your InfoScale deployments are license complaint.

To successfully set up License Management Service, you must obtain two separate license keys, both of which use the `.lic` file extension and can be downloaded from the same location within

the Cloud Software Group Support portal. Both the license files are subscription based with their own separate end dates that define the usage for a specified duration.

- Product registration key (.lic file): A subscription-based license used to register your LMS host with the Cloud Software Group Support portal. When this key expires, nagging warning messages to update the registration license key are displayed in the LMS GUI. However, all operations continue to work without interruption.
- InfoScale license key (.lic file): A subscription-based license for the InfoScale product. When this key expires, the InfoScale services are suspended and you are required to renew the license for continued product functionality.

You must first register License Management Service with the Cloud Software Group Support portal by downloading the product registration key from the Cloud Software Group Support portal, and then installing the key using the License Management Service GUI to register the host where License Management Service is installed and configured. The registration key is locked with the host name on which the License Management Service is installed and configured. After registering the License Management Service host with the Cloud Software Group Support portal, download the InfoScale license from the portal and upload the license key to the License Management Service host.

Add InfoScale hosts to License Management Service. License Management Service automatically syncs the license key to all the hosts that are added to License Management Service.

You can generate detailed reports about your deployment environment. The reports can be viewed on the License Management Service console and then for ease of future planning based on historical usage analysis it is recommended to share the reports with InfoScale. Reports can be shared using the License Management Service console.

Pre-installation

This section includes the following topics:

- [About the License Management Service packages](#)
- [Operating system requirements](#)
- [Network and firewall requirements](#)

About the License Management Service packages

The names of the .zip file and the installer file for each platform are as follows:

- Linux:
 - Download file name: `Infoscale_License_Management_Service_9.1.0_Linux_Full.tar.gz`
 - Installer file name: `Infoscale_License_Management_Service_9.1.0_Linux_Full.bin`
- Windows:
 - Download file name: `Infoscale_License_Management_Service_9.1.0_Win_Full.zip`
 - Installer file name: `Infoscale_License_Management_Service_9.1.0_Win_Full.exe`

See [About installing License Management Service](#).

See [Installing License Management Service on Linux \(on-premises and cloud\)](#).

See [Installing License Management Service on Windows \(on-premises and cloud\)](#).

Operating system requirements

For information on supported operating systems, supported browsers, and supported hardware and software, refer to the License Management Service 9.1.0 Software Compatibility List

(`lms_sc1_910.pdf`).

Network and firewall requirements

License Management Service uses the default ports as shown in [Table: Default ports](#) to transfer information.

Table: Default ports

PORT	PROTOCOL	INITIATOR	PURPOSE	EFFECT IF BLOCKED
5634	TCP	Management Server	Management Server configuration	Management Server cannot be configured.
5636	TCP	Management Server	Management Server database configuration	Management Server cannot be configured.
5634	TCP	Management Server	Management Server communications with the managed hosts	Managed host cannot be added to the Management Server domain.
5634	TCP	Managed hosts	Managed host to send heartbeats; also used to upload the data from the managed host to Management Server	Managed host cannot be added to the Management Server domain.
			Note: It is recommended that you keep port 5634 open between managed hosts for scalability and	

PORT	PROTOCOL	INITIATOR	PURPOSE	EFFECT IF BLOCKED
			performance optimization.	
22	-	-	SSH communication	-
135	-	-	WMI communication	-
14161	TCP	Web browser	Run the License Management Service console.	Users cannot access the License Management Service console.
14165	TCP	Web browser	Run the License Management Service console when installed on the same host as InfoScale Operations Manager.	Users cannot access the License Management Service console when License Management Service is installed along with InfoScale Operations Manager.
443	HTTPS	Management Server	Management Server connectivity with SORT	Management Server cannot download patches from SORT.

Installing and configuring

This section includes the following topics:

- [About installing License Management Service](#)
- [Verifying License Management Service installation on Linux](#)
- [Verify License Management Service installation on Windows](#)
- [About configuring License Management Service on Linux and Windows](#)
- [Installing License Management Service along with InfoScale Operations Manager 9.1.3](#)
- [Installing License Management Service along with Operations Manager in a high availability environment](#)

About installing License Management Service

You can install License Management Service on any of the following hosts:

- A Linux host
- A Windows host

License Management Service can be installed as a standalone product or on a host that already has InfoScale Operations Manager.

Note the following:

- Turn off the Windows firewall, or open ports 5634 and 14161 for TCP/IP communication if installing as a standalone product. Open 5634 and 14165 if installing along with InfoScale Operations Manager.
- Minimum system requirements is 6 CPU cores and 4 GB RAM.
- Ensure that the host name on a Windows host does not exceed 15 characters length.
- You must have root or admin privileges for installing and configuring the product.

After you install License Management Service, verify the installation, and then proceed with the configuration task.

See [Installing License Management Service on Linux \(on-premises and cloud\)](#).

See [Installing License Management Service on Windows \(on-premises and cloud\)](#).

See [Verifying License Management Service installation on Linux](#).

See [Verify License Management Service installation on Windows](#).

See [About configuring License Management Service on Linux and Windows](#).

Installing License Management Service on Linux (on-premises and cloud)

You can install License Management Service on a Linux host using the following file:

- `VRTSlms_full.bin`

The .bin file installs the VRTSlms and the VRTSsfmh packages on the target host.

Note: By default, the VRTSlms and VRTSsfmh rpms are installed in the system. You cannot specify a different location to install the rpms.

License Management Service can be installed on AWS and Azure cloud and the installation procedure is the same as follows.

For AWS and Azure cloud installation on RHEL, the following packages must be installed before proceeding with the installation.

- `yum install libnsl.so.*`
- `yum install libtool-ltdl`

After the installation is complete and before you proceed with the configuration process, you can verify that the packages are installed and the processes are started. See [Verifying License Management Service installation on Linux](#).

To install License Management Service on Linux

1. Ensure that the host where you plan to install License Management Service meets or exceeds the system and operating system requirements.

See [Operating system requirements](#).

1. Download and unzip the installation file.

See [About the License Management Service packages](#).

1. Open an operating system console.
2. On the host where you plan to install License Management Service, log on as root.

3. Change the directory to the location where you unzipped the `.bin` file.
4. At the command prompt, enter the following directory: `./VRTSlms_full.bin`
5. The permission denied error is displayed. To change the permission for the `.bin` file, run the command: `chmod +x VRTSlms_full.bin`.
6. To accept the End User License Agreement and proceed with installation, type `y`.

The installation is complete when you see messages similar to the following:

Installation is complete. You need to configure License Management Service. Open your browser and type the following URL to configure: `https://myhost.example.com:5634/` or, run `"/opt/VRTSsfmh/bin/perl /opt/VRTSlms/bin/cli_lms_config.pl"` command in your terminal.

1. Configure License Management Service. See [Configuring License Management Service on Linux and Windows hosts using CLI](#).

Installing License Management Service on Windows (on-premises and cloud)

You can install License Management Service on a Windows host using the following file:

- `InfoScale_License_Management_Service_9.1.0_Win_Full.exe`

Note: By default, the VRTSlms and VRTSsfmh packages are installed in the system drive. You cannot specify a different location to install the package.

After the installation is complete and before you proceed with the configuration process, can you verify that License Management Service is installed and the required services are started.

See [Verify License Management Service installation on Windows](#).

License Management Service can be installed on AWS and Azure cloud and the installation procedure is the same as follows.

To install License Management Service on Windows

1. Ensure that the host where you plan to install License Management Service meets or exceeds system and operating system requirements.

See [Operating system requirements](#).

1. On the host where you plan to install License Management Service, log on as a user with administrator privileges.

2. Download and unzip the installation file.

See [About the License Management Service packages](#).

1. Turn off the Windows firewall, or open ports 5634 and 14161 for TCP/IP communication if installing as a standalone product. Open 5634 and 14165 if installing on InfoScale Operations Manager.
2. Ensure that there is no restart pending from Windows Update. If there is, restart the host before launching the installer.
3. Ensure that the value for the environment variable `PATHEXT` on the target host includes the extensions `.exe`, `.bat`, and `.vbs`.
4. To launch the installer, run the `VRTS1ms_Full.exe` file.

Click **Next**.

1. Accept the End User License Agreement to proceed with the installation.
2. Click **Next** and follow through the installation process.
3. After the installation is complete, select **Launch product configuration** to configure License Management Service.

You can choose to configure License Management Service later using the `https://hostname :5634/` URL.

Where, *hostname* is the fully qualified name of the host.

1. Click **Configure**.
2. Configure License Management Service .

See [Configure License Management Service on Linux and Windows using the web browser](#).

Verifying License Management Service installation on Linux

Verify the License Management Service installation on a Linux host by ensuring that the packages are installed and the required processes are started.

To verify License Management Service installation on Linux

1. On the host where you installed License Management Service, check whether the `VRTS1ms` package is installed. Run the following command:

```
rpm -q VRTS1ms
```

1. Check whether the `VRTSsfmh` package is installed. Run the following command:

```
rpm -q VRTSsfmh
```

1. Check whether the `xprtld` process is started. Run the following command:

```
ps -ef | grep xprtld
```

Verify License Management Service installation on Windows

Verify the License Management Service installation on a Windows host by ensuring that the License Management Service for Windows program is installed, and the License Management Service is started.

To verify License Management Service installation on Windows

1. On the host where you installed License Management Service, on the Windows Control Panel, click Add or Remove Programs.
2. Check whether License Management Service for Windows appears in the list of installed programs.

