Frequently Asked Questions

The following section lists the Frequently Asked Questions (FAQs) of Inventory Management in LMS 4.0:

- Device Discovery FAQ
- Device Management FAQ

Device Discovery FAQ

The following are the FAQs on Device Management:

- Does Device Discovery supports SNMPv1?
- Why the CSDiscovery process is taking longer time to complete?
- What is the meaning of different discovery percentages?
- How can I troubleshoot device discovery stuck at 10%?
- How can I troubleshoot device discovery stuck at 40%?
- How can I troubleshoot device discovery stuck at 90%?

Q. Does Device Discovery supports SNMPv1?
A. No. Device Discovery supports only SNMPv2c and SNMPv3.

Q. Why the CSDiscovery process is taking longer time to complete?
A. This could be because of the following reasons:

<table>
<thead>
<tr>
<th>Possible Reason</th>
<th>Workaround</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCR may have more than 5,000 devices and you might have selected Use DCR As Seed List option for Device Discovery.</td>
<td>Disable the Use DCR As Seed List option and run Device Discovery.</td>
</tr>
<tr>
<td>Debugging option may have been enabled.</td>
<td>Disable Debugging</td>
</tr>
<tr>
<td>Subnet mask value may be large for Discovery based on Ping Sweep on IP Range.</td>
<td>Enter a smaller value for subnet mask and run Device Discovery.</td>
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</table>
**Appendix B      Frequently Asked Questions**

**Device Discovery FAQ**

**Q.** What is the meaning of different discovery percentages?

**A.** The following list explains the different discovery percentages:

- **10% — Startup**, where devices have not been handed over to incharge processes yet
- **40% — Devices have been successfully handed over to incharge processes**
- **70% — Incharge processes have successfully discovered devices and handed the information over to Cisco code**
- **90% — Discovered devices must be placed in appropriate groups. Device information has been sent to OGS and group information from OGS is awaited. From DFM 3.0, this scenario is not available.**

**Q.** How can I troubleshoot device discovery stuck at 10%?

**A.** If device discovery is stuck at 10%, it means that devices to be discovered have not been communicated to Incharge processes yet. To troubleshoot device discovery stuck at 10%:

- On Solaris and Soft Appliance:

  **Step 1** Enter the `pdshow` command to check if DfmServer and DfmBroker processes are running.

  **Step 2** Check if there are multiple instances of brstart and sm_server.

  The name of binary for DfmBroker is brstart and for DfmServer, it is sm_server.

  **Step 3** Enter the following commandline:

  - `/usr/ucb/ps -auxww | grep brstart`
  - `/usr/ucb/ps -auxww | grep sm_server`

  For example:

  ```
  marver-sol-daily# /usr/ucb/ps -auxww | grep brstart
  root 11751 0.1 0.1 984 648 pts/7 S 11:34:49 0:00 grep brstart
  casuser 11577 0.0 0.42 0.65 13496 ? S 09:42:38 0:00 brstart --output --port=9002
  ---user=casuser
  ```

  If you see more than one instance of each process, enter the command `ptree` to get all related process.

  For example:

  ```
  marver-sol-daily# ptree 11577
  11461 /opt/CSCOpx/objects/dmgt/dmgtd.sol
  11577 brstart --output --port=9002 ---user=casuser
  11588 /opt/CSCOpx/objects/smarts/bin/system/sm_logerror 131
  11604 /opt/CSCOpx/objects/smarts/bin/system/sm_authority
  11605 /opt/CSCOpx/objects/smarts/bin/system/sm_logerror 136
  ```

  **Step 4** Except for dmgtd.sol, manually terminate all processes found in the `ptree` command by entering the command `kill -9`.
Step 5  Stop the daemon manager by entering `net stop crmdmgtd`.
Wait for five minutes.

Step 6  Enter `netstat -a | grep 9002` to make sure that port 9002 is not in listening state or timed wait state.

Step 7  Enter `netstat -a | grep 435` to make sure that ports 43501 to port 43508 are not in listening or timed wait state.

If the ports are in listening state, use the Unix utility to find the process that owns the ports and terminate that process.

Step 8  Start the daemon manager by entering `net start crmdmgtd`.

Step 9  Enter the following command: `/objects/smarts/bin/brcontrol`
The following is an example of the output:
Broker is located at: localhost:9002 Started: Oct 26 09:42:39 2005

Domain Host Name Port Proc ID State Last Chg Time
DFM marver-sol-daily 50449 11589 RUNNING Oct 26 09:42:58 2005

Step 10  Check whether the displayed host name is the host name in DNS or /etc/hosts

- On Windows:

Step 1  Download the tools from the following location: http://www.sysinternals.com/Utilities/PsTools.html
Step 2  Unzip it into a directory.
Step 3  Enter `pdshow DfmServer pdshow DfmBroker` to check whether the processes DfmServer and DfmBroker are running.
Step 4  Enter `/objects/smarts/bin/brcontrol`
Step 5  Check whether the host name is the same as in DNS.
Step 6  Check whether there are multiple instances of brstart and sm_server

You can use the downloaded Pstool to see one branch each of brstart and sm_serve.

For example:
```
pplist -t
brstart 5708 8 1 16 8476 1104 264  
brstart 5880 8 7 86 32720 11240 9664  
sm_authority 6452 8 1 52 14376 3616 1528 
sm_server 6332 8 1 16 8476 1104 264  
sm_server 6416 8 124 678 212696 58784 56812  
sm_authority 6444 8 1 47 14376 3572 1528 
```

There should be only one branch. You need to terminate any extra branches.
Device Discovery FAQ

Step 7  Stop the daemon manager by entering `net stop crmdmgtd`.
        Wait for five minutes.

