



## RME Troubleshooting Tips and FAQs

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Troubleshooting tips and FAQs for:

- [Device Management](#)
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- [Archive Management](#)
- [NetConfig](#)
- [Config Editor](#)
- [Software Management](#)
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- [Job Approval](#)
- [Bug Toolkit](#)
- [cwcli config](#)
- [cwcli export](#)
- [NetShow](#)

To avail this feature, you must download Resource Manager Essentials 4.0 Service Pack 1. This is available at the location, <http://www.cisco.com/cgi-bin/tablebuild.pl/cw2000-rme>.

- [Contract Connection](#)

To avail this feature, you must download Resource Manager Essentials 4.0 Service Pack 1. This is available at the location, <http://www.cisco.com/cgi-bin/tablebuild.pl/cw2000-rme>.

For FAQs on RME Installation, see the Installation and Setup Guide for RME 4.0:

For Solaris:

[http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/cw2000e/e\\_4\\_x/4\\_0/install/sol/trbls.htm](http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/cw2000e/e_4_x/4_0/install/sol/trbls.htm)

For Windows:

[http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/cw2000e/e\\_4\\_x/4\\_0/install/win/trbls.htm](http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/cw2000e/e_4_x/4_0/install/win/trbls.htm)

This section is frequently updated with latest technical FAQs and troubleshooting tips. It also contains the error messages for the specific device types. See

[http://www.cisco.com/en/US/products/sw/cscowork/ps2073/prod\\_troubleshooting\\_guide09186a008036dff2.html](http://www.cisco.com/en/US/products/sw/cscowork/ps2073/prod_troubleshooting_guide09186a008036dff2.html)

## Device Management

This section provides the troubleshooting information and FAQs for the Device Management application:

- [Device Management FAQs](#)
- [Troubleshooting Device Management:](#)

### Device Management FAQs

- [Can we add/import devices directly to RME?](#)
- [How can I verify that the Device Credentials configured on the device match those present in the RME inventory?](#)
- [How do I edit the device credentials in RME?](#)
- [How can I check the device credentials while adding the devices to RME?](#)
- [What are device credentials and RME device attributes?](#)
- [How are the device credentials mapped in Device and Credential Repository?](#)
- [What happens when I delete a device in RME?](#)
- [What are the most frequent causes of device import failures?](#)
- [How do I increase the SNMP Timeout and Telnet Timeout values for RME devices?](#)

Q. Can we add/import devices directly to RME?

A. No, you cannot add/import devices directly to RME. You have to first add/import devices to Device and Credential Repository (DCR) (**Common Services > Device and Credentials > Device Management**).

If the Automatically Manage Devices from Credential Repository option is enabled in the Device Management Settings window (**Resource Manager Essentials > Admin > Device Mgmt > Device Management Settings**), then the devices are added automatically to RME. By default, this option is enabled.

If this option is disabled, then you have to add devices to RME manually from RME Devices window (**Resource Manager Essentials > Devices Device Management RME Devices**).

- Q. How can I verify that the Device Credentials configured on the device match those present in the RME inventory?
- A. Click on the View Credential Verification Report in the Device Credential Verification (**Devices > Device Management > Device Credential Verification**) dialog box:
- If you have already selected the credentials that have to be verified then the Credential Verification Report appears.
  - If you have not selected the credentials that have to be verified, then a message appears:  

```
None of the devices have credential verification data. Click Check Device  
Credential to select the credentials that have to be verified and then click  
Credential Verification.
```

See Using Device Credential Verification Window section for more information at this URL:  
[http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/cw2000e/e\\_4\\_x/4\\_0/u\\_gui/de/device.htm#wp1035186](http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/cw2000e/e_4_x/4_0/u_gui/de/device.htm#wp1035186)
- Q. How do I edit the device credentials in RME?
- A. You can edit the credentials either in:
- Common Services (**Common Services > Device and Credentials > Device Management > Edit** (button))
  - or
  - RME (**Resource Manager Essentials > Devices > Device Management > Device Credential Verification > Edit Device Credentials** (button))
- Q. How can I check the device credentials while adding the devices to RME?
- A. To check the device credentials while adding devices to RME, you have to enable the Verify Device Credentials While Adding Devices option in the Device Management Settings window (**Resource Manager Essentials > Admin > Device Mgmt > Device Management Settings**).
- You can select the device credentials that have to be verified in the Device Credential Verification Settings window (**Resource Manager Essentials > Admin > Device Mgmt > Device Credential Verification Settings**).

Q. What are device credentials and RME device attributes?

A. The following are the device credentials:

- SNMP Read Community String
- SNMP Write Community String
- SNMPv3
- Telnet
- Telnet Enable Mode User Name and Password
- SSH
- SSH Enable Mode User Name and Password

The following are the RME device attributes:

- Serial Number
- SNMP Retry
- SNMP Timeout
- Telnet Timeout
- RME ID (NAT ID)

Q. How are the device credentials mapped in Device and Credential Repository?

A. The following table describes the mapping of device credentials in Device and Credential Repository:

Device Credentials	Device and Credential Repository
Telnet password	primary_password
Enable password	primary_enable_password
Enable secret	primary_enable_password
Tacacs username	primary_username
Tacacs password	primary_password
Tacacs enable username	Not used in CSV 3.0
Tacacs enable password	primary_enable_password
Local username	primary_username
Local password	primary_password

The order of preference used to set these values in Device and Credential Repository is:

- If Tacacs username, password, enable password is set, then these values will be set as primary\_username, primary\_password and primary\_enable\_password.
- If Local username and password is set, then the values will be set as primary\_username and primary\_password.
- If Telnet password, Enable Password, and Enable Secret are set, then the values will be set as primary\_password, and primary\_enable\_password (for both Enable Password, and Enable Secret).

