



# NVIDIA DGX OS 4 Server

## Software Release Notes

# Table of Contents

Chapter 1. Abstract.....	1
Chapter 2. Rotating the GPG Keys.....	2
Chapter 3. DGX OS Server Releases and Versioning.....	3
Chapter 4. Current NVIDIA DGX OS 4 Server Software.....	5
Chapter 5. Deprecated NVIDIA DGX OS Server Releases.....	11
Chapter 6. Third Party License Notice.....	14

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# Chapter 1. Abstract

The NVIDIA® DGX™ servers come with a DGX OS software image. This base operating system on DGX OS servers allows customers to use their own on-site scheduling and management software to run GPU-accelerated applications in Docker containers provided by NVIDIA and in customized Docker containers.

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## Chapter 2. Rotating the GPG Keys

NVIDIA constantly evaluates and improves security implementations. As part of these improvements, we are rolling out changes to harden the security and reliability of our repositories. These changes require rotating the GPG keys that are used to sign the metadata and packages in those repositories. This section provides information about how to rotate the GPG keys on your system.

1. Download the new repository setup packages.

```
wget https://international.download.nvidia.com/dgx/repos/bionic/pool/multiverse/d/dgx-repo/dgx-repo_1.0-5_amd64.deb
wget https://international.download.nvidia.com/dgx/repos/bionic/pool/multiverse/n/nvidia-repo-keys/nvidia-repo-keys_22.04-1_all.deb
```

2. Directly install the `.deb` packages, which skips the GPG check performed in `apt`.

If prompted, ensure that you accept the maintainer's version for all files.

```
$ sudo dpkg --force-confnew -i ./nvidia-repo-keys_22.04-1_all.deb ./dgx-repo_1.0-5_amd64.deb
```

3. Manually revoke the previous DGX and CUDA GPG keys.

```
$ sudo apt-key del 629C85F2
$ sudo apt-key del 7FA2AF80
```

4. Update optional repositories that were previously enabled.

```
for x in $(find /etc/apt/sources.list.d -name "dgx*.list"); do if ! grep -q "signed-by" $x; then sudo sed -i 's|^deb |deb [arch=amd64 signed-by=/usr/share/keyrings/dgx_debian_prod.gpg] |' $x; fi; done
```

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# Chapter 3. DGX OS Server Releases and Versioning

This information helps you understand the DGX OS Server release numbering convention and your options to upgrade your DGX OS Server software.

## DGX OS Server Releases

DGX OS is a customized Linux distribution that is based on Ubuntu Linux. It includes platform-specific configurations, diagnostic and monitoring tools, and the drivers that are required to provide the stable, tested, and supported OS to run AI, machine learning, and analytics applications on DGX systems.

DGX OS is released twice a year, typically around February and August, for two years after the first release. Updates are provided between releases and thereafter for the entire support duration.

### Release Versions

The DGX OS release numbering convention is MAJOR.MINOR, and it defines the following types of releases:

- ▶ **Major releases** are typically based on Ubuntu releases, which include new kernel versions and new features that are not always backwards compatible.

For example:

- ▶ DGX OS 5.x releases are based on Ubuntu 20.04.
- ▶ DGX OS 4.x is based on Ubuntu 18.04.
- ▶ **Minor releases** include mostly new NVIDIA features and accumulated bug fixes and security updates.

These releases are incremental and always include all previous software changes.

- ▶ In DGX OS 4 and earlier, minor releases were also typically aligned with NVIDIA Graphics Drivers for Linux releases.
- ▶ In DGX OS 5, you now have the option to install newer NVIDIA Graphic Drivers independently of the DGX OS release.

## DGX OS Release Mechanisms

This section provides information about the DGX OS release mechanisms that are available to install or upgrade to the latest version of the DGX OS.

### The ISO Image

DGX OS is released as an ISO image that includes the necessary packages and an autonomous installer. Updated versions of the ISO image are also released that:

- ▶ Provide bug fixes and security mitigations.
- ▶ Improve the installation experience.
- ▶ Provide hardware configuration support.

You should always use the latest ISO image, except when you need to restore the system to an earlier version.



