



CHAPTER 10

Working with Device Configurations

Prime NCS (WAN) provides information such as the date of last configuration change, status of the configuration jobs, summary of inventory configuration protocol, etc.

About Configuration Archives

Prime NCS (WAN) attempts to collect and archive the following device configuration files:

- Startup configuration
- Running configuration
- VLAN configuration, if configured

You can specify how Prime NCS (WAN) archives the configurations:

- On demand— You can have Prime NCS (WAN) collect the configurations of selected devices by selecting **Operate > Configuration Archives**.
- During inventory—You can have Prime NCS (WAN) collected device configurations during the inventory collection process. See [Device Configuration Settings](#) for more information.
- Based on Syslogs— If device is configured to send syslogs, when there is any device configuration change, Prime NCS (WAN) collects and stores the configuration.

Device Configuration Settings

By default, Prime NCS (WAN) has the following configuration settings:

- Does not backup the running configuration before pushing configuration changes to a device.
- Does not have Prime NCS (WAN) attempt to roll back to the previously saved configuration in the archive if the configuration deployment fails
- When pushing CLI to a device, uses 5 thread pools.

To change the default configuration settings:

Step 1 Choose **Administration > System**, then click **Configuration**.

- Select **Backup Running Configuration** to have Prime NCS (WAN) backup the running configuration before pushing configuration changes to a device.

- Select **Rollback Configuration** to have Prime NCS (WAN) attempt to roll back to the previously saved configuration in the archive if the configuration deployment fails.

Step 2 Click **Save**.

Finding and Comparing Device Configurations

The following steps explain how to view a current device configuration, view its contents, and compare the current configuration with a previous version.

- Step 1** Choose **Operate > Configuration Archives**.
- Step 2** Click the expand icon for the device whose configuration you want to view. Then click the expand icon again to view the specific configuration version you want to compare.
- Step 3** Under the Compare With column, choose the configuration for which you want to compare the configuration you selected in the previous step:
- **Previous**—Compares the selected version with the previously archived configuration.
 - **StartUp**—Compares the selected version with the start up configuration.
 - **Other Version**—Allows you to select with which version to compare the selected version.
 - **Other Device**—Allows you to compare the selected configuration with the configuration from another device.

A report appears showing the differences between the configurations. The color key on the bottom describes the colors used in the configuration comparison.

Changing Device Configurations

You can change a device's configuration in two ways:

- **Operate > Device Work Center**—Use the Device Work Center to change the configuration of a single device. See [Changing a Single Device Configuration](#).
- **Design > Configuration Template**—To change the configuration of more than one device and apply a common set of changes, use a configuration template to make the changes.

Prime NCS (WAN) provides the following default configuration templates:

- **CLI templates**—CLI templates are user-defined and created based on your own parameters. CLI templates allow you to select the elements in the configurations. Prime NCS (WAN) provides variables which you replace with actual values and logic statements. You can also import templates from Cisco Prime LAN Management System. See [Creating and Deploying CLI Templates](#).
- **Feature and technology templates**—Feature templates are configurations that are specific to a feature or technology in a device's configuration. See [Creating and Deploying Feature and Technology Templates](#).

- Composite templates—Composite templates are two or more feature or CLI templates grouped together into one template. You specify the order in which the templates contained in the composite template are deployed to devices. See [Creating and Deploying Composite Templates for Branch Deployment](#).

Changing a Single Device Configuration

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- Step 1** Choose **Operate > Device Work Center**, then click on a device name. The device details appear on the lower part of the screen.
- Step 2** Click the Configuration tab. The Feature Selector displays the values, organized into features, for the device you selected.
- Step 3** Select the feature you want to change, then make the necessary changes.
- Step 4** Click **Save** to save your configuration changes in the Prime NCS (WAN) database.
- Step 5** Click:
- The Configuration Updates CLI Preview icon to view the CLI that was generated for the change you specified.
 - The Cancel Pending Deployment CLI icon to undo the change you made.
 - The Schedule Deploy icon to push the change to the device immediately or schedule when to deploy the change. You can also specify the job name.
- Step 6** Click **Tools > Jobs Dashboard** to view the status of the configuration change.
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About Configuration Rollbacks

You can change the configuration on a device with a configuration stored in Prime NCS (WAN). You can select multiple archived versions or a single archived version to which you want to “rollback.”

During the configuration rollback process, the configuration is converted into a set of commands which are then executed sequentially on the device.

When rolling back a configuration file you can specify the following options:

- The type of configuration file to which to rollback, for example running or startup configuration
- Whether to sync the running and startup configurations after rolling back the running configuration
- If rolling back a startup configuration only, specify to reboot the device so that startup configuration becomes the running configuration
- Before rolling back the configuration, specify whether to create new archived versions

Rolling Back Device Configuration Versions

You can use Prime NCS (WAN) to rollback a device’s configuration to a previous version of the configuration.

To roll back a configuration change.

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- Step 1** Choose **Operate > Configuration Archives**.
- Step 2** Click the expand icon for the device whose configuration you want to roll back.
- Step 3** Click the specific configuration version you want to roll back, then click **Schedule Rollback**.
- Step 4** Specify the rollback options.
- Step 5** Specify the scheduling options.
- Step 6** Click **Submit**.
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Deleting Device Configurations

By default, Prime NCS (WAN) archives up to five device configuration versions for each device for seven days after:

- Every inventory collection
- Prime NCS (WAN) receives a configuration change event

You cannot delete configuration versions, but older configuration versions are replaced by newer configuration versions.

To change the number of configurations that Prime NCS (WAN) retains:

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- Step 1** Choose **Administration > System**, then click **Configuration Archive**.
- Step 2** Enter a new value in the Number of Versions field. To archive an unlimited number of configuration versions, uncheck **Number of version to retain** and **Number of days to retain**.
- Step 3** Click **Save**.
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