Q. What happens when I delete a device in RME?

A. When you delete a device in RME, all RME data related to that particular device is deleted.

However, the device data is still available in the Device and Credential Repository. You can re-add the devices into RME using RME Devices window (**Resource Manager Essentials > Devices > Device Management > RME Devices > Add Devices**).

Q. What are the most frequent causes of device import failures?

If after importing a device, it remains in the Pre-deployed state, to troubleshoot, see Diagnosing Pre-deployed Devices:

[http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/cw2000e/e\\_4\\_x/4\\_0/u\\_guide/device.htm#wp1101884](http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/cw2000e/e_4_x/4_0/u_guide/device.htm#wp1101884)

For more about RME device states, see User Guide for Resource Manager Essentials 4.0:

[http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/cw2000e/e\\_4\\_x/4\\_0/u\\_guide/statemgt.htm](http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/cw2000e/e_4_x/4_0/u_guide/statemgt.htm)

A. How do I increase the SNMP Timeout and Telnet Timeout values for RME devices?

A. You can edit the RME device attributes using either of these options:

- Set a default device attributes value for all RME devices using **Resource Manager Essentials > Admin > System Preferences > RME Device Attributes**.

Or

- Set different device attributes value for different RME devices using **Resource Manager Essentials > Devices > Device Management > RME Devices > Edit Device Attributes**.

See Editing RME Device Attributes section for more information at this URL:

[http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/cw2000e/e\\_4\\_x/4\\_0/u\\_guide/device.htm#wp1029145](http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/cw2000e/e_4_x/4_0/u_guide/device.htm#wp1029145)

#### Troubleshooting Device Management:

Message ID	Error Message	Probable Cause	Possible Action
DM0001	Select a Normal device and click this option.	You have not selected a Normal device before performing the action	Select a Normal device and perform the action.
DM0002	Either you have not selected a valid alias device or you have selected an invalid option. Select a valid alias device	You have not selected a valid alias device before performing the action	Select a alias device and perform the action

Message ID	Error Message	Probable Cause	Possible Action
DM0003	This software has a RESTRICTED license for managing a limited number of devices. Click here <a href=/cwhp/maas.licenseInfo.do target=_blank> for current licensing information.  Contact your Cisco representative to determine if additional licenses can be purchased for this server.	Software has a restricted license for managing a limited number of devices	Purchase additional license and perform the action
DM0004	File name should be between 1 and 255 characters	The file name given for Export/Import operation is, either having no character or having more than 255 characters	Enter a file name between 1 and 255 characters and perform the action
DM0005	Either you have not selected a valid file or the file does not have required permission	The file selected for Export/Import operation, does not have the required permission to perform the write/read operation.	Modify the file permission to get read/write permission and perform the action
DM0006	Selected file name is invalid or empty	You have not selected a file for the Export operation	Select a file and perform the action
DM0007	Attribute values for device(s) are invalid. See EssentialsDM.log for more details.	You have entered invalid values for some of the attributes while importing attributes for devices.	Enter valid values for the attributes and perform the action.
DM0008	There are no new devices in DCA. Add new devices to DCA and continue with this flow	All devices in DCA are already managed by RME. There are no new devices to be managed.	Add some more devices in DCA and perform the action
DM0009	Either you have not entered a valid filename or the file does not exist	The filename that you entered for Import operation either does not exist or does not have read permission.	Enter a valid filename and perform the operation.

## Group Management

This section provides the troubleshooting information for the Group Management application:

Message ID	Error Message	Probable Cause	Possible Action
DVSL001	OGS Server is not ready or not running, Try again.	RME OGS server is not running or not ready to serve.	Verify whether OGS Server is running. Restart RMEOGSServer process using pdshow Wait for sometime and try again.

## Inventory

This section provides the troubleshooting information and FAQs for the Inventory application:

- [Inventory FAQs](#)
- [Troubleshooting Inventory](#)

### Inventory FAQs

- [Where can I find out what devices are supported by RME Inventory?](#)
- [What are the main methods that I have for performing data collection?](#)
- [What does the Inventory Poller do?](#)
- [How do I know when a schedule collection was last performed and how long it took?](#)
- [How can I see the most recent changes?](#)
- [Where can I find out what devices are supported by RME Inventory?](#)
- [Why is the Device Serial Number field blank in Inventory?](#)
- [How can I make sure a device's serial number is correct, and fix it, if it is wrong?](#)
- [Why am I receiving an error message, Write Community = INCORRECT although I have entered the correct Write Community String?](#)
- [What do I need to collect from my Solaris or Windows machine when troubleshooting RME Inventory?](#)

Q. Where can I find out what devices are supported by RME Inventory?

A. You can find out what devices are supported by RME Inventory in any one of the following ways:

- Check the Supported Device Table on Cisco.com to see whether or not an upgrade to RME is required.

Or

- Follow this procedure:
  - a. Select **CiscoWorks Common Services > Software Center > Device Update**.