**WARNING:** This image allows you to install or reimage a DGX system to restore the system to a default state, but the process erases all of the changes that you applied to the OS.

### The Linux Software Repositories

Upgrades to DGX OS are provided through the software repositories. Software repositories are storage locations from which your system retrieves and installs OS updates and applications. The repositories used by DGX OS are hosted by Canonical for the Ubuntu OS and NVIDIA for DGX specific software and other NVIDIA software. Each repository is a collection of software packages that are intended to install additional software and to update the software on DGX systems.

New versions of these packages, which contain bug fixes and security updates, provide an update to DGX OS releases. The repositories are also updated to include hardware enablement, which might add support for a new system or a new hardware component, such as a network card or disk drive. This update does not affect existing hardware configurations.

System upgrades are cumulative, which means that your systems will **always** receive the **latest version** of all of the updated software components. You cannot select which upgrades to make or limit upgrades to the non-latest DGX OS 5.x release.



**Important:** We recommend that you **do not** update **only** individual components.

**Before** you update a system, refer to the [DGX OS Software Release Notes](#) for a list of the available updates. For more information on displaying available updates and upgrade instructions, refer to the [DGX OS 5 User Guide](#).

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# Chapter 4. Current NVIDIA DGX OS 4 Server Software

This section lists the NVIDIA® DGX™ OS 4 Server software images and updates that have been released for the NVIDIA DGX-1, and DGX-2 systems. To determine the version of the DGX OS Server software on your system, enter the following command.

```
$ grep VERSION /etc/dgx-release
```

This will show the version installed on the system from the ISO image (DGX\_SWBUILD\_VERSION) and any subsequent updates performed on the system (DGX\_OTA\_VERSION). The latest version listed is the currently installed version.

## Release 4.13 (DGX-1, DGX-2)



**ATTENTION:** If your system is running a version **earlier** than DGX OS 4.12, you need to update the keys on the system. Refer to [Rotating the GPG Key](#) for more information about how to rotate the keys

### ► Highlights

- Updated the NVIDIA Release 450 GPU driver to [450.191.01](#).
- Updated the NVSM to 20.09.37

### ► Initial release: **4.13.0**

See the following for additional changes, update instructions, and known issues.

[DGX OS Server 4.13 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.13-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.13-relnotes-update-guide.pdf)

## Release 4.12 (DGX-1, DGX-2)



**Important:** In DGX OS 4.12, the GPG keys that are used to sign the metadata and packages in those repositories need to be rotated. Refer to [Rotating the GPG Keys](#) for more information.

None of the component versions have changed in DGX OS 4.12.

## Release 4.11 (DGX-1, DGX-2 only)

- ▶ Highlights
  - ▶ Updated the NVIDIA Release 450 GPU driver to [450.172.01](#)
- ▶ Initial release: **4.11.0**

See the following for additional changes, update instructions, and known issues.

[DGX OS Server 4.11 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.11-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.11-relnotes-update-guide.pdf)

## Release 4.10 (DGX-1, DGX-2 only)

- ▶ Highlights
  - ▶ Updated the NVIDIA Release 418 GPU driver to [418.226.00](#).
  - ▶ Updated the NVIDIA Release 450 GPU driver to [450.156.00](#)
- ▶ Initial release: **4.10.0**

See the following for additional changes, update instructions, and known issues.

[DGX OS Server 4.10 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.10-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.10-relnotes-update-guide.pdf)

## Release 4.9 (DGX-1, DGX-2 only)

- ▶ Highlights
  - ▶ Updated the NVIDIA Release 418 GPU driver to [418.211.00](#).
  - ▶ Updated the NVIDIA Release 450 GPU driver to [450.142.00](#)
  - ▶ Improved process for updating the ConnectX card firmware.

If updating from DGX OS 4.8 or later, the firmware for all cards are now updated in parallel instead of one at a time, significantly reducing the time to update all cards.

- ▶ Initial release: **4.9.0**

See the following for additional changes, update instructions, and known issues.

