

# **Administration**

This chapter contains the following topics:

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- Event Setup, on page 12
- Credentials Management, on page 17

# **DCNM Server**

The DCNM Server menu includes the following submenus:

# Starting, Restarting, and Stopping Services

To clean up the performance manager database (PM DB) stale entries, start, restart, or stop a service, from the Cisco DCNM Web UI, perform the following steps:

#### **Procedure**

- **Step 1** Choose Administration > DCNM Server > Server Status.
  - The **Status** window appears that displays the server details.
- Step 2 In the Actions column, click the Re(start) icon to start or restart services, and click the Stop icon to stop services.
- **Step 3** In the **Actions** column, click the **Delete** icon to clean up PM DB stale entries.
- **Step 4** You can see the latest status in the **Status** column.

#### What to do next

See the latest status in the Status column.

**Using the Commands Table** 

The commands table contains links to commands that launch new dialog boxes to provide information about the server status and server administrative utility scripts. These commands can be directly executed on the server CLI as well.

- **ifconfig**: click this link to view information about interface parameters, IP address, and netmask used on the Cisco DCNM server.
- appmgr status all: click this link to view the DCNM server administrative utility script that checks the status of different services currently running.
- clock: click this link to view information about the server clock details such as time, zone information.



Note

The commands section is applicable only for the OVA or ISO installations.

## **Viewing Log Information**

You can view the logs for performance manager, SAN management server, SME server, web reports, web server, and web services. These processes have no corresponding GUI that allows you to view information about these log files. If you see errors, preserve these files for viewing.



Note

Logs cannot be viewed from a remote server in a federation.

To view the logs from the Cisco DCNM Web UI, perform the following steps:

#### **Procedure**

#### **Step 1** Choose Administration > DCNM Server > Logs.

You see a tree-based list of logs in the left column. Under the tree, there is a node for every server in the federation. The log files are under the corresponding server node.

- **Step 2** Click a log file under each node of the tree to view it on the right.
- **Step 3** Double-click the tree node for each server to download a ZIP file containing log files from that server.
- **Step 4** Click the **Print** icon on the upper right corner to print the logs.

# **Server Properties**

You can set the parameters that are populated as default values in the DCNM server.

The backup configuration files are stored in the following path:

/usr/local/cisco/dcm/dcnm/data/archive

The number of archived files that can be retained is set in the # Number of archived files per device to be retained: field. In the Cisco DCNM LAN Fabric installation, the backup is taken per fabric and not per device. If the number of backup files exceeds the value entered in the field, the first version of the backup is deleted

to accommodate the latest version. For example, if the value entered in the field is **50** and when the 51<sup>st</sup> version of the fabric is backed up, the first backup file is deleted.

To set the parameters of the DCNM server from the Cisco DCNM Web UI, perform the following steps:

#### **Procedure**

- **Step 1** Choose **Administration > DCNM Server > Server Properties**.
- **Step 2** Click **Apply Changes** to save the server settings.

# **Modular Device Support**

To support any new hardware that does not require many major changes, a patch can be delivered instead of waiting for the next DCNM release. **Modular Device Support** helps to deliver and apply the DCNM patch releases. An authorized DCNM administrator can apply the patch to the production setup. Patch releases are applicable for the following scenarios:

- Support any new hardware, like chassis or line cards
- Support latest NX-OS versions
- Support critical fixes as patches

To view the patch details from Cisco DCNM Web UI, perform the following steps:

#### **Procedure**

**Step 1** Choose Administration > DCNM Server > Modular Device Support.

You see the **DCNM Servers** column on the left in the window and **Modular Device support information** window on the right.

**Step 2** Expand **DCNM Servers** to view all the DCNM servers.

It includes the list of patches installed along with the version number, corresponding platforms supported, chassis supported, NX-OS version supported, PID supported, backup directory and the last patch deployment time in the **Modular Device support information** table.

#### What to do next

For more details about how to apply and rollback a patch, go to <a href="http://www.cisco.com/go/dcnm">http://www.cisco.com/go/dcnm</a> for more information.