About configuring License Management Service on Linux and Windows

License Management Service can be installed on a Linux and a Windows host and as a standalone product or along with InfoScale Operations Manager.

After installing, you have to configure before you can use it. To configure, you can use the command line interface (CLI) or the web browser for both Linux and Windows host. However, if License Management Service is installed along with InfoScale Operations Manager, then only the CLI option is available for configuring on Linux as well as Windows host.

Configure License Management Service on Linux and Windows using the web browser

After successful installation of License Management Service, a message is displayed with a command or an URL that you can use to proceed with the configuration. On Windows, if you chose to launch the configuration, the web browser is automatically launched with the URL.

If InfoScale Operations Manager is already installed on the Windows or Linux host on which you are configuring License Management Service, then the web browser option is not available. Instead the command prompt is launched and configuration command gets executed.

You may configure the networking on License Management Server in either the IPv4 mode, or in the mixed mode (IPv4 and IPv6). For License Management Server that runs in the mixed mode, use only the IPv4 address during the installation and the configuration process and not the IPv6 address.

For License Management Server configuration with IPv6 address, the localhost, 127.0.0.1, ::1 should be bound to a network interface that is up and running. For example, lo0 on Linux.

To configure License Management Service on Linux and Windows using the web browser

1. On a host that has a network connection, launch the following URL:

https://_hostname_ :5634/

Where, *hostname* is the fully-qualified host name. For a IPv4 configuration, you can alternatively specify the IP address instead of the host name.

1. Ensure to turn off the Windows firewall, or open ports 5634 and 14161 for TCP/IP communication.
2. Ensure that there is no restart pending from Windows Update. If there is, restart the host before launching the installer.
3. Accept the End User License Agreement to proceed with the configuration.
4. Click **Next** and follow through the installation process.
5. After the installation is complete, select **Launch product configuration** check box to configure License Management Service. You can choose to configure License Management Service later using the https://hostname:5634/ URL. Where, the *hostname* is the fully-qualified name of the host.
6. In the Sign in dialog, enter the root or the administrator username and password of the host.
7. In the Server and Database Setting panel, check and modify the **Server Name** if required. Ensure that the host name is fully-qualified name.
8. Check and modify the **Server Address** if required.
9. In the Database location field, you can accept the default location or specify your own location. To modify the default location, clear the **Use Default** checkbox and specify another location.

On Windows, if you modify the default, you must have Full control permission on the drive that you specify.

The default database directory is `/var/opt/VRTSlms/db` on Linux and `C:\ProgramData\Veritas\VRTSlms\db` on Windows.

1. Click **Configure**.
2. At the end of the License Management Service configuration, messages similar to the following are displayed:

Configuration successful.

Click the Launch Web Console button to login.

1. Click **Launch Web Console** to log on to License Management Service on the configured host.

Configuring License Management Service on Linux and Windows hosts using CLI

You can configure License Management Service using the command line interface (CLI) on a Linux and Windows host.

If InfoScale Operations Manager is already installed on the Windows or Linux host on which you are configuring License Management Service, then only the CLI option is available. The web browser option is not available.

To configure License Management Service using CLI on Linux and Windows hosts

1. After installing License Management Service, from the command prompt, run the following command to start the configuration:

Linux: `"/opt/VRTSsfmh/bin/perl/opt/VRTSlms/bin/cli_lms_config.pl"`

Windows: `C:\Program Files\Veritas\VRTSsfmh\bin\perl.exe"`

`"C:\Program Files\Veritas\VRTSlms\bin\cli_lms_config.pl"`

1. Enter the host name (fully-qualified name).
2. By default, the IP address, and the Database location for the host is displayed. You can either accept the default values or enter the values manually.
3. Enter **Y** to start the configuration using the default values.

After successful configuration, the License Management Service URL is displayed.

1. Copy and paste the URL in the browser and sign in to the License Management Service GUI.

Note: If you enter N, CLI quits the configuration and displays two options. Choose any one of the options that you want to do.

Installing License Management Service along with InfoScale Operations Manager 9.1.3

Use the following as a guideline if you want to install LMS along with the InfoScale InfoScale Operations Manager (IOM) version 9.1.3.

Prerequisites:

Install Operations Manager patch 9.1.3 or later on the IOM server.

If LMS version 8.0.2 or 9.0 is already installed along with IOM, you cannot directly upgrade to LMS 9.1.0. You must first uninstall the existing version of LMS (version 8.0.2 or 9.0), and then install LMS version 9.1.0.

To install and configure License Management Service in an Operations Manager environment

1. Install the License Management Service on the VIOM server.
2. Configure License Management Service.

During License Management Service configuration you are prompted for a host name and an IP address on which to install License Management Service. Ensure that you provide the same host name and IP where VIOM is installed.

Note: License Management Service does not prompt for the database path. License Management Service automatically gets the database path from VIOM.

Considerations when configuring License Management Service on VIOM server:

If License Management Service is configured on the VIOM server then the following License Management Service operations are restricted:

- Any host-related operations such as adding a host or removing a host is restricted on License Management Service.
- All software upgrade operations are restricted.

Note: If you want to uninstall only License Management Service, then ensure that you remove theVRTSImspackage only. Do not remove theVRTSsfmhpacage.

Installing License Management Service along with Operations Manager in a high availability environment

You can configure the high availability (HA) feature in InfoScale Operations Manager to improve the availability of the Management Server. In the same HA environment, you can install License Management Service on the same two nodes.

The InfoScale Operations Manager installation with HA feature typically consists of:

- InfoScale Operations Manager
- Two nodes (Node1 and Node2) in the same datacenter.
- Storage Foundation Enterprise version for cluster and storage software or Storage Foundation 8.0 or later versions.

Prerequisites:

- Install Operations Manager Patch 9.0.0.210 or later on both the nodes.
- HA configuration must be complete. Refer to the InfoScale Operations Manager documentation for details.

In the event of a failure or a planned maintenance, InfoScale Operations Manager in HA can fail over from Node1 to Node2. Both the nodes are in the same datacenter and are part of the same cluster. When License Management Service is installed and configured on both the nodes, the License Management Service console is also accessible from the active node, with minimum downtime.

To configure License Management Service along with Management Server in a HA environment:

1. Configure License Management Service on the active node (Node1) using one of the following:
 - Virtual host name (VHN) and Virtual IP (VIP)
 - Local host name and local IP
2. Fail over to the other node (Node2). Ensure that it is the active node.
3. Configure License Management Service on the other node (Node2) which is now active.

If VHP and VIP are used on Node1, then ensure the same is used on Node2. In case of local host name and local IP the values on both nodes are different.

1. Product registration, entitlement, and license meter file updates should be completed separately on each node.
2. Local user and local user group configurations must be completed on both the nodes separately.

Configuration of user and user groups that is done on Node 1 is not accessible on Node 2.

Restricted operations:

Any host-related operations such as adding, removing is restricted on both the nodes. Similarly all software upgrade operations are also restricted.

Uninstalling:

Uninstalling License Management Service operation must be done on both the nodes. The process is the same as uninstallation of standalone License Management Service. To uninstall, the node can be active or passive.

Getting started

This section includes the following topics:

- [Registering License Management Service](#)
- [About the License Management Service console](#)
- [About the Setup panel](#)
- [About the License Management Service dashboard](#)
- [About managing hosts](#)
- [Adding InfoScale licenses](#)
- [Adding Lightweight Directory Access Protocol or Active Directory-based authentication in License Management Service](#)
- [Adding a user group](#)
- [Adding local users](#)
- [Configuring SMTP settings for email notifications](#)
- [Changing the password](#)
- [About using reports](#)
- [Managing faults](#)
- [Viewing the activity monitor](#)

Registering License Management Service

After completing the download packages, installation, verification, and configuration operations, you can use any supported web browser to log on to the License Management Service console. For the first login session, you need to procure the registration key, a `.lic` file from the Cloud Software Group Support portal and then register the product. Note that for first-time login, only one authentication domain is displayed in the drop-down list.

The registration file includes the LMS host information to ensure that the registration key can only be used to activate the product on an LMS host that matches the host information encoded in the registration key.

Note: Ensure that you take a backup of the registration key, a.licfile that is generated during the registration process.

To register the License Management Service:

1. Open a web browser on a host that has the network connection
2. In the address field of the browser, type the following URL and press Enter:

```
https://hostname:14161/#/login
```

where, `_hostname_` is the fully-qualified host name which should not exceed 15 characters length. For a IPv4 configuration, you can specify the IP address instead of the host name.

1. In the Username and Password fields, enter credentials for a valid user.
2. Select the Domain and click **Sign in**.
3. Run the `hostname` command on the host where License Management Service is installed and configured.
4. Go to the Cloud Software Group Support portal and complete the following steps:
 - Sign in to the portal with your credentials.
 - Provide the host name that you got earlier in step 5.
 - Download the registration key.
5. On the License Management Service product registration page, optionally, enter the site name.
6. Browse or drag and drop the registration key and click **Upload**.
7. Click **Register**.

The Setup menu opens.