[DGX OS Server 4.9 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.9-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.9-relnotes-update-guide.pdf)

## Release 4.8 (DGX-1, DGX-2 only)

- ▶ Highlights
  - ▶ Updated the NVIDIA Release 418 GPU driver to [418.197.02](#).
  - ▶ Updated the NVIDIA Release 450 GPU driver to [450.119.04](#)
- ▶ Initial release: **4.8.0**



See the following for update instructions, additional information, and known issues.

[DGX OS Server 4.8 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.8-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.8-relnotes-update-guide.pdf)

### Release 4.7 (DGX-1, DGX-2 only)

- ▶ Highlights
  - ▶ Updated the NVIDIA Release 418 GPU driver to [418.181.07](#).
  - ▶ Updated the NVIDIA Release 450 GPU driver to [450.102.04](#)
  - ▶ Updated NVIDIA KVM software
- ▶ Initial release: **4.7.0**

See the following for update instructions, additional information, and known issues.

[DGX OS Server 4.7 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.7-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.7-relnotes-update-guide.pdf)

### Release 4.6 (DGX-1, DGX-2 only)

- ▶ Highlights
  - ▶ Updated the NVIDIA Release 418 GPU driver to [418.165.02](#).
  - ▶ Updated the NVIDIA Release 450 GPU driver to [450.80.02](#)
  - ▶ Updated the Mellanox OFED driver to 4.9
- ▶ Initial release: **4.6.0**

See the following for update instructions, additional information, and known issues.

[DGX OS Server 4.6 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.6-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.6-relnotes-update-guide.pdf)

### Release 4.5 (DGX-1, DGX-2 only)



**Important:** Updates to Release 4.5 are no longer available. Attempts to update to Release 4.5 will result in upgrading your DGX Server software to the latest release of DGX OS Server 4.

- ▶ Highlights
  - ▶ Updated NVIDIA GPU driver to [418.152.00](#).
  - ▶ Added optional repository to install the NVIDIA Release 450 GPU driver
  - ▶ Updated to Ubuntu 18.04.4 LTS
- ▶ Initial release: **4.5.0**

See the following for update instructions, additional information, and known issues.

[DGX OS Server 4.5 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.5-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.5-relnotes-update-guide.pdf)

## Release 4.4 (DGX-1, DGX-2 only)



**Important:** Updates to Release 4.4 are no longer available. Attempts to update to Release 4.4 will result in upgrading your DGX Server software to the latest release of DGX OS Server 4.

- ▶ Highlights
  - ▶ Updated NVIDIA GPU driver to [418.126.02](#).
  - ▶ Updated NVSM software to version [20.01.15](#)
  - ▶ Added the ability to disable and re-enable CPU mitigations.
  - ▶ Added support for PXE boot.
  - ▶ Added support for Mellanox CX6 cards on DGX-1 (Tesla V100)
- ▶ Latest patch update: 4.4.1
- ▶ See the following for update instructions, additional information, and known issues.
  - ▶ [DGX OS Server 4.4 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.4-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.4-relnotes-update-guide.pdf)

## Release 4.3 (DGX-1, DGX-2 only)



**Important:** Updates to Release 4.3 are no longer available. Attempts to update to Release 4.3 will result in upgrading your DGX Server software to the latest release of DGX OS Server 4.

- ▶ Highlights
  - ▶ Updated NVIDIA GPU driver to 418.116.00.
  - ▶ Updated NVSM software to version 19.08.6
  - ▶ Updated DCGM software to version 1.7.2
  - ▶ Docker updated to version 19.03.4-ce
- ▶ See the following for update instructions, additional information, and known issues.
  - ▶ [DGX OS Server 4.3 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.3-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.3-relnotes-update-guide.pdf)

## Release 4.2 (DGX-1, DGX-2 only)



**Important:** Updates to Release 4.2 are no longer available. Attempts to update to Release 4.2 will result in upgrading your DGX Server software to the latest release of DGX OS Server 4.

- ▶ Highlights

- ▶ Updated NVSM software to version 19.08
- ▶ Docker update to version 19.03-ce
- ▶ MLNX\_OFED 4.6
- ▶ See the following for update instructions, additional information, and known issues.
  - ▶ [DGX OS Server 4.2 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.2-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.2-relnotes-update-guide.pdf)

## Release 4.1 (DGX-1, DGX-2 only)



**Important:** Updates to Release 4.1 are no longer available. Attempts to update to Release 4.1 will result in upgrading your DGX Server software to the latest release of DGX OS Server 4.