The Device Updates dialog box appears.

- b. Click Resource Manager Essentials.

The Package Map dialog box appears with the list of supported devices.

Or

- In the RME Device Selector, if the device is grayed out, then it means that RME does not support the device.

- Q. What are the main methods that I have for performing data collection?
- A. At the time of RME installation, system jobs are created for both Inventory collection and polling with their own default schedules. A periodic inventory collection job collects inventory data from all managed devices and updates your inventory database. Similarly, the periodic polling polls devices and updates the inventory database. You can change the schedule of these default, periodic system jobs (**Resource Manager Essentials > Admin > Inventory > System Job Schedule**).
- System Inventory Collection is the heavyweight collection method. It collects on all managed devices at a scheduled time and updates the database. You can view Inventory Collection status at **Resource Manager Essentials > Devices > Inventory > View Inventory Collection Status**.
- You can also create and run an Inventory Collection job on selected devices by creating a job (**Resource Manager Essentials > Devices > Inventory > Inventory Jobs**). In the Inventory Job Browser that appears, click **Create**. For details on how to create a job, see User Guide for RME 4.0).
- Q. What does the Inventory Poller do?
- A. The Inventory Poller uses a “lightweight” mechanism to determine whether database information is out-of-date. Although the Inventory Poller itself does not perform an actual collection, it determines whether any device information is out-of-date. If information is outdated, the Inventory Poller initiates a full collection on the pertinent devices.
- Q. How do I know when a schedule collection was last performed and how long it took?
- A. In the Inventory Job Browser (**Resource Manager Essentials > Devices > Inventory > Inventory Jobs**) click on the Job ID for a specified job. The Job Details dialog box appears. You can view the complete details of the inventory collection here, by browsing through the left navigation pane.
- At a high level, you can view Inventory Collection status at **Resource Manager Essentials > Devices > Inventory > View Inventory Collection Status**.
- Q. How can I see the most recent changes?
- A. To view inventory changes made in the last 24 hours, use the 24 Hour Inventory Change Report option:
- a. Select **Resource Manager Essentials > Reports > Report Generator**.  
The Report Generator dialog box appears.
  - b. From the first drop-down list, select the Inventory application.
  - c. From the second drop-down list, select 24 Hour Inventory Change Report.  
The Inventory Change Report dialog box appears. Select the devices, using the Device Selector, and leave the Run Type as Immediate.
  - a. Click **Finish**.  
The 24 Hour Inventory Change Report appears.
- To view changes made since the last scheduled collection, use the Change Audit application.
- Q. Why is the Device Serial Number field blank in Inventory?
- A. The field is blank because inventory could not obtain the information from the device. This is due to one of these reasons:
- The serial number was not set in the device software when the device was introduced to the network. This should have been done using CLI, as described in the device configuration guide.
  - The device does not support MIBs for serial numbers.



In either case, you can set the serial number in the inventory database in this way:

- a. Select **Resource Manager Essentials > Devices > Device Management > RME Devices > Edit Device Attributes**.

The Device Attributes Information dialog box appears.

- b. Select the device and enter the correct serial number printed on the device chassis, in the RME ID field and click **Modify**.

- Q. How can I make sure a device's serial number is correct, and fix it, if it is wrong?

The serial number in inventory should always match the number printed on the chassis. If the serial number does not match the number on the chassis, you can change it in this way:

- a. Select **Resource Manager Essentials > Devices > Device Management > RME Devices > Edit Device Attributes**.

The Device Attributes Information dialog box appears.

- b. Select the device and enter the correct serial number printed on the device chassis, in the RME ID field and click **Modify**.

- Q. Why am I receiving an error message, **Write Community = INCORRECT** although I have entered the correct Write Community String?

- A. Check if you have dropped the system group from the view (read-view and write-view). The system group must be available for read and write operation. In MIB-II, the system group is available as the default.

- Q. What do I need to collect from my Solaris or Windows machine when troubleshooting RME Inventory?

- A. You can collect troubleshooting information about the status of the server using the Collect Server Information option in Common Services:

- a. Login as Administrator.
- b. Select **Common Services > Server > Admin > Collect Server Information**. The Collect Server Information dialog box appears.
- c. Click **Create**.

A list of report modules and options are displayed. Select the modules you want to include and click OK. By default, all the modules are selected.

If you collect server information using the Collect Server Information GUI option the data is stored in `/opt/CSCOpX/htdocs/collect`.

A command line script is also available at `/opt/CSCOpX/bin/collect.info`. The command script outputs data to `STDOUT`. For more details on the command script, see the User Guide.

For both Windows and Solaris, you can turn on the debug for ICServer and other processes from the GUI.

You can use the LogLevel Settings option to set the logging levels for RME packages. You can set the log levels for all RME packages, or at a package (application) level.

To set the log levels:

- a. Select **Resource Manager Essentials > Admin > System Preferences > Loglevel Settings**.

The Set Application Logging Levels dialog box appears.

- b. Select the Application from the drop-down list.

- c. Select the appropriate log level from the Logging Level drop-down list.
- d. Click **Default** to apply the default logging levels.
- e. After you set the log levels, click **Apply**.

A message appears, that the log levels have been successfully updated.

Log files are stored at these locations:

On Windows: NMSROOT/log, where NMSROOT is the CiscoWorks installation directory.

