C H A P T E R 27

Starting and Stopping Cisco DCNM-LAN Servers

This chapter describes how to start or stop Cisco Data Center Network Manager for LAN (DCNM-LAN) servers.

This chapter includes the following sections:

Information About Starting and Stopping DCNM-LAN Servers

Starting and stopping DCNM-LAN servers is a necessary part of server maintenance, such as during database backup, cleaning, or restoration. In a clustered server deployment, the order in which you start DCNM-LAN servers determines which server is the master server. This chapter provides detailed steps for starting and stopping DCNM-LAN servers for both single-server deployments and clustered-server deployments.

Licensing Requirements for Starting and Stopping Cisco DCNM-LAN Servers

The following table shows the licensing requirements for this feature:

Product	License Requirement
Cisco DCNM-LAN	Starting and stopping Cisco DCNM-LAN servers requires no license. Any feature not included in a license package is bundled with the Cisco DCNM-LAN and is provided at no charge to you. For information about obtaining and installing a Cisco DCNM LAN Enterprise license, see the *Cisco DCNM Installation and Licensing Guide, Release 5.x.*

Starting DCNM-LAN Servers

This section includes the following topics:

Starting a Single DCNM-LAN Server

You can start a single DCNM-LAN server. The procedures for starting a single DCNM-LAN server differ for systems using the supported Microsoft Windows Server and Red Hat Enterprise Linux (RHEL) operating systems, as described in the following topics:

Starting a Single DCNM-LAN Server (Microsoft Windows Server)

On a server system running Microsoft Windows Server, you can start a DCNM-LAN server through the Windows services or by clicking the Start DCNM-LAN Server icon.

BEFORE YOU BEGIN

You must have installed the DCNM-LAN server.

If you are starting a server cluster, ensure that you are starting the server in the correct order. For more information, see the "Starting a Cluster of DCNM-LAN Servers" section on page 27-3.

DETAILED STEPS

Step 1   Open the Control Panel window and choose **Administrative Tools > Services**.

The Services window opens.

Step 2   Right-click **Cisco DCNM Server** and choose **Start**.

> **Note**   Alternatively, you can choose **Start > All Programs > Cisco DCNM Server > Start DCNM Server**; however, the location of shortcuts depends upon the choices you made when you installed the DCNM-LAN server.

A splash screen opens while the DCNM-LAN server starts. This screen closes once the DCNM-LAN server is running.

Starting a Single DCNM-LAN Server (RHEL)

On a server system that runs RHEL, you can start a DCNM-LAN server with the Start_DCNM_LAN_Server script. The script is located in your home folder or the folder that was specified when setting up the link folder during the installation of Cisco DCNM-LAN.

Note   Start_DCNM_LAN_Server launches /usr/local/Cisco/dcm/dcnm/bin/startdcnm.sh.

BEFORE YOU BEGIN

The DCNM-LAN server must be installed.

If you are starting a server cluster, ensure that you are starting the server in the correct order. For more information, see the "Starting a Cluster of DCNM-LAN Servers" section on page 27-3.

DETAILED STEPS

Step 1   Use the **Start_DCNM_LAN_Server** script to start the server on a RHEL operating system.

The DCNM-LAN server opens a server console window and displays the processes it runs to start the server. The server is running when you see a "Started in Xm:XXs:XXXms" message.

Starting a Cluster of DCNM-LAN Servers

Depending on the operating system of the secondary server, the DCNM-LAN server can be started using the Windows GUI, the CLI, or the DCNM Install Manager tool. You can use the CLI or the DCNM Install Manager tool for a secondary server running RHEL. For a secondary server running Microsoft Windows, the DCNM-LAN server is started with the Windows GUI.

Starting with Windows GUI or RHEL CLI

Starting a cluster of DCNM-LAN servers requires starting each server individually; however, the order of server startup is important. The server with the oldest start time performs the master server role in the server cluster.

BEFORE YOU BEGIN

We recommend that you use the primary installation server as the master server. For information about deploying a clustered-server environment, see the *Cisco DCNM Installation and Licensing Guide, Release 6.x.*

If any server in the cluster is running, stop it prior to starting the cluster. The only way that you can control which server is the master server is by ensuring that the master server is started before the other servers start. For more information, see the "Stopping DCNM-LAN Servers" section on page 27-5.

DETAILED STEPS

Step 1   Start the server that you want to be the master server of the cluster. To do so, follow the steps for starting a single DCNM-LAN server for the applicable operating system:

- Starting a Single DCNM-LAN Server (Microsoft Windows Server), page 27-2
- Starting a Single DCNM-LAN Server (RHEL), page 27-2

Step 2   Wait for the master server to finish starting.

Step 3   One at a time, start the other servers in the cluster. After starting a server, wait at least one minute before starting the next server. This delay helps ensure faster stabilization of the server cluster.

