



Configuring Administrative Operations

This section includes the following topics:

- [Administrative Operation Conventions, page 1](#)
- [Managing Backup Operations, page 1](#)
- [Restoring a Backup Configuration, page 6](#)
- [Managing Export Operations, page 8](#)
- [Configuring Import Operations, page 12](#)

Administrative Operation Conventions

The following conventions apply when performing the administrative operations described in this section:

- The remote file location you specify must start with a slash (/) and include the full path and file name. Do not use relative paths.
- The user name and password on the remote system must be correct, and the user specified must have read and write permissions on the remote system.
- The file on the remote system must be a valid file, and the size cannot be zero.
- For backup and export operations, if the Task tab contains a Remote Err Description of *No such file*, reboot the Prime Network Services Controller VM via vCenter.

Managing Backup Operations

We recommend that you use backup and restore operation as a disaster recovery mechanism. To migrate configuration data from one Prime Network Services Controller server to another, use export and import operations.

Creating a Backup Operation

Before You Begin

Obtain the backup server IP address or hostname and authentication credentials.

Procedure

Step 1 Choose **Administration > Operations > Backups**.

Step 2 Click **Create Backup Operation**.

Step 3 In the Create Backup Operation dialog box, complete the following fields, then click **OK**:

Field	Description
Admin State	<p>One of the following administrative states:</p> <ul style="list-style-type: none"> • enabled—Backup is enabled. The system runs the backup operation when you click OK. • disabled—Backup is disabled. The system does not run the backup operation when you click OK. If you choose this option, all fields in the dialog box remain visible.
Type	<p>Backup type.</p> <p>The backup creates a copy of the whole database file. You can use this file for disaster recovery if you need to recreate every configuration on your system. This field is not editable.</p>
Protocol	<p>Protocol used when communicating with the remote server:</p> <ul style="list-style-type: none"> • FTP • SCP • SFTP
Hostname/IP Address	<p>Hostname or IP address of the device where the backup file is stored.</p> <p>This entry cannot be changed when editing the operation.</p> <p>Note If you use a hostname instead of an IP address, you must configure a DNS server.</p>
User	<p>Username the system uses to log into the remote server.</p>

Field	Description
Password	<p>Password the system uses to log into the remote server.</p> <p>This field is displayed if you choose enabled in the Admin State field.</p> <p>Note Prime Network Services Controller does not store this password. You do not need to enter this password unless you intend to enable and run the backup operation immediately.</p>
Absolute Path Remote File	<p>Full path of the backup filename.</p> <p>This entry must start with a slash (/) and must not contain a relative path.</p>

Running a Backup Operation

Procedure

- Step 1** Choose **Administration > Operations > Backups > Backup-server** where *backup-server* is the server on which the backup file is stored.
- Step 2** In the General tab, enter the following information:
- In the Admin State field, choose **enabled**.
 - In the Password field, enter the password for the identified user.
 - (Optional) Change the content of the other available fields.
- Step 3** Click **Save**.
Prime Network Services Controller takes a snapshot of the configuration type that you selected and uploads the file to the network location.
- Step 4** (Optional) To view the progress of the backup operation, click the **Task** tab. The Task tab provides the information described in the following table. The operation continues to run until it is completed.

Field	Description
Description	Task description.
Status	Task status.
Stage Descriptor	Description of the current stage.
Tries	Number of times the task has been tried.

Field	Description
Previous Status	Status of the previous task only. This field does not provide the status of the current task.
Remote Err Code	Remote error code.
Remote Err Description	Description of the remote error.
Remote Inv Result	Remote error result.
Time Stamp	Date and time when the task completed.
Progress	Progress of the current task, indicated by the percent complete, a progress bar, or both.

Editing a Backup Operation

Before You Begin

Obtain the backup server IP address or hostname and authentication credentials.

Procedure

- Step 1** Choose **Administration > Operations > Backups**.
- Step 2** Select the backup operation you want to edit, then click **Edit**.
- Step 3** In the Edit Backup dialog box, modify the information as required, then click **OK**.

Field	Description
Admin State	One of the following administrative states: <ul style="list-style-type: none"> • enabled—Backup is enabled. The system runs the backup operation when you click OK. • disabled—Backup is disabled. The system does not run the backup operation when you click OK. If you choose this option, all fields in the dialog box remain visible.