### **Managing Licenses**

You can view the existing Cisco DCNM licenses by choosing **Administration > DCNM Server > License**. You can view and assign licenses in the following tabs:

- License Assignments
- Server License Files



Note

By default, the License Assignments tab appears.

The following table displays the SAN and LAN license information.

Field	Description
License	Specifies SAN or LAN.
Free/Total Server-based Licenses	Specifies the number of free licenses that are purchased out of the total number of licenses.
Unlicensed/Total (Switches/VDCs)	Specifies the number of unlicensed switches or VDCs out of the total number of switches or VDCs.
Need to Purchase	Specifies the number of licenses to be purchased.

This section includes the following topics:

### **License Assignments**

The following table displays the license assignment details for every switch or VDC.

Field	Description	
Group	Displays if the group is fabric or LAN.	
Switch Name	Displays the name of the switch.	
WWN/Chassis ID	Displays the world wide name or Chassis ID.	
Model	Displays the model of the device. For example, DS-C9124 or N5K-C5020P-BF.	
License State	Displays the license state of the switch that can be one of the following:  • Permanent  • Eval  • Unlicensed  • Not Applicable  • Expired  • Invalid	
License Type	Displays if the license is a switch-based embedded license or a server-based license.	

Field	Description	
Eval Expiration	Displays the expiry date of the license.	
	Note Text under the Eval Expiration column is in red for licenses, which expire in seven days.	
Assign License	Select a row and click this option on the toolbar to assign the license.	
Unassign License	Select a row and click this option on the toolbar to unassign the license.	
Assign All	Click this option on the toolbar to refresh the table and assign the licenses for all the items in the table.	
Unassign All	Click this option on the toolbar to refresh the table and unassign all the licenses.	



Note

You must have network administrator privileges to assign or unassign licenses.

When the fabric is first discovered and if the switch does not have a valid switch-based license, a license is automatically assigned to the fabric from the file license pool until no more licenses are left in the pool. If you have an existing fabric and a new switch is added to the fabric, the new switch is assigned a license if one is available in the file license pool and if it does not already have a switch-based license.

### **Server License Files**

#### **Server License Files**

The following table displays the Cisco DCNM server license fields.

Field	Description	
Filename	Specifies the license file name.	
Feature	Specifies the licensed feature.	
PID	Specifies the product ID.	
LAN (Free/Total)	Displays the number of free versus total licenses for LAN.	
Eval Expiration	Displays the expiry date of the license.	
	Note Text in the Eval Expiration field is in Red for licenses that expires in seven days.	

#### **Adding Cisco DCNM Licenses**

To add Cisco DCNM licenses from Cisco DCNM, perform the following steps:

#### Before you begin

You must have network administrator privileges to complete the following procedure.

- **Step 1** Choose **Administration > DCNM Server > License** to start the license wizard.
- **Step 2** Choose the **Server License Files** tab.

The valid Cisco DCNM-LAN license files are displayed.

Ensure that the security agent is disabled when you load licenses.

- **Step 3** Download the license pack file that you received from Cisco into a directory on the local system.
- **Step 4** Click **Add License File** and select the license pack file that you saved on the local machine.

The file is uploaded to the server machine, which is saved into the server license directory, and then loaded on to the server.

Note

Ensure that you do not edit the contents of the .lic file or the Cisco DCNM software ignores any features that are associated with that license file. The contents of the file are signed and must remain intact. When you accidentally copy, rename, or insert the license file multiple times, the duplicate files are ignored, but the original is counted.

### **Native HA**

#### **Procedure**

- Step 1 By default, DCNM is bundled with an embedded database engine PostgreSQL. The native DCNM HA is achieved by two DCNMs running as Active / Warm Standby, with their embedded databases synchronized in real time. So once the active DCNM is down, the standby takes over with the same database data and resume the operation. The *standby host database down* scenario is documented after this procedure.
- Step 2 From the menu bar, choose Administration > DCNM Server > Native HA.

You see the Native HA window.