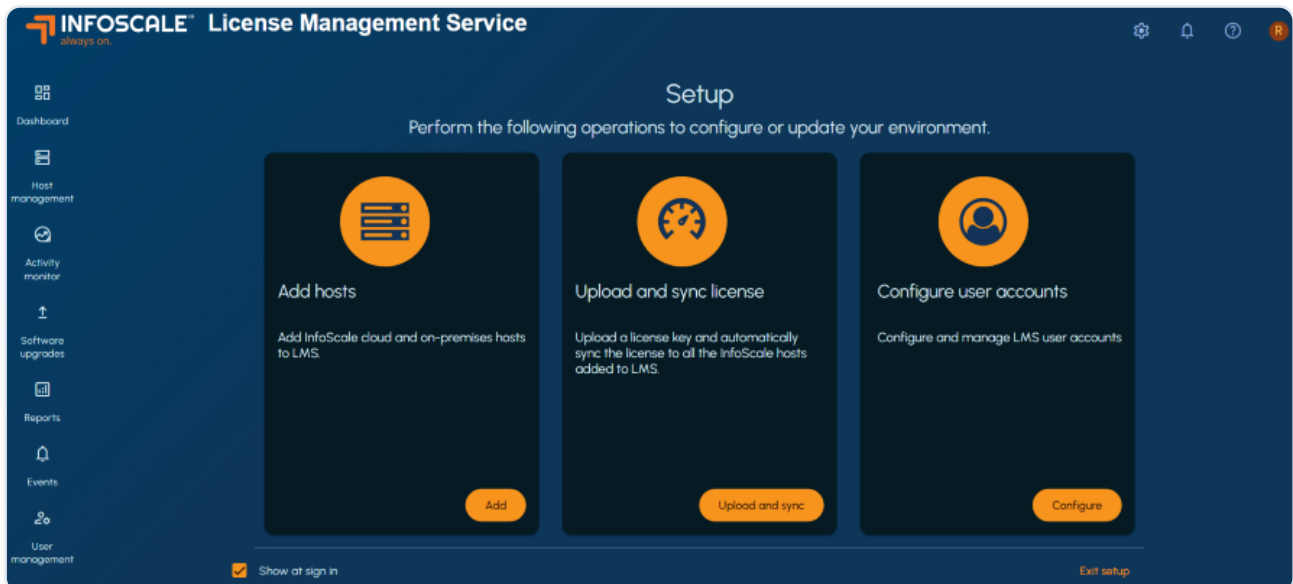
About the License Management Service console

The License Management Service console is divided into two sections. The left section consists of different features of this service. On the right you can perform various operations or view relevant data which belongs to the selected feature. Notifications, various settings options, online Help, and user details are available on the top right corner.

The Setup panel is launched when you first open the License Management Service console. This panel is a shortcut to perform various operations which are a part of getting started with License Management Service.

About the Setup panel

Figure: Setup panel



Exit the Setup panel to view the Dashboard. The dashboard provides a quick visual summary of license status, the faults that are triggered on the hosts, and InfoScale product versions.

About the License Management Service dashboard

Figure: License Management Service dashboard



The following tasks can be completed using the top right corner menus:

- Settings: A number of operations such as product registration, SMTP server configuration, and color theme selection (dark mode, light mode, system mode) can be done from here.
- Event notifications: View and fix the faults that are generated.
- Help: Setup menu, product documentation, and product installation information is available here.
- User profile: Logged in user details, option to change password, and log out operations are available here.

The product features on the left hand are as follows:

- Dashboard: This menu provides graphical and statistical insights about the licensing status, InfoScale product deployments, and faults in the systems.

About the License Management Service dashboard

- Host management: This menu enables you to manage InfoScale hosts. You can upload and sync licenses to all the hosts added to License Management Service and view the license summary for your InfoScale deployments.

the following options are displayed when you expand Host management:

- Hosts
- Upload and sync license
- Activity monitor: This menu consists of tasks and audit logs. The ongoing status of all tasks that are performed on the hosts or the containers, for example, adding, removing, and refreshing are shown in the System taskstab. The Audit logs tab gathers information about all the tasks that are performed on the License Management Service console.

Viewing the activity monitor

- Software upgrades: This menu lets you upload and install the baseline release, maintenance release, and patch release packages for managed host.

About software upgrades

- Reports: This menu lets you generate reports for your InfoScale deployments with details about InfoScale hosts.

About using reports

- Events: This menu shows the generated faults and provides a summary of number of faults that are of type critical, warning, and informational .

- User management: This menu lets you manage local users, groups, and domains.

About the Setup panel

The Setup panel is launched when you first open the License Management Service console. This panel is a shortcut to perform the below listed operations which are a part of getting started with License Management Service. For subsequent logins, the panel is always displayed unless you clear the Show at sign-in check box.

OPERATION	FUNCTIONALITY
Add hosts	Use this option to add InfoScale Classic hosts to License Management Service. You can add hosts manually, using the <code>.csv</code> file, or using the <code>gendeploy.pl</code> script.
	See About managing hosts .
Upload and sync license	Use this option to upload InfoScale license key to License Management Service and automatically sync the license to all the hosts added to License Management Service.
Configure user accounts	Use this option to configure and manage License Management Service user accounts.
	See Adding Lightweight Directory Access Protocol or Active Directory-based authentication in License Management Service .
	See Adding a user group .
	See Adding local users .

To use the Setup panel

1. The panel is launched when you first open the web console after the initial configuration is completed.

Clear the **Show at sign **** check box if you do not want to view the panel and instead go to **theDashboard**** directly.

1. Click on the following to perform the relevant operations:

- **Add** to add hosts.
- **Upload and sync** to upload a license key and sync it to all the hosts added to License Management Service.
- **Configure** to configure and manage user accounts.

2. Click **Exit setup ** to exit the panel and go to theDashboard****.

About the License Management Service dashboard

The dashboard provides a quick visual summary of license usage and the faults that are triggered on the hosts. The following interactive graphs are displayed on the dashboard. Click on a legend or hover on the graph data to view additional details.

Table

GRAPH TITLE	ACTIONS
License compliance	Shows the license status of the InfoScale deployments and specifies if deployments are license compliant. Click anywhere in the License compliance card to add new InfoScale licenses and to view additional license details such as the license key file name and expiration date.
	- Compliant : License is active and your deployment is license compliant.
	- Expiring : License is expiring soon and you are required to renew the license withing the specified duration to avoid service disruption.
	- Expired : License has expired and you are operating in extended access mode. You must renew the license for service continuity.
	- Non-complaint : License has expired and the extended mode access has also expired.

GRAPH TITLE	ACTIONS
	InfoScale services are suspended and you must renew the license to resume services.
Faults	Shows the various types of faults that are generated and the source of the fault.
	Click View all faults to navigate to the Faults tab.
	Faults of the type Information are not a part of the total count.
	See Managing faults .
InfoScale product versions	Shows the installed product versions for InfoScale for Classic. For InfoScale Classic, installed product version for Enterprise,
	Storage, Availability, and Foundation is shown.
	Ensure that the minimum version requirement of managed
	host package as mentioned in ``InfoScale License
	Management Service Software Compatibility
	List`` is met. Else there can be issues while discovering the
	host version details and the chart may show incorrect data.
	See About managing hosts .

About managing hosts

If License Management Service is installed as a standalone product, then you need to add the hosts that have InfoScale products to License Management Service. However if License Management Service is installed on the same host that has InfoScale Operations Manager, then

the host data is refreshed automatically on License Management Service console. The Add host operation on License Management Service is disabled and can be performed only using the InfoScale Operations Manager console.

Prerequisites for adding the hosts to License Management Service are as follows:

- License Management Service and the host should be able to communicate over the network.
- Host should be up and running.
- XPRTLD should be running on the host.
- An InfoScale product should be installed on the host.
- Supported managed host version should be installed on the host.
- AWS host on Windows 2022 must have VRTSsfmh package version 8.0.2.400 or later to be discovered as a cloud host.

If the VRTSsfmh package that is installed on the AWS host is lower than 8.0.2.400, then it is discovered as an on-premises host.

For information on supported operating systems, supported browsers, and supported hardware and software, refer to the License Management Service 9.1.0 Software Compatibility List

([lms_sc1_910.pdf](#)).

You can use the License Management Service console or navigate to Host management > Hosts to perform the following operations.

