



NVIDIA License System

Quick Start Guide

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About this Guide

This *Quick Start Guide* provides minimal instructions for installing and configuring NVIDIA License System. The instructions cover the configuration of a Cloud License Service (CLS) instance and the installation and configuration a standalone Delegated License Service (DLS) instance. The instructions for configuring a DLS instance assume that the VM that hosts the DLS instance has been assigned an IP address automatically.

If you need complete instructions, are hosting a DLS instance on a VM that has not been assigned an IP address automatically, or require high availability for a DLS instance, refer to [NVIDIA License System User Guide](#).

Before proceeding, determine whether you want to use a CLS instance or DLS instance to serve licenses to clients. For guidance, refer to [About Service Instances](#) in *NVIDIA License System User Guide*.

Chapter 1. Configuring a CLS Instance

A Cloud License Service (CLS) instance is hosted on the NVIDIA Licensing Portal.

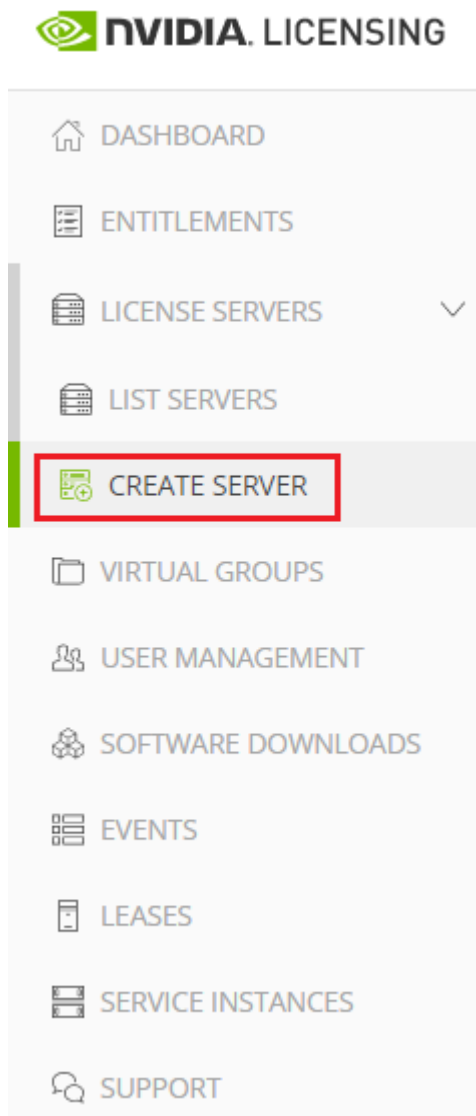
1.1. Creating a License Server on the NVIDIA Licensing Portal

To be able to allot licenses to an NVIDIA License System instance, you must create at least one license server on the NVIDIA Licensing Portal. Creating a license server defines the set of licenses to be allotted.

1. In the NVIDIA Licensing Portal, navigate to the organization or virtual group for which you want to create the license server.
 - a). If you are not already logged in, log in to the [NVIDIA Enterprise Application Hub](#) and click **NVIDIA LICENSING PORTAL** to go to the NVIDIA Licensing Portal.
 - b). **Optional:** If your assigned roles give you access to multiple virtual groups, click **View settings** at the top right of the page and in the **My Info** window that opens, select the virtual group from the **Virtual Group** drop-down list, and close the **My Info** window.

If no license servers have been created for your organization or virtual group, the NVIDIA Licensing Portal dashboard displays a message asking if you want to create a license server.

2. In the left navigation pane of the NVIDIA Licensing Portal dashboard, expand **LICENSE SERVER** and click **CREATE SERVER**. The Create License Server wizard is started.



The **Create License Server** wizard opens.

3. On the Create License Server page of the wizard, step through the configuration requirements to provide the details of your license server.
 - a). **Step 1 – Identification:** In the **Name** field, enter your choice of name for the license server and in the **Description** field, enter a text description of the license server.
The description is required and will be displayed on the details page for the license server that you are creating.
 - b). **Step 2 – Features:** Select one or more available features from your entitlements to allot to this license server.
 - c). **Step 3 - Environment:** Select **Cloud (CLS)** or **On-Premises (DLS)** to install this license server.
To make the selection after the license server has been created, select the **Deferred** option.
 - d). **Step 4 – Configuration:** From the **Leasing mode** drop-down list, select one of the following leasing modes:
 - Standard Networked Licensing**
Select this mode to simplify the management of licenses on a license server that supports networked licensing. In this mode, no additional configuration of the licenses on the server is required.
 - Advanced Networked Licensing**
Select this mode if you require control over the management of licenses on a license server that supports networked licensing. This mode requires additional configuration to create license pools and fulfillment conditions on the server.
 - Node-Locked Licensing**
Select this mode **only** if the license server will serve clients that cannot obtain a license from a remote license server over a network connection. In this mode,

the clients obtain a node-locked license from a file installed locally on the client system.



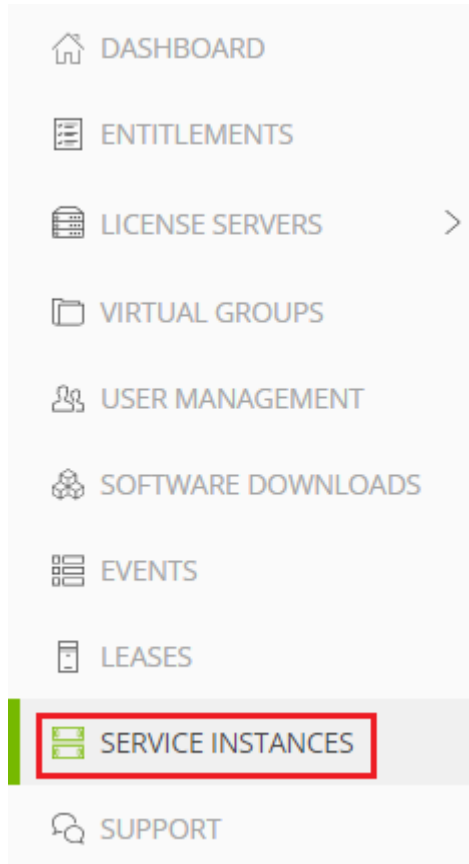
CAUTION: This mode requires additional work to create the license file to be installed locally and to return licenses when the client is shut down. If this mode is set, the mode of the license server **cannot** be changed.

