



NVIDIA License System

Release Notes

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Chapter 1. Release Notes

This document summarizes current status, information on supported platforms, and known issues with NVIDIA® License System release 3.3.1.

1.1. Updates in this Release

New Features in this Release

- ▶ The ability to add a from-email address in a DLS SMTP configuration.
- ▶ Security updates as listed in [Security Updates](#)
- ▶ Miscellaneous bug fixes as listed in [Resolved Issues](#)

1.2. Supported Platforms

1.2.1. Supported Hypervisors

For deployment in a virtual machine, the Delegated License Server (DLS) component of the NVIDIA License System is supplied as a virtual appliance. The virtual appliance must be installed on a supported hypervisor software release.

The following hypervisor software releases are supported:

- ▶ Citrix Hypervisor 8.2
- ▶ Linux Kernel-based Virtual Machine (KVM) hypervisors with one of the following QEMU releases:
 - ▶ QEMU 4.2.0
 - ▶ QEMU 2.12.0 (qemu-kvm-2.12.0-64.e18.2.27782638)
- ▶ Microsoft Windows Server with Hyper-V 2019 Datacenter edition
- ▶ Red Hat Enterprise Linux Kernel-based Virtual Machine (KVM) 9.2, 9.1, 9.0, and 8.8
- ▶ Red Hat Virtualization 4.3
- ▶ Ubuntu Hypervisor 22.04
- ▶ VMware vSphere Hypervisor (ESXi) 8.0.3, 8.0.2, 8.0.1, 8.0, 7.0.3, 7.0.2, and 7.0.1

1.2.2. Supported Container Orchestration Platforms

For deployment on a supported container orchestration platform, the Delegated License Server (DLS) component of the NVIDIA License System is supplied as a containerized software image.

The following container orchestration platform releases are supported:

- ▶ Docker 24.0.2 with Docker Compose 2.18.1
- ▶ Kubernetes 1.23.8
- ▶ Red Hat OpenShift Container Platform 4.10.67 with Kubernetes 1.23.17
- ▶ Podman 4.4.2 with Podman Compose 1.0.7
- ▶ VMware Tanzu Application Platform 1.1 with Kubernetes 1.23.6


1.2.3. Supported Operating Systems

For installation on a supported operating system, the Delegated License Server (DLS) component of the NVIDIA License System is supplied as an installable package. The package includes the containerization software and container images that are required to run the NVIDIA Licensing application on the operating system. The operating system can be running in a virtualized server environment on your choice of hypervisor or on a bare-metal server.

Any Red Hat Enterprise Linux 8 or 9 release that is supported by Red Hat is supported.

1.2.4. Licensed Client Support

NVIDIA License System supports specific releases of several NVIDIA software products as licensed clients.

Software Product	Supported Releases
NVIDIA® vGPU™ software graphics drivers	NVIDIA vGPU software starting with release 13.0 <div data-bbox="836 1432 1421 1612" style="background-color: #f0f0f0; padding: 5px; margin-top: 10px;">  Note: Support for node-locked licensing was introduced in NVIDIA vGPU software 15.0. It is not supported in earlier NVIDIA vGPU software releases. </div>

1.2.5. Web Browser Requirements

NVIDIA License System and NVIDIA Licensing Portal were tested with Google Chrome version 86.0.4240.111 (Official Build) (64-bit).

Chapter 2. Limitations of Containerized DLS Software Images

A container orchestration platform cannot control or restrict access to the OS on which the platform is running. Therefore, containerized DLS software images cannot support the features of VM-based DLS virtual appliances that rely on the ability of the appliance to control the underlying OS.

Containerized DLS software images do not support the following features, for which equivalent functionality is available through standard OS interfaces:

- ▶ Log archive settings
- ▶ NTP configuration
- ▶ Static IP address configuration
- ▶ DLS diagnostics user configuration
- ▶ Disk expansion

Because a container orchestration platform cannot control the underlying OS, the following limitations also apply to containerized DLS software images:

- ▶ Online migration from a VM-based DLS virtual appliance to a containerized DLS software image is **not** supported because the destination containerized DLS software image retains its IP address even after data migration.