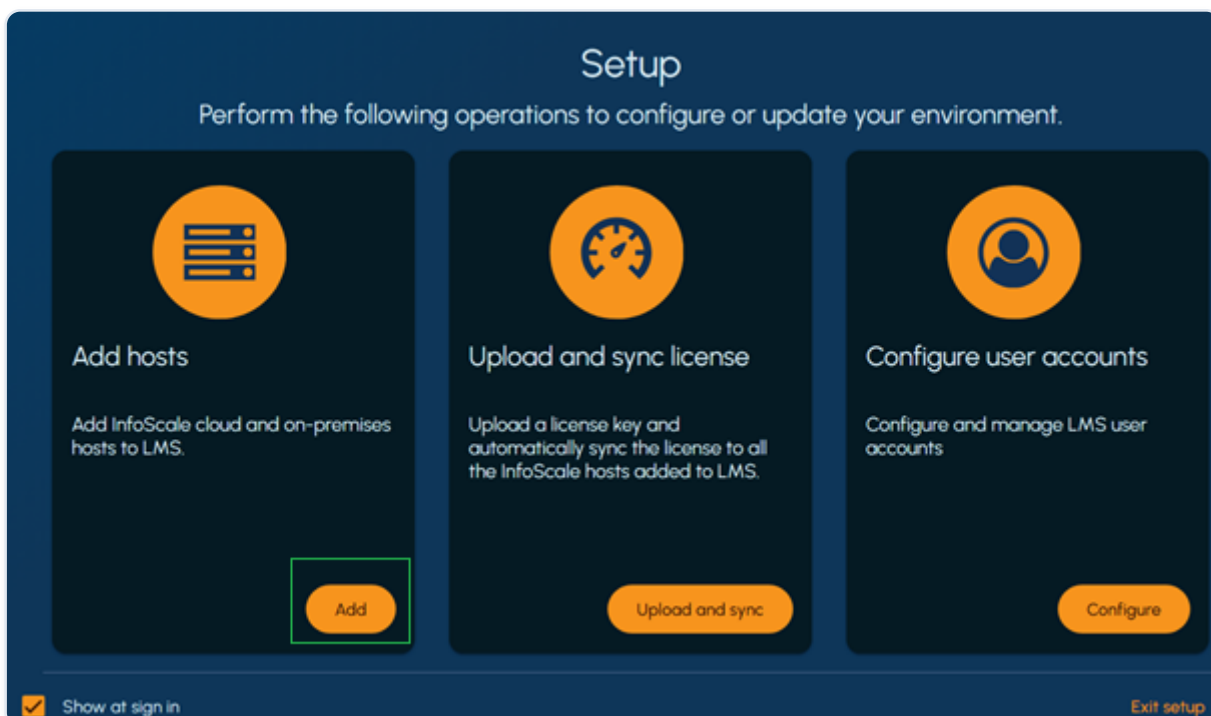
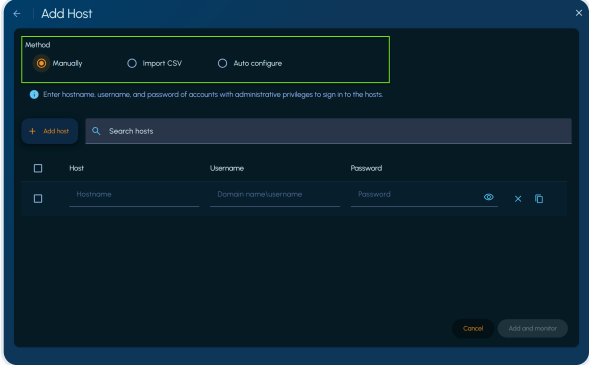


Table: Host operations

TASK	DESCRIPTION
Add host	 You can add hosts using the following methods\: - Adding hosts manually using credentials See Adding hosts manually to License Management Service . - Adding multiple hosts using the .csv file See Adding hosts to License Management Service using the CSV file . - Adding hosts using the gendeploy script See Adding hosts to License Management Service using the Auto Configure (gendeploy.pl) script .
Refresh	You can refresh one or more hosts at a time. See Refreshing the details of a host .
Remove	You can remove one or more hosts from License Management Service. See Removing a host from License Management Service .

Adding InfoScale licenses

InfoScale provides a unified licencing model with a single license file for all the variants of the InfoScale product portfolio. License Management Service simplifies licensing by providing a centralized mechanism for deploying licenses to all the hosts in your environment.

Download InfoScale license, a `.lic` file from the Cloud Software Group Support portal, and then upload it to License Management Service. The license is automatically synced to all the on-premises and cloud hosts that are added to License Management Service. If you add hosts later, after the license is uploaded to License Management Service, the license is automatically synced to all the newly added hosts. The License Management Service dashboard displays the license status and details for your deployment.

Prerequisites:

- Download the license (`.lic` file) from the Cloud Software Group Support portal.
- You must have admin or operator role to perform this operation.

To add a license key:

1. In the left navigation pane, click **Host management > Upload and sync** or in the **Setup panel in the Upload and sync license card click Upload and sync**.
2. Browse or drag and drop the license key and click **Upload and sync**.

The license is uploaded to License Management Service and the license key is automatically synced to all the hosts that are added to License Management Service.

The license summary is displayed on the Upload and sync page. The License Management Service dashboard shows the license status and compliance for your deployment.

Adding Lightweight Directory Access Protocol or Active Directory-based authentication in License Management Service

You can add Lightweight Directory Access Protocol (LDAP) or Active Directory (AD)-based authentication. By default, the LDAP or AD-based authentication domain that you add is in the enabled state.

To add LDAP or AD-based authentication

1. On the License Management Service console, do one of the following:
 - In the Setup wizard panel, in User administration click **Configure > Domains**.
 - In the left pane click **User management**, and then click **Domains**.
2. Click **Add domains**.
3. In the Add domain wizard panel, enter the details, and click **Next**.

See [Add domain panel options](#).

1. In the Add domain wizard panel, specify the domain name and the search base, and click **Add**.

See [Add domain panel options](#) to specify the domain name.

Add domain panel options

Use this panel to add LDAP or AD-based authentication.

Table: Add LDAP/AD panel options

FIELD	DESCRIPTION
Server name (Mandatory)	Enter the fully-qualified host name or IP address of the LDAP server.
	If a secure session is configured with the LDAP server using SSL certificates, you must enter the fully-qualified host name that matches with the fully-qualified host name in the LDAP server certificate.
Port (Mandatory)	Displays the number of the port on which the LDAP server is configured to run.
	By default, this field displays the port number as 389. You can edit this port number, if required.
Server sign in requirements	Select the check box to verify whether the server requires you to log on or use the SSL certificate.
Bind username/DN	Enter the complete Distinguished Name (DN) of the user that is used to bind to the LDAP server.
	If the LDAP server being used is Active Directory (AD), you can provide the DN in any of the following formats:
	- username@domainname.com

FIELD	DESCRIPTION
	- domainname\username
	For example, You can provide the DN as Administrator@enterprise.com or ENTERPRISE\Administrator .
	For RFC 2307 compliant LDAP servers, specify a complete bind DN.
	For example, cn=Manager,dc=vss,dc=arctera,dc=com
	The LDAP or the AD administrator can provide you with the bind username that you can use.
Password	Enter the password that is assigned to the bind username that you use.
Use Secure Sockets Layer	Select the check box to use the Secure Sockets Layer (SSL) certificates to establish a secure channel between the authentication broker and the LDAP server.
Certificate location (Mandatory)	Enter the location of the trusted root CA
	certificate of the vendor that issued the LDAP
	server certificate.
Username (Mandatory)	Enter the username based on which the system detects the LDAP/AD server-related settings.
	Note: Ensure that the username does not contain any special characters.
	The system determines the default search-base based on the username that you specify in this field.

FIELD	DESCRIPTION
Group information	Select the check box if the username entered in the Username field does not belong to any group on the Global domain (LDAP/AD) server.

Server details Query details

More Information

Adding Lightweight Directory Access Protocol or Active Directory-based authentication in License Management Service

Add domain panel options to specify the domain name

Use this panel to specify the domain name and the search base to configure LDAP/AD based authentication.

Table: Add LDAP/AD panel options

FIELD	DESCRIPTION
Domain name	Enter a unique name to identify the LDAP-based authentication that you configure. You can enter up to 32 characters.
Default	Select this option if you want to use the default search base that the system has detected using the information that you have specified on the Add domain wizard panel.
Custom	Select this option to specify the search base other than the default search base.
	For example, you can customize the search base as follows to authenticate the user (sampleuser) who belongs to the organization (ou=HR), which is an organization unit under ou=user
	The organization structure is as follows:

FIELD	DESCRIPTION
	ou=HR,ou=People,dc=arctera,dc=com
	\\-sampleuser
	ou=Engg,ou=People,dc=arctera,dc=com
	\\-Eng1
	The default search base is ou=HR,ou=People,dc=arctera,dc=com
	To authenticate users under ou=HR and ou=Engg, set the custom search base to a level up:
	ou=People,dc=arctera,dc=com

Search base

More Information

[Adding Lightweight Directory Access Protocol or Active Directory-based authentication in License Management Service](#)

Adding a user group

Using the License Management Service console, you can add user groups.

You can add two types of user groups:

- **Local group:** Groups that are created using this option are system level groups that is configured for License Management Service and are not visible outside License Management Service environment.
- **Global group:** This option lets you add groups from global LDAP/AD domains, but you cannot create a new group on the domain.

You can give permissions such as Guest, Operator, and Administrator to both the types of groups. These permissions are required to perform operations on the License Management Service console.

About user group permissions

To add a user group

1. On the License Management Service console, do one of the following:
 - In the Setup wizard panel, click **Configure** in User administration.
 - In the left navigation pane click **User management** , and then click **User groups**.
2. Under User management click **Add user group**.
3. In the Add user group panel, do the following:
 - Select **Create local group** and do one of the following:
 - Select **New user group** and enter a group name.
 - Select **Existing user group** and enter the group name.
 - Select **Add Global group** , select a domain name from the drop-down list of active domains, and enter a group name that already exists in the domain.
4. Select a role for the user group in the drop-down list. Options are Guest, Administrator, and Operator.
5. Click **Add**.
6. In the Edit users panel, enter the username of the user that you want to be a part of the group. Click **Add to list**.
7. Click **Save**.

About user group permissions

When you create user groups, local or global, you need to assign a permission to the group. The options are: Guest, Operator, and Administrator. The below list explains the operations which are not permitted for user groups having a Guest and Operator role. Which means if you want a user to be able to perform a specific operation such as suppressing a fault then ensure that the user belongs to the group that has an Operator or Administrator role.

- All license-related operations such as updating the license meter file, updating the entitlement file, assigning or reassigning entitlements are not allowed for user groups having Guest role.
- All manage hosts and Kubernetes worker node operations are not allowed for user groups having a Guest role.
- Managing faults (suppress or un-suppress) is not allowed for user groups having a Guest role.

- Downloading audit logs and reports is not allowed for user groups having a Guest role.
- Product key registration, SMTP settings, user access management, email reports is not allowed for user groups having Operator and Guest role.

Users with Administrator role are allowed to perform all operations on the console.

Adding local users

Using the License Management Service console, you can add or create local users. A local user is local to the LDAP/AD domain that is configured for License Management Service and is not visible outside License Management Service environment.