- Step 3 You can allow manual failover of DCNM to the standby host by clicking the Failover button, and then click OK.
  - Alternatively, you can initiate this action from the Linux console.
  - 1. SSH into the DCNM active host.
  - **2.** Enter " " /usr/share/heartbeat/hb\_standby"
- Step 4 You can allow manual syncing database and disk files to standby host by clicking Force Sync, and then click OK.
- **Step 5** You can test or validate the HA setup by clicking **Test** and then click **OK**.

#### What to do next

Some HA troubleshooting scenarios are noted in this sub section.

The standby host database is down: Typically, the DCNM database (PostgreSQL) is up on the active and standby hosts. In DCNM 10.1 and earlier versions, the standby database can be down due to a database synchronization failure.

- Enter "ps -ef | grep post". You should see multiple postgres processes running. If not, it indicates that the database is down.
- Restore database data from a backup file that is created at the beginning of database synchronization.
   Change directory to "/usr/local/cisco/dcm/db"
- Check existence of file replication/ pgsql-standby-backup.tgz. If the file exists, restore database data files:

```
rm -rf data/*
tar -zxf replication/ pgsql-standby-backup.tgz data
/etc/init.d/postgresql-9.4 start
ps -ef | grep post
```

The active DCNM host will synchronize the two databases.

The TFTP server is not bound to the eth1 VIP address on the active host: The TFTP server should run on the active host (not on the standby host), and it should be bound to the eth1 VIP address. In some setups, the bind address is not the VIP address, as per the TFTP configuration file, and this could cause issues when switches try to use TFTP.

- Enter "grep bind /etc/xinetd.d/tftp" to check if the TFTP configuration file has the right bind address. If the displayed IP address is not the eth1 VIP address, then change the bind address to the VIP address. Repeat the procedure for the standby host. Update the bind address to the VIP address.
- Enter " " /etc/init.d/xinetd restart" on the active host to restart TFTP.



Note

The TFTP server can be started or stopped with the "appmgr start/stop ha-apps" command.

# **Multi Site Manager**

#### Procedure

- Step 1 Multi-Site-Manager (MsM) provides a single pane for users to search for switches that are managed by DCNM globally. MSM can do realtime search to find out which switch globally handles the traffic for a given virtual machine based on IP address, name or mac address, and supporting VXLAN basing on segment ID as well. It provides hyperlink to launch the switch only. This window also plays the role of remote site registration. The registration only allows the current DCNM server to access the remote DCNM server or site. For the remote site to access the current DCNM server, registration is required on the remote site as well.
- **Step 2** Choose Administration > DCNM Server > Multi Site Manager.

The MsM window displays the overall health or status of the remote site and the application health.

- Step 3 You can search by Switch, VM IP, VM Name, MAC, and Segment ID.
- You can add a new DCNM server by clicking +Add DCNM Server. The Enter Remote DCNM Server Information window opens. Fill in the information that is required and click OK to save.
- **Step 5** Click **Refresh All Sites** to display the updated information.

# **Management Users**

The Management Users menu includes the following submenus:

### Remote AAA

To configure remote AAA from the Cisco DCNM Web UI, perform the following steps:

#### **Procedure**

**Step 1** Choose Administration > Management Users > Remote AAA Properties.

The AAA properties configuration window appears.

- **Step 2** Use the radio button to select one of the following authentication modes:
  - Local: In this mode the authentication authenticates with the local server.
  - Radius: In this mode the authentication authenticates against the RADIUS servers specified.
  - TACACS+: In this mode the authentication authenticates against the TACAS servers specified.
  - Switch: In this mode the authentication authenticates against the switches specified.
  - LDAP: In this mode the authentication authenticates against the LDAP server specified.
- Step 3 Click Apply.

**Note** Restart the Cisco DCNM LAN services if you update the Remote AAA properties.

#### Local

#### **Procedure**

- **Step 1** Use the radio button and select **Local** as the authentication mode.
- **Step 2** Click **Apply** to confirm the authentication mode.

#### **Radius**

#### **Procedure**

- **Step 1** Use the radio button and select **Radius** as the authentication mode.
- **Step 2** Specify the Primary server details and click **Test** to test the server.
- **Step 3** (Optional) Specify the Secondary and Tertiary server details and click **Test** to test the server.
- **Step 4** Click **Apply** to confirm the authentication mode.