For each server, follow the steps for starting a single DCNM-LAN server for the applicable operating system:

- Starting a Single DCNM-LAN Server (Microsoft Windows Server), page 27-2
- Starting a Single DCNM-LAN Server (RHEL), page 27-2

Starting with Install Manager

DCNM Install Manager is a GUI tool for servers that run Linux. It is designed to assist in performing silent mode operations on secondary servers (remote nodes).

✎
Note   DCNM Install Manager does not support Windows servers.

DETAILED STEPS

Step 1   To access Install Manager, navigate to the dcnm-install-manager.sh file that is located in the bin folder where the DCNM-LAN server was installed.

The default bin folder location for servers running Linux is /usr/local/Cisco/dcm/dcnm/bin.

Step 2   Double click the **dcnm-install-manager.sh** file to launch Install Manager.

Step 3   In the tool bar, click the **New** icon near the top of the Install Manager GUI for every secondary server.

A new row in the list of Server Nodes is created every time the New icon is clicked.

✎
Note   In the toolbar, click the **Delete** icon to delete a selected row in the list of Server Nodes. This step does not delete a secondary server from the clustered-server environment.

Step 4   For each secondary server represented by a row in the list of Server Nodes, enter the following:

- Server name or IP address in the Server Name/IP Address field.
- Protocol used for connectivity in the Protocol field.

  The protocol is either Telnet or SSH.

- User credentials (user ID and password) used for connecting to the secondary server in the User Credentials field.

  The user credentials are used for SSH connectivity to the server. Telnet connectivity to the server does not require user credentials.

  Alternatively, default user credentials may be set by entering the credentials in the Default Credentials section of the GUI. The default credentials are used when the User Credential field is blank.

- (Optional) Comments that may be useful to identify the secondary server in the Comments field.

The Last Action Status column in the list of Server Nodes includes the success or failure status of the last performed action. Clicking the "+" icon for the Last Action Status expands the display to show the entire log of actions performed on the server.

Step 5   In the list of Server Nodes, select the secondary servers to start.

Step 6   In the toolbar, click the **Verify** icon to verify the connectivity to the selected secondary servers.

Correct any connectivity issues before continuing.

Step 7   In the toolbar, click the **Start** icon to start the selected secondary servers.

Note   The Install Manager is a standalone application. The settings specified are not saved and are not persistent. The settings are lost when the Install Manager GUI is closed.

Stopping DCNM-LAN Servers

This section includes the following topics:

- Stopping Single DCNM-LAN Servers, page 27-5
- Stopping a Cluster of DCNM-LAN Servers, page 27-6

Stopping Single DCNM-LAN Servers

You can stop a single DCNM-LAN server.

The steps for stopping a single DCNM-LAN server differ for systems using the supported Microsoft Windows Server and RHEL operating systems, as described in the following topics:

- Stopping a Single DCNM-LAN Server (Microsoft Windows Server), page 27-5
- Stopping a Single DCNM-LAN Server (RHEL), page 27-6

Stopping a Single DCNM-LAN Server (Microsoft Windows Server)

On a server system that runs Microsoft Windows Server, you can stop a DCNM-LAN server through the Windows services or by clicking the Stop DCNM Server icon.

DETAILED STEPS

Step 1   Open the Control Panel window and choose **Administrative Tools > Services**.

A window opens listing the Windows services.

Step 2   Right-click **Cisco DCNM Server** and choose **Stop**.

Note   Alternatively, you can choose **Start > All Programs > Cisco DCNM Server > Stop DCNM Server**; however, the location of shortcuts depends upon the choices you made when you installed the DCNM-LAN server.

A splash screen opens while the DCNM-LAN server begins to shut down. When the DCNM-LAN server has stopped, the splash screen closes.

Stopping a Single DCNM-LAN Server (RHEL)

On a server system that runs RHEL, you can stop a DCNM-LAN server with the Stop_DCNM_LAN_Server script. The script is located in your home folder or the folder that was specified when setting up the link folder during the installation of Cisco DCNM-LAN.

✎
Note   Stop_DCNM_LAN_Server launches /usr/local/Cisco/dcm/dcnm/bin/stopdcnm.sh.

DETAILED STEPS

Step 1   Use the **Stop_DCNM_LAN_Server** script to stop the server on a RHEL operating system.

The DCNM-LAN server opens a server console window and displays the processes that it runs to stop the server. The server is stopped when you see a "Stopped at Xm:XXs:XXXms" message.

Stopping a Cluster of DCNM-LAN Servers

Depending on the operating system of the secondary server, the DCNM-LAN server can be stopped using the CLI or the DCNM Install Manager tool. You can use the CLI or the DCNM Install Manager tool for a secondary server running RHEL. For a secondary server running Microsoft Windows, the DCNM-LAN server is stopped with the CLI.

Stopping with CLI

If you have a clustered-server DCNM-LAN deployment, you can use the stop-dcnm-cluster script to stop all the servers in the cluster.