To add a local user

1. On the License Management Service console, do one of the following:
 - In the Setup wizard panel, click **Configure** in User administration.
 - In the left navigation pane click **User management** , and then click **Local users**.
2. Under User management click **Add user**.
3. In the Add user panel, do one of the following:
 - Select **Create new user** and do the following:
 - Enter a username that adheres to the following criteria:
 - Minimum characters: 3

Maximum characters: 128

Starts and ends with a lower or uppercase character.

Followed by any number of the following: Hyphen('-'), underscore ('_'), numbers, lowercase letters, uppercase letters, period ('.').

- Enter a password that adheres to the following criteria:
 - Minimum length: 8 characters

Numbers: 1

Lowercase characters: 1

Uppercase characters: 1

Special characters: 1

Note: These limitations may vary on OS level. For example: Windows 2022 has minimum 12 character requirement.

- In the Confirm password field, re-enter the password.
- Select **Add Existing** and enter the username.

1. Click **Add**.

Configuring SMTP settings for email notifications

Configure the SMTP settings to add a sender account and send different types of license usage reports by email. After the initial configuration is complete, send a test email to verify the SMTP settings.

Enter the following details to configure the SMTP settings:

Table

FIELD	DESCRIPTION
SMTP server	Valid formats for SMTP server include: Fully
	Qualified Domain Name (FQDN), IP address,
	or, if the network handles DNS resolution for
	host names, a shortened host name.
	Examples: Host123 or Host123.example.com
Sender email address	The email address that is entered in the
	Sender email address appears as the sender
	of
	all the emails that are sent out.
SMTP port	Enter the SMTP mail server port number.

To configure the SMTP settings for email notifications

1. On the License Management Service console, click **Settings ** on the top-right corner. ClickSMTP****.
2. Under Configure SMTP server, do the following:
 - Enter the SMTP mail server IP address or host name in SMTP.
 - Enter a valid email address in Sender email address.
 - Enter the SMTP mail server port number in SMTP port.
3. Click **Save**.
4. Click **Send test email** to verify that SMTP server is configured successfully.
5. In the **Send test email** panel, enter valid email address of the receiver and a test message.
6. Click **Send**.

Changing the password

Using the License Management Service console, you can change the existing password. The minimum password requirements are:

- Length: 8 characters
- Numbers: 1
- Lowercase characters: 1
- Uppercase characters: 1
- Special characters: 1

To change the password

1. On the License Management Service console, click on the user profile icon and click **Change password**.
2. Enter the old password.
3. Enter a new password that adheres to the mentioned criteria.
4. Confirm the password, and click **Save**.

About using reports

In the License Management Service web console, you can generate the following reports:

Table

REPORT NAME	DESCRIPTION
Hosts details	Provides details about the hosts such as name, health status, and installed operating system and version.

After generating a report, you can perform the following tasks:

- Save the report as a comma-separated (CSV) file.
- Email the report in HTML format or as a CSV file. Ensure that the SMTP configuration is complete.
- Refresh the report data without having to regenerate the report.
- Filter the report on customized parameters.
- Add or remove columns in the report using Toggle Selection List.

To generate a report

1. On the License Management Service console, click **Reports** in the left pane.
2. Click **Generate** to build the report.

To save a report

1. On the License Management Service console, click **Reports** in the left pane.
2. Click **Generate** in the report box.
3. Click **Download as CSV**. The report is saved to a local folder.

To email a report

1. On the License Management Service console, click **Reports** in the left pane.
2. Click **Generate** in the report box.
3. Click **Mail**.
4. Select the output format, HTML or CSV.
5. Enter the receivers email ID, click **Mail**.

You can enter only one email ID at a time.

Managing faults

Using the License Management Service console, you can view the faults that are generated on the hosts. Faults are categorized in three types, Information, Error, and Warning.

Faults of the type Warning can be acknowledged and hidden for the next 24 hours. The total number of faults that are shown on the Dashboard do not have the Information type faults.

In the list of faults table, you can perform the following tasks:

- Search the list based on condition type, faulted or source object, or fault type.
- Refresh the faults data.
- Add or remove columns in the report using Toggle Selection List.

To manage faults

1. To view all faults, do one of the following:

- On the License Management Service console, click the notifications bell icon on the top-right corner. Click **All events** at the bottom of the list.
- On the Dashboard, click the Faults card.

You are redirected to the Events tab.

1. Perform the search operation on the table if required.
2. Hover on a row to view additional details about the fault.
3. Click **Check** to hide the fault of the type Warning for the next 24 hours.
4. For multiple faults of the type Warning, select the check box for each fault and click **Acknowledge warnings** above the table.

Viewing the activity monitor

Activity Monitor has two tabs, Tasks and Audit logs.

The ongoing status of all tasks that are performed on the hosts or the containers, for example, adding, removing, refreshing etc. are shown on the System tasks tab. Some operations take longer to complete. To view the status of such operations, use the System tasks tab.

You can perform the following operations in the task list.

- Search for the status of a particular task.

- Refresh the list.
- Filter the list on required parameters.
- Use the Toggle Selection List to add or remove columns in the displayed table as per convenience.

The Audit logs tab gathers information about all the tasks that are performed on the License Management Service console. Tasks such as logging on, generating reports, adding users etc. Every single task or activity that is done on the License Management Service console is recorded in the logs. In addition to searching, refreshing, filtering, and using the Toggle Selection List, you can also export the log file. The log file is saved in a comma-separated (CSV) file format on the local folder.

To view the tasks or audit logs:

1. On the License Management Service console, click **Activity Monitor** in the left pane.
2. Click **System tasks** to view the task details.
3. Click Audit logs to view the activity logs.
4. Click **Download as CSV** to download the activity logs data in a CSV file format on the local folder.

Registering License Management Service

This section includes the following topics:

- [Signing in to the License Management Service console](#)
- [Viewing the product registration details](#)
- [Re-registering the product key](#)
- [Viewing the License Management Service installation details](#)

Signing in to the License Management Service console

The product registration must be done when you log in to License Management Service for the first time. For subsequent logins, only user credentials are required. If more than one active domains are added using the License Management Service console, then those are displayed in the drop-down list.

To login to License Management Service console

1. Open a web browser on a host that has the network connection.
2. In the address field of the browser, type the following URL and press **Enter**.

`https://hostname:14161/#/login` where, host name is the fully-qualified host name.

For a IPv4 configuration, you can specify the IP address instead of the host name.

1. In the **Username ** and Password**** fields, enter credentials for a valid user.
2. Select the **Domain ** from the list and click Sign in****.

You are directed to the Setup page. During the previous log in session, if the **Setup** check box was cleared, then you are directed to the Dashboard.

See [Registering License Management Service](#).

More Information

[Viewing the product registration details](#)

Viewing the product registration details

Log in to the License Management Service console, to view the registration key details on the Product registration page.

To view the product registration details

1. On the License Management Service console, click **Settings > Product registration**.
2. Review the following:
 - Current status
 - Registration key details
 - Site name which specifies the site details of the host on which License Management Service is installed.

See [Registering License Management Service](#).

Re-registering the product key

The registration key, a `.lic` file is required for registering your LMS deployment. During the registration process the registration key is locked with the host name on which License Management Service is installed and configured. Later if the registration key is corrupted or deleted, then you need to regenerate and re-register the key. For re-registration, you can use the backup copy of the `.lic` file that was generated while registering for the first time. You can also download a new registration file on the Cloud Software Group Support portal if required.

During the period between the corruption or deletion of the registration key and the re-registration process, you can continue to perform operations, however an alert message is displayed on the UI at every page load.

To register License Management Service again:

1. Open a web browser on a host that has the network connection
2. In the address field of the browser, type the following URL and press Enter:

```
https://hostname:14161/#/login
```

where, `_hostname_` is the fully-qualified host name which should not exceed 15 characters length. For a IPv4 configuration, you can specify the IP address instead of the host name.

1. In the Username and Password fields, enter credentials for a valid user.

2. Select the Domain and click **Sign in**.
3. If you want to generate a new registration key, do the following:
 - Run the `hostname` command on the host where License Management Service is installed and configured.
 - Go to the Cloud Software Group Support portal and complete the following steps:
 - Sign in to the portal with your credentials.
 - Provide the host name that you got earlier in step 5.
 - Download the registration key.
4. Go to the License Management Service host. Click **Settings > Product registration**.
5. Optionally, enter the site name.
6. Browse or drag and drop the registration key and click **Upload**.
7. Click **Apply**.

The Setup menu opens.

More Information

[Viewing the product registration details](#)

Viewing the License Management Service installation details

Using the License Management Service console, you can view the following details about the product:

- Version number.
- Build number.
- Whether License Management Service is installed along with InfoScale Operations Manager or not.

To view the License Management Service installation details

1. On the License Management Service console, click **Help** or the Question mark icon.
2. Click **About**.

Managing hosts

This section includes the following topics:

- [Adding hosts manually to License Management Service](#)
- [Adding hosts to License Management Service using the CSV file](#)
- [Adding hosts to License Management Service using the Auto Configure \(gendeploy.pl\) script](#)
- [Refreshing the details of a host](#)
- [Removing a host from License Management Service](#)

Adding hosts manually to License Management Service

If License Management Service is installed as a standalone product, then you need to add the hosts that have InfoScale products to License Management Service. However if License Management Service is installed on the same host that has InfoScale Operations Manager, then the host data is refreshed automatically on License Management Service console. The add host operation on License Management Service is disabled and can be performed only using the InfoScale Operations Manager console.