On Solaris: /var/adm/CSCOPx/log

You need to collect the following log files:

On Windows:

- IC\_Server.log
- EssentialsDM\_Server.log
- EssentialsDM.log
- ICServer.log
- ICServer\_UI.log
- InvReports.log

Job-specific log files that you need are at these locations:

- *NMSROOT*\files\rme\jobs\InvPoller
- *NMSROOT*\files\rme\jobs\Inventory
- *NMSROOT*\files\rme\jobs\ICServer

On Solaris:

- daemons.log
- EssentialsDM\_Server.log
- IC\_Server.log

Job-specific log files that you need are at these locations:

- /var/adm/CSCOPx/files/rme/jobs/ICServer
- /var/adm/CSCOPx/files/rme/jobs/InvPoller
- /var/adm/CSCOPx/files/rme/jobs/inventory

You can then e-mail these debug log files along with the Collect Server Info output, to TAC.

### Troubleshooting Inventory

This section provides the troubleshooting information for the Inventory application:

Message ID	Error Message	Probable Cause	Possible Action
ICSU0001	Could not create database connection.	Could not create database connection. RME DB Service may be down.	Make sure that RME DB Service is running. If the problem persists, contact TAC.
ICSU0002	Could not create JRM interface object.	Could not communicate with JRM. Jrm/CTMJrmServer may be down.	Make sure that Jrm/CTMJrmServer is running. If the problem persists, contact TAC.

Message ID	Error Message	Probable Cause	Possible Action
ICSU0003	Could not create job.	Unknown exception occurred.	Retry after sometime. If the problem persists, contact TAC.
ICSU0004	Could not display Job Details.	Could not communicate with JRM. Jrm/CTMJrmServer may be down.	Make sure that Jrm/CTMJrmServer is running. If the problem persists, contact TAC.
ICSU0005	Could not display Job Details.	RME DB Service may be down.	Make sure that RME DB Service is running. If the problem persists, contact TAC
ICSU0006	Could not get device support information.	Device packages may not be installed.	Check whether the device packages have been completely installed. If the problem persists, contact TAC.
ICSU0007	Could not create job.	Could not communicate with JRM. Jrm/CTMJrmServer may be down.	Make sure that Jrm/CTMJrmServer is running. If the problem persists, contact TAC.
ICSU0008	Could not create job.	RME DB Service may be down.	Make sure that RME DB Service is running. If the problem persists, contact TAC.
ICSU0009	Could not display job settings for editing.	Could not communicate with JRM. Jrm/CTMJrmServer may be down.	Make sure that Jrm/CTMJrmServer is running. If the problem persists, contact TAC.
ICSU0010	Could not display job settings for editing.	RME DB Service may be down.	Make sure that RME DB Service is running. If the problem persists, contact TAC.
ICSU0011	Could not display job settings for editing.	Unknown exception occurred.	Retry after sometime. If the problem persists, contact TAC.
ICSU0012	Could not edit job.	Could not communicate with JRM. Jrm/CTMJrmServer may be down.	Make sure that Jrm/CTMJrmServer is running. If the problem persists, contact TAC.
ICSU0013	Could not edit job.	RME DB Service may be down.	Make sure that RME DB Service is running. If the problem persists, contact TAC.
ICSU0014	Could not edit job.	Unknown exception occurred.	Retry after sometime. If the problem persists, contact TAC.
ICSU0015	Could not stop job.	Unable to communicate with JRM. Jrm/CTMJrmServer may be down.	Make sure that Jrm/CTMJrmServer is running. If the problem persists, contact TAC.
ICSU0016	Could not delete job.	RME DB Service may be down.	Make sure that RME DB Service is running. If the problem persists, contact TAC.

Message ID	Error Message	Probable Cause	Possible Action
ICSU0017	Could not display job browser entries.	Could not communicate with JRM. Jrm/CTMJrmServer may be down.	Make sure that Jrm/CTMJrmServer is running. Also make sure that RME DB Service is running. If the problem persists, contact TAC.
ICSU0018	Could not filter based on given options.	Could not communicate with JRM. Jrm/CTMJrmServer may be down.	Make sure that Jrm/CTMJrmServer is running. If the problem persists, contact TAC.
ICSU0019	Could not filter based on given options.	RME DB Service may be down.	Make sure that RME DB Service is running. If the problem persists, contact TAC.
ICSU0020	Could not filter based on given options.	Could not communicate with JRM or with RME DB Service. Jrm/CTMJrmServer or RME DB Service may be down.	Make sure that Jrm/CTMJrmServer is running. Also make sure that RME DB Service is running. If the problem persists, contact TAC.
ICSU0021	Could not show summary.	RME DB Service may be down.	Make sure that RME DB Service is running. If the problem persists, contact TAC.
ICSU0022	Could not get the Inventory Last Collected Time.	Inventory may not be collected at least once.	Try to collect Inventory for this device and try this operation after the Inventory Collection. If the problem persists, contact TAC.
ICSU0023	Could not stop job.	Could not communicate with JRM. Jrm/CTMJrmServer may be down.	Make sure that Jrm/CTMJrmServer is running. If the problem persists, contact TAC.
ICSU0024	Could not work with Resource Manager Essentials Database.	EssentialsDBEngine and/or RMEDbMonitor may be down.	Make sure that EssentialsDBEngine/RMEDbMonitor is running. Check the log file for more details. If the problem persists, contact TAC.
ICSU0025	Could not work with Job Resource Manager.	Jrm and/or CTMJrmServer may be down.	Make sure that Jrm/CTMJrmServer is running. Check the log file for more details. If the problem persists, contact TAC.
ICSJ0001	Could not create database connection.	RME DB Service may be down.	Make sure that RME DB Service is running. If the problem persists, contact TAC.
ICSJ0002	Could not execute job.	Cannot communicate with JRM. Jrm/CTMJrmServer may be down.	Make sure that Jrm/CTMJrmServer is running. If the problem persists, contact TAC.
ICSJ0003	Could not execute the job.	Job ID passed by Jrm is null.	Restart Jrm. If the problem persists, contact TAC.

