



Configuring VSM Backup and Recovery

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Information About VSM Backup and Recovery

You can use the VSM backup and recovery procedure to create a template from which the VSMs can be re-created in the event that both VSMs fail in a high availability (HA) environment.



Note

We recommend that you do periodic backups after the initial backup to ensure that you have the most current configuration. See the [Performing a Periodic Backup](#) section for more information.

Guidelines and Limitations

VSM backup and recovery has the following configuration guidelines and limitations:

- Backing up the VSM VM is a onetime task.
- Backing up the VSM VM requires coordination between the network administrator and the server administrator.
- These procedures are not for upgrades and downgrades.
- These procedures require that the restoration is done on the VSM with the same release as the one from which the backup was made.
- Configuration files do not have enough information to re-create a VSM.
- It is not recommended to take VSM snapshots as this could cause unpredictable behavior in the system.

Configuring VSM Backup and Recovery

Performing a Periodic Backup

Before you begin

- You have performed an upgrade.
- You have made a significant change to the configuration.

Procedure

- Step 1** Enter the **copy running-config scp://<login_name>@<IP_of_FileServer >/<path_to_save_config>/** command to back up the VSM.
- Step 2** Edit the VSM configuration, delete the interface Ethernet configurations (including the port-channel configurations), and save the config file.

Note Do not delete the mgmt 0 and control 0 configurations.

Performing a Backup of the VSM

This section describes how to create a backup of the VSM.

Before you begin

- The backup must be performed by the **Local Admin** who knows the VSM password.
- Enter the **copy running-config scp://username@IP_of_FileServer/path_to_store_backup/commands** on the VSM.
- In the SCVMM, change the operating system type of the VSM VM from **Other Linux 64-bit** to **Unknown** by right clicking **VSM VM > Properties > General > Operating System > Unknown**.

Procedure

- Step 1** Open the SCVMM.
- Step 2** In the left navigation pane, click **VMs and Services** click on the host you want to host the VSM.
- Step 3** Right click the standby VSM VM and choose the **Power Off** option.
- Step 4** In the left navigation pane click on **Library > Templates**. Right click on **VM Templates > Create VM Template**. The Create VM Template Wizard opens.
- Step 5** Select the **From an existing virtual machine that is deployed on a host** radio button and click **Browse**.

- Step 6** From the **Select VM Template Source** window select the secondary VSM VM, click **OK**, and then click **Next**. When the warning window pops up stating that the virtual machine will be destroyed and a template will be made, click **Yes**.
- Step 7** Enter the name of the new template in the **VM Template name** text box and click **Next**.
- Step 8** The hardware configuration page is displayed. It is a read-only page that displays the hardware configuration of the VM template. Click **Next**.
- Step 9** On the Configure Operating System page, select the [**None - customization not required**] option from the drop down of **Guest OS Profile**. This can be set later once the VM is deployed from the template. Click **Next**.
- Step 10** Select the library server for the VM template and click **Next**.
- Step 11** Select the path you want to use to store the template and click **Next**.
- Step 12** Confirm the settings and click **Finish**. The backup template is created and appears in the right pane of the VM Templates tab.
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Deploying the Backup VSM VM

Procedure

- Step 1** Open the SCVMM.
- Step 2** In the left navigation pane select **Library > Templates > VM Templates**.
- Step 3** In the right navigation pane select the VSM VM template, right-click on the template file, and select **Create Virtual Machine**.
- Step 4** In the **Create Virtual Machine Wizard** name the virtual machine and click **Next**.
- Step 5** In the **Configure Hardware** page, scroll down to **Network Adapters**. Select the **Network Adapter 1** and then select the **Not Connected** radio button. Repeat this step for Network Adapters 2 and 3.
- Step 6** Select the destination of the host, that is, the host folder, and click **Next**.
- Step 7** Select the virtual machine machine path and click **Next**.
- Step 8** Review the settings of the virtual machine and click **Next**.
- Step 9** Keep Network Adapters 1,2 and 3 in the not connected state and click **Next**.
- Step 10** On the **Add Properties** page click **Next**.
- Step 11** Confirm the settings and click **Create**. The VSM VM is created on the selected host.
- Step 12** Right-click on the newly deployed VM and choose **Power On**.
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Erasing the Old Configuration

Procedure

- Step 1** Launch the virtual machine console of the newly deployed VSM.
- Step 2** Erase the startup configuration by entering the switch# **write erase** command.