- e). Click **REVIEW SUMMARY** to review the configuration summary before creating the license server.
4. On the Create License Server page, from the **Step 4 – Configuration** menu, click the **CREATE SERVER** option to create this license server.
Alternatively, you can click **CREATE SERVER** on the Server Summary page.

1.2. Creating a CLS Instance on the NVIDIA Licensing Portal

When you create a CLS instance, the instance is automatically registered with the NVIDIA Licensing Portal. This task is only necessary if you are not using the default CLS instance.

1. If you are not already logged in, log in to the [NVIDIA Enterprise Application Hub](#) and click **NVIDIA LICENSING PORTAL** to go to the NVIDIA Licensing Portal.
2. In the left navigation pane of the NVIDIA Licensing Portal dashboard, click **SERVICE INSTANCES**.



3. On the Service Instances page, from the **Actions** menu, choose **Create cloud (CLS) instance**.

The **Create cloud (CLS) instance** pop-up window opens.

4. Provide the details of your cloud service instance.
 - a). In the **Name** field, enter your choice of name for the service instance.
 - b). In the **Description** field, enter a text description of the service instance.

This description is required and will be displayed on the **Service Instances** page when the entry for service instance that you are creating is expanding.
5. Click **CREATE CLS INSTANCE**.

1.3. Binding a License Server to a Service Instance

Binding a license server to a service instance ensures that licenses on the server are available only from that service instance. As a result, the licenses are available only to

the licensed clients that are served by the service instance to which the license server is bound.

1. In the NVIDIA Licensing Portal, navigate to the organization or virtual group to which the **license server** belongs.
 - a). If you are not already logged in, log in to the [NVIDIA Enterprise Application Hub](#) and click **NVIDIA LICENSING PORTAL** to go to the NVIDIA Licensing Portal.
 - b). **Optional:** If your assigned roles give you access to multiple virtual groups, click **View settings** at the top right of the page and in the **My Info** window that opens, select the virtual group from the **Virtual Group** drop-down list, and close the **My Info** window.
2. In the left navigation pane of the NVIDIA Licensing Portal dashboard, expand **LICENSE SERVERS** and click **LIST SERVERS**.
3. In the list of license servers on the **License Servers** page that opens, from the **Actions** menu for the license server, choose **Bind**.
4. In the **Bind Service Instance** pop-up window that opens, select the service instance to which you want to bind the license server and click **BIND**.
The **Bind Service Instance** pop-up window confirms that the license server has been bound to the service instance.

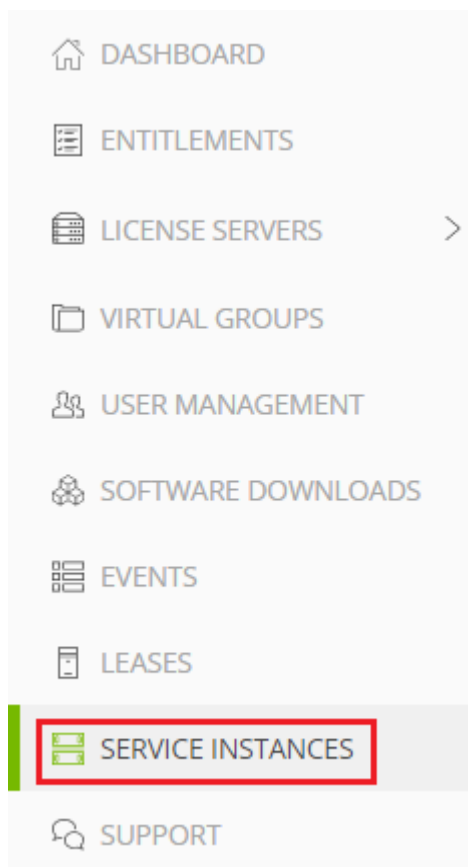
1.4. Installing a License Server on a CLS Instance

This task is necessary only if you are not using the default CLS instance.

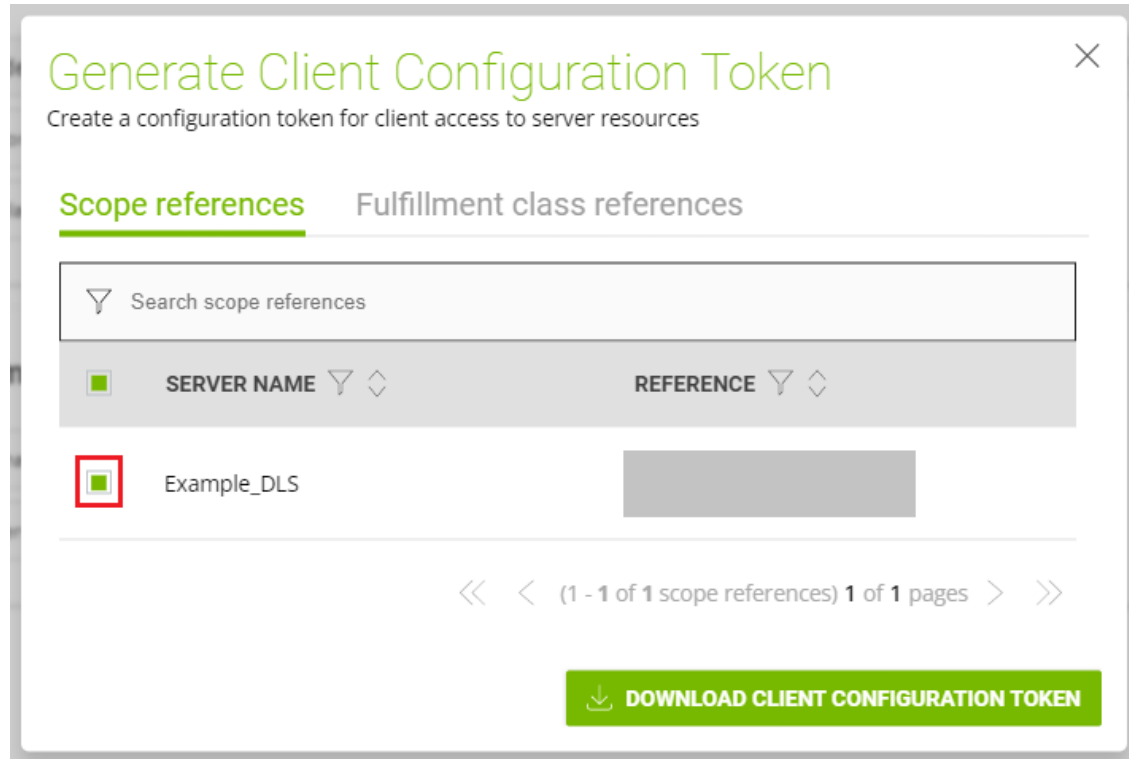
1. In the NVIDIA Licensing Portal, navigate to the organization or virtual group for which you want to install the license server.
 - a). If you are not already logged in, log in to the [NVIDIA Enterprise Application Hub](#) and click **NVIDIA LICENSING PORTAL** to go to the NVIDIA Licensing Portal.
 - b). **Optional:** If your assigned roles give you access to multiple virtual groups, click **View settings** at the top right of the page and in the **My Info** window that opens, select the virtual group from the **Virtual Group** drop-down list, and close the **My Info** window.
2. In the left navigation pane of the NVIDIA Licensing Portal dashboard, expand **LICENSE SERVER** and click **LIST SERVERS**.
3. In the list of license servers on the **License Servers** page that opens, click the name of the license server that you want to install.
4. In the **License Server Details** page that opens, from the **Actions** menu, choose **Install**.
5. In the **Install License Server** pop-up window that opens, click **INSTALL SERVER**.