Instead, you must use offline migration when migrating from a VM-based DLS virtual appliance to a containerized DLS software image.

- ▶ When the secondary node is removed from an HA cluster, the containerized DLS software image that hosts the node is **not** shut down.

Instead, you must shut down the DLS software container manually.

Chapter 3. Security Updates

To address vulnerabilities that were discovered through security scans of the DLS, new releases of third-party software components are included in the delegated license service (DLS) component of NVIDIA License System.

Component	Release	Scope	Third-Party Security Information
PostgreSQL	15.7	All DLS appliances	PostgreSQL Security Information
Python	3.11.9	All DLS appliances	Python Security Information
Nginx	1.25.5	All DLS appliances	Nginx Security Information

Chapter 4. Resolved Issues

Only resolved issues that have been previously noted as known issues or had a noticeable user impact are listed. The summary and description for each resolved issue indicate the effect of the issue on NVIDIA License System **before the issue was resolved**.

Bug ID	Summary
4618123	Default deployment files for deploying DLS Appliance on Openshift.
4589517	Enable DLS containers to run on operating system (Oracle Linux) that do not have kernel/grub settings for IPv6 enabled.
4492523	Externalize/Parameterize the ports that were previously reserved by DLS Appliance container.
4581044	DLS Appliance In-place upgrade stalls due to validation errors.
4432914.	The EVENTS page on the DLS Appliance portal times out with the error, "The Request timed out. The server did not respond in time from the upstream server."
4637832	Security scans on the DLS container reveal that the DLS appliance is affected by security vulnerability linked to glibc (libc6). This is fixed by upgrading the corresponding package to libc6-2.31-0ubuntu9.16. DLS Upgrade paths : 1. Portal Assisted Upgrade 2. Alternatively – use Updating the Ubuntu GPL/LGPL v3 Licensed OSS Libraries Within the DLS Virtual Appliance for package update instructions.

Chapter 5. Known Issues

5.1. NTP tab is not refreshed on DLS UI once it is configured

Description

NTP tab is not refreshed on DLS UI once it is configured. User has to refresh the browser page to see the updated value.

Workaround

None

Status

Open

Ref.

4547214

5.2. VM is renewing license from a fresh DLS

Description

For HA based Portal Assisted Upgrade, clients could see some transient failures when the nodes are being set up after Acknowledging Upgrade on the upgraded node.

Workaround

These transient failures would be resolved once HA cluster is restored after Upgrade process is complete. Applicable for HA based Portal Assisted Upgrade in DLS version 3.2

Status

Open

Ref.

4534808

5.4. Lease Borrow Failing post Upgrade to DLS 3.3- BadRequestError(Invalid origin ref)

Description

Once the user upgrades to DLS 3.3 and prior to upgrade if the older DLS instance had acquired a lease and post upgrade if the client is restarted - then There is a Failures to acquire a lease due to Error: Invalid origin ref).

This issue affects **only** licenses checked out from DLS instances while the **Offline Lease** option is enabled. It does **not** affect any licenses checked out from CLS instances or licenses checked out from DLS instances after the **Offline Lease** option is disabled.



Note:

WAR - Reboot of the vGPU Client or the NV Display Container LS Service allows the VM to acquire a license post upgrade.

Status

Open

Ref.

4550672

5.5. Windows clients fail to return leases to the upgraded DLS node

Description

Windows clients cannot return leases to the upgraded DLS node. The failure happens only if the first operation performed by a Windows client is returning leases to an upgraded DLS node. Currently, the DLS upgrade operation does not maintain the auth tokens issued by the existing DLS node. As a result, when the client provides the auth token that was issued before the DLS upgrade, the upgraded node does not acknowledge that token and issues the following error message:

```
Failed to return license to dhcp-10-24-129-182.nvidia.com (Error: invalid token: Signature verification failed.)
```

After a reboot of the Windows client, the lease that was not returned previously will be assigned to the client. This lease will be returned to the server if the client initiates a lease return after at least one successful lease renewal.

If the virtual machine is shut down, you can manually release the lease by choosing the **Force Release** option using the License Server GUI or wait until the license expires.

Status

Open

Ref.