### TACACS+

#### **Procedure**

- **Step 1** Use the radio button and select **TACACS**+ as the authentication mode.
- **Step 2** Specify the Primary server details and click **Test** to test the server.
- **Step 3** (Optional) Specify the Secondary and Tertiary server details and click **Test** to test the server.
- **Step 4** Click **Apply** to confirm the authentication mode.

### **Switch**

#### **Procedure**

- **Step 1** Use the radio button to select **Switch** as the authentication mode.
  - DCNM also supports LAN switches with the IPv6 management interface.
- **Step 2** Specify the Primary Switch name and click **Apply** to confirm the authentication mode.
- **Step 3** (Optional) Specify the names for Secondary and Tertiary Switches.
- **Step 4** Click **Apply** to confirm the authentication mode.

#### **LDAP**

#### **Procedure**

- **Step 1** Use the radio button and select **LDAP** as the authentication mode.
- **Step 2** In the **Host** field, enter DNS address of the host.
- Step 3 Click Test to test the AAA server. The Test AAA Server window pops out.
- **Step 4** Enter a valid **Username** and **Password** in the **Test AAA Server** window.

A dialog box appears confirming the status of the AAA server test. If the test has failed, the **LDAP Authentication Failed** dialog box appears.

In the Access Map field, enter the Role Based Access Control (RBAC) group to be mapped.

Click Apply Changes icon on the upper right corner to apply the LDAP configuration.

Step 5 In the Port field, enter a port number.
Step 6 (Optional) Select the SSL Enabled check box, if SSL is enabled on the AAA server.
Step 7 In the Base DN field, enter the base domain name.
Step 8 In the Filter field, specify the filter parameters.
Step 9 Choose an option to determine a role by either Attribute or Admin Group Map.
Step 10 In the Role Admin Group field, enter the name of the role.
Step 11 In the Map to DCNM Role field, enter the name of the role to be mapped.

## **Managing Local Users**

As an admin user, you can use Cisco DCNM Web UI to create a new user, assign the role and associate one or more groups or scope for the user.

This section contains the following:

### **Adding Local Users**

Step 12

Step 13

#### **Procedure**

- **Step 1** From the menu bar, choose **Administration > Management Users > Local**. You see the **Local Users** page.
- Step 2 Click Add User.

You see the Add User dialog box.

**Step 3** Enter the username in the **User name** field.

Note The username is case sensitive, but the username guest is a reserved name, which is not case sensitive. The guest user can only view reports. The guest user cannot change the guest password, or access the Admin options in DCNM Web Client.

- **Step 4** From the **Role** drop-down list, select a role for the user.
- **Step 5** In the **Password** field, enter the password.
- Step 6 In the Confirm Password field, enter the password again.
- **Step 7** Click **Add** to add the user to the database.
- **Step 8** Repeat Steps 2 through 7 to continue adding users.

### **Deleting Local Users**

To delete local users from the Cisco DCNM Web UI, perform the following steps:

**Step 1** Choose **Administration > Management Users > Local**.

The Local Users page is displayed.

- Step 2 Select one or more users from the Local Users table and click the Delete User button.
- **Step 3** Click **Yes** on the warning window to delete the local user. Click **No** to cancel deletion.

### **Editing a User**

To edit a user from the Cisco DCNM Web UI, perform the following steps:

#### **Procedure**

- **Step 1** Choose Administration > Management Users > Local.
- Step 2 Use the checkbox to select a user and click the Edit User icon.
- Step 3 In the Edit User window, the Username and Role are mentioned by default. Specify the Password and Confirm Password.
- **Step 4** Click **Apply** to save the changes.

#### **User Access**

To control the local users to access the specific groups from the Cisco DCNM Web UI, perform the following steps:

#### **Procedure**

**Step 1** Choose Administration > Management Users > Local.

The Local Users window is displayed.

Step 2 Select one user from the Local Users table. Click User Access.

The User Access selection window is displayed.

**Step 3** Select the groups allowed to access for the user and click **Apply**.

# **Managing Clients**

You can use Cisco DCNM to disconnect DCNM Client Servers.