1.5. Generating a Client Configuration Token for a CLS Instance

1. Log in to the [NVIDIA Enterprise Application Hub](#) and click **NVIDIA LICENSING PORTAL** to go to the NVIDIA Licensing Portal.
2. If your assigned roles give you access to multiple virtual groups, select the virtual group for which you are managing licenses from the list of virtual groups at the top right of the NVIDIA Licensing Portal dashboard.
3. In the left navigation pane, click **SERVICE INSTANCES**.



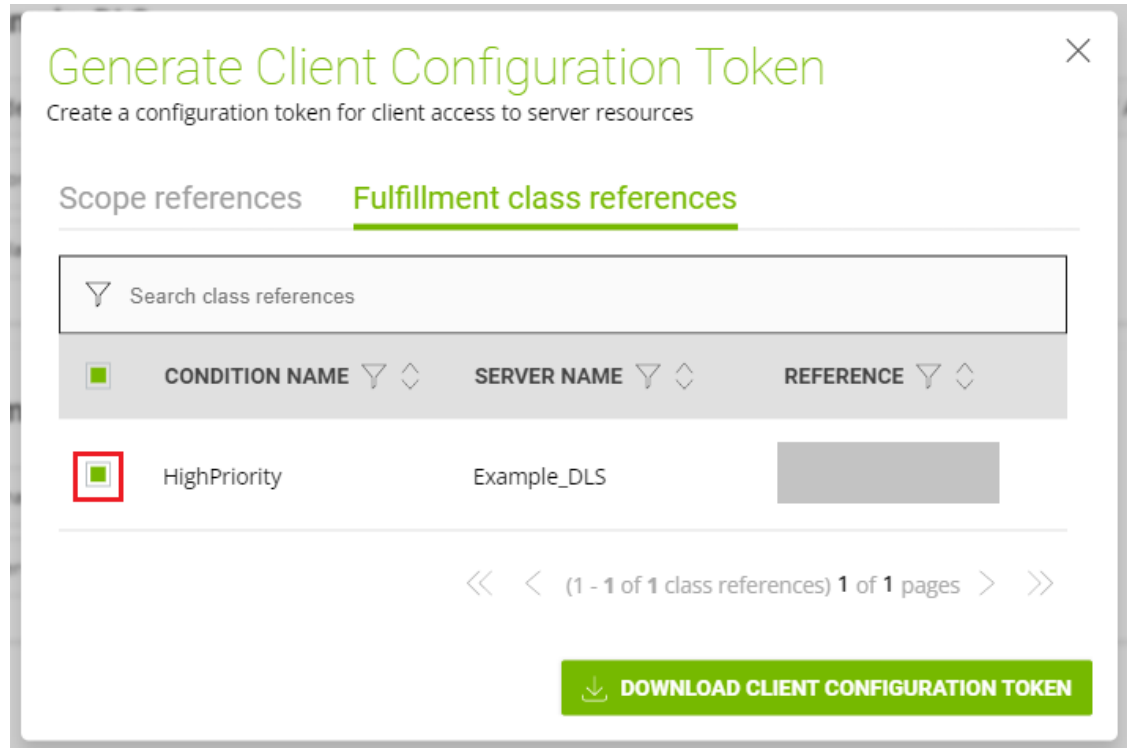
4. On the Service Instances page that opens, from the **Actions** menu for the CLS instance for which you want to generate a client configuration token, choose **Generate client configuration token**.
5. In the **Generate Client Configuration Token** pop-up window that opens, select the references that you want to include in the client configuration token.
 - a). From the list of scope references, select the scope references that you want to include.



You must select **at least one** scope reference.

Each scope reference specifies the license server that will fulfil a license request.

- b). **Optional:** Click the **Fulfillment class references** tab, and from the list of fulfillment class references, select the fulfillment class references that you want to include.



Including fulfillment class references is optional.

- c). **Optional:** In the **Expiration** section, select an expiration date for the client configuration token. If you do not select a date, the default token expiration time is 12 years.
- d). Click **DOWNLOAD CLIENT CONFIGURATION TOKEN**.

A file named `client_configuration_token_mm-dd-yyyy-hh-mm-ss.tok` is saved to your default downloads folder.

After creating a client configuration token from a service instance, copy the client configuration token to each licensed client that you want to use the combination of license servers and fulfillment conditions specified in the token. For more information, see [Configuring a Licensed Client](#).