Step 3 Reboot the VSM by entering the `switch#reload` command.

Restoring the Backup Configuration on the VSM



Note After the configuration is restored you must login to the VSM with the credentials that you used while performing a backup.

Procedure

- Step 1** When the VSM reboots, the **System Admin Account Setup** window opens.
- Step 2** Enter and confirm the Administrator password.
- Step 3** Enter the domain ID, which is different from the original domain ID.
- Step 4** Enter the HA role as **primary**.
- Step 5** Enter **yes** when you are prompted to enter the basic configuration dialog.
- Step 6** Enter **no** when asked to create another Login account.
- Step 7** When prompted, enter a name for the switch.
- Step 8** Enter **yes**, when asked to configure out-of-band management and then enter the mgmt0 IPv4 address and subnet mask.
- Step 9** Enter **yes** when asked to configure the default gateway.
- Step 10** Enter **no** when asked to configure the VEM feature level.
- Step 11** Enter **no** when asked if you would like to edit the configuration.
- Step 12** Enter **yes** when asked to use and save this configuration.
- Step 13** In the SCVMM, right-click the VSM VM and choose **Properties**. The VSM Virtual Machine Properties window opens.
- Step 14** In the Hardware/Summary pane, choose **Network Adapter 2 > Connect to VM Network**.
- Step 15** Log in to the VSM.
- Step 16** Copy the edited backup configuration to the VSM bootflash by entering the `switch# copy scp://remote-server/path_to_backup_config/switch-running-config bootflash` command.
- Step 17** Disconnect the management connectivity of the VSM.
- Step 18** Copy the backup configuration to the running configuration by entering the `switch# copy bootflash:switch-running-config running-config` command.

```

2694733824 bytes free
3197939712 bytes total
VSM-LEE-LATEST#
VSM-LEE-LATEST# copy bootflash:st
bootflash:startup_backup          bootflash:startup_new1_backup
bootflash:startup_backup_new
VSM-LEE-LATEST# copy bootflash:startup_new1_backup running-config
user:adminbackup is reserved
ERROR: Max ports setting not allowed on a profile of type Ethernet
ERROR: Max ports setting not allowed on a profile of type Ethernet
ERROR: Max ports setting not allowed on a profile of type Ethernet
Syntax error while parsing 'interface Ethernet3/3'

ERROR: Interface is already inherited
Syntax error while parsing 'no snmp trap link-status'

Performing image verification and compatibility check,please wait.
Performing image verification and compatibility check,please wait.
Performing image verification and compatibility check,please wait.
Performing image verification and compatibility check,please wait.
ERROR: Control vlan cannot be configured in L3 mode
ERROR: Packet vlan cannot be configured in L3 mode
command failed. Invalid ip address.
Copy complete, now saving to disk (please wait)...
VSM-LEE-LATEST#
    
```

Note You can ignore any errors that you may see.

Step 19 After the configuration copy is completed connect the Network Adapter 1,2 and 3.

Step 20 Select the **Fabric > Network Service** and right-click **Refresh**.

Note After this step the switch on the hosts might go into a Non-Compliant state. If this happens, you need to remediate the hosts.

Step 21 Confirm that the VEMs are attached to the VSM by entering the switch# **show module** command.

Step 22 Copy the running-configuration to the startup-configuration by entering the switch# **copy running-config startup-config** command.

Step 23 Bring up the secondary VSM using the ISO to form the HA pair.

Feature History for VSM Backup and Recovery

This section provides the VSM backup and Recovery feature release history.

Feature Name	Releases	Feature Information
VSM Backup and Recovery	5.2(1)SM1(5.2)	This feature was introduced.

Feature Name	Releases	Feature Information
VSM Backup and Recovery	5.2(1)SM3(1.1)	Various procedures have been updated to reflect new steps.