You can add one or more hosts to License Management Service by manually entering the credentials such as host name, username, and password for each host. The credentials must have administrative privileges to these hosts. If the user account is part of a domain, then specify the username as \<domain name\ username\>.

Ensure that the minimum version requirement of managed host package as mentioned the License Management Service 9.1.0 Software Compatibility List ([lms_sc1_910.pdf](#)). Else there can be issues while discovering the host and the operation may fail.

If the license key is already uploaded to License Management Service, the license is automatically synced to the newly added hosts.

Review the prerequisites for adding hosts. See [About managing hosts](#).

You can also create duplicate entries while adding hosts or create duplicates of the already added hosts. If there is a minor change in the host name and the other parameters are the same, use this option to speed up the process.

After initiating the operation you are redirected to the Activity Monitor, where you can view the tasks for the add host operation along with the current status such as In Progress, Completed, or Queued.

To add hosts manually to License Management Service

1. On the License Management Service console, do one of the following:

- Go to the Setup panel. In the Add hosts card, click **Add**.

The default option is **Manually**. Retain this selection.

- Click **Host management > Hosts** . Click **Add host**.

The default option is **Manually**. Retain this selection.

1. Enter the host name, username, and password of the host.
2. To create a duplicate host entry, click **Duplicate**. You can create multiple entries of the host.
3. Click **Remove** to remove any additional host entries that are created during the duplication process.
4. Click **Add and monitor**.

You are redirected to the **Activity monitor** where you can monitor the progress of the task.

More Information

[Adding hosts to License Management Service using the CSV file](#)

[Adding hosts to License Management Service using the Auto Configure \(gendeploy.pl\) script](#)

Adding hosts to License Management Service using the CSV file

If License Management Service is installed as a standalone product, then you need to add the hosts that have InfoScale products to License Management Service. However if License Management Service is installed on the same host that has InfoScale Operations Manager, then the host data is refreshed automatically on License Management Service console. The Add host operation on License Management Service is disabled and can be performed only using the InfoScale Operations Manager console.

You can add multiple hosts to License Management Service using the `.csv` file.

Using the Import CSV option, you can add multiple hosts by importing the information from a comma-separated (.csv) file from a specified location. The CSV file must include the ".csv" extension. The following is an example of a CSV file that includes usernames and passwords for each host:

```
Host, User, Password

host1.abc.com, username1, password1

host2.abc.com, username2, password2
```

The first line in the CSV file must appear as mentioned in the example. You can replace the subsequent lines with your host names, usernames, and passwords.

You are redirected to the Activity Monitor where you can view the tasks for the add host operation along with their current status such as In Progress, Completed, or Queued.

Ensure that the minimum version requirement of managed host package as mentioned the License Management Service 9.1.0 Software Compatibility List ([lms_sc1_910.pdf](#)). Else there can be issues while discovering the host and the operation may fail.

If the license key is already uploaded to License Management Service, the license is automatically synced to the newly added hosts.

Review the prerequisites for adding hosts. See [About managing hosts](#).

To add hosts to License Management Service using the CSV file

1. On the License Management Service console, do one of the following:
 - Go to the Setup panel. In the Add hosts card, click **Add . Click Import CSV**.
 - Click **Host management > Hosts . Click Add host . Click Import CSV**.
2. Click **Download template** to download a sample CSV file.

Update the file with host names, usernames, and passwords.

1. Click **Browse** to select the updated CSV file.
2. Click **Import and monitor**.

You are redirected to the **Activity monitor** where you can monitor the progress of the task.

More Information

Adding hosts manually to License Management Service

Adding hosts to License Management Service using the Auto Configure (gendeploy.pl) script

Adding hosts to License Management Service using the Auto Configure (gendeploy.pl) script

If License Management Service is installed as a standalone product, then you need to add the hosts that have InfoScale products to License Management Service. However if License Management Service is installed on the same host that has InfoScale Operations Manager, then the host data is refreshed automatically on License Management Service console. The add host operation on License Management Service is disabled and can be performed only using the InfoScale Operations Manager console.

You can add a host to License Management Service with minimal user interaction using the gendeploy.pl script. The Auto Configure (gendeploy.pl) script is available for download. You need to copy the script that is created using gendeploy.pl to all the hosts that you want to add to License Management Service for management. After you copy the script, you have to run it on each host. A host on which you run the script must have the `VRTSsfmh` package installed on it. Adding many hosts to License Management Service at the same time using the Auto Configure (gendeploy.pl) script can affect the performance. It is recommended that you add no more than 50 hosts at a time.

Ensure that the minimum version requirement of managed host package as mentioned the License Management Service 9.1.0 Software Compatibility List (`lms_scl_910.pdf`). Else there can be issues while discovering the host and the operation may fail.

If the license key is already uploaded to License Management Service, the license is automatically synced to the newly added hosts.

Review the prerequisites for adding hosts. See [About managing hosts](#).

To add a host to License Management Service using the Auto Configure (gendeploy.pl) script

1. On the License Management Service console, do one of the following:
 - Go to the Setup panel. In the Add hosts card, click **Add . Click Auto configure**.
 - Click **Host management > Hosts . Click Add host , and then click Auto configure**.
2. Click **Download gendeploy script** to download the script. The file name of the script is the same as that of the host on which License Management Service is installed.
3. Copy the script that is generated by `gendeploy.pl` to the managed host.

4. On the host, change the directory to the location where you copied the script.
5. Do one of the following:

- On the Linux hosts, run the following command to make the script executable:

`chmod +x 'filename'` where, `filename` is the name of the script.

Run the script: `./filename`

- On the Windows hosts, run the following command:

`"C:\Program Files\Veritas\VRTSsfmh\bin\perl.exe" filename` where, `filename` is the name of the script.

1. Click **Activity monitor** in the left pane to view the progress of the task.

More Information

[Adding hosts manually to License Management Service](#)

[Adding hosts to License Management Service using the CSV file](#)

Refreshing the details of a host

You can use the License Management Service console to refresh the details of one or more hosts. Details such as the status (disconnected or connected), the discovery status (successful or failed), and the fault status (healthy or faulted) is refreshed during this action. The refresh operation is asynchronous. The wizard displays that the operation has triggered the refresh, but the operation is in progress in the background. You can view the status in the Activity monitor.

To refresh the host details:

1. On the License Management Service console, click **Host management > Hosts**.
2. On the **Hosts** page and do one of the following:
 - Select the check box next to the host name that you want to refresh, and click **Refresh**.
 - To refresh all hosts, select the check box next to the Host column name and click **Refresh**.
3. Click **Activity monitor** in the left pane to view the progress of the task.

Removing a host from License Management Service

You can dissociate one or more hosts from License Management Service. The remove operation is asynchronous. The wizard displays that the operation has triggered removal, but the operation is in progress in the background. You can view the status in the Activity monitor.

Note: If License Management Service is installed on a host that already has InfoScale Operations Manager, then the remove host operation is disabled and can be performed only using the InfoScale Operations Manager console.

To remove a host from License Management Service:

1. On the License Management Service console, click **Host management > Hosts**.
2. On the **Hosts** page and do one of the following:
 - Select the check box next to the host name that you want to remove, and click **Remove**.
 - To remove all hosts, select the check box next to the Host column name and click **Remove**.
3. Click **Activity monitor** in the left pane to view the progress of the task.

Managing software upgrades

This section includes the following topics:

- [About software upgrades](#)
- [Uploading the baseline package](#)
- [Installing the baseline package](#)
- [Removing the baseline package](#)
- [Uploading the patches](#)
- [Installing the patches](#)
- [Removing patches](#)
- [Refreshing the patch repository](#)

About software upgrades

Use the software upgrades feature to upload and install the baseline release, maintenance release, and patch release packages of License Management Service. Managed host upgrades, that is the VRTsfmh package upgrades, can also be done using the License Management Service console. To upgrade managed hosts, patches of InfoScale Operations Manager are used and these patches are listed on the LMS console patch repository.

Baseline packages tab

Using the Baseline packages tab, you can download the baseline release also known as the General Availability (GA) release and the maintenance release (MR) packages for managed hosts from the Download Center and upload the same on License Management Service console. You can then install the package on the relevant hosts. The packages can be installed on the hosts whose status is healthy. Healthy status indicates that the XPRTLD service is running on the host and a connection is established between the host and License Management Service.

The following information about the package is displayed on this tab:

- Name of the package.
- Status of installations. You can see the number of hosts for which the selected package is applicable and the number of hosts on which it is installed. For example, 6/11 in the status indicates that the package is applicable for 11 hosts and is installed on only 6 hosts.

- Version of the package.
- Applicable on. This field always refers to MH, that is the managed host.
- Type of the package, GA, or MR.
- Whether the package is obsolete or not. InfoScale recommends that you remove the obsolete packages from the list.

You can perform the following operations on this tab:

- Download the package from InfoScale Download Center and upload to License Management Service console. [Uploading the baseline package](#)
- Install the package on the relevant hosts. [Installing the baseline package](#)
- Remove a package from the list. [Removing the baseline package](#)

Note: Baseline packages tab allows you to upgrade only Managed host.

Uploaded patches tab

Review the information about the latest available patches in the Patches repository tab. Then use the Uploaded patches tab download the patches from InfoScale Download Center and upload the same on License Management Service console. You can then install the patch on the managed hosts or on the LMS server. The patch can be installed on the hosts whose status is healthy. Healthy status indicates that the XPRTLD service is running on the host and a connection is established on the host.