Chapter 2. Configuring a DLS Instance

A Delegated License Service (DLS) instance is hosted on-premises at a location that is accessible from your private network, such as inside your data center.

Before configuring a DLS instance, ensure that the DLS appliance is installed in a suitable VM or deployed in a suitable container on a bare-metal OS as explained in [Installing and Configuring the DLS Virtual Appliance](#) in *NVIDIA License System User Guide*.

2.1. Registering the DLS Administrator User

Each DLS virtual appliance is configured with a user account specifically for administering the DLS. This account provides access through a web-based management interface to the **NVIDIA Licensing** application on the appliance. Before administering a DLS virtual appliance, you must register this user to be able to access this management interface.

1. Open a web browser and connect to the URL `https://dls-vm-ip-address`.

dls-vm-ip-address

The IP address or, if defined, the fully qualified domain name or the CNAME of the VM on which the DLS virtual appliance is installed.

You can get the IP address from the management console of your hypervisor.

2. On the **Set Up** page that opens, click **NEW INSTALLATION**.
3. On the **Register User** page that opens, provide the credentials for the DLS administrator user.



Note: If the DLS administrator user has already been registered, the login page opens instead of the **Register User** page.

- a). **Optional:** If you want to change the user name from the preset name **dls_admin**, replace the text in the **Username** field with your choice of user name.
- b). Provide a password for the DLS administrator user and confirm the password.

The password must be at least eight characters long and is case sensitive.



Note: You can change the DLS administrator user name and password at any time after the DLS administrator user is registered.

4. Determine whether you want to enable an additional user that will be able to access the log files for the DLS virtual appliance.
 - ▶ If you **want** to enable this additional user, ensure that the **Create a diagnostic user** option remains selected.
 - ▶ Otherwise, deselect the **Create a diagnostic user** option.
5. Click **REGISTER**.
The **Register User** page is refreshed to confirm that the user has been registered and displays a local reset secret to enable you to reset the user's password.
6. Copy the local reset secret and store it securely, for example, by clicking the clipboard icon and pasting the local reset secret into a plain text file that is readable only by you. You will need this key to reset the DLS administrator user's password.
7. Click **CONTINUE TO LOGIN**.
8. On the login page that opens, type the user name of the DLS administrator user, provide the password that you set for this user, and click **LOGIN**.

2.2. Changing the Name and Description of a DLS Instance

By default, a DLS instance is created with the name `DEFAULT_timestamp` and the description `ON_PREM_SERVICE_INSTANCE`. To distinguish a DLS instance on the NVIDIA Licensing Portal when multiple DLS instances are configured, change these defaults to a meaningful name and the description.

Perform this task from the DLS virtual appliance.

1. Log in to the DLS virtual appliance that is hosting the instance whose name and description you want to change.
2. In the left navigation pane of the **NVIDIA Licensing** dashboard, click **SERVICE INSTANCE**.
3. On the **Service Instance** page that opens, click **EDIT**.
4. In the **Edit Service Instance** dialog box that opens, type your choice of name and description for the instance and click **UPDATE**.



Note: The instance name cannot contain special characters.

The name and description of the instance are updated on the **Service Instance** page.

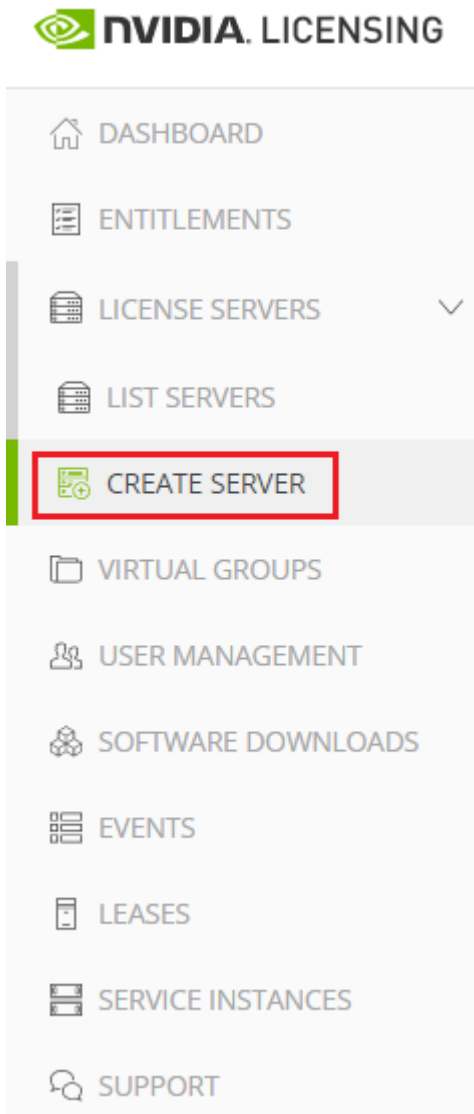
2.3. Creating a License Server on the NVIDIA Licensing Portal

To be able to allot licenses to an NVIDIA License System instance, you must create at least one license server on the NVIDIA Licensing Portal. Creating a license server defines the set of licenses to be allotted.

1. In the NVIDIA Licensing Portal, navigate to the organization or virtual group for which you want to create the license server.
 - a). If you are not already logged in, log in to the [NVIDIA Enterprise Application Hub](#) and click **NVIDIA LICENSING PORTAL** to go to the NVIDIA Licensing Portal.
 - b). **Optional:** If your assigned roles give you access to multiple virtual groups, click **View settings** at the top right of the page and in the **My Info** window that opens, select the virtual group from the **Virtual Group** drop-down list, and close the **My Info** window.

If no license servers have been created for your organization or virtual group, the NVIDIA Licensing Portal dashboard displays a message asking if you want to create a license server.

2. In the left navigation pane of the NVIDIA Licensing Portal dashboard, expand **LICENSE SERVER** and click **CREATE SERVER**. The Create License Server wizard is started.



The **Create License Server** wizard opens.