- ▶ Highlights
  - ▶ NVIDIA GPU Driver Release 418
    - ▶ Supports CUDA 10.1
- ▶ Latest patch update: 4.1.1
- ▶ See the following for update instructions, additional information, and known issues.
  - ▶ [DGX OS Server 4.1 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.1-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.1-relnotes-update-guide.pdf)

## Release 4.0 (DGX-1, DGX-2 only)



**Important:** Updates to Release 4.0 are no longer available. Attempts to update to Release 4.0 will result in upgrading your DGX Server software to the latest release of DGX OS Server 4.

- ▶ Highlights
  - ▶ First release to support the NVIDIA DGX-2 System
  - ▶ Ubuntu 18.04 LTS
  - ▶ NVIDIA GPU Driver Release 410
    - ▶ Supports CUDA 10.0
  - ▶ Docker CE and the NVIDIA Container Runtime for Docker are pre-installed, and the docker daemon automatically launched.
  - ▶ New NVIDIA System Management (NVSM) health monitoring software framework
    - Replaces `nvsysinfo` and `nvhealth`.
- ▶ See the following for additional information and known issues for the latest version.
  - ▶ [DGX OS Server v4.0.7 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.0.7-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.0.7-relnotes-update-guide.pdf)

- ▶ [DGX OS Server v4.0.6 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.0.6-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.0.6-relnotes-update-guide.pdf)
- ▶ [DGX OS Server v4.0.5 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.0.5-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.0.5-relnotes-update-guide.pdf)
- ▶ [DGX OS Server v4.0.4 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.0.4-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.0.4-relnotes-update-guide.pdf)
- ▶ [DGX OS Server v4.0.3 Release Notes v03 \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.0.3-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.0.3-relnotes-update-guide.pdf) (DGX-2 System only)
- ▶ [DGX OS Server v4.0.2 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.0.2-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.0.2-relnotes-update-guide.pdf) (DGX-2 System only)

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# Chapter 5. Deprecating NVIDIA DGX OS Server Releases

This section lists the NVIDIA® DGX™ OS Server software images and updates that have been deprecated.

## Release 4.99 (DGX A100 Only)

- ▶ Highlights
  - ▶ Supports the NVIDIA DGX A100 server only.
  - ▶ Updated NVIDIA GPU driver to Release 450.
- ▶ Latest update: **4.99.11**

See the following for update instructions, additional information, and known issues.

[DGX OS Server 4.99.x Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.99-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-4.99-relnotes-update-guide.pdf)

## Release 3.1

### ▶ End of Support Notice

NVIDIA has announced End of Support for DGX OS Server 3, effective September 30, 2019. DGX OS Server 3.1.8 is the last DGX OS Server 3 release. For more information, see [DGX OS Server 3, DGX OS Desktop 3](#) (requires login to [NVIDIA Enterprise Support](#)).

- ▶ Highlights
  - ▶ Ubuntu 16.04 LTS
    - ▶ Initialization daemon changed from **Upstart** to **systemd**.
    - ▶ Updated network interface naming policy.

Policy now uses predictable names, rather than the native naming scheme used in previous releases. The first and second Ethernet interfaces, enumerated as em1 and em2 in previous releases, will now enumerate as enp1s0f0 and enp1s0f1 respectively.
  - ▶ NVIDIA GPU Driver Release 384