Step 8  Enter `netstat -a -n -p tcp` to make sure that ports 9002 and 43501 to 43508 are not in listening state
        or timed wait state.

Step 9  Start the daemon manager by entering `net start crmdmgtd`.

Q.  How can I troubleshoot device discovery stuck at 40%?
A.  To troubleshoot device discovery stuck at 40%:

Step 1  Make sure that the device under question is responding to ping messages.
Step 2  Make sure that the device responds to snmpwalk by entering:
        `/objects/smarts/bin/sm_snmp -c --dest= walk`
Step 3  Enable discovery logging in incharge process by entering:
        `/objects/smarts/bin/dmctl -s DFM`
        Note  In some cases, you need to enter your UserID and Password.

Step 4  From dmctl prompt, enter:
        `ICF_TopologyManager::ICF-TopologyManager::DebugEnabled TRUE`
Step 5  Exit out of dmctl
Step 6  Trigger the rediscovery of the device
        The log file from the location `/objects/smarts/local/logs/DFM.log` will have discovery information in
detail. It will provide the root cause for the failing device discovery.
Step 7  Restore debug to False.

Q.  How can I troubleshoot device discovery stuck at 90%?
A.  To troubleshoot devices stuck at 90% discovery:

Step 1  Increase the log level for Inventory Service to debug.
Step 2  Stop the daemon manager by entering `net stop crmdmgtd`
Step 3  Take a backup of the following file:
        `/MDC/tomcat/webapps/triveni/WEB-INF/classes/log4j-ogs.properties`
Step 4  Replace the string FATAL by string DEBUG
Appendix B      Frequently Asked Questions

Device Management FAQ

The following are the FAQs on Device Management:

- **Why does the Device selector not appear in the Device administration page?**
  
  **A.** Ensure that CMFOGSServer process is running correctly. If you had invoked the browser soon after starting the Daemon Manager, try closing the browser and invoking Cisco Prime again.

  If the browser window is closed without logging out properly, the user cache may not be cleared and the task-to-role mapping may not be synchronized.

- **What is the maximum number of devices that can be imported to the DCR?**
  
  **A.** You can add up to 50,000 devices in DCR.

- **How to import devices whose sysObjectIds are not known before the Import operation?**
  
  **A.** SysObjectIDs are not mandated for Bulk Import operation. You can leave the field empty or specify sysObjectID as `UNKNOWN`, and then perform Import. See Importing Devices and Credentials for more information.

Q. How can I perform rediscovery of devices in LMS through CLI?

A. To perform a rediscovery of:

- **All devices:**
  
  Enter `dmctl -s DFM invoke ICF_TopologyManager::ICF-TopologyManager discoverAll`

- **A specific device:**
  
  Enter `dmctl -s DFM invoke ICF_TopologyManager::ICF-TopologyManager ::`

Step 5  Start the daemon manager by entering `net start crmdmgtd`

Step 6  Collect the contents of `/log/dfmLogs/TIS` file by entering:

- On Solaris and Soft Appliance:
  
  `/var/adm/CSCIpx/log/DFMServer.log`

- On Windows:
  
  `/log/DFMServer.log`

Q. Why does the Device selector not appear in the Device administration page?

A. Ensure that CMFOGSServer process is running correctly. If you had invoked the browser soon after starting the Daemon Manager, try closing the browser and invoking Cisco Prime again.

If the browser window is closed without logging out properly, the user cache may not be cleared and the task-to-role mapping may not be synchronized.

Q. What is the maximum number of devices that can be imported to the DCR?

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A. SysObjectIDs are not mandated for Bulk Import operation. You can leave the field empty or specify sysObjectID as `UNKNOWN`, and then perform Import. See Importing Devices and Credentials for more information.
Q. Sometimes, when the data is restored on Master machine the Slave does not receive any events. What should I do?
A. You can try changing the DCR mode of the Slave machine to Standalone and wait for few minutes. Then you can change the mode back to Slave. Ensure that the Auto-sync option is enabled in the applications.

Q. Where can I find the DCR log files?
A. You can find the DCR logs at the following location:
   - NMSROOT\log\DCRServer.log (On Windows)
   - /var/adm/CSCOpx/log/daemons.log (On Solaris and Soft Appliance)
When DEBUG is enabled, the following logs contain the additional information:
   - NMSROOT\log\dcr.log (On Windows)
   - NMSROOT\log\dcrclient.log (On Windows)
   - /var/adm/CSCOpx/log/dcr.log (On Solaris and Soft Appliance)
   - /var/adm/CSCOpx/log/dcrclient.log (On Solaris and Soft Appliance)
See also Maintaining Log Files in Administration of CiscoWorks LAN Management Solution 4.0 for more information.

Q. Why am I getting an Access Denied error while performing Import from Remote NMS?
A. Import from Remote NMS fails if the username and hostname pair is not present in the .rhosts file in the remote server. This is to allow trusted access to the remote system without the need for a password.
   Enter the username and host pair in the .rhosts file in the remote server. To allow all users and hosts, enter in the 1st line of .rhosts file.

Q. How do I include a special character such as comma as part of SNMP Read-Only string in a CSV file?
A. You can specify a string value with a special character by putting quotes around it.
   For example, to specify test,test as a SNMP Read-Only string, you should enter "test,test" in the input CSV file.