Installing the Cisco CSR 1000v in Citrix XenServer Environments

Citrix XenServer Support Information

Supported Releases

The Cisco CSR 1000v, using Cisco IOS XE 3.10S and later (Cisco IOS XE Denali 16.2 is not supported), is supported in the Citrix XenServer environment.

Other Support Information

The Cisco CSR 1000v installation on Citrix XenServer requires the manual creation of a VM and installation using the .iso file. Deploying the OVA template into a Citrix XenServer environment is not supported in this release.

The Cisco CSR 1000v supports the VIF vNIC type on the Citrix XenServer implementation.

The following Citrix XenServer features are supported:

- Virtual machine power-cycle

- Interface add and delete

Note   This operation requires that the Cisco CSR 1000v is shutdown before performing interface add and delete.

- NIC bonding

- Virtual machine cloning

Only cold cloning is supported, meaning the VM must be powered down when the cloning takes place.

- Taking, restoring and deleting snapshots

Using Citrix XenServer, you can take a snapshot of the current state of the VM. Snapshots are supported when the Cisco CSR 1000v VM is either powered up or powered down.

- Remote storage

- Performance monitoring (CPU, network and disk)

Note The Cisco CSR 1000v does not support XenTools. The XenMotion operation is not supported on the Cisco CSR 1000v because it requires XenTools.

For more information, see Manually Creating the Cisco CSR 1000v VM Using the .iso File (Citrix XenServer), on page 3. For more information, see also the Citrix XenServer documentation.

Installation Requirements for Citrix XenServer

The following are the installation requirements for Citrix XenServer for Cisco CSR 1000V running on Cisco IOS XE 16.12 through 17.3.x images:

- Citrix XenServer version supported: Citrix XenServer 6.5 is recommended—tested and meets performance benchmarks. Citrix XenServer 6.2 is supported

- Supported vCPU configurations. (Also depends on the throughput license and technology package installed–see Datasheet). : 1 vCPU: requires minimum 4 GB RAM allocation; 2 vCPUs: requires minimum 4 GB RAM allocation; 4 vCPUs: requires minimum 4 GB RAM allocation

- Virtual CPU cores required: 1

- Supported vNICs : VIF-netfront (pmap)

- Maximum number of vNICs supported per VM instance: 7

- Virtual CD/DVD drive Installed: Required

- Virtual Disk—a 8 GB virtual disk is supported.

- Virtual CPU cores—1 vCPU is required

Note The Citrix XenServer requirements for early versions of Cisco IOS XE (before IOS XE Denali 16.3) are shown in Installation Requirements for Citrix XenServer: Cisco IOS XE 3.x, on page 4.

Manually Creating the Cisco CSR 1000v VM Using the .iso File (Citrix XenServer)

While the following procedure provides a general guideline for how to manually create the VM for the Cisco CSR 1000v, the exact steps that you need to perform may vary depending on the characteristics of your Citrix XenServer environment and setup. For more information, see the Citrix XenServer documentation.

To determine; for example, the number of vNICs, when installing the Cisco CSR 1000v on a Citrix XenServer VM , see the relevant "Installation Requirements for Citrix XenServer" section for your Cisco IOS XE Denali release.

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Note The Cisco CSR 1000v does not support deploying the OVA file in KVM environments.

The following steps are performed using the Citrix XenCenter console.

SUMMARY STEPS

1. Download the .iso file from the Cisco CSR 1000v software installation image package and copy it onto a local or network device.
2. In the Citrix XenCenter console, to create a new VM, select the server, and click New VM.
3. Click Template. Scroll through the templates and select Other Install Media.
4. In the Name field, enter the name of the VM.
5. When prompted for the installation media, choose from one of the following:
6. Select the server where the VM will be placed.
7. Enter the number of vCPUs and memory settings. Click **Next**.
8. Add the virtual disks by inputting the following fields:
9. On the Networking screen, select the networks that will connect to the Cisco CSR 1000v through the vNICs.
10. Click **Finish**.

DETAILED STEPS

Step 1 Download the .iso file from the Cisco CSR 1000v software installation image package and copy it onto a local or network device.

Step 2 In the Citrix XenCenter console, to create a new VM, select the server, and click New VM.

The Select a VM template screen displays.

Step 3 Click Template. Scroll through the templates and select Other Install Media.

Click **Next**.

Step 4 In the Name field, enter the name of the VM.

Step 5 When prompted for the installation media, choose from one of the following:

• Install from the ISO library or DVD drive

• Boot from network

Click **Next**.