4092741

5.6. Service instances might be unable to reclaim unused licenses on clients with an invalid or empty MAC address

Description

When a client with an invalid or empty MAC address requests a license, the service instance grants the request and locates the client through the client's IP address. In an environment where the clients are VM instances with reused MAC addresses, the service instance might have granted licenses to multiple clients with invalid or empty MAC addresses. If a client in such an environment is abruptly shut down and cannot return the

license, the service instance cannot locate the VM to reclaim the unused license on it. The license remains checked out until it expires, when the service instance can reclaim it.

Workaround

Forcibly release licenses acquired by client VMs with invalid or empty MAC addresses that have greater than usual longevity.

Status

Open

Ref.

4163388

Appendix A. Updating the Ubuntu GPL/LGPL v3 Licensed OSS Libraries Within the DLS Virtual Appliance

To comply with the terms of the GPL/LGPL v3 license under which the GPL/LGPL v3 licensed Open Source Software (OSS) libraries within the DLS virtual appliance are released, the `rsu_admin` user has the elevated privileges required to update and upgrade these libraries.



CAUTION: Any changes to the Ubuntu GPL/LGPL v3 licensed OSS libraries within the DLS virtual appliance might impair the performance of the DLS virtual appliance or prevent it from functioning as required. If you make any changes to these libraries, the affected DLS instance is no longer eligible for support from NVIDIA. It is **your** responsibility to ensure that the DLS instance continues to perform and function as required.

Ensure that the `sudo` DLS user account `rsu_admin` has been created.

1. Log in as the `rsu_admin` user to the VM that hosts the DLS virtual appliance.
2. Edit the `/etc/apt/sources.list`.

a). Add this repository list:

```
$ sudo nano /etc/apt/sources.list
deb http://archive.ubuntu.com/ubuntu/ jammy main universe restricted
multiverse
deb-src http://archive.ubuntu.com/ubuntu/ jammy main universe restricted
multiverse
deb http://archive.ubuntu.com/ubuntu/ jammy-updates main universe restricted
multiverse
deb-src http://archive.ubuntu.com/ubuntu/ jammy-updates main universe
restricted multiverse
deb http://security.ubuntu.com/ubuntu jammy-security main universe restricted
multiverse
deb-src http://security.ubuntu.com/ubuntu jammy-security main universe
restricted multiverse
```

b). Update the apt list.

```
$ sudo apt update
```

3. Determine whether your existing network configuration allows the DLS virtual appliance to reach the Ubuntu package repositories.

For example, download information from all configured sources about the latest versions of the packages.

```
$ sudo apt update
```

4. If the DLS virtual appliance cannot reach the Ubuntu package repositories, modify your network configuration to allow access to these repositories.
 - a). Ensure that your DNS server has the entries required to resolve the domain names of the Ubuntu package repositories.
 - b). Delete the symbolic link `/etc/resolv.conf`.


```
$ sudo rm -f /etc/resolv.conf
```
 - c). Copy the default `resolv.conf` file at `/run/NetworkManager` to `/etc/resolv.conf`.


```
$ sudo cp /run/NetworkManager/no-stub-resolv.conf /etc/resolv.conf
```
5. Use the Advanced Packaging Tool (APT) of the Ubuntu OS to check for and install any available updates to the Ubuntu GPL/LGPL v3 licensed OSS libraries.
6. After installing the updates, restore your original network configuration.
 - a). Delete the `/etc/resolv.conf` file that you copied earlier.


```
$ sudo rm -f /etc/resolv.conf
```
 - b). Re-create the symbolic link `/etc/resolv.conf`.


```
$ sudo ln -s /run/NetworkManager/no-stub-resolv.conf /etc/resolv.conf
```
7. Once the package upgrade is complete, remove `sources.list` created in Step 2.


```
$ sudo rm /etc/apt/sources.list
```

The file `/var/dls/sudouser` is created to indicate that the Ubuntu GPL/LGPL v3 licensed OSS libraries within the DLS virtual appliance have been updated or upgraded. If the DLS virtual appliance is hosting a node in an HA cluster, this file is automatically copied to the other node in the cluster.

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