3. On the Create License Server page of the wizard, step through the configuration requirements to provide the details of your license server.
 - a). **Step 1 – Identification:** In the **Name** field, enter your choice of name for the license server and in the **Description** field, enter a text description of the license server.
 The description is required and will be displayed on the details page for the license server that you are creating.
 - b). **Step 2 – Features:** Select one or more available features from your entitlements to allot to this license server.
 - c). **Step 3 - Environment:** Select **Cloud (CLS)** or **On-Premises (DLS)** to install this license server.
 To make the selection after the license server has been created, select the **Deferred** option.
 - d). **Step 4 – Configuration:** From the **Leasing mode** drop-down list, select one of the following leasing modes:
 - Standard Networked Licensing**
 Select this mode to simplify the management of licenses on a license server that supports networked licensing. In this mode, no additional configuration of the licenses on the server is required.
 - Advanced Networked Licensing**
 Select this mode if you require control over the management of licenses on a license server that supports networked licensing. This mode requires additional configuration to create license pools and fulfillment conditions on the server.
 - Node-Locked Licensing**
 Select this mode **only** if the license server will serve clients that cannot obtain a license from a remote license server over a network connection. In this mode,

the clients obtain a node-locked license from a file installed locally on the client system.



CAUTION: This mode requires additional work to create the license file to be installed locally and to return licenses when the client is shut down. If this mode is set, the mode of the license server **cannot** be changed.

- e). Click **REVIEW SUMMARY** to review the configuration summary before creating the license server.
4. On the Create License Server page, from the **Step 4 – Configuration** menu, click the **CREATE SERVER** option to create this license server.
Alternatively, you can click **CREATE SERVER** on the Server Summary page.

2.4. Registering an on-Premises DLS Instance with the NVIDIA Licensing Portal

A DLS instance is created automatically when the virtual appliance on which the instance resides is installed. However, to enable the instance to be bound to a license server, you must register the instance with the NVIDIA Licensing Portal.

Registering an on-premises DLS instance with the NVIDIA Licensing Portal involves the exchange of a **DLS instance token** between the instance and the NVIDIA Licensing Portal.

A DLS instance token is created by a DLS instance. It identifies the DLS instance to the NVIDIA Licensing Portal and enables it to locate the NVIDIA Licensing Portal. After downloading the token from the DLS instance, you must upload it to the NVIDIA Licensing Portal to complete the registration of the service instance.

1. If you are not already logged in, log in to the **NVIDIA Licensing** application at the IP address of the VM on which the DLS virtual appliance is installed.
2. In the left navigation pane of the **NVIDIA Licensing** dashboard, click **SERVICE INSTANCE**.
3. On the **Service Instance Details** page that opens, from the **ACTIONS** menu, choose **Download DLS Instance Token**.
A DLS instance token file that is named `dls_instance_token_mm-dd-yyyy-hh-mm-ss.tok` is downloaded.
4. In the NVIDIA Licensing Portal, navigate to the organization or virtual group for which you are registering the service instance.
 - a). If you are not already logged in, log in to the [NVIDIA Enterprise Application Hub](#) and click **NVIDIA LICENSING PORTAL** to go to the NVIDIA Licensing Portal.
 - b). **Optional:** If your assigned roles give you access to multiple virtual groups, click **View settings** at the top right of the page and in the **My Info** window that opens, select the virtual group from the **Virtual Group** drop-down list, and close the **My Info** window.

5. On **Service Instances** page that opens, from the **Actions** menu, choose **Register DLS Instance**.
6. In the **Register DLS Instance** window that opens, select the **New installation** option and click **SELECT INSTANCE TOKEN**.

Register DLS Instance ×

Upload a DLS instance token for initial registration or for a DLS upgrade

Are you registering a new DLS instance or performing an upgrade on an existing DLS instance?

New installation Upgrade existing

SELECT INSTANCE TOKEN UPLOAD TOKEN

7. In the file browser that opens, navigate to the folder that contains the DLS instance token file that is named `dls_instance_token_mm-dd-yyyy-hh-mm-ss.tok` that you downloaded and select the file.
8. Back in the **Register DLS Instance** window, click **UPLOAD TOKEN**. The service instance is added to the list of registered service instances.

2.5. Binding a License Server to a Service Instance

Binding a license server to a service instance ensures that licenses on the server are available only from that service instance. As a result, the licenses are available only to the licensed clients that are served by the service instance to which the license server is bound.

1. In the NVIDIA Licensing Portal, navigate to the organization or virtual group to which the **license server** belongs.
 - a). If you are not already logged in, log in to the [NVIDIA Enterprise Application Hub](#) and click **NVIDIA LICENSING PORTAL** to go to the NVIDIA Licensing Portal.

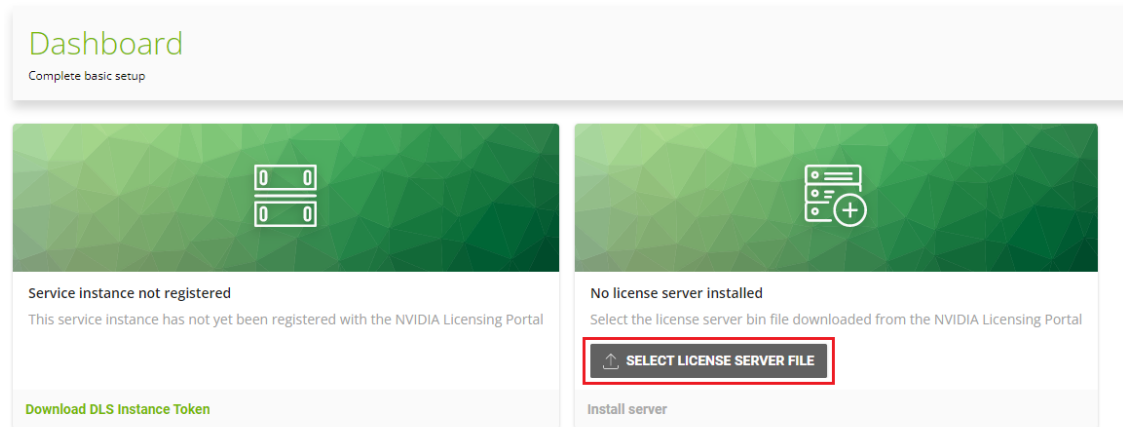
- b). **Optional:** If your assigned roles give you access to multiple virtual groups, click **View settings** at the top right of the page and in the **My Info** window that opens, select the virtual group from the **Virtual Group** drop-down list, and close the **My Info** window.
2. In the left navigation pane of the NVIDIA Licensing Portal dashboard, expand **LICENSE SERVERS** and click **LIST SERVERS**.
3. In the list of license servers on the **License Servers** page that opens, from the **Actions** menu for the license server, choose **Bind**.
4. In the **Bind Service Instance** pop-up window that opens, select the service instance to which you want to bind the license server and click **BIND**.
The **Bind Service Instance** pop-up window confirms that the license server has been bound to the service instance.