The following information about the patch is displayed on this tab:

- Name of the patch.
- Status of installation. Whether the patch is installed or not.
- Applicable on. This field always refers to MH, that is the managed host.
- Type, which is always the patch.
- Whether the patch is obsolete or not. InfoScale recommends that you remove the obsolete patches from the list.
- Release date of the patch.

You can perform the following operations on this tab:

- Download the patch from InfoScale Download Center and upload to License Management Service console. [Uploading the patches](#)
- Install the patch on relevant hosts. [Installing the patches](#)
- Remove a package from the list. [Removing patches](#)

Patches repository tab

The patch release packages for the InfoScale InfoScale Operations Manager managed hosts and for LMS that are available on the InfoScale Download Center are listed on the Patches repository tab.

InfoScale recommends that you manually run the \+ Refresh repository operation on the License Management Service console to get a list of the latest available patches at least once a month. Based on this master list of available patches, you can then download the relevant patches and proceed with the installations. [Refreshing the patch repository](#)

Note: If License Management Service is installed on a host that already has InfoScale Operations Manager, then package and patch installation operations of the managed host are blocked on the License Management Service console. You must use InfoScale Operations Manager console to perform these operations.

Uploading the baseline package

Using the License Management Service console, you can upload the baseline release also known as the General Availability (GA) release and the maintenance release (MR) packages for InfoScale Operations Manager managed hosts. You need to download the package from the Download Center and then proceed with the upload task.

Ensure the host has access to public internet and you have the InfoScale account credentials.

To download the baseline package from InfoScale Download center

1. Open any supported web browser and go to the Download center.
2. Sign in with your InfoScale account credentials.
3. Download required packages by selecting the product name and the version.

The baseline and the maintenance release packages are always a .zip file.

To upload the baseline package

1. On the License Management Service console, click **Software upgrades ** in the left pane, and click**Baseline packages** tab.
2. Click **Upload baseline package ** or**+Upload**.
3. Click **Browse** to locate the downloaded package and upload the same.
4. Click **Activity monitor** in the left pane to view the progress of the task.

Review the details of the package in the table when the task is complete.

More Information

[Installing the baseline package](#)

Installing the baseline package

The baseline release, also known as the General Availability (GA) release, or the maintenance release (MR) packages for InfoScale InfoScale Operations Manager managed hosts can be installed using the License Management Service console. You must first download the packages from the InfoScale Download center and then install the same on a host using the License Management Service console.

Note: If License Management Service is installed on a host that already has InfoScale Operations Manager, then package installation operations of the managed host are blocked on the License Management Service console. You must use InfoScale Operations Manager console to perform the operation.

To install the baseline package

1. On the License Management Service console, click **Software upgrades ** in the left pane, and click**Baseline packages** tab.
2. Locate the package and click **Install** in the same row.
3. In the Install package panel, the list of eligible hosts is displayed on which the selected package can be installed.
4. Select the required hosts and click **Install**.
5. Click **Activity monitor** in the left pane to view the progress of the task.

Removing the baseline package

Using the License Management Service console you can remove the baseline release also known as the General Availability (GA) release or the maintenance release packages from the list if the package is already installed on relevant hosts and is no longer required.

To remove the baseline package

1. On the License Management Service console, click **Software upgrades ** in the left pane, and click**Baseline packages** tab.
2. Locate the package and click **Remove** in the same row.

If there are on-going package installation operations on any hosts, a message is displayed. You can continue to remove the package or cancel the operation.

1. Click **Activity monitor** in the left pane to view the progress of the task.

Uploading the patches

Using the License Management Service console, you can upload the patches for InfoScale Operations Manager managed hosts or for the LMS. You need to download the patch from the Download Center and then proceed with the upload task.

Ensure that the host has access to public internet and you have the InfoScale account credentials.

To download a patch from the InfoScale Download center

1. Open any supported web browser and go to the Download center.
2. Sign in with your InfoScale account.
3. Download required patches by selecting the product name and the version.

Extension of a patch file is `.sfa`.

To upload a patch

1. On the License Management Service console, click **Software upgrades ** in the left pane, and click**Uploaded patches** tab.
2. Click **Upload patch ** or**+Upload**.
3. Click **Browse** to locate the downloaded patch and upload the same.
4. Click **Activity monitor** in the left pane to view the progress of the task.

Review the details of the patch in the table when the task is complete.

More Information

[Installing the patches](#)

Installing the patches

The patches for InfoScale InfoScale Operations Manager managed hosts and LMS can be installed using the License Management Service console.

Note: If License Management Service is installed on a host that already has InfoScale Operations Manager, then patch installation operations of the managed host are blocked on the License Management Service console. You must use InfoScale Operations Manager console to perform the operation.

Note: If License Management Service and InfoScale Operations Manager are installed on separate servers and the same Managed Hosts are added to both the servers, then ensure that the version of Managed Hosts that are to be upgraded is compatible with both the License Management Service and InfoScale Operations Manager. Refer to the License Management Service 9.1.0 Software Compatibility List(lms_scl_910.pdf).

To install a patch

1. On the License Management Service console, click **Software upgrades ** in the left pane, and click**Uploaded patches** tab.
2. Locate the patch and click **Install** at the end of the same row.
3. In the Install patch panel, the list of hosts is displayed on which the selected patch can be installed.
4. Select the required hosts and click **Install**.
5. Click **Activity monitor** in the left pane to view the progress of the task.

Removing patches

Using the License Management Service console you can remove the patch from the list if the patch is already installed on a host and is no longer required.

To remove a patch

1. On the License Management Service console, click **Software upgrades ** in the left pane, and click**Uploaded patches** tab.
2. Locate the package and click **Remove** in the same row.

If there are on-going patch installation operations on any hosts, a message is displayed.

1. Click **Activity monitor** in the left pane to view the progress of the task.

Refreshing the patch repository

The patch release packages for InfoScale Operations Manager managed host and for LMS that are available on the Download Center are listed on the Patches repository tab.

The list of latest available patches that are applicable for the managed hosts and for LMS is displayed in the table. InfoScale recommends that you manually run the refresh operation on the License Management Service console to get a list from the InfoScale Download Center at least once a month.

To refresh the patches repository

1. On the License Management Service console, click **Software upgrades** in the left pane, and click Patches repository tab.
2. Click **Refresh repository**.
3. Click **Activity monitor** in the left pane to view the progress of the task.

Managing user administration

This section includes the following topics:

- [Enabling or disabling a domain](#)
- [Removing a domain](#)
- [Editing a user group](#)
- [Editing users from a user group](#)
- [Removing a user group](#)
- [Editing local users](#)
- [Editing user group for local user](#)
- [Removing a local user](#)

Enabling or disabling a domain

Using the License Management Service console, you can enable or disable a domain. When you disable a domain, it is not displayed on the License Management Service logon page and you cannot assign permissions to the user groups that belong to the domain.

To enable or disable a domain

1. On the License Management Service console, do one of the following:
 - In the Setup wizard panel, in User administration click **Configure > Domains**.
 - In the left navigation pane, click **User management**>** Domains**.
2. Find the domain you want to enable or disable and click **Enable **** or **Disable**** based on the state of the domain. When prompted, confirm your choice.

Removing a domain

You can remove a domain from License Management Service. The permissions that are assigned to user groups are deleted when you remove the domain.

Note: If License Management Service is installed on a host that already has InfoScale Operations Manager, then the remove domain operation is blocked on the License

Management Service console. You must use InfoScale Operations Manager console to perform the operation.

To remove a domain

1. On the License Management Service console, do one of the following:
 - In the Setup wizard panel, in User administration click **Configure > Domains**.
 - In the left navigation click **User management** , and then click **Domains**.
2. Find the registered domain you want to remove and click **Remove**.

Editing a user group

Using the License Management Service console, you can edit the permissions that are assigned to a user group. Permissions can be edited for a local as well as a global group. Available permissions are guest, operator, and administrator. These permissions are required to perform operations on the License Management Service console.

To edit a user group

1. On the License Management Service console, do one of the following:
 - In the Setup wizard, in User administration click **Configure** , and then click **User groups**.
 - In the left navigation pane click User management, and then click **User groups**.
2. Find the user group you want to edit and click **Edit group**.
3. In the Edit user group panel, select the role from the drop-down list and click **Save**.

Editing users from a user group

Using the License Management Service console, you can edit or remove the users that are assigned to a user group. If you have created a user group without adding any users, then use this option to add the users.

To edit a user from a user group

1. On the License Management Service console, do one of the following:
 - In the Setup wizard, in User administration click **Configure** , and then click **User groups**.
 - In the left navigation pane click User management, and then click **User groups**.

2. Find the user group you want to edit and click **Edit users**.
3. In the Edit users panel, do one of the following:
 - To add a new user, enter the username and click **Add to list**. You can add multiple IDs that are separated by a comma to add multiple users.
 - To remove a user, click **Remove** in the username row.
4. Click **Save**.

Removing a user group

Using the License Management Service console, you can remove user groups. A local user group can be removed from License Management Service only or from License Management Service and the host operating system. Whereas a global user group can be removed only from License Management Service.

To remove a user group

1. On the License Management Service console, do one of the following:
 - In the Setup wizard, in User administration click **Configure** , and then click **User groups**.
 - In the left navigation pane click User management, and then click **User groups**.
2. Find the user group you want to remove and click **Remove**.
3. Based on the type (local or global) of the selected user group, one or both the following options are displayed.
 - Remove from LMS application only
 - Remove from LMS and delete from host operating system.
4. Click **Remove**.

Editing local users

Using the License Management Service console, you can edit the password of a local user.