Field	Description
Type	<p>Backup type.</p> <p>The backup creates a copy of the whole database file. You can use this file for disaster recovery if you need to recreate every configuration on your system. This field is not editable.</p>
Protocol	<p>Protocol used when communicating with the remote server:</p> <ul style="list-style-type: none"> • FTP • SCP • SFTP
Hostname/IP Address	<p>Hostname or IP address of the device where the backup file is stored.</p> <p>This entry cannot be changed when editing the operation.</p> <p>Note If you use a hostname instead of an IP address, you must configure a DNS server.</p>
User	<p>Username the system uses to log into the remote server.</p>
Password	<p>Password the system uses to log into the remote server.</p> <p>This field is displayed if you choose enabled in the Admin State field.</p> <p>Note Prime Network Services Controller does not store this password. You do not need to enter this password unless you intend to enable and run the backup operation immediately.</p>
Absolute Path Remote File	<p>Full path of the backup filename.</p> <p>This entry must start with a slash (/) and must not contain a relative path.</p>

Deleting a Backup Operation

Procedure

- Step 1** Choose **Administration > Operations > Backups**.
 - Step 2** Select the backup operation you want to delete, then click **Delete**.
 - Step 3** When prompted, confirm the deletion.
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Restoring a Backup Configuration

Procedure

- Step 1** Install the Prime Network Services Controller virtual machine. For information, see the *Cisco Prime Network Services Controller 3.0 Quick Start Guide*.
- Step 2** Uninstall the VSG policy agents. Connect the Secure Shell to the VSG console for this task. This step does not cause a traffic disruption.

Example:

```
vsg# conf t
vsg (config)# vnmc-policy-agent
vsg (config-vnmc-policy-agent)# no policy-agent-image
```

Note Perform this step for all VSGs that are associated with the Prime Network Services Controller that you are restoring.

- Step 3** Disable the ASA 1000V policy agent.

Example:

```
ASA-154# conf t
ASA-154 (config)# no vnmc policy-agent
```

- Step 4** Uninstall the VSM policy agents. Connect the Secure Shell to the VSM console for this task. This step does not cause a traffic disruption.

Example:

```
vsm# conf t
vsm (config)# nsc-policy-agent
vsm (config-nsc-policy-agent)# no policy-agent-image
```

Note Perform this step for all VSMs that are associated with the Prime Network Services Controller you are restoring.

- Step 5** Restore the Prime Network Services Controller database. Connect the Secure Shell to the Prime Network Services Controller CLI for this task. Depending upon your Prime Network Services Controller backup location, restore using FTP, SCP, or SFTP.

Example:

```
nsc# connect local-mgmt
nsc(local-mgmt)# restore scp://username@server/path
```

Step 6 In the Prime Network Services Controller UI, choose **Administration > Service Registry > Clients**, and in the General tab, do the following:

- a) Wait until each registered VSM displays the operational status as lost-visibility.
- b) Choose each VSM, and click **Delete Client**.

Step 7 In the Prime Network Services Controller UI, choose **Resource Management > Resources > Virtual Supervisor Modules**, and verify that the deleted VSMS are not visible.

Step 8 Reregister the VSMS associated with Prime Network Services Controller by entering the following commands for each VSM:

Example:

```
VSM# conf t
VSM (config)# nsc-policy-agent
VSM (config-nsc-policy-agent)# registration-ip vsm-ip-address
VSM (config-nsc-policy-agent)# shared-secret password
```

Step 9 Reinstall the VSM policy agents.

Note If the VSM policy agents must be upgraded, install the new software now.

Example:

```
VSM# conf t
VSM (config)# nsc-policy-agent
VSM (config-nsc-policy-agent)# policy-agent-image bootflash:nsc-vsmpa.1.0.1g.bin
```

Step 10 Wait until all the VSMS have registered in the Service Registry and are displayed under **Resource Management > Resources > Virtual Supervisor Modules**.

Step 11 Reregister the VSGs associated with Prime Network Services Controller by entering the following commands for each VSG:

Example:

```
VSG# conf t
VSG (config)# vnmc-policy-agent
VSG (config-vnmc-policy-agent)# registration-ip vsg-ip-address
VSG (config-vnmc-policy-agent)# shared-secret password
```

Step 12 Reinstall the VSG policy agents.

Note If the VSG policy agents must be upgraded, install the new software now.

Example:

```
VSG# conf t
VSG (config)# vnmc-policy-agent
VSG (config-vnmc-policy-agent)# policy-agent-image bootflash:nsc-vsgpa.1.0.1g.bin
```

Step 13 Re-enable the ASA 1000V policy agent.