- ▶ Supports the NVIDIA Tesla™ V100 GPUs.
- ▶ Supports CUDA 9.0 .
- ▶ CUDA drivers and diagnostic packages updated to Release 384.
- ▶ Mellanox drivers updated to 4.0.
- ▶ Docker CE and nvidia-docker are pre-installed, and the docker daemon automatically launched.
- ▶ See the following for additional information, known issues, and update instructions for specific versions.
  - ▶ [DGX OS Server v3.1.8 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-3.1.8-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-3.1.8-relnotes-update-guide.pdf)
  - ▶ [DGX OS Server v3.1.7 Release Notes \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-3.1.7-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-3.1.7-relnotes-update-guide.pdf)
  - ▶ [DGX OS Server v3.1.6 \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-3.1.6-relnotes-update-guide\\_v01.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-3.1.6-relnotes-update-guide_v01.pdf) Release Notes
  - ▶ [DGX OS Server v3.1.4 \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-3.1.4-relnotes-update-guide\\_v03.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-3.1.4-relnotes-update-guide_v03.pdf) Release Notes
  - ▶ [DGX OS Server v3.1.2 \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-3.1.2-relnotes-install-guide\\_v04.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-3.1.2-relnotes-install-guide_v04.pdf) Release Notes
  - ▶ [DGX OS Server v3.1.1 \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-3.1.1-relnotes-install-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-3.1.1-relnotes-install-guide.pdf) Release Notes

## Release 2.1

### ▶ **End of Support Notice**

NVIDIA will discontinue support for DGX OS Server 2.1 effective December 31, 2018. After this date, NVIDIA will no longer provide software updates for this release. You may need to upgrade your DGX-1 systems to a supported release to address issues or security vulnerabilities.

Evaluate your installation to determine update needs and strategy. Systems can be updated now to DGX OS Server 3.1 (which includes Ubuntu 16.04), or updated later to update to a future software release that includes Ubuntu 18.04.

### ▶ Highlights

- ▶ Ubuntu 14.04 LTS
  - Updates installed packages with the latest versions available at the time of update.
- ▶ NVIDIA GPU Driver Release 384
  - ▶ Supports CUDA 9.0
- ▶ CUDA drivers and diagnostic packages updated to Release 384.
- ▶ CUDA Toolkit (if already installed) will get updated to 9.0.176.

- ▶ See the following for additional information and update instructions for specific versions.
  - ▶ [DGX OS Server v2.1.4 Release Notes v02 \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-2.1.4-relnotes-update-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-2.1.4-relnotes-update-guide.pdf)
  - ▶ [DGX OS Server v2.1.3 \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-2.1.3-relnotes-update-guide\\_v01.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-2.1.3-relnotes-update-guide_v01.pdf) Release Notes
  - ▶ [DGX OS Server v2.1.2 \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-2.1.2-relnotes-update-guide\\_v02.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-2.1.2-relnotes-update-guide_v02.pdf) Release Notes
  - ▶ [DGX OS Server v2.1.1 \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-2.1.1-relnotes-upgrade-guide\\_v02.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-2.1.1-relnotes-upgrade-guide_v02.pdf) Release Notes

## Release 2.0

- ▶ Highlights
  - ▶ Ubuntu 14.04 LTS
  - ▶ NVIDIA GPU Driver Release 375
- ▶ End of Support Notice

NVIDIA will discontinue support for DGX OS Server 2.0 effective December 31, 2018. After this date, NVIDIA will no longer provide software updates for this release. You may need to upgrade your DGX-1 systems to a supported release to address issues or security vulnerabilities.

Evaluate your installation to determine update needs and strategy. Systems can be updated now to DGX OS Server 3.1 (which includes Ubuntu 16.04), or updated later to update to a future software release that includes Ubuntu 18.04.

- ▶ See the following for additional information and update instructions for specific versions.
  - ▶ [DGX OS Server v2.0.6 \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-2.0.6-relnotes-upgrade-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-2.0.6-relnotes-upgrade-guide.pdf) Release Notes
  - ▶ [DGX OS Server v2.0.4 \(http://docs.nvidia.com/dgx/pdf/DGX-OS-server-2.0.4-relnotes-upgrade-guide.pdf\)](http://docs.nvidia.com/dgx/pdf/DGX-OS-server-2.0.4-relnotes-upgrade-guide.pdf) Release Notes

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## Chapter 6. Third Party License Notice

This NVIDIA product contains third party software that is being made available to you under their respective open source software licenses. Some of those licenses also require specific legal information to be included in the product. This section provides such information.

### mscli

The msecli utility (<https://www.micron.com/products/solid-state-storage/storage-executive-software>) is provided under the following terms:

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