BEFORE YOU BEGIN

Ensure that you know which server is currently the master server in the DCNM-LAN server cluster. You can use the Cluster Administration feature to do so.

DETAILED STEPS

Step 1   On the master server, access a command prompt.

Step 2   Use the **cd** command to change the directory to the bin directory under the Cisco DCNM installation directory, as follows:

cd *path*

where *path* is the relative or absolute path to the bin directory. For Microsoft Windows, the default path to the Cisco DCNM bin directory is C:\Program Files\Cisco Systems\dcm\dcnm\bin. For RHEL, the default path to the bin directory is /usr/local/cisco/dcm/dcnm/bin.

Step 3   Run the **stop-dcnm-cluster** script. The script name depends upon the server operating system, as shown in the following table:

Server Operating System	Stop DCNM Cluster Script
Microsoft Windows	stop-dcnm-cluster.bat
Linux	stop-dcnm-cluster.sh

The script instructs each DCNM-LAN server in the cluster to stop.

Example

The following example from a Microsoft Windows server shows how to stop a cluster of DCNM-LAN servers, with DCNM-LAN installed in the default directory:

```
C:\Documents and Settings\Administrator>cd "C:\Program Files\Cisco Systems\dcm\dcnm\bin"

C:\Program Files\Cisco Systems\dcm\dcnm\bin>stop-dcnm-cluster.bat

C:\Program Files\Cisco Systems\dcm\dcnm\bin>set JAVA_HOME=C:\Program Files\Cisco Systems\
dcm\java\jre1.5

C:\Program Files\Cisco Systems\dcm\dcnm\bin>"C:\Program Files\Cisco Systems\dcm\
jboss-4.2.2.GA\bin\twiddle.bat" -s 172.28.254.254:1099 invoke
"com.cisco.dcbu.dcm:service=ClusterServerInfo" stopServerInstancesInCluster 10
Shutdown Triggered for all Servers Successfully
C:\Program Files\Cisco Systems\dcm\dcnm\bin>
```

Stopping with Install Manager

Cisco DCNM Install Manager is a GUI tool for servers that runs Linux. It is designed to assist in performing silent mode operations on secondary servers (remote nodes).

Note   Cisco DCNM Install Manager does not support Windows servers.

DETAILED STEPS

Step 1   To access Install Manager, navigate to the dcnm-install-manager.sh file that is located in the bin folder where the DCNM-LAN server was installed.

The default bin folder location for servers running Linux is /usr/local/Cisco/dcm/dcnm/bin.

Step 2   Double click the **dcnm-install-manager.sh** file to launch Install Manager.

Step 3   In the toolbar, click the **New** icon near the top of the Install Manager GUI for every secondary server.

A new row in the list of Server Nodes is created every time that the New icon is clicked.

Note   In the toolbar, click the **Delete** icon to delete a selected row in the list of Server Nodes. This step does not delete a secondary server from the clustered-server environment.

Step 4   For each secondary server represented by a row in the list of Server Nodes, enter the following:

- Server name or IP address in the Server Name/IP Address field.

- Protocol used for connectivity in the Protocol field.

    The protocol is either Telnet or SSH.

- User credentials (user ID and password) used for connecting to the secondary server in the User Credentials field.

    The user credentials are used for SSH connectivity to the server. Telnet connectivity to the server does not require user credentials.

    Alternatively, default user credentials can be set by entering the credentials in the Default Credentials section of the GUI. The default credentials are used when the User Credential field is blank.

- (Optional) Comments that might be useful to identify the secondary server in the Comments field.

The Last Action Status column in the list of Server Nodes includes the success or failure status of the last performed action. Clicking the "+" icon for the Last Action Status expands the display to show the entire log of actions performed on the server.

Step 5   In the list of Server Nodes, choose the secondary servers to stop.

Step 6   In the toolbar, click the **Verify** icon to verify the connectivity to the selected secondary servers.

Correct any connectivity issues before continuing.

Step 7   In the toolbar, click the **Stop** icon to stop the selected secondary servers.

Note   The Install Manager is a standalone application. The settings specified are not saved and are not persistent. The settings are lost when you exit the Install Manager GUI.

Related Documents

Related Topic	Document Title
Deploying single DCNM-LAN servers and deploying DCNM-LAN server clusters	*Cisco DCNM Installation and Licensing Guide, Release 6.x*
Backing up, cleaning, and restoring DCNM-LAN databases	Chapter 37, "Maintaining the Cisco DCNM-LAN Database"

Feature History for Starting and Stopping a DCNM-LAN Server

Table 27-1 lists the release history for this feature.

Table 27-1   Feature History for Starting and Stopping a DCNM-LAN Server

Feature Name	Releases	Feature Information
Starting and stopping a cluster of servers	5.0(2)	Support for starting and stopping a cluster of servers was introduced.