2.6. Installing a License Server on a DLS Instance

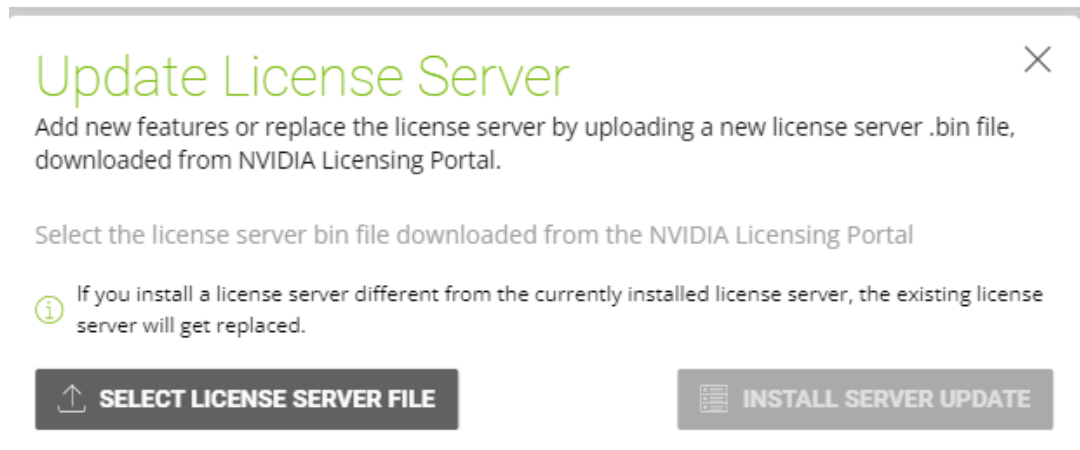
1. In the NVIDIA Licensing Portal, navigate to the organization or virtual group for which the license server was created.
 - a). If you are not already logged in, log in to the [NVIDIA Enterprise Application Hub](#) and click **NVIDIA LICENSING PORTAL** to go to the NVIDIA Licensing Portal.
 - b). **Optional:** If your assigned roles give you access to multiple virtual groups, click **View settings** at the top right of the page and in the **My Info** window that opens, select the virtual group from the **Virtual Group** drop-down list, and close the **My Info** window.
2. In the left navigation pane of the NVIDIA Licensing Portal dashboard, expand **LICENSE SERVER** and click **LIST SERVERS**.
3. In the list of license servers on the License Servers page that opens, click the name of the license server that you want to install.
4. In the **License Server Details** page that opens, from the **Actions** menu, choose **Download**.
5. In the **Download License File** window that opens, click **Download**.
A license server file that is named `license_mm-dd-yyyy-hh-mm-ss.bin` is downloaded.
6. If you are not already logged in, log in to the **NVIDIA Licensing** application at the IP address of the VM on which the DLS virtual appliance is installed.
After you log in, the information that is displayed on the **NVIDIA Licensing** dashboard depends on whether a license server has already been installed on the DLS virtual appliance.
 - ▶ If a license server has **not** been installed on the DLS virtual appliance, the **NVIDIA Licensing** dashboard displays a message asking if you want to install a license server.
 - ▶ Otherwise, the **NVIDIA Licensing** dashboard displays the **License Server Details** page for the installed license server.
7. Install or update the license server on the DLS virtual appliance.

Whether you install or update the license server depends on whether a license server has already been installed on the DLS virtual appliance.

- ▶ If a license server has **not** been installed on the DLS virtual appliance, on the **NVIDIA Licensing** dashboard, click **SELECT LICENSE SERVER FILE**.



- ▶ If a license server has already been installed on the DLS virtual appliance, update the license server.
 - From the **ACTIONS** menu for the license server, choose **Update server from NLP**.
 - In the **Update License Server** pop-up window that opens, click **SELECT LICENSE SERVER FILE**.



- In the file browser that opens, navigate to the folder that contains the license server file named `license_mm-dd-yyyy-hh-mm-ss.bin` that you downloaded and select the file.
- When asked if you want to install the selected file, click **INSTALL**.

NVIDIA Licensing dashboard is updated with the details of the license server that you installed.

2.7. Generating a Client Configuration Token for a DLS Instance

1. If you are not already logged in, log in to the **NVIDIA Licensing** application at the IP address of the VM on which the DLS instance resides.
2. In the left navigation pane, click **SERVICE INSTANCE**.
3. On the **Service Instance** page that opens, from the **Actions** menu for the DLS instance for which you want to generate a client configuration token, choose **Generate client configuration token**.

Service Instance Details
Manage the DLS service instance and customize to your environment

Example_DLS

Id: Type: DLS State: Registered Created: Jan 18, 2022 4:57 AM Modified: Jan 20, 2022 3:46 PM

Description: Example DLS to show features and procedures to configuring an on-premise NLS appliance.

