Cisco Application Services Engine Installation Guide For Cisco DCNM, Release 11.4(1)

New and Changed

This document provides procedures for installing DCNM on a Cisco Application Service Engine (ASE) appliance. The following table provides an overview of the significant changes to this guide up to this current release.

Table 1: New and Changed Information In This Document

Feature	Description
LAN Fabric	Cisco ASE now supports the Cisco DCNM LAN Fabric deployment.
Media Controller	Cisco ASE now supports the Cisco DCNM Media Controller deployment.
SAN only	Cisco ASE now supports the Cisco DCNM SAN only deployment.

Overview

Cisco DCNM Release 11.3(1) adds support for installing Cisco DCNM standalone compute nodes on Cisco Application Services Engine (ASE). Installing compute nodes enables you to scale Cisco DCNM by sharing the application nodes across all the compute nodes.

Cisco DCNM Release 11.4(1) adds support for Cisco DCNM LAN Fabric, SAN only, and Media Controller deployment. You can deploy the LAN Fabric and Media Controller on Cisco ASE in standalone or native high availability (HA) mode. Native HA mode enables you to deploy two Cisco DCNM appliances: one as active and one as standby. Both the active and standby have embedded databases that are synchronized in real time. This enables the standby to take over with the same database data and to resume the operation when the active is not functioning.

Installing Cisco DCNM on Cisco ASE

This section describes how to install Cisco DCNM on Cisco ASE.

Before you begin

• Set up the hardware and network connectivity, as described in Cisco Application Services Engine Hardware Installation Guide.

Procedure

Step 1   Power on the hardware and open the CIMC KVM console. A welcome message appears.

Step 2   Press **Enter** to continue.

Step 3   At the prompt, enter the following:

    a.   The **Management Network IPv4** address.

    b.   The **Management Network Subnet Mask**.

    c.   The **Management Network Gateway**.

Step 4 Review to confirm the values then enter **y** to confirm.

The provided IP addresses are used to configure the management network interface (eth0). The system will now be reachable over the network.

Step 5 Open the URL displayed on the console.

Step 6 Press **Enter**. The *Welcome to Cisco DCNM* message appears.

The remaining steps depend on what you want to install. For more information, refer to the appropriate Cisco DCNM installation guide:

Installation	Cisco DCNM Installation Guide	Section Title
LAN Fabric	*Cisco DCNM Installation and Upgrade Guide for LAN Fabric Deployment*.	• *Installing the Cisco DCNM OVA in Standalone Mode* • *Installing the Cisco DCNM OVA in Native HA Mode*
SAN only	*Cisco DCNM Installation and Upgrade Guide for SAN Deployment*	*Installing the Cisco DCNM OVA in Standalone Mode*
Media Controller	*Cisco DCNM Installation and Upgrade Guide for Media Controller Deployment*	• *Installing the Cisco DCNM OVA in Standalone Mode* • *Installing the Cisco DCNM OVA in Native HA Mode*
Compute	*Cisco DCNM Installation and Upgrade Guide for LAN Fabric Deployment*.	*Installing Cisco DCNM Compute Node*

Performing an Inline Upgrade for Cisco DCNM Compute Nodes

You can upgrade the DCNM compute nodes from Release 11.3(1) to Release 11.4(1) using the inline upgrade. Inline upgrade allows you to upgrade the compute node by imposing the new DCNM version to the existing compute node.

Perform the following task to upgrade the DCNM compute node in both Standalone and Native HA modes.

Before you begin

Cisco DCNM Servers in either Standalone node or Native HA mode must be upgraded to Release 11.4(1), before upgrading the DCNM compute nodes.

Procedure

Step 1 Log on to the Cisco DCNM Compute console.

> **Caution** Do not perform an Inline Upgrade from an SSH Session. The session may timeout and result in an incomplete upgrade.

OR

Run the following command to create a screen session on the compute node.

```
dcnm-compute# screen
```

This creates a session which allows you to execute the commands. The commands continue to run even when the window isn't visible or if you get disconnected.

Step 2 Unzip the `dcnm-va.11.4.1.iso.zip` file and upload the `DCNM 11.4(1) ISO` file to the `/root/` folder in all the compute nodes.

Step 3 Create folder that is named **iso** using the **mkdir /mnt/iso** command, on all the computes.

```
dcnm-compute# mkdir /mnt/iso
```

Step 4 Mount the DCNM 11.4(1) ISO file on the compute node in the `/mnt/iso` folder.

mount -o loop <*DCNM 11.4(1) image*> **/mnt/iso**

```
dcnm-compute# mount -o loop dcnm-va.11.4.1.iso /mnt/iso
```

Mount the ISO on all the compute nodes.

Step 5 Navigate to **/root/packaged-files/installers/** and change the name of the dcnm-installer-x64.11.3.1.IDM.0.25.S0.bin file:

```
dcnm-compute# mv dcnm-installer-x64.11.3.1.IDM.0.25.S0.bin dcnm-installer-x64.11.3.1.S0.bin
```

Step 6 Navigate to **/mnt/iso/packaged-files/scripts/** and run the **./inline-upgrade.sh** script.

```
dcnm-compute# cd /mnt/iso/packaged-files/scripts/
dcnm-compute# ./inline-upgrade.sh
Do you want to continue and perform the inline upgrade to 11.4(1)? [y/n]: y
```

Note If some services are still running, a prompt to stop the services appears. When prompted, press **y** to continue.

Step 7 Verify that you have successfully upgraded to Cisco DCNM Release 11.4(1), using the **appmgr show version** command.

```
dcnm-compute# appmgr show version

Cisco Data Center Network Manager
Version: 11.4(1)
Install mode: Compute
```

What to do next

You must upgrade all the three compute nodes in the cluster.

After the Upgrade process is complete, each compute node will reboot and join the cluster automatically. On the Cisco DCNM Web UI, choose **Applications > Compute** to verify if the compute node appears as **Joined**.

Reinstalling Cisco DCNM Software

Cisco DCNM Service Engine appliance is preinstalled by the Cisco manufacturing and needs to be installed again. These steps are for a reinstallation-only case.

Procedure

Step 1 Download Cisco DCNM compute image from https://software.cisco.com/download/home. Ensure that you select the *dcnm-se.11.3.1.iso.zip* image.

Step 2 Unzip and mount the *dcnm-se.11.4.1.iso* image in KVM/CIMC console.

Step 3 Installation can be monitored either from **Serial over LAN** or the KVM Console. Refer to Managing Serial over LAN for more information on enabling Serial over LAN.

Step 4 Boot the server in UEFI mode (default mode). The server can be booted in legacy BIOS mode as well.

Step 5 In the boot menu, boot from virtual CD/DVD.

> **Attention** All the disks will be wiped out.

Step 6 Monitor the installation through virtual serial console. System will shutdown after OS is installed.