Example:

```
ASA-154# conf t
ASA-154 (config)# vnmc policy-agent
ASA-154 (config-vnmc-policy-agent)# shared-secret password
ASA-154 (config-vnmc-policy-agent)# registration host host-ip-address
```

Step 14 Verify the following states after the restore process is complete:

Note The restore process could take a few minutes depending upon your setup environment.

- a) Using the VSG CLI, verify that your configurations are restored to their earlier state.
 - b) Using the Prime Network Services Controller UI, verify that your objects and policies are restored to their earlier state.
 - c) Using the ASA 1000V CLI, verify that your configurations are restored to their earlier state.
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Managing Export Operations

Use export and import operations to migrate data from one Prime Network Services Controller server to another. To back up and restore Prime Network Services Controller data (for example, as a disaster recovery mechanism), use backup and restore operations.

Creating an Export Operation

The associations of compute and edge firewalls with VSGs and ASA 1000Vs, respectively, are not included in export or import data. Only firewall definitions are included, such as device profiles and policies. If an imported firewall did not exist in the system, it will not be associated to a VSG or ASA 1000V after the import operation. If an imported firewall already existed in the system, the association state remains the same.

InterCloud data is not included in export or import operations. The affected InterCloud data includes:

- Provider account information
- InterCloud links and components
- Cloud VMs

Before You Begin

Obtain the remote file server IP address or hostname and authentication credentials before performing an export.

Procedure

Step 1 Choose **Administration > Operations > Backups**.

Step 2 Click **Create Export Operation**.

Step 3 In the Create Export Operation dialog box, provide the required information as described in the following table, then click **OK**:

Field	Description
Admin State	<p>One of the following administrative states:</p> <ul style="list-style-type: none"> • enabled—Export is enabled. The system runs the export operation when you click OK. • disabled—Export is disabled. The system does not run the export operation when you click OK. If you choose this option, all fields in the dialog box remain visible.
Type	<p>One of the following export types:</p> <ul style="list-style-type: none"> • config-all • config-logical • config-system
Protocol	<p>Protocol used when communicating with the remote server:</p> <ul style="list-style-type: none"> • FTP • SCP • SFTP
Hostname/IP Address	<p>Hostname or IP address of the device where the export file is stored.</p> <p>This entry cannot be changed when editing the operation.</p> <p>Note If you use a hostname instead of an IP address, you must configure a DNS server.</p>
User	<p>Username the system uses to log into the remote server.</p>
Password	<p>The password the system uses to log into the remote server.</p> <p>This field is displayed if you choose enabled in the Admin State field.</p> <p>Note Prime Network Services Controller does not store this password. You do not need to enter this password unless you intend to enable and run the export operation immediately.</p>
Absolute Path Remote File (.tgz)	<p>Full path of the .tgz filename.</p> <p>This entry must start with a slash (/) and must not contain a relative path.</p>

Editing an Export Operation



Note

The associations of compute and edge firewalls with VSGs and ASA 1000Vs, respectively, are not included in export or import data. Only firewall definitions are included, such as device profiles and policies. If an imported firewall did not exist in the system, it will not be associated to a VSG or ASA 1000V after the import operation. If an imported firewall already existed in the system, the association state remains the same.

Before You Begin

Obtain the remote file server IP address or hostname and authentication credentials before performing an export.

Procedure

- Step 1** Choose **Administration > Operations > Backups**.
- Step 2** In the Backups table, select the export operation you want to edit, then click **Edit**.
- Step 3** In the Edit Export dialog box, modify the fields as appropriate, then click **OK**.

Field	Description
Admin State	One of the following administrative states: <ul style="list-style-type: none"> • enabled—Export is enabled. The system runs the export operation when you click OK. • disabled—Export is disabled. The system does not run the export operation when you click OK. If you choose this option, all fields in the dialog box remain visible.
Type	One of the following export types: <ul style="list-style-type: none"> • config-all • config-logical • config-system

Field	Description
Protocol	Protocol used when communicating with the remote server: <ul style="list-style-type: none"> • FTP • SCP • SFTP
Hostname/IP Address	Hostname or IP address of the device where the export file is stored. This entry cannot be changed when editing the operation. Note If you use a hostname instead of an IP address, you must configure a DNS server.
User	Username the system uses to log into the remote server.
Password	The password the system uses to log into the remote server. This field is displayed if you choose enabled in the Admin State field. Note Prime Network Services Controller does not store this password. You do not need to enter this password unless you intend to enable and run the export operation immediately.
Absolute Path Remote File (.tgz)	Full path of the .tgz filename. This entry must start with a slash (/) and must not contain a relative path.