**Step 1** Choose Administration > Management Users > Clients.

A list of DCNM Servers are displayed.

**Step 2** Use the check box to select a DCNM server and click **Disconnect Client** to disconnect the DCNM server.

**Note** You cannot disconnect a current client session.

# **Performance Setup**

The Performance Setup menu includes the following submenus:

# **Performance Setup LAN Collections**

If you are managing your switches with the Performance Manager, you must set up an initial set of flows and collections on the switch. You can use Cisco DCNM to add and remove performance collections. License the switch and kept it in the **Managed Continuously** state before creating a collection for the switch.

To add a collection, follow these steps:

#### **Procedure**

- **Step 1** Choose Administration > Performance Setup > LAN Collections.
- **Step 2** For all the licensed LAN switches, use the check boxes to enable performance data collection for **Trunks**, **Access**, **Errors & Discards**, and **Temperature Sensor**.
- **Step 3** Use the check boxes to select the types of LAN switches for which you want to collect performance data.
- **Step 4** Click **Apply** to save the configuration.
- **Step 5** In the confirmation dialog box, click **Yes** to restart the performance collector.

# **Event Setup**

The Event Setup menu includes the following submenus:

### **Viewing Events Registration**

To enable **Send Syslog**, **Send Traps** and **Delayed Traps** you must configure the following in the DCNM SAN client:

• Enabling Send Syslog: Choose Physical Attributes > Events > Syslog > Servers. Click Create Row, provide the required details, and click Create.

- Enabling Send Traps: Choose Physical Attributes > Events > SNMP Traps > Destination. Click Create Row, provide the required details, and click Create.
- Enabling Delayed Traps: Choose Physical Attributes > Events > SNMP Traps > Delayed Traps. In the Feature Enable column, use the check boxes to enable delayed traps for the switch and specify the delay in minutes.

**Step 1** Choose **Administration** > **Event Setup** > **Registration**.

The SNMP and Syslog receivers along with the statistics information are displayed.

Step 2 Check the **Enable Syslog Receiver** check box and click **Apply**, to enable the syslog receiver if it is disabled in the server property.

To configure event registration or syslog properties, choose **Administration > DCNM Server > Server Properties** and follow the on-screen instructions.

**Step 3** Select Copy Syslog Messages to DB and click Apply to copy the syslog messages to the database.

If this option is not selected, the events will not be displayed in the events page of the Web client.

The columns in the second table display the following:

- Switches sending traps
- Switches sending syslog
- · Switches sending syslog accounting
- Switches sending delayed traps

# **Notification Forwarding**

You can use Cisco DCNM Web UI to add and remove notification forwarding for system messages.

This section contains the following:

### **Adding Notification Forwarding**

Cisco DCNM Web UI forwards fabric events through email or SNMPv1 traps.

To add and remove notification forwarding for system messages from the Cisco DCNM Web UI, perform the following steps:



Note

Test forwarding works only for the licensed fabrics.

Step 1 Choose Administration > Event Setup > Forwarding.

The events forwarding scope, the recipient email address, severity of the event and type of the event is displayed. The description Regex field is applicable only when the forwarding source is selected as Syslog while adding the events forwarder.

- **Step 2** Check the **Enable** checkbox to enable events forwarding.
- **Step 3** Specify the **SMTP Server** details and the **From** email address.
- Step 4 Click Apply to save the configuration, or in the Apply and Test icon, use the drop-down to select the fabric.

  Click Apply and Test to save and test the configuration.
- **Step 5** In the **Event Count Filter**, add a filter for the event count to the event forwarder.

The forwarding stops forwarding an event if the event count exceeds the limit as specified in the event count filter. In this field, you can specify a count limit. Before an event can be forwarded, the Cisco DCNM checks if its occurrence exceeds the count limit. If it does, the event will not be forwarded.

- Step 6 Select the Snooze checkbox and specify the Start date and time and the End date and time. Click Apply to save the configuration.
- **Step 7** Under the **Event Forwarder Rules** table, click the + icon to add an event forwarder rule.

You see the Add Event Forwarder Rule dialog box.

