



# Configuring Administrative Operations

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This section includes the following topics:

- [Administrative Operation Conventions, page 1](#)
- [Configuring Backup Operations, page 1](#)
- [Restoring a Backup Configuration, page 6](#)
- [Configuring Export Operations, page 8](#)
- [Configuring Import Operations, page 11](#)

## 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 VNMC VM via vCenter.

## Configuring Backup 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"> <li>• enabled—Backup is enabled. The system runs the backup operation when you click <b>OK</b>.</li> <li>• disabled—Backup is disabled. The system does not run the backup operation when you click <b>OK</b>. If you choose this option, all fields in the dialog box remain visible.</li> </ul>
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> <p><b>Note</b> Do not use TFTP for backup and restore operations.</p> <ul style="list-style-type: none"> <li>• FTP</li> <li>• SCP</li> <li>• SFTP</li> <li>• TFTP</li> </ul>
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><b>Note</b> 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 not displayed if you select <b>TFTP</b> in the Protocol field.</p>

Field	Description
Password	<p>Password the system uses to log into the remote server.</p> <p>This field is displayed if you choose <b>enabled</b> in the Admin State field.</p> <p>This field is not displayed if you choose <b>TFTP</b> in the Protocol field.</p> <p><b>Note</b> VNMC 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**.
  - For all protocols except TFTP, in the Password field, enter the password for the identified user.
  - (Optional) Change the content of the other available fields.
- Step 3** Click **Save**.  
VNMC takes a snapshot of the configuration type that you selected and exports 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.

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

Name	Description
Previous Status	Previous task status.
Remote Err Code	Remote error code.
Remote Err Description	Description of the remote error code.
Remote Inv Result	Remote error result.
Time Stamp	Date and time when the task completed.
Progress	Progress of the current task.

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

Field	Description
Protocol	<p>Protocol used when communicating with the remote server:</p> <p><b>Note</b> Do not use TFTP for backup and restore operations.</p> <ul style="list-style-type: none"> <li>• FTP</li> <li>• SCP</li> <li>• SFTP</li> <li>• TFTP</li> </ul>
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><b>Note</b> 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 not displayed if you select <b>TFTP</b> in the Protocol field.</p>
Password	<p>Password the system uses to log into the remote server.</p> <p>This field is displayed if you choose <b>enabled</b> in the Admin State field.</p> <p>This field is not displayed if you choose <b>TFTP</b> in the Protocol field.</p> <p><b>Note</b> VNMC 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

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- 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

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- Step 1** Install the VNMC virtual machine. For information, see the *Cisco Virtual Network Management Center 2.0 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)# vnm-policy-agent
vsg (config-vnmc-policy-agent)# no policy-agent-image
```

**Note** Perform this step for all VSGs that are associated with the VNMC 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)# vnm-policy-agent
vsm (config-vnmc-policy-agent)# no policy-agent-image
```

**Note** Perform this step for all VSMs that are associated with the VNMC you are restoring.

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

#### Example:

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

- Step 6** In the VNMC UI, choose **Administration > Service Registry > Clients**, and in the General tab, do the following:
- Wait until each registered VSM displays the operational status as lost-visibility.
  - Choose each VSM, and click **Delete Client**.
- Step 7** In the VNMC UI, choose **Resource Management > Resources > Virtual Supervisor Modules**, and verify that the deleted VSMs are not visible.
- Step 8** Reregister the VSMs associated with VNMC by entering the following commands for each VSM:

**Example:**

```
VSM# conf t
VSM (config)# vnmc-policy-agent
VSM (config-vnmc-policy-agent)# registration-ip vsm-ip-address
VSM (config-vnmc-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)# vnmc-policy-agent
VSM (config-vnmc-policy-agent)# policy-agent-image bootflash:vnmc-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 VNMC 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:vnmc-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.

- Using the VSG CLI, verify that your configurations are restored to their earlier state.
- Using the VNMC 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.

## Configuring Export Operations

### Creating an Export Operation

#### Before You Begin

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



#### 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.

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



Field	Description
Protocol	<p>Protocol used when communicating with the remote server:</p> <ul style="list-style-type: none"> <li>• FTP</li> <li>• SCP</li> <li>• SFTP</li> <li>• TFTP</li> </ul>
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><b>Note</b> 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 not displayed if you choose <b>TFTP</b> in the Protocol field.</p>
Password	<p>The password the system uses to log into the remote server.</p> <p>This field is displayed if you choose <b>enabled</b> in the Admin State field.</p> <p>This field is not displayed if you choose <b>TFTP</b> in the Protocol field.</p> <p><b>Note</b> VNMC 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

### Before You Begin

Obtain the backup server IP address and authentication credentials.

## Procedure

- Step 1** In the Navigation pane, click the **Administration** tab.
- Step 2** In the Navigation pane, click the **Operations** subtab.
- Step 3** In the **Navigation** pane, click the **Backups** node.
- Step 4** In the **Work** pane, expand the items in the table, and select the export operation you want to edit.
- Step 5** Click **Edit**.
- Step 6** In the **Edit** dialog box, modify the fields as appropriate:

Field	Description
Admin State	<p>One of the following administrative states:</p> <ul style="list-style-type: none"> <li>• enabled—Export is enabled. The system runs the export operation when you click <b>OK</b>.</li> <li>• disabled—Export is disabled. The system does not run the export operation when you click <b>OK</b>. If you choose this option, all fields in the dialog box remain visible.</li> </ul>
Type	<p>One of the following export types:</p> <ul style="list-style-type: none"> <li>• config-all</li> <li>• config-logical</li> <li>• config-system</li> </ul>
Protocol	<p>Protocol used when communicating with the remote server:</p> <ul style="list-style-type: none"> <li>• FTP</li> <li>• SCP</li> <li>• SFTP</li> <li>• TFTP</li> </ul>
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><b>Note</b> 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 not displayed if you choose <b>TFTP</b> in the Protocol field.</p>

Field	Description
Password	<p>The password the system uses to log into the remote server.</p> <p>This field is displayed if you choose <b>enabled</b> in the Admin State field.</p> <p>This field is not displayed if you choose <b>TFTP</b> in the Protocol field.</p> <p><b>Note</b> VNMC 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>

**Step 7** Click **OK**.

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## Deleting an Export Operation

### Procedure

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- Step 1** In the Navigation pane, click the **Administration** tab.
  - Step 2** In the Navigation pane, click the **Operations** subtab.
  - Step 3** In the **Navigation** pane, click the **Backups** node.
  - Step 4** In the **Work** pane, click the export operation you want to delete.
  - Step 5** Click **Delete**.
  - Step 6** 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 VNMC server, you might see an error message and get logged out, followed by the display of a new VNMC certificate. This error occurs because the VNMC 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 VNMC certificate and log into VNMC 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"> <li>• enabled—Import is enabled. The system runs the import operation as soon as you click <b>OK</b>.</li> <li>• disabled—Import is disabled. The system does not run the import operation when you click <b>OK</b>. If you choose this option, all fields in the dialog box remain visible.</li> </ul>
Action	Action to be taken on a file: merge.
Protocol	Protocol used when communicating with the remote server: <ul style="list-style-type: none"> <li>• FTP</li> <li>• SCP</li> <li>• SFTP</li> <li>• TFTP</li> </ul>

Field	Description
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><b>Note</b> 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 <b>enabled</b> in the Admin State field.</p> <p>This field does not appear if you choose <b>TFTP</b> in the Protocol field.</p>
Password	<p>Password the system uses to log into the remote server.</p> <p>This field does not appear if you choose <b>TFTP</b> in the Protocol field.</p> <p><b>Note</b> VNMC 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"> <li>• enabled—Import is enabled. The system runs the import operation as soon as you click <b>OK</b>.</li> <li>• disabled—Import is disabled. The system does not run the import operation when you click <b>OK</b>. If you choose this option, all fields in the dialog box remain visible.</li> </ul>
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"> <li>• FTP</li> <li>• SCP</li> <li>• SFTP</li> <li>• TFTP</li> </ul>
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><b>Note</b> 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 <b>enabled</b> in the Admin State field.</p> <p>This field does not appear if you choose <b>TFTP</b> in the Protocol field.</p>
Password	<p>Password the system uses to log into the remote server.</p> <p>This field does not appear if you choose <b>TFTP</b> in the Protocol field.</p> <p><b>Note</b> VNMC 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>

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## Deleting an Import Operation

### Procedure

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- 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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