Message ID	Error Message	Probable Cause	Possible Action
ICSJ0004	Could not execute job.	Invalid license.	Obtain a valid License.
ICSJ0005	Could not create log file.	There is already a file with the same name as the directory to be created.	Delete the file with the same name as the directory to be created.
ICSJ0006	Could not create log file.	There is already a file with the same name as the job ID.	Delete the file with the same name as the job ID.
ICSJ0007	Could not execute the job.	Could not create CSTM Server	Retry after some time. If the problem persists, restart Daemon Manager. If the problem persists, contact TAC.
ICSJ0008	Request to collect inventory failed.	ICServer may be down.	Start the ICServer and try again. If the problem persists, contact TAC.
ICSJ0009	Could not send E-mail.	SMTP Server may be down	Check the SNMP server. If the problem persists, contact TAC.
ICSJ0010	Could not send E-mail.	No SMTP Server configured.	Configure the SMTP Server and try again. If the problem persists, contact TAC.
ICSJ0011	Could not access DCA Server	The user is not authorized to perform the operation.	Check the role of the user.
ICSJ0012	Could not establish connection to Daemon Manager.	Unknown exception while connecting to Daemon Manager.	Restart Daemon Manager. If the problem persists, contact TAC.
ICSJ0013	Could not send OK Signal to Daemon Manager.	Unknown exception while connecting to Daemon Manager.	Restart Daemon Manager. If the problem persists, contact TAC.
ICSJ0014	Could not execute job.	Exception while executing the job framework	Retry after some time. If the problem persists, contact TAC.
ICSJ0015	Could not execute the job.	CSTM Exception while publishing the URN.	Retry after some time. If the problem persists, restart Daemon Manager. If the problem persists, contact TAC.
ICSJ0016	Exception while executing the job.	Exception occurred while receiving the message through the Event Sub- system.	Retry after some time. If the problem persists, restart Daemon Manager. If the problem persists, contact TAC.

Message ID	Error Message	Probable Cause	Possible Action
RICS0001	Cannot successfully collect Inventory Information for the device.	Internal Error	Try Collecting Inventory for the device again. If the problem persists, in the log directory look for IC_Server.log. Search for the Device IP, you will see an exception trace. Contact TAC with these details.
ICSJ0017	Cannot run more than 33 concurrent jobs in RME.	More than 33 jobs running concurrently in RME.	\$NMSROOT\CSCOPx\MDC\tomcat\webapps\rme\WEB-INF\lib\ctm_config.txt has MAX_VM_PORTS set by default to 40. This needs to be increased if the user wishes for more than 33 concurrent jobs.

## Inventory Reports

This section provides the troubleshooting information for the Inventory Reports application:

Message ID	Error Message	Probable Cause	Possible Action
INVREP0002	You have not updated the template.	Either the database may not be running or there may be other database related problems.	Check the invreports.log for more details. Make sure that RMEDbEngine service is running.
INVREP0003	You have not created the template.	Either the database may not be running or there may be other database related problems.	Check the invreports.log for more details. Make sure RMEDbEngine service is running.
INVREP0007	The Query building operation failed.	Either there is a problem in the building join conditions or the database may not be running	Check the invreports.log for more details. Verify the generated queries in the log generated in debug mode.
INVREP0008	Report generation failed.	The template may have been deleted from another browser or by another user.	Check the Custom templates screen for this template. If it is not there, create it.
INVREP0009	Report generation failed.	One of the UDFs given in the template might have modified or deleted.	Check the invreports.log for modified/deleted UDF details and redefine the template. <ul style="list-style-type: none"> <li>• If the UDF has been modified, modify the corresponding rule accordingly.</li> <li>• If UDF has been deleted, delete the corresponding rule from template.</li> </ul>