- Step 8 In the Forwarding Method, choose either E-mail or Trap. If you choose Trap, a Port field is added to the dialog box.
- **Step 9** If you choose the **E-mail** forwarding method, enter the IP address in the **Email Address** field. If you choose the **Trap** method, enter the trap receiver IP address in the **Address** field and specify the port number.

You can either enter an IPv4 or IPv6 addresses or DNS server name in the Address field.

- **Step 10** For Forwarding Scope, choose the Fabric/LAN or Port Groups for notification.
- **Step 11** In the **Source** field, select **DCNM** or **Syslog**.

If you select **DCNM**, then:

- a) From the **Type** drop-down list, choose an event type.
- b) Check the **Storage Ports Only** check box to select only the storage ports.
- c) From the **Minimum Severity** drop-down list, select the severity level of the messages to receive.
- d) Click Add to add the notification.

If you select **Syslog**, then:

- a) In the **Facility** list, select the syslog facility.
- b) Specify the syslog **Type**.
- c) In the **Description Regex** field, specify a description that matches with the event description.
- d) From the **Minimum Severity** drop-down list, select the severity level of the messages to receive.
- e) Click **Add** to add the notification.

Note The Minimum Severity option is available only if the Event Type is set to All.

The traps that are transmitted by Cisco DCNM correspond to the severity type. A text description is also provided with the severity type.

```
trap type(s) = 40990 (emergency)
40991 (alert)
40992 (critical)
40993 (error)
40994 (warning)
40995 (notice)
40996 (info)
40997 (debug)
textDescriptionOid = 1, 3, 6, 1, 4, 1, 9, 9, 40999, 1, 1, 3, 0
```

### **Removing Notification Forwarding**

You can remove notification forwarding.

#### **Procedure**

- **Step 1** Choose **Administration** > **Event Setup** > **Forwarding**.
- Step 2 Select the check box in front of the notification that you want to remove and click **Delete**.

## **Event Suppression**

Cisco DCNM allows you to suppress the specified events that are based on the user-specified suppressor rules. Such events will not be displayed on the Cisco DCNM Web UI. The events will neither be persisted to DCNM database, nor forwarded via email or SNMP trap.

You can view, add, modify, and delete suppressor rules from the table. You can create a suppressor rule from the existing event table. Select a given event as the template, and invoke the rule dialog window. Event details are automatically ported from the selected event in the event table to the input fields of the rule creation dialog window.

This section includes the following:

### **Add Event Suppression Rules**

To add rules to the Event Suppression from the Cisco DCNM Web UI, perform the following steps:

#### **Procedure**

- **Step 1** Choose Administration > Event Setup > Suppression.
  - The Suppression window is displayed.
- Step 2 Click the Add icon above the Event Suppressors table.
  - The Add Event Suppressor Rule window is displayed.
- Step 3 In the Add Event Suppressor Rule window, specify the Name for the rule.
- **Step 4** Select the required **Scope** for the rule that is based on the event source.

In the Scope drop-down list, the LAN groups and the port groups are listed separately. You can choose **LAN**, **Port Groups** or **Any**. For **LAN**, select the scope of the event at the Fabric or Group or Switch level. You can only select groups for **Port Group** scope. If use selects **Any** as the scope, the suppressor rule is applied globally.

Step 5 Enter the Facility name or choose from the LAN Switch Event Facility List.

If you do not specify a facility, wildcard is applied.

**Step 6** From the drop-down list, select the Event **Type**.

If you do not specify the event type, wildcard is applied.

**Step 7** In the **Description Matching** field, specify a matching string or regular expression.

The rule matching engine uses regular expression that is supported by Java Pattern class to find a match against an event description text.

**Step 8** Check the **Active Between** box and select a valid time range during which the event is suppressed.

By default, the time range is not enabled, i.e., the rule is always active.

Note

In general, you must not suppress accounting events. Suppressor rule for Accounting events can be created only for certain rare situations where Accounting events are generated by actions of DCNM or switch software. For example, lots of 'sync-snmp-password' AAA syslog events are automatically generated during the password synchronization between DCNM and managed switches. To suppress Accounting events, navigate to the **Suppressor table** and invoke the **Add Event Suppressor Rule** dialog window.

