



Device Discovery

This chapter describes how to identify and resolve problems related to device discovery and management.

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Troubleshooting Device Discovery or Device Status

The table below shows the symptoms related to issues with device discovery or the device status. For each symptom that describes your problem, determine which possible causes apply and follow the corresponding solutions.

Table 1: Trouble with Device Discovery or Management

Symptoms	Possible Cause	Solution
A device discovery task fails. A device status changes to Unmanaged or Unreachable.	Incorrect device credentials were provided.	Reenter the username and password, and try discovering the device again. If you are attempting to discover CDP neighbors of the seed device, ensure that the credentials that you provide are valid on all devices that you want to discover.
	The SSH server is disabled on the device.	Reenable the SSH server on the device and try discovering the device again.
	The maximum number of SSH sessions that the device can support has been reached.	Check the number of user sessions on the device. Free at least one connection and try discovering the device again.
	CDP is disabled on the device or on the device interface that the DCNM-LAN server connects to.	Ensure that CDP is enabled on the device globally and that it is enabled on the specific interface that the DCNM-LAN server connects to.
	The device interface that the DCNM-LAN server connects to is shut down.	Ensure that the device interface that the DCNM-LAN server connects to is up.
	The device restarted or shut down before discovery could complete.	Ensure that the device is running and try discovering the device again.
	The DCNM-LAN server cannot reach the device.	Ensure that the network requirements for device management are met.
	Discrepancy in system log messages.	Use the clear logging logfile command to clear the system log in the device and try to manually discover the device.
	Discrepancy in accounting log messages.	

Symptoms	Possible Cause	Solution
		<p>Use the clear accounting log command to clear the accounting log messages in the device and try to manually discover the device.</p> <p>Note When working with a custom VDC, clear the accounting log messages only from the default VDC.</p>

Troubleshooting Device Management

The table below shows symptoms related to device management. For each symptom that describes your problem, determine which possible causes apply and follow the corresponding solutions.

Table 2: Trouble with Device Management

Symptoms	Possible Cause	Solution
Clearing the log file or the accounting log on a Cisco NX-OS device does not cause DCNM LAN to rediscover the device automatically.	The device did not generate a system message about the accounting log or the log file being cleared. This problem is particularly likely if the device is a Cisco MDS 9000 Family Multilayer Switch running Cisco SAN-OS Release 3.1 or earlier releases.	Rediscover the device.
The DCNM-LAN shows device configuration information that is out of date.	The DCNM-LAN server was down.	<p>You can do either of the following:</p> <ul style="list-style-type: none"> Rediscover the device. Restart the DCNM LAN server with a clean database. If the server was down for a long time, this action is the recommended solution.

Troubleshooting Device OS Management

The table below shows the symptoms related to the Device OS Management feature. For each symptom that describes your problem, determine which possible causes apply and follow the corresponding solutions.

Table 3: Troubleshooting Device OS Management

Symptoms	Possible Cause	Solution
During a software installation job, the software image file transfer between a file server and a device takes too much time.	The connection between the file server and the device is slow.	Use a file server that is on the same LAN as the devices included in the software installation job. If all of the available file servers transfer software image files too slowly, before you create the software installation job, manually copy the files to the devices that you will include the job and configure the job to use the manually copied files rather than a file server.

Troubleshooting Event Browsing

The table below shows the symptoms related to event browsing issues. For each symptom that describes your problem, determine which possible causes apply and follow the corresponding solutions.

Table 4: Troubleshooting Event Browsing

Symptoms	Possible Cause	Solution
Events available on the device command line do not appear in the DCNM-LAN.	Logging levels on managed devices are set incorrectly.	Check the logging level configuration on managed devices.
Too few events are shown in Event Browser or an Events tab.	The DCNM-LAN fetches events that are not old enough.	Check the events-related setting in the DCNM-LAN preferences.
Too many events are shown in Event Browser or on an Events tab.	A managed device has an issue that is generating many system log messages.	Temporarily unmanage the device until you resolve the issues on the device.
	Logging levels on managed devices are set incorrectly.	Check the logging level configuration on managed devices.
A feature Events tab does not show events that appear in the Event Browser.	By design, an Events tab shows only messages that apply to the currently selected feature and may show only a subset of the possible messages for the feature.	Use the Event Browser to see status-related system messages received by DCNM-LAN.

High CPU Utilization due to Elasticsearch Heap Size

Problem The CPU utilization is very high in the DCNM OVA in Standalone mode in the scaled setup.

Possible Cause When the Performance Manager and Alarms are enabled in Scale DCNM OVA Standalone deployment, the CPU utilization increases and may cause unpredictable results.

Solution You must increase the heap size of the elasticsearch to reduce the CPU utilization, by using the following command.

```
[root@DCNM]# ls -l elasticsearch
-rw-r--r-- 1 root root 2490 Jul 10 13:44 elasticsearch
[root@DCNM]# pwd
/etc/sysconfig

# Heap size defaults to 256m min, 1g max
# Set ES_HEAP_SIZE to 50% of available RAM, but no more than 31g
ES_HEAP_SIZE=4g
```