Deleting an Export Operation

Procedure

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- Step 1** In the Navigation pane, choose **Administration > Operation > Backups**.
 - Step 2** In the **Work** pane, click the export operation you want to delete.
 - Step 3** In the Confirm dialog box, click **Yes**.
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Configuring Import Operations

Creating an Import Operation

Before You Begin

Obtain the remote file server IP address or hostname and authentication credentials.



Note

The association of compute and edge firewalls with VSGs and ASA 1000Vs, respectively, are not included in the export or import data. Only the compute and edge firewall definitions are included, such as device profiles and policies. Therefore, if an imported firewall did not exist in the system, it will not be associated to a VSG or ASA 1000V after the import operation. If an imported firewall already existed in the system, the association state remains the same.



Caution

When the configuration data is imported into the Prime Network Services Controller server, you might see an error message and get logged out, followed by the display of a new Prime Network Services Controller certificate. This error occurs because the Prime Network Services Controller hostname, domain name, or both have changed. The VM Manager Extension needs to be exported again and installed on vCenter. To continue with the import, accept the Prime Network Services Controller certificate and log into Prime Network Services Controller again.

Procedure

Step 1 Choose **Administration > Operations > Backups**.

Step 2 Click **Create Import Operation**.

Step 3 In the Create Import Operation dialog box, provide the following information as required, then click **OK**:

Field	Description
Admin State	One of the following administrative states: <ul style="list-style-type: none"> • enabled—Import is enabled. The system runs the import operation as soon as you click OK. • disabled—Import is disabled. The system does not run the import operation when you click OK. If you choose this option, all fields in the dialog box remain visible.
Action	Action to be taken on a file: merge.

Field	Description
Protocol	<p>Protocol used when communicating with the remote server:</p> <ul style="list-style-type: none"> • FTP • SCP • SFTP
Hostname/IP Address	<p>Hostname or IP address of the device where the import file is stored.</p> <p>This entry cannot be changed when editing the operation.</p> <p>Note If you use a hostname instead of an IP address, you must configure a DNS server.</p>
User	<p>Username the system uses to log into the remote server.</p> <p>This field is displayed if you choose enabled in the Admin State field.</p>
Password	<p>Password the system uses to log into the remote server.</p> <p>Note Prime Network Services Controller does not store this password. You do not need to enter this password unless you intend to enable and run the import operation immediately.</p>
Absolute Path Remote File (.tgz)	<p>Full path of the .tgz filename.</p> <p>This entry must start with a slash (/) and must not contain a relative path.</p>

Editing an Import Operation

Before You Begin

Obtain the remote file server IP address or hostname and authentication credentials.

Procedure

Step 1 Choose **Administration > Operations > Backups**.

Step 2 Select the import operation that you want to edit, then click **Edit**.

Step 3 In the Edit dialog box, modify the fields as required, then click **OK**.

Field	Description
Admin State	<p>One of the following administrative states:</p> <ul style="list-style-type: none"> • enabled—Import is enabled. The system runs the import operation as soon as you click OK. • disabled—Import is disabled. The system does not run the import operation when you click OK. If you choose this option, all fields in the dialog box remain visible.
Action	Action to be taken on a file: merge.
Protocol	<p>Protocol used when communicating with the remote server:</p> <ul style="list-style-type: none"> • FTP • SCP • SFTP
Hostname/IP Address	<p>Hostname or IP address of the device where the import file is stored.</p> <p>This entry cannot be changed when editing the operation.</p> <p>Note If you use a hostname instead of an IP address, you must configure a DNS server.</p>
User	<p>Username the system uses to log into the remote server.</p> <p>This field is displayed if you choose enabled in the Admin State field.</p>
Password	<p>Password the system uses to log into the remote server.</p> <p>Note Prime Network Services Controller does not store this password. You do not need to enter this password unless you intend to enable and run the import operation immediately.</p>

Field	Description
Absolute Path Remote File (.tgz)	Full path of the .tgz filename. This entry must start with a slash (/) and must not contain a relative path.

Deleting an Import Operation

Procedure

- Step 1** Choose **Administration > Operations > Backups**.
 - Step 2** Select the import operation that you want to delete, then click **Delete**.
 - Step 3** When prompted, confirm the deletion.
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