High availability: Standalone [Configure high availability](#)

Primary Node Health

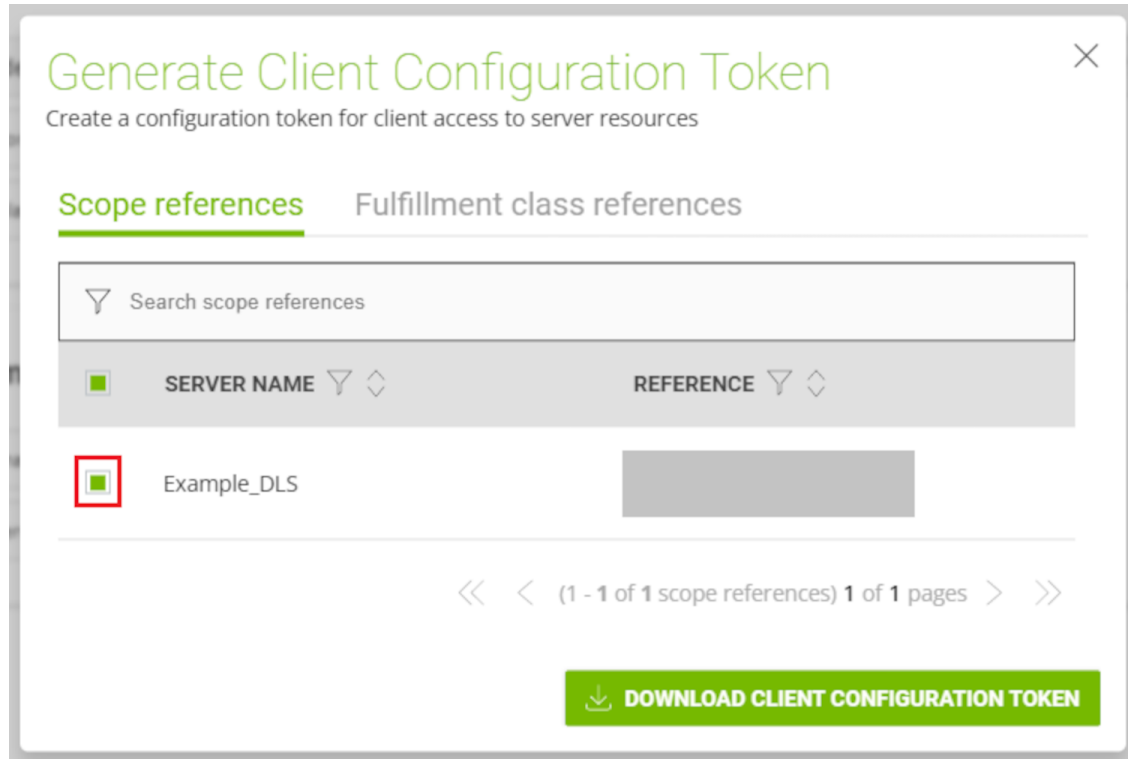
Domain name: IPv4 address: IPv6 address: not assigned

Critical services: Active [Restart](#) Other services: Active [Restart](#)

[CONFIGURE IP ADDRESS](#)

[ACTIONS](#)

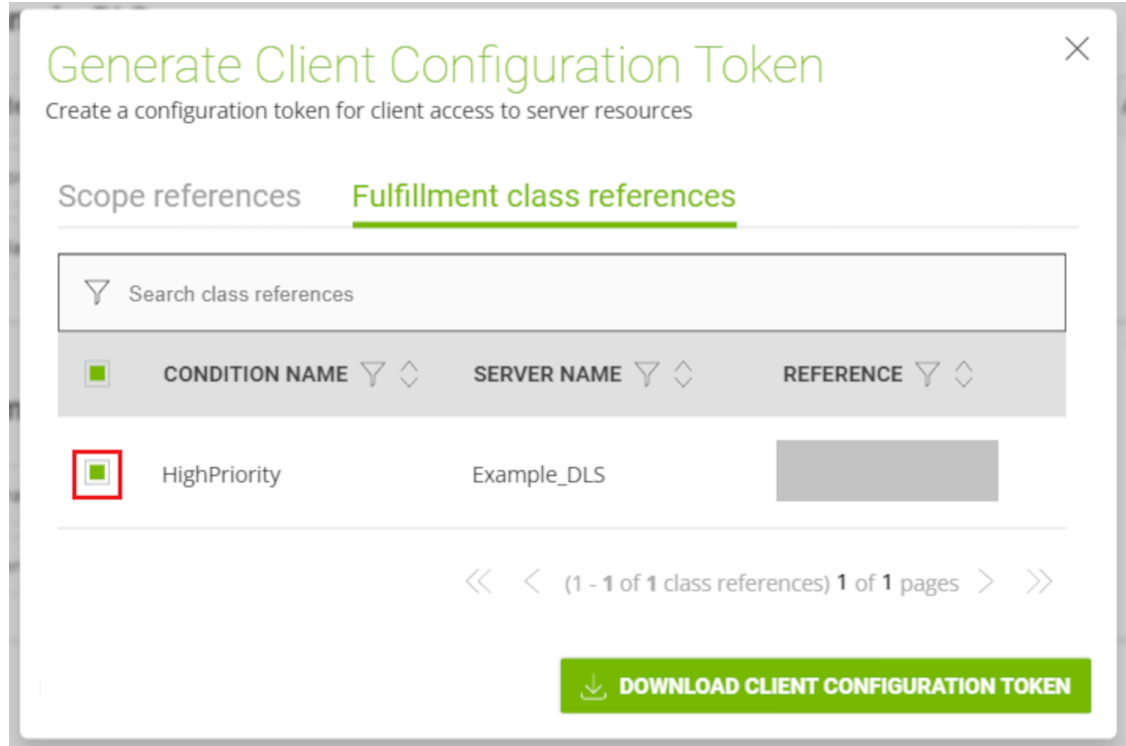
4. In the **Generate Client Configuration Token** pop-up window that opens, select the references that you want to include in the client configuration token.
 - a). Click the **Scope references** tab, and from the list of scope references, select the scope references that you want to include.



You must select **at least one** scope reference.

Each scope reference specifies the license server that will fulfil a license request.

- b). **Optional:** Click the **Fulfillment class references** tab, and from the list of fulfillment class references, select the fulfillment class references that you want to include.



Including fulfillment class references is optional.

- c). **Optional:** If you want the service instance, or each node in an HA cluster of instances, to be identified through its IP address, click the **Server address preferences** tab and select the address for the IP version that you want: **IPv6** or **IPv4**.

