Backing up and upgrading Cumulus Linux

Backing up and restoring switch configurations and upgrading the switch image version

Lenovo

Backing up configuration files

You can back up and restore the configuration file with NVUE only if you used NVUE commands to configure the switch you want to upgrade.
The location of configuration data is essential for upgrades, migrations, and backups. As with other Linux distributions, the `/etc` directory is the primary location for all configuration data in Cumulus Linux. Click the buttons to see the files you need to back up and migrate to a new release.

Network configuration files | **Commonly used files** | **Never migrate files**

File Name and Location	Description
`/etc/frr/`	Routing application (responsible for BGP and OSPF)
`/etc/hostname`	Configuration file for the hostname of the switch
`/etc/network/`	Network configuration files, most notably `/etc/network/interfaces` and `/etc/network/interfaces.d/`
`/etc/resolv.conf`	DNS resolution
`/etc/hosts`	Configuration file for the hostname of the switch
`/etc/cumulus/acl/*`	Net filter configuration
`/etc/cumulus/control-`	Configuration for control plane policers

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`/etc/cumulus/control-plane/policers.conf`	Configuration for control plane policers
`/etc/cumulus/datapath/qos/qos_features.conf`	QoS configuration **Note:** In Cumulus Linux version 5.0 and later, default ECN configuration parameters start with `default_ecn_red_conf` instead of `default_ecn_conf`
`/etc/mlx/datapath/qos/qos_infra.conf`	QoS configuration
`/etc/mlx/datapath/tcam_profile.conf`	Configuration for the forwarding table profiles
`/etc/cumulus/datapath/traffic.conf`	Configuration for the forwarding table profiles
`/etc/cumulus/ports.conf`	Breakout cable configuration file

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`.conf`	**Note:** In Cumulus Linux version 5.6 and later, default ECN configuration parameters start with `default_ecn_red_conf` instead of `default_ecn_conf`
`/etc/mlx/datapath/qos/qos_infra.conf`	QoS configuration
`/etc/mlx/datapath/tcam_profile.conf`	Configuration for the forwarding table profiles
`/etc/cumulus/datapath/traffic.conf`	Configuration for the forwarding table profiles
`/etc/cumulus/ports.conf`	Breakout cable configuration file
`/etc/cumulus/switchd.conf`	`switchd` configuration
`/etc/cumulus/switchd.d/qos.conf`	QoS configuration

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File Name and Location	Description
/etc/motd	Message of the day
/etc/passwd	User account information
/etc/shadow	Secure user account information
/etc/group	Defines user groups on the switch
/etc/init/lldpd.conf	Link Layer Discover Protocol (LLDP) daemon configuration
/etc/lldpd.d/	Configuration directory for lldpd
/etc/nsswitch.conf	Name Service Switch (NSS) configuration file
/etc/ssh/	SSH configuration files

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/etc/shadow	Secure user account information
/etc/group	Defines user groups on the switch
/etc/init/lldpd.conf	Link Layer Discover Protocol (LLDP) daemon configuration
/etc/lldpd.d/	Configuration directory for lldpd
/etc/nsswitch.conf	Name Service Switch (NSS) configuration file
/etc/ssh/	SSH configuration files
/etc/sudoers, /etc/sudoers.d	Best practice is to place changes in /etc/sudoers.d/ instead of /etc/sudoers Changes in the /etc/sudoers.d/ directory are not lost during an upgrade

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File Name and Location	Description
`/etc/mlx/`	Per-platform hardware configuration directory, created on first boot – do not copy
`/etc/default/clagd`	Created and managed by `ifupdown2` – do not copy
`/etc/default/grub`	Grub init table – do not modify manually.
`/etc/default/hwclock`	Platform hardware-specific file – created during first boot – do not copy
`/etc/init`	Platform initialization files – do not copy
`/etc/init.d/`	Platform initialization files – do not copy
`/etc/fstab`	Static information on filesystem – do not copy

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/etc/fstab	Static information on filesystem – do not copy
/etc/image-release	System version data – do not copy
/etc/os-release	System version data – do not copy
/etc/lsb-release	System version data – do not copy
/etc/lvm/archive	Filesystem files – do not copy
/etc/lvm/backup	Filesystem files – do not copy
/etc/modules	Created during first boot – do not copy
/etc/modules-load.d/	Created during first boot – do not copy

Using NVUE to back up and restore the configuration

With Cumulus Linux version 5.0 and later, work through the following procedure to back up and restore the configuration:

1. Run the `nv config show -o commands > backup.config` command to save the commands to the `backup.config` file.
   ```
   cumulus@switch:~$ nv config show -o commands > backup.config
   ```
2. Copy the `backup.config` file off the switch to a different location.
3. After the upgrade is complete, restore the configuration. Copy the `backup.config` file to the switch, and then run the `source backup.config` command to run all the commands in the file.
4. Verify the configuration on the switch, and then run the `nv config save` command to save the configuration to the `/etc/nvue.d/startup.yaml` file.

Upgrading Cumulus Linux

The following two methods can be used to upgrade Cumulus Linux:

- Install a Cumulus Linux image of the new release.
  - From Cumulus Linux

```
cumulus@switch:~$ sudo onie-install -a -i
http://10.0.1.251/path/to/cumulus-install-x86_64.bin
```

  - From ONIE

```
ONIE:/ #onie-nos-install http://10.0.1.251/path/to/cumulus-
 install-x86_64.bin
```

- Upgrade only the changed packages using the `sudo -E apt-get update` and `sudo -E apt-get upgrade` commands.

Use the `sudo -E apt-get update` and `sudo -E apt-get upgrade` commands to run a package upgrade if you are upgrading from Cumulus Linux version 5.0.0 to a later 5.x release.

The switch should be restarted after an installation or upgrade.

Note: For more information about Installing a New Cumulus Linux Image, refer to the NVIDIA DOCS HUB.