To edit a local user

1. On the License Management Service console, do one of the following:
 - In the Setup wizard, in User administration click **Configure** , and then click **Local users**.

- In the left navigation pane click User management, and then click **Local users**.
2. Find the user whose password you want to edit and click **Change password**.
 3. Enter a password that adheres to the following criteria:
 - Minimum length: 8 characters

Numbers: 1

Lowercase characters: 1

Uppercase characters: 1

Special characters: 1

Note: These limitations may vary on OS level. For example: Windows 2022 has minimum 12 character requirement.

1. In the Confirm password field, re-enter the password.
2. Click **Save**.

Editing user group for local user

A local user can be a part of one or more user groups. Using the License Management Service console, you can edit the local user groups that a local user is assigned to.

To edit a user group for a local user

1. On the License Management Service console, do one of the following:
 - In the Setup wizard, in User administration click **Configure** , and then click **Local users**.
 - In the left navigation pane click User management, and then click **Local users**.
2. Find the user whose user group you want to modify and click **Edit group**.
3. In the Edit group panel, select all the user groups that you want the user to be a part of. You can clear the check boxes of the groups from which you want to remove the user.
4. Click **Save**.

Removing a local user

Using the License Management Service console, you can remove local users. You can choose to remove a local user from License Management Service only or you can remove the user from License Management Service and the host operating system.

To remove a local user

1. On the License Management Service console, do one of the following:
 - In the Setup wizard, in User administration click **Configure** , and then click **Local users**.
 - In the left navigation pane click User management, and then click **Local users**.
2. Find the local user you want to delete and click **Remove**.
3. Select from the following:
 - Remove from LMS application only.
 - Remove from LMS and delete from host operating system.
4. Click **Remove**.

Managing backup, restore, and uninstall

This section includes the following topics:

- [About backing up and restoring the License Management Service data](#)
- [Backing up License Management Service data](#)
- [Restoring backed up License Management Service data](#)
- [Uninstalling License Management Service on Linux](#)
- [Uninstalling License Management Service on Windows](#)

About backing up and restoring the License Management Service data

It is recommended to take regular backup of the License Management Service data to prevent loss of data in the event of a failure. Data backup is a must before any major upgrade activity.

All hosts and Kubernetes information, all license and entitlements information, all reports, faults, and activity logs data is backed up. The registration key which is used for registration of License Management Service is also backed up if the file is saved on the same host. The entire data is stored in a `tar.gz` file in the location that you have specified while running the backup script.

It is recommended that the backup is taken on another host and not on which License Management Service is installed.

Note: During the backup process the License Management Service URL or the console is inaccessible.

Use the `lms_bkup.pl` script to back up and also to restore the data.

The procedure to take a backup and then restore the data is the same, except the `--backup` and `--restore` commands.

If License Management Service is installed along with InfoScale Operations Manager, then you need to take a backup of both and also restore both separately. For more information on back and

restore operations on InfoScale Operations Manager, refer to the InfoScale Operations Manager documentation on [SORT](#).

More Information

[Backing up License Management Service data](#)

[Restoring backed up License Management Service data](#)

Backing up License Management Service data

You can regularly back up the License Management Service data to prevent data loss in the event of a failure or before an upgrade activity using the `lms_bkup.pl` script.

To take a backup of License Management Service data on Linux

1. On the host where you plan to back up the data, log on as a user with root privileges.
2. Locate the `lms_bkup.pl` script at the following location:

```
installdir/VRTSlms/config/adm
```

1. Run the script at the command prompt:

```
/opt/VRTSsfmh/bin/perl
```

```
/opt/VRTSlms/config/adm/lms_bkup.pl --backup /dir
```

Where, `installdir` is the installation directory and `dir` is the location that you specify for creating the backup. Ensure that the specified location has adequate disk space to store the backup. You can specify any location except the following:

- `/var/opt/VRTSsfmh`
- `/var/opt/VRTSlms`
- `/opt/VRTSsfmh`
- `/opt/VRTSlms`

To take a backup of License Management Service data on Windows

1. On the host where you plan to back up the data, log on as a user with administrator privileges.
2. Locate the `lms_bkup.pl` script at the following location:

```
C:\Program files\Veritas\VRTSlms\config\adm
```

1. Run the script at the command prompt:

```
"C:\Program files\Veritas\VRTSsfmh\bin\perl.exe"
```

```
"C:\Program files\Veritas\VRTSlms\config\adm\lms_bkup.pl" --backup \dir
```

Where, `dir` is the location that you specify for creating the backup. Ensure that the specified location has adequate disk space to store the backup. You can specify any location except the following:

- %ALLUSERPROFILE%\Veritas\VRTSsfmh
- %APPDATA%\Symantec\VRTSsfmh

Restoring backed up License Management Service data

You can restore the License Management Service data that was backed up using the `lms_bkup.pl` script when required.

You can restore the data to the same host on which the data was backed up. If you restore the data on a different host, then you need to do the following task on the host before you perform the restore operation:

- Change the physical host name and the IP address to match the system on which the backup was taken.

To restore backed up License Management Service data on Linux

1. On the host where you plan to restore the data, log on as a user with root privileges.
2. Run the script at the command prompt:

```
/opt/VRTSsfmh/bin/perl
```

```
/opt/VRTSlms/config/adm/lms_bkup.pl --restore /dir
```

Where, `installdir` is the installation directory and `dir` is the location that you specify on which you want to restore the data.

To restore backed up License Management Service data on Windows

1. On the host where you plan to restore the data, log on as a user with administrator privileges.

2. Run the script at the command prompt:

```
"C:\Program files\Veritas\VRTSsfmh\bin\perl.exe"
```

```
"C:\Program files\Veritas\VRTS1ms\config\adm\lms_bkup.pl" --restore \dir
```

Where, `dir` is the location that you specify on which you want to restore the data.

Uninstalling License Management Service on Linux

You can uninstall License Management Service by removing the `VRTS1ms` package first followed by the `VRTSsfmh` package from the Linux host.

Note: If License Management Service is installed on a host that has InfoScale Operations Manager, then do not remove the `VRTSsfmh` package from the host.

To uninstall License Management Service on Linux

1. Open the operating system console.
2. On the host, log on as root.
3. To remove the `VRTS1ms` package, run the following command:

```
rpm -e VRTS1ms
```

1. To remove the `VRTSsfmh` package, run the following command:

```
rpm -e VRTSsfmh
```

Ignore this step if License Management Service is installed on a host that has InfoScale Operations Manager.

Uninstalling License Management Service on Windows

You can uninstall License Management Service from a Windows host.

To uninstall License Management Service on Windows

1. Log on to the target host as a user with administrator privileges.
2. In the Windows Control Panel, click **Program and Features**.
3. From the list of installed programs, select **License Management Service for Windows**.

4. Click **Uninstall/Change**.
5. Click **Yes** in the dialog box.
6. On the message window that indicates that the uninstall was successful, click **OK**.

Known issues

This section includes the following topics:

- Upgrading from an earlier LMS version to 9.1.0 fails if LMS is installed along with InfoScale Operations Manager (SDSCPE-24382)
- Conflicting success and failure operation states are displayed in the LMS GUI when uploading a license key with an expiration date earlier than the current one (SDSCPE-24455)
- Delay in InfoScale license key activation from LMS due to timezone mismatch (SDSCPE-24484)

Upgrading from an earlier LMS version to 9.1.0 fails if LMS is installed along with InfoScale Operations Manager (SDSCPE-24382)

If LMS version 8.0.2 or 9.0 is installed along with IOM, upgrading LMS to 9.1.0 fails.

Workaround:

1. Uninstall the existing version of LMS (version 8.0.2 or 9.0).
2. Install LMS 9.1.0.

InfoScale 9.1.0 License Management Service Help - AIX, Linux, Solaris, Windows

About License Management Service

License Management Service is a single centralized console for viewing and managing InfoScale Classic licenses. License Management Service can be installed as a standalone product or along with InfoScale Operations Manager. License Management Service can also be installed within AWS and Azure cloud.

Key features of License Management Service are:

- Licensing and compliance: The primary function of License Management Service is to simplify and automate license management. The console provides a comprehensive view of InfoScale

hosts and their license compliance. It enables you to better manage licensing, plan for upgrades, renewals, and new purchases. Ensure that your company is in full compliance with all its software obligations and prevents unexpected license costs.

- Auto-sync license to hosts: License Management Service simplifies license deployment within your environment. After you upload InfoScale license key to License Management Service, it automatically syncs the license to all the hosts that are added to License Management Service making it easier to manage license deployment and ensure license compliance.
- Reports: Provides detailed reports about your environment, including details about InfoScale hosts.

Conflicting success and failure operation states are displayed in the LMS GUI when uploading a license key with an expiration date earlier than the current one (SDSCPE-24455)

When uploading a license key with an expiration date earlier than the current one, LMS prompts for confirmation. If you proceed by clicking **Yes**, the system correctly applies the new license but also generates a secondary "Failed" task in the background.

In the Activity monitor, two tasks are displayed for the same operation; one shows the operation failed and the other shows that the operation completed successfully.

Workaround:

You can safely ignore the failed task.

Delay in InfoScale license key activation from LMS due to timezone mismatch (SDSCPE-24484)

The Cloud Software Group portal timestamps the new generated licenses using the GMT (UTC) timezone. If a system is in a timezone behind GMT, the system perceives the license as having a future activation date and flags the license as not yet valid. Because the GMT start time has not yet occurred in the local timezone, license activation fails.

Workaround:

License activation will fail until the system's local time reaches the license's GMT-based start time. You must wait for your local time to align with the GMT start time.