



Backing Up and Restoring Prime Network Services Controller

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Backing Up and Restoring Overview



Note

- We recommend that you use backup and restore as a disaster recovery mechanism. To migrate configuration data from one Prime Network Services Controller server to another use export and import operations.
- If you import a configuration from another Prime Network Services Controller instance, your current session will end. Log in again to continue.

For more information, see "Configuring Administrative Operations" in the [Cisco Prime Network Services Controller User Guide](#).

Prime Network Services Controller enables you to back up and restore data for the same Prime Network Services Controller version. That is, the following backup and restore operations are supported:

- Backing up VNMC 2.1 and restoring to VNMC 2.1.
- Backing up Prime Network Services Controller 3.5.x and restoring to Prime Network Services Controller 3.5.x.

Backing up one version and restoring to another version (such as backing up VNMC 2.1 and restoring to Prime Network Services Controller 3.5.x) is not supported.

After you restore Prime Network Services Controller, we recommend that you allow the system to synchronize and stabilize for at least 15 minutes. Do not add or modify policies or service devices during this time.



Note Do not use TFTP for backup and restore operations.

The following topics describe how to back up and restore data for Prime Network Services Controller:

- [Workflow for Backing Up and Restoring Prime Network Services Controller, on page 2](#)
- [Restoring the Previous Version, on page 3](#)

Workflow for Backing Up and Restoring Prime Network Services Controller

Prime Network Services Controller enables you to perform a backup using either the GUI or the CLI. You can back up and restore data for the same Prime Network Services Controller version. Backing up one version and restoring to another (such as backing up VNMC 2.1 and restoring to Prime Network Services Controller) is not supported.

We recommend the following:

- Do not perform a backup while the system is importing images.
- Use backup and restore as a disaster recovery mechanism.

The following table identifies the tasks associated with backing up and restoring Prime Network Services Controller and provides related information. This workflow assumes that Prime Network Services Controller is up and running and that service VMs are registered with Prime Network Services Controller.

Task	Notes
1. Back up Prime Network Services Controller.	You can back up Prime Network Services Controller using either the CLI or the GUI: <ul style="list-style-type: none"> • Using the CLI—See Backing Up Data. • Using the GUI—See the online help or the "Configuring Administrative Operations" section in the <i>Cisco Prime Network Services Controller User Guide</i>.
2. In the hypervisor, power off and then delete the Prime Network Services Controller Device Adapter VM.	You will create a new Device Adapter instance after restoring Prime Network Services Controller.
3. Restore Prime Network Services Controller.	See Restoring the Previous Version, on page 3 .

Task	Notes
4. Create a new instance of the Prime Network Services Controller Device Adapter.	<p>When instantiating the Device Adapter:</p> <ul style="list-style-type: none"> • Use the Device Adapter version that is the same as the version of Prime Network Services Controller that you are restoring. • Use the same host information (hostname, access credentials, and management IP address) that was used before you powered off the Device Adapter. <p>For more information, see:</p> <ul style="list-style-type: none"> • <i>Deploying the PNSC Device Adapter on VMware</i> • <i>Installing the PNSC Device Adapter on OpenStack</i>
5. Clear the browser cache and log into the Prime Network Services Controller GUI.	Clearing the browser cache ensures that you do not see outdated information for Prime Network Services Controller.
6. Confirm that the service VMs and Device Adapter are registered with the restored Prime Network Services Controller and in running state.	<ul style="list-style-type: none"> • Service VMs—Choose Resource Management > Managed Resources > root > tenant and, in the Network Services tab, confirm that the service VMs are in Running state. • Device Adapter—Choose Administration > Service Registry > Providers and confirm that the Providers table includes managed endpoint and mgmt-controller entries for the Device Adapter. <p>Note There might be a short delay before the Device Adapter is registered with Prime Network Services Controller. This is expected behavior and is not an issue if the service VMs are in Running state.</p>

Restoring the Previous Version



Note

- Do not use TFTP to update data.
- Access the CLI through the console instead of using SSH. If the SSH session should disconnect, you will not be able to access the VM.