By default, a service instance, or each node in an HA cluster of instances, is identified through its fully qualified domain name.

d). **Optional:** In the **Expiration** section, select an expiration date for the client configuration token. If you do not select a date, the default token expiration time is 12 years.

e). Click **DOWNLOAD CLIENT CONFIGURATION TOKEN**.

A file named `client_configuration_token_mm-dd-yyyy-hh-mm-ss.tok` is saved to your default downloads folder.

After creating a client configuration token from a service instance, copy the client configuration token to each licensed client that you want to use the combination of license servers and fulfillment conditions specified in the token. For more information, see [Configuring a Licensed Client](#).

You can decouple the leasing port from the UI port for auth and lease operations. Once you have done so, you can block the UI port for the client VM.



Note: For backward compatibility, leasing operations will still be supported by the default HTTPS port (443) in the VM version.

- ▶ All UI and leasing operations will be supported on the default HTTPS port, 443.
- ▶ Only leasing operations will be supported on the leasing port, 8082.

Chapter 3. Configuring a Licensed Client

A client with a network connection obtains a license by leasing it from a NVIDIA License System service instance. The service instance serves the license to the client over the network from a pool of floating licenses obtained from the NVIDIA Licensing Portal. The license is returned to the service instance when the licensed client no longer requires the license.

The NVIDIA vGPU software graphics driver creates a default location in which to store the client configuration token on the client.

The process for configuring a licensed client is the same for CLS and DLS instances but depends on the OS that is running on the client.

3.1. Configuring a Licensed Client on Windows with Default Settings

Perform this task from the client.

1. Copy the client configuration token to the %SystemDrive%\Program Files\NVIDIA Corporation\vGPU Licensing\ClientConfigToken folder.
2. Restart the NvDisplayContainer service.


The NVIDIA service on the client should now automatically obtain a license from the CLS or DLS instance.

3.2. Configuring a Licensed Client on Linux with Default Settings

Perform this task from the client.

1. As root, open the file /etc/nvidia/gridd.conf in a plain-text editor, such as vi.

```
$ sudo vi /etc/nvidia/gridd.conf
```

 **Note:** You can create the `/etc/nvidia/gridd.conf` file by copying the supplied template file `/etc/nvidia/gridd.conf.template`.

2. Add the `FeatureType` configuration parameter to the file `/etc/nvidia/gridd.conf` on a new line as `FeatureType="value"`.

`value` depends on the type of the GPU assigned to the licensed client that you are configuring.

GPU Type	Value
NVIDIA vGPU	1. NVIDIA vGPU software automatically selects the correct type of license based on the vGPU type.
Physical GPU	The feature type of a GPU in pass-through mode or a bare-metal deployment: <ul style="list-style-type: none"> ▶ 0: NVIDIA Virtual Applications ▶ 2: NVIDIA RTX Virtual Workstation ▶ 4: NVIDIA Virtual Compute Server

This example shows how to configure a licensed Linux client for NVIDIA RTX Virtual Workstation.

```
# /etc/nvidia/gridd.conf.template - Configuration file for NVIDIA Grid Daemon
...
# Description: Set Feature to be enabled
# Data type: integer
# Possible values:
# 0 => for unlicensed state
# 1 => for NVIDIA vGPU
# 2 => for NVIDIA RTX Virtual Workstation
# 4 => for NVIDIA Virtual Compute Server
FeatureType=2
...
```

3. Copy the client configuration token to the `/etc/nvidia/ClientConfigToken` directory.
4. Ensure that the file access modes of the client configuration token allow the owner to read, write, and execute the token, and the group and others only to read the token.
 - a). Determine the current file access modes of the client configuration token.

```
# ls -l client-configuration-token-directory
```

- b). If necessary, change the mode of the client configuration token to 744.

```
# chmod 744 client-configuration-token-directory/client_configuration_token_*.tok
```

client-configuration-token-directory

The directory to which you copied the client configuration token in the previous step.

5. Save your changes to the `/etc/nvidia/gridd.conf` file and close the file.
6. Restart the `nvidia-gridd` service.

The NVIDIA service on the client should now automatically obtain a license from the CLS or DLS instance.

3.3. Verifying the NVIDIA vGPU Software License Status of a Licensed Client

After configuring a client with an NVIDIA vGPU software license, verify the license status by displaying the licensed product name and status.

To verify the license status of a licensed client, run `nvidia-smi` with the `-q` or `--query` option from the licensed client, **not** the hypervisor host. If the product is licensed, the expiration date is shown in the license status.

```
nvidia-smi -q
=====NVSMI LOG=====
Timestamp                : Wed Nov 23 10:52:59 2022
Driver Version           : 525.60.06
CUDA Version             : 12.0

Attached GPUs            : 2
GPU 00000000:02:03.0
  Product Name           :
  Product Brand          : NVIDIA RTX Virtual Workstation
  Product Architecture   : Ampere
  Display Mode           : Enabled
  Display Active         : Disabled
  Persistence Mode       : Enabled
  MIG Mode
    Current              : Disabled
    Pending              : Disabled
  Accounting Mode        : Disabled
  Accounting Mode Buffer Size : 4000
  Driver Model
    Current              : N/A
    Pending              : N/A
  Serial Number          : N/A
  GPU UUID               : GPU-ba5b1e9b-1dd3-11b2-be4f-98ef552f4216
  Minor Number           : 0
  VBIOS Version          : 00.00.00.00.00
  MultiGPU Board         : No
  Board ID               : 0x203
  Board Part Number      : N/A
  GPU Part Number        : 25B6-890-A1
  Module ID              : N/A
  Inforom Version
    Image Version        : N/A
    OEM Object           : N/A
    ECC Object           : N/A
    Power Management Object : N/A
  GPU Operation Mode
    Current              : N/A
    Pending              : N/A
  GSP Firmware Version   : N/A
  GPU Virtualization Mode
    Virtualization Mode : VGPU
    Host VGPU Mode      : N/A
vGPU Software Licensed Product
  Product Name       : NVIDIA RTX Virtual Workstation
  License Status    : Licensed (Expiry: 2022-11-23 10:41:16
GMT)
```



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