Message ID	Error Message	Probable Cause	Possible Action
INVREP0013	Could not create file with the name ----.	You may not have permissions to create a new file in the current folder.	Check the permissions. Check the invreports.log for more details.
INVREP0015	Report generation failed. Could not get device ids from Device and Credential Repository (DCR)	The DCR server may not be running	Check the log for more details. Make sure the DCR Server is running.
INVREP0016	Could not generate CSV File -% 1.	You may not have permissions to create a new file in the current folder.	Check the permissions. Check the invreports.log for more details.
INVREP0017	Report(s) generation partially succeeded.	You have attempted to run many commands from a file. Some of the commands have failed.	<ol style="list-style-type: none"> <li>1. Check the invreports.log</li> <li>2. Execute the same command with the <b>-log</b> option</li> <li>3. See the corresponding log for more details.</li> </ol>
INVREP0021	Error occurred while generating report.	Unknown error.	Check the invreports.log for more details.
INVREP0022	Data not available or the database connection failed!	Check whether the RME database is running.	If the database engine is not running start the engine and try again.
INVREP0023	Job creation failed.	JRM Server may not be running.	<ol style="list-style-type: none"> <li>1. Check the status of JRMServer using the pdshow jrm command</li> <li>2. Start JRM and try creating the job</li> </ol>
INVREP0028	Could not get database connection.	Check whether the RME database is running.	If the database engine is not running start the engine and try again.
INVREP0025	Job creation failed.	The JRM Server may not be running.	Start JRM and try creating the job
INVREP0026	Could not get data from the database.	Check whether the RME database is running.	<ol style="list-style-type: none"> <li>1. Check the status of JRMServer using the pdshow jrm command</li> <li>2. Start JRM and try creating the job</li> </ol> <p>If the database engine is not running start the engine and try again.</p>
INVREP0027	Database connection resource release failed.	Check whether the RME database is running.	If the database engine is not running start the engine and try again.
INVREP0028	Could not update the database.	Check whether the RME database is running.	If the database engine is not running start the engine and try again.

Message ID	Error Message	Probable Cause	Possible Action
INVREP0029	Could not find the selected archive in the database.	The archive folder could have been deleted.	Check whether the archive id folder exists under <i>NMSROOT/</i> files\rme\jobs\inventory\reports\archives  If the folder does not exist: <ol style="list-style-type: none"> <li>Delete the archive from the UI</li> <li>Create another job to create an archive.</li> </ol>
INVREP0030	Could not get device IDs from DCR.	Check whether the DCR Server is running	If the DCR Server is not running, restart it.
INVREP0031	Job not found.	The job folder or the job object may not exist under <i>NMSROOT/</i> files\rme\jobs\inventory\reports\jobs.	If the folder does not exist, delete the job from the Job Browser.
INVREP0032	Graph generation failed.	You may not have enough disk space.	Check the invreports.log for more details.
INVREP0033	Could not generate Report Print format	Unknown error	Check the invreports.log for more details.
INVREP0034	Report Generation failed.	Unknown error.	Check the invreports.log for more details.
INVREP0035	Could not access the archive on disk.	The archive folder may be deleted.	Check whether the archive id folder exists under <i>NMSROOT/</i> files\rme\jobs\inventory\reports\archives  If the folder does not exist: <ol style="list-style-type: none"> <li>Delete the archive from the UI</li> <li>Create another job to create an archive.</li> </ol>
INVREP0036	Could not retrieve Device Credential data.	Check whether the DCR Server is running.	Check the invreports.log for more details.  If the DCR Server is not running, restart it.
INVREP0037	Could not retrieve device type information.	Check whether the DCR Server is running.	Check the invreports.log for more details.  If the DCR Server is not running, restart it.
INVREP0038	Could not retrieve device serial number information.	Check whether the DCR Server is running.	Check the invreports.log for more details.  If the DCR Server is not running, restart it.



Message ID	Error Message	Probable Cause	Possible Action
INVREP0039	Could not retrieve user defined fields.	Check whether the DCR Server is running.	Check the invreports.log for more details. If the DCR Server is not running, restart it.
INVREP0040	Database related failure.	Check whether the RME database is running.	Check the invreports.log for more details. If the database engine is not running start the engine and try again.
CRIN0001	Not authorized to delete {0} template(s). Contact your system administrator for further help.	You may not have authorization to perform this task.	Contact your system administrator to get permissions.
CRIN0002	Not authorized to modify template {0}. Contact your system administrator for further help.	You may not have authorization to perform this task.	Contact your system administrator to get permissions.
CRIN0003	Template(s) {0} not found. Check the log for more details.	The templates may have been deleted from another browser or by another authorized user at the same time.	You must recreate the required templates.
CRIN0004	One or more of the selected archives are missing. Check the log for more details.	The archives may have been deleted from another browser or by another authorized user at the same time.	You must recreate the jobs and get the required archives.
CRIN0005	Job(s) {0} not found. Check the log for more details.	The jobs may have been deleted from another browser or by another authorized user at the same time.	You must recreate the jobs.
CRIN0006	Could not get templates from {0}. Check the log for more details.	Either: <ul style="list-style-type: none"> <li>There is a specific problem with {0} application.</li> </ul> Or <ul style="list-style-type: none"> <li>The templates were deleted from another browser or by another authorized user.</li> </ul>	Review the specific application log and cri.log. If required, recreate the templates.