Note

Choose **Monitor** > **Switch** > **Events** to create a suppressor rule for a known event. There is no such shortcut to create suppressor rules for Accounting events.

### **Delete Event Suppression Rule**

To delete event suppressor rules from the Cisco DCNM Web UI, perform the following steps:

#### **Procedure**

- **Step 1** Choose Administration > Event Setup > Suppression.
- **Step 2** Select the rule from the list and click **Delete** icon.
- Step 3 Click Yes to confirm.

### **Modify Event Suppression Rule**

To modify the event suppressor rules, do the following tasks:

#### **Procedure**

**Step 1** Choose **Administration** > **Event Setup** > **Suppression**.

**Step 2** Select the rule from the list and click **Edit**.

You can edit Facility, Type, Description Matching string, and Valid time range.

**Step 3** Click **Apply** to save the changes,

# **Credentials Management**

The Credential Management menu includes the following submenus:

### **LAN Credentials**

While changing the device configuration, Cisco DCNM uses the device credentials provided by you. However, if the LAN Switch credentials are not provided, Cisco DCNM prompts you to open the **Administration** > **Credentials Management** > **LAN Credentials** page to configure LAN credentials.

Cisco DCNM uses two sets of credentials to connect to the LAN devices:

- Discovery Credentials—Cisco DCNM uses these credentials during discovery and periodic polling of the devices.
- Configuration Change Credentials—Cisco DCNM uses these credentials when user tries to use the
  features that change the device configuration.

LAN Credentials Management allows you to specify configuration change credentials. Before changing any LAN switch configuration, you must furnish *Configuration Change* SSH credentials for the switch. If you do not provide the credentials, the configuration change action will be rejected.

These features get the device write credentials from LAN Credentials feature.

- Upgrade (ISSU)
- Maintenance Mode (GIR)
- Patch (SMU)
- Template Deployment
- POAP-Write erase reload, Rollback
- Interface Creation/Deletion/Configuration
- VLAN Creation/Deletion/Configuration
- VPC Wizard

You must specify the configuration change credentials irrespective of whether the devices were discovered initially or not. This is a one-time operation. Once the credentials are set, that will be used for any configuration change operation.

#### **Default Credentials**

Default credentials is used to connect all the devices that the user has access to. You can override the default credentials by specifying credentials for each of the devices in the Switch Table below.

Cisco DCNM tries to use individual switch credentials in the Switch Table, to begin with. If the credentials (username/password) columns are empty in the Switch Table, the default credentials will be used.

#### **Switch Table**

Switch table lists all the LAN switches that user has access. You can specify the switch credentials individually, that will override the default credentials. In most cases, you need to provide only the default credentials.

You can perform the following operations on this screen.

- Edit Credentials, on page 18
- Validate Credentials, on page 18
- Clear Switch Credentials, on page 18

The LAN Credentials for the DCNM User table has the following fields.

Field	Description
Switch	Displays the LAN switch name.
IP Address	Specifies the IP Address of the switch.
User Name	Specifies the username of the switch DCNM user.
Password	Displays the encrypted form of the SSH password.
Group	Displays the group to which the switch belongs.

#### **Edit Credentials**

Perform the following task to edit the credentials.

- 1. From the Cisco DCNM home page, choose **Administration > Credentials Management > LAN Credentials**, check the **Switch** check box for which you need to edit the credentials.
- 2. Click Edit icon.
- 3. Specify User Name and Password for the switch.

#### **Validate Credentials**

Perform the following task to validate the credentials.

- 1. From the Administration > Credentials Management > LAN Credentials, check the Switch check box for which you need to validate the credentials.
- 2. Click Validate.

A confirmation message appears, stating if the operation was successful or a failure.

#### **Clear Switch Credentials**

Perform the following task to clear the switch credentials.

1. From the Administration > Credentials Management > LAN Credentials, check the Switch check box for which you need to clear the credentials.

- 2. Click Clear.
- 3. Click Yes to clear the switch credentials from the DCNM server.

LAN Credentials