



Installing Cisco Prime vNAM on Red Hat Enterprise Linux KVM

This chapter provides instructions on how to install Cisco Prime vNAM virtual appliance on Red Hat Enterprise Linux KVM using an ISO file.

[Table 4-1](#) summarizes how to quickly get up and running on Red Hat Enterprise Linux KVM:

Table 4-1 Installation Overview on KVM

Task	See...
1. Review the requirements and preparations for Prime vNAM	Installation Requirements, page 2-1
2. Set up the network bridges to the Prime vNAM management and data ports. You may also use passthrough mode for data traffic.	Configuring Virtual Network Bridges, page 4-1
3. Download the Prime vNAM ISO file from Cisco.com	Downloading Your Prime vNAM Virtual Appliance ISO File, page 4-2
4. Install Prime vNAM software on the virtual machine	Deploying Prime vNAM on KVM using Virtual Machine Manager, page 4-3.
5. (Optional) Request permanent license to replace 60-day evaluation license	Installing the License, page 2-3

Configuring Virtual Network Bridges

In order to make the Prime vNAM accessible to the public network and to provide an interface that will accept SPAN data, you must create network bridging which reflects the local configuration and matches the bridges appropriately to the interfaces on the VM. This cannot be standardized and delivered as an automatic and simple installation due to the generic KVM environment and requires customer input. You must perform this task before Prime vNAM installation.

This section provides details on how to configure your virtual network bridges for the two required Prime vNAM ports:

- Management port—Bridge to include the external physical management port

You can skip this step if you already have a network bridge configured, which can be used for the Prime vNAM management port.

- Data port—Bridge to include the physical port receiving the SPAN traffic

To configure the virtual network bridges to the Prime vNAM ports:



Note

There are many options, so we recommend you see your Red Hat KVM user documentation.

Step 1 Log into RHEL KVM as root.

Step 2 Enter the commands to add the two bridges.

For example, the commands below assume eth0 is the physical management port and eth1 is the data port.

```
brctl addbr bridge1
brctl addbr bridge2
brctl addif bridge1 eth0
brctl addif bridge2 eth1
```

Continue to [Downloading Your Prime vNAM Virtual Appliance ISO File, page 4-2](#) to download the Prime vNAM image onto your KVM host.

Downloading Your Prime vNAM Virtual Appliance ISO File

The ISO file contains configuration requirements. The file will be named similar to *nam-yyy-x.x.x.bin.gz*. One ISO file contains the pieces necessary for Prime vNAM installation.

Step 1 Access the Cisco Prime vNAM application image at the following location:

<http://software.cisco.com/download/navigator.html>

Step 2 Download the Prime vNAM image onto the RH KVM host where there is enough disk space. Usually /home is the largest partition. An example of the internal download command follows:

```
wget ftp://172.20.98.174/pub/nam1/mydir/kvm/filename.iso -O /home/admin/filename.iso
```

Deploying Prime vNAM on KVM using CLI

You can deploy Prime vNAM using command line interface. See KVM documentation for details. See also the [Host Configuration Requirements](#)

Step 3 To deploy the Prime vNAM and start a console connection, use something similar to the following command. Change the iso path (-disk), and network bridge names as appropriate.

```
virt-install -n <name>_ -c /<path to .iso file> -r 4096 --vcpus=2 --arch=x86_64
--os-type=linux --os-variant=generic26 --disk
path=</path/to/file/that/contains/disk,size=100,bus=ide --network
bridge=<management_bridge>,model=virtio --network bridge=<data_bridge>,model=virtio
```

This command starts a console session on the terminal. You should see the installation process and eventually the Prime vNAM login appears. See [Configuring the Cisco Prime vNAM](#) for details on configuring the Prime vNAM.

Deploying Prime vNAM on KVM using Virtual Machine Manager

This section provides steps to perform Prime vNAM installation on the RHEL KVM operating system. While the following procedure provides a general guideline for how to deploy Cisco Prime vNAM, the exact steps that you need to perform may vary depending on the characteristics of your KVM environment and setup.

These steps assume you have already configured the virtual network bridges before starting the installation. The network bridges enable Prime vNAM to share the KVM host system's physical network connections.

To create a new Prime vNAM virtual machine:

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- Step 1** Log in to the server, and launch the KVM console.
 - Step 2** Launch the Virtual Machine Manager ,and click the Create a New Virtual Machine icon.
 - Step 3** Enter the unique name for this instance of Prime vNAM and select the installation option, then click **Forward**. In the example below, the name is *vNAM_Sample*.
 - Step 4** Under Choose how you would like to install the operating system, select Local install media (ISO image or CDROM), then click **Forward**.
 - Step 5** Select Use ISO Image, click **Browse** to select the location of the Prime vNAM iso file, then click **Forward**.
 - Step 6** Enter the RAM memory size of 4096 MB and select two CPUs.
 - Step 7** Select **Enable storage for this virtual machine** and ensure the **Allocate entire disk now** check box is checked.



Tip

Ensure the LUN is readable and writeable by everyone if your Prime vNAM is using external storage.

Create a new volume, and choose raw format. You must also enter the maximum size for the storage unit (100GB).

- Step 8** Select the new volume and click **Choose Volume**.
- Step 9** Verify your VM settings, check the **Customize configuration before install** check box.
- Step 10** Click Advanced Options drop-down. Make sure that the bridge you have created for management is selected.
- Step 11** Click **Finish**.
Before you install, make sure the following are configured correctly.
- Step 12** Select **Disk 1** in the installation menu panel, change the advanced option Disk Bus to *IDE*, then click **Apply**.
- Step 13** Select **Boot Options** in the installation menu panel. Check the select hard disk, then click **Apply**.
- Step 14** Select **NIC** in the installation menu panel. The NIC that displays is that of the management port for the Prime vNAM. In the Device Model drop-down, choose **virtio**.
- Step 15** Click **Add Hardware**.
- Step 16** In the Add new virtual hardware window, select **Network**.
- Step 17** From the Host device details drop-down, select the interface on which your Prime vNAM will connect to the network. This will be the bridge you created for data.

- Step 18** In the Device Model drop-down, choose **virtio**.
- Step 19** Click **Finish**. Do a quick review of the NIC and other details.
- Step 20** Close the window.

The installation begins.

We recommend that you monitor the messages that appear in the console window to ensure that you are informed about the progress of the installation process.



Note

You may want to set your hypervisor to automatically power up the Cisco Prime vNAM virtual appliance when power is restored to the hypervisor layer. This will avoid having to manually restart your Prime vNAM software. See your hypervisor software documentation for detailed instructions.