Message ID	Error Message	Probable Cause	Possible Action
CRIN0007	Could not get archives from {0}. Check the log for more details.	Either: <ul style="list-style-type: none"> <li>There is a specific problem with {0} application.</li> </ul> Or <ul style="list-style-type: none"> <li>The archives were deleted from another browser or by another authorized user.</li> </ul>	Review the specific application application log and cri.log. and recreate the jobs.
CRIN0008	Could not delete template(s) {0}. Check the log for more details.	The templates may have been deleted from another browser or by another authorized user at the same time.	No workaround.
CRIN0009	Could not delete job(s) {0}. Check the log for more details.	The jobs may have been deleted from another browser or by another authorized user at the same time.	No workaround.
CRIN0010	Could not delete job(s) {0} in running state.	This is the expected behavior.	You can delete the job after it has completed.
CRIN0011	Could not delete job(s) {0} in scheduled state	This is the expected behavior.	No workaround.
CRIN0012	Could not delete one or more of selected archives.  Check the log for more details.	The cause will be in the Cri.log.	Check the Cri.log for the probable cause and action.
CRIN0013	Could not get template details for {0}. Check the log for more details.	Either: <ul style="list-style-type: none"> <li>There is a specific problem with {0} application.</li> </ul> Or <ul style="list-style-type: none"> <li>The templates were deleted from another browser or by another authorized user.</li> </ul>	Review the specific log and cri.log. If required, recreate the templates.
CRIN0014	Operation failed, caused by failure in connecting to JRM.  Make sure JRMand/or CTMJrmServer services are running.	JRM or CTMJrmServer services may not be running.	Start JRM and CTMJrmServer.  To do this use the commands, pdstart jrm and pdstart CTMJrmServer
CRIN0015	Could not apply purge settings. Check the log {0} for more details.	The cause will be in the Cri.log.	Check the Cri.log for the probable cause and action.

Message ID	Error Message	Probable Cause	Possible Action
CRIN0016	Registration with CCR failed or no related entries found in CCR registry. Check cri.log for more details or contact System Administrator for more help.	CCR entry is not done for the required archive setting.	Check cri.log and contact System Administrator for further help.
CRIN0017	Directory {0} not found. Choose valid directory for setting the new archive location.	Chosen directory might not exist.	Create a new directory at required location and choose the same again.
CRIN0018	You do not have write permission to {0}. Select the directory to which you have write permission.	No write permission to the selected folder.	Select the folder one to which you have write permission or change permissions to the current chosen folder.
CRIN0020	Changing reports archive location failed. Check the cri.log for more details.	Some other user may be accessing archives or job is running.	While changing the archive location, make sure that no job is running or no archives are accessed. Otherwise this operation will not succeed.
CRIN0021	Moving the report archives to the chosen location failed. Check the cri.log for more details	Some other user may be accessing archives or job is running. Or you may not have write permission to that folder. Or disk space may not be sufficient.	Check the cri.log for more details. Make sure that no archives are accessed or no job is running while moving archives to new location. Make sure that the new location has more free space than the old archive directory size.
Not Applicable	Inventory Report job remains in the running state forever.	The default runtime memory is set as follows: Minimum heap size: 128 MB Maximum heap size: 512 MB If the job requires heap size more than 512 MB, then the job will have insufficient memory and will hang or fail this exception: out of memory	<ol style="list-style-type: none"> <li>1. Cancel the currently running job.</li> <li>2. Increase minimum and maximum heap in the following file: <i>NMSROOT</i>\MDC\tomcat\webapps\rme\WEB-INF\classes\com\cisco\nm\rmeng\inventory\reports\datagen erators\IRConfig.properties to 512 MB and 1024 MB respectively.</li> <li>3. Schedule another job.</li> </ol>

# Archive Management

This section provides the troubleshooting information and FAQs for the Archive Management application:

- [Archive Management FAQs](#)
- [Troubleshooting Archive Management](#)

## Archive Management FAQs

- [Can I define the protocol order for configuration fetch and deploy?](#)
- [I have set up the purge setting for configuration files to retain 3 versions and no version older than 5 days. This purge job runs daily. The configuration files are deleted for the selected versions but the configuration diff files still exist for the deleted versions. Why does this happen?](#)
- [Why does the Telnet session appear in the data capture trace although I have selected TFTP as the configuration transport protocol?](#)
- [How Configuration Management interprets device credentials?](#)
- [What are the supported device prompts?](#)

Q. Can I define the protocol order for configuration fetch and deploy?

A. Yes, you can define the order of protocol that has to be used for Configuration Management applications (Archive Management, Config Editor, and NetConfig). You can define this in the Transport Settings window (**Resource Manager Essentials > Admin > Config Mgmt**).

Q. I have set up the purge setting for configuration files to retain 3 versions and no version older than 5 days. This purge job runs daily. The configuration files are deleted for the selected versions but the configuration diff files still exist for the deleted versions. Why does this happen?

A. The configuration diff files are not purged because the RME Change Audit records refer to these files. After you delete the RME Change Audit records, these configuration diff files get deleted automatically.

Q. When I select:

- TFTP alone as the configuration transport protocol
- Run Sync Archive Job for a device
- Run a data capture trace

The data capture trace shows Telnet traffic along with SNMP/TFTP sessions.

Why does the Telnet session appear in the data capture trace although I have selected TFTP as the configuration transport protocol?

Q. The Telnet session that appears in the data capture trace is a socket connection to the Telnet port. It identifies the IP address of the CiscoWorks RME server. This is important in multi-homed servers where the IP address that CiscoWorks server uses to contact the device, has to be identified.

Q. How Configuration Management interprets device credentials?

A. You can enter the device credentials when you,

- Add/import devices using Common Services Device and Credential option (**Common Services > Device and Credentials > Device Management**). In this flow, you can enter:

- Primary Username—User name for the device.
- Primary Password—Password for the device.
- Primary Enable Password — Console-enabled password for the device.
- If you have enabled Enable Job Password option (**Resource Manager Essentials > Admin > Config Mgmt > Config Job Policies**) then while scheduling for a job, you can enter these credentials:
  - Login User name—User name for the device.
  - Login Password—Password for the device.
  - Enable Password—Console-enabled password for the device.