Before you begin

Temporarily disable the CSA on the remote file server.

SUMMARY STEPS

1. Using the console, log in to Prime Network Services Controller as admin.
2. Connect to local-mgmt:
3. (Optional) Check the current version of Prime Network Services Controller:
4. Download the required image from a remote file server:
5. Enter the **update** command:
6. Restore the previous version:
7. Restart the server:
8. (Optional) Confirm that the Prime Network Services Controller server is operating as desired:
9. (Optional) Verify that the Prime Network Services Controller software version has been restored:
10. Allow the system to synchronize and stabilize for at least 15 minutes. Do not add or modify policies or service devices during this time.
11. To confirm that Prime Network Services Controller is fully accessible, log in via the GUI.

DETAILED STEPS

Step 1 Using the console, log in to Prime Network Services Controller as admin.

Step 2 Connect to local-mgmt:

```
connect local-mgmt
```

Step 3 (Optional) Check the current version of Prime Network Services Controller:

```
show version
```

Step 4 Download the required image from a remote file server:

```
copy scp://imageURLtoBinFile bootflash:/
```

Step 5 Enter the **update** command:

```
update bootflash:/ force
```

Step 6 Restore the previous version:

```
restore scp://user@host-ip-address/tmp/backup-file.tgz
```

where:

- *user* is the username for accessing the remote host.
- *host-ip-address* is the IP address of the remote host with the backup file.
- */tmp/backup-file.tgz* is the path and filename for the backup file.

Step 7 Restart the server:

```
service restart
```

Step 8 (Optional) Confirm that the Prime Network Services Controller server is operating as desired:

```
service status
```

Step 9 (Optional) Verify that the Prime Network Services Controller software version has been restored:

```
show version
```

Step 10 Allow the system to synchronize and stabilize for at least 15 minutes. Do not add or modify policies or service devices during this time.

Step 11 To confirm that Prime Network Services Controller is fully accessible, log in via the GUI.

What to do next

Perform the post-restoration tasks described in [Post-Restoration Tasks, on page 5](#).

Post-Restoration Tasks

After you successfully restore , complete the following tasks to reestablish the previous environment:

1. [Updating VM Managers, on page 5](#)
2. [Reimporting Images, on page 6](#)

Updating VM Managers

You must update any configured VM Managers after you upgrade or restore .

SUMMARY STEPS

1. Choose **Resource Management > VM Managers**.
2. Delete any stale VM Manager entries.

DETAILED STEPS

Step 1 Choose **Resource Management > VM Managers**.

Step 2 Delete any stale VM Manager entries.

Reimporting Images

Prime Network Services Controller does not restore images that were previously imported. After you restore Prime Network Services Controller, complete the following procedure to reimport any required images.



Note Although you can upgrade a device out-of-band, doing so can disrupt traffic for standalone service nodes.

Before you begin

Restore Prime Network Services Controller as described in [Restoring the Previous Version, on page 3](#).

SUMMARY STEPS

1. Log in to the Prime Network Services Controller GUI.
2. Choose **Resource Management > Resources > Images**.
3. For each image that you want to reimport, note the image properties, such as its name, operating system, and version. You can delete images that you no longer use or need.
4. After noting the details, delete each image from Prime Network Services Controller.
5. Reimport the images using the information that you collected in Step 3.

DETAILED STEPS

Step 1 Log in to the Prime Network Services Controller GUI.

Step 2 Choose **Resource Management > Resources > Images**.

Step 3 For each image that you want to reimport, note the image properties, such as its name, operating system, and version. You can delete images that you no longer use or need.

Tip To find the original location of the image, right-click the item and choose **Edit** or **Properties**. The dialog box includes the location and name of the source file.

Step 4 After noting the details, delete each image from Prime Network Services Controller.

Step 5 Reimport the images using the information that you collected in Step 3.