Step 6   Select the server where the VM will be placed.

Select the checkbox for Place the VM on the server. Click Next.

Step 7   Enter the number of vCPUs and memory settings. Click **Next**.

Step 8   Add the virtual disks by inputting the following fields:

• Enter the description (optional).

• Select the virtual disk size from the pull-down menu.

See the requirements sections in this guide for the supported number of vCPUs and memory requirements for your release.

• Enter the location of the virtual disk.

Click **Add** and then click **Next**.

Step 9   On the Networking screen, select the networks that will connect to the Cisco CSR 1000v through the vNICs.

See the requirements sections in this guide for the supported number of vCPUs and memory requirements for your release.

a)   Select a network and click **Add Network**.
b)   Select External and click **Next**.
c)   Type in the network name. Click **Next**.
d)   Select the NIC to use, the VLAN, and set the MTU value.

Step 10   Click **Finish**.

The new network is added. Repeat the procedure in the previous step for each vNIC.

For more information about booting the VM, see the documentation at: http://www.citrix.com/. When the VM is booted, the Cisco CSR 1000v begins the first-time boot process. See Booting the Cisco CSR 1000v and Accessing the Console to continue the boot process.

Installation Requirements for Citrix XenServer: Cisco IOS XE 3.x

Installation Requirements for Citrix XenServer (Cisco IOS XE 3.14, 3.15, 3.16, 3.17)

For installation procedures, see Manually Creating the Cisco CSR 1000v VM Using the .iso File (Citrix XenServer), on page 3.

• Citrix XenServer version supported: 6.2

• The following supported vCPU configurations also depend on the throughput license and technology package installed–see Datasheet.

1 vCPU: requires minimum 4 GB RAM allocation

2 vCPUs: requires minimum 4 GB RAM allocation

4 vCPUs: requires minimum 4 GB RAM allocation

- Virtual CPU cores required: 1

- Virtual hard disk size: 8 GB minimum

- Supported vNICs : VIF

- Maximum number of vNICs supported per VM instance: 7

- Virtual CD/DVD drive Installed: Required

Installation Requirements for Citrix XenServer (Cisco IOS XE 3.13)

For installation procedures, see Manually Creating the Cisco CSR 1000v VM Using the .iso File (Citrix XenServer), on page 3.

- Citrix XenServer version supported: 6.2

- Supported vCPU configurations (also depends on the throughput license and technology package installed–see Datasheet) : 1 vCPU: requires minimum 2.5 GB RAM allocation

2 vCPUs: requires minimum 2.5 GB RAM allocation

4 vCPUs: requires minimum 4 GB RAM allocation

- Virtual CPU cores required: 1

- Virtual hard disk size: 8 GB minimum

- Supported vNICs : VIF

- Maximum number of vNICs supported per VM instance: 7

- Virtual CD/DVD drive Installed: Required

Installation Requirements for Citrix XenServer (Cisco IOS XE 3.11, 3.12)

For installation procedures, see Manually Creating the Cisco CSR 1000v VM Using the .iso File (Citrix XenServer), on page 3.

- Citrix XenServer version supported: 6.0.2, 6.1

- Supported vCPU configurations (also depends on the throughput license and technology package installed–see Datasheet) : 1 vCPU: requires minimum 2.5 GB RAM allocation

2 vCPUs: requires minimum 2.5 GB RAM allocation

4 vCPUs: requires minimum 4 GB RAM allocation

- Virtual CPU cores required: 1

- Virtual hard disk size: 8 GB minimum

- Supported vNICs : VIF

- Maximum number of vNICs supported per VM instance: 7

• Virtual CD/DVD drive Installed: Required

Installation Requirements for Citrix XenServer (Cisco IOS XE 3.10)

For installation procedures, see Manually Creating the Cisco CSR 1000v VM Using the .iso File (Citrix XenServer), on page 3.

• Citrix XenServer version supported: 6.0.2

• Supported vCPU configurations. (Also depends on the throughput license and technology package installed–see Datasheet). : 4 vCPUs: requires 4 GB minimum RAM allocation

• Virtual CPU cores required: 1

• Virtual hard disk size: 8 GB minimum

• Supported vNICs : VIF

• Maximum number of vNICs supported per VM instance: 7

• Virtual CD/DVD drive Installed: Required

Note (Cisco IOS XE 3.10S Release and earlier) The network added to NIC0 maps to the Gigabit Ethernet 0 management interface on the Cisco CSR 1000v.