These credentials are used while executing the job. The credentials that you have entered in the Device and Credential Repository are ignored while executing the job.

TACACS (Terminal Access Controller Access Control System) uses a separate centralized server to track usernames and passwords. This simplifies authentication and authorization, because information is maintained in only one database rather than being spread out over many devices. If your devices are configured to use TACACS, you must provide TACACS device credentials when you add or import the devices.

See [How are the device credentials mapped in Device and Credential Repository?](#) for information on how Device and Credential Repository maps the device credentials.

#### Login Authentication in Telnet Mode

When RME logs into non-privileged mode (User mode), depending on your device authentication configuration, the device will prompt for either username and password, or password only.

If the device prompts for username and password, RME responds with the following:

- If Primary Username and Primary Password credentials are entered in the Device and Credential Repository, RME sends Primary Username and Primary Password to the device.

If you have enabled Enable Job Password option in the Job Policy dialog box (**Resource Manager Essentials > Admin > Config Mgmt > Config Job Policies**) and if you have entered the Login User name and Login Password at the time of scheduling a job, RME sends the Login User name and Login Password entered in this dialog box and the Primary Username and Primary Password entered in the Device and Credential Repository (**Common Services > Device and Credentials > Device Management**) is ignored.

- If:
  - Authentication fails with the Primary credentials or Login User name and Login Password
  - Or
  - The Primary credentials or Login User name and Login Password are not present in the database.

RME reports the login as failure.

If the device prompts for password only, RME responds with the following:

- If Primary Password is entered in the database, RME sends Primary Password to the device.

If you have enabled Enable Job Password option in the Job Policy dialog box (**Resource Manager Essentials > Admin > Config Mgmt > Config Job Policies**) and if you have entered the Login Password at the time of scheduling a job, RME sends the Login Password entered in this dialog box and the Primary Password entered in the Device and Credential Repository (**Common Services > Device and Credentials > Device Management**) is ignored.

If you have configured only telnet password (without configuring username) on your device. You have to enter some string in the Login Username field. That is, you cannot leave the Login Username field blank. The Login Username string will be ignored while connecting to the device as the device is configured only for telnet password.

- If:
  - Authentication fails with the Primary Password or Login Password
  - Or
  - The Primary Password or Login Password is not present in the database.

RME reports the login as failure.

### Login Authentication in SSH Mode

This section describes how the device credentials are interpreted by RME in SSH mode.

Open an SSH session to the device.

The device prompts for username and password, RME responds with the following:

- If Primary Username and Primary Password are entered in the database, RME sends Primary Username and Primary Password to the device.

If you have enabled Enable Job Password option in the Job Policy dialog box (**Resource Manager Essentials > Admin > Config Mgmt > Config Job Policies**) and if you have entered the Login User name and Login Password at the time of scheduling a job, RME sends the Login User name and Login Password entered in this dialog box and the Primary Username and Primary Password entered in the Device and Credential Repository (**Common Services > Device and Credentials > Device Management**) is ignored.

- If:
  - Authentication fails with the Primary credentials or Login User name and Login Password
  - Or
  - The Primary credentials or Login User name and Login Password are not present in the database

RME reports the login as failure.

### Enable Login Authentication in Telnet Mode

This section describes how the TACACS and other credentials are interpreted by RME in Telnet mode.

Logging into the Privileged mode (Enable mode) involves two steps:

1. RME logs into non-privileged mode (See [Login Authentication in Telnet Mode](#)).
2. If logging into non-privileged mode is successful, RME issues “enable” command for the device to enter into privileged mode.

If the device prompts for password, RME responds with the following:

- If Primary Enable password is entered in the database, RME sends Enable Primary password to the device.

If you have enabled Enable Job Password option in the Job Policy dialog box (**Resource Manager Essentials > Admin > Config Mgmt > Config Job Policies**) and if you have entered the Enable Password at the time of scheduling a job, RME sends the Enable Password entered in this dialog box and the Primary Enable Password entered in the Device and Credential Repository will be ignored.

- If authentication fails or Enable Password or Primary Enable Password is not present in database

or

- If logging into non-privileged mode fails or authentication fails in all above cases.  
RME reports the login as failure.

### Enable Login Authentication in SSH Mode

This section describes how the TACACS and other credentials are interpreted by RME in SSH mode.

Logging into the Privileged mode (Enable mode) involves two steps:

1. RME logs into non-privileged mode (See [Login Authentication in SSH Mode](#)).
2. If logging into non-privileged mode is successful, RME issues “enable” command for the device to enter into privileged mode.

If the device prompts for password, RME responds with the following:

- If Primary Enable Password is entered in the database, RME sends Primary Enable password to the device.

If you have enabled Enable Job Password option in the Job Policy dialog box (**Resource Manager Essentials > Admin > Config Mgmt > Config Job Policies**) and if you have entered the Enable Password at the time of scheduling a job, RME sends the Enable Password entered in this dialog box and the Primary Enable Password entered in the Device and Credential Repository will be ignored.

- If authentication fails or Enable Password or Primary Enable Password is not present in database

or

- If logging into non-privileged mode fails or authentication fails in all above cases.  
RME reports the login as failure.

See the [Device Management FAQs](#) section to understand the device credentials mapping in Device and Credential Repository.

Q. What are the supported device prompts?

A. The supported device prompts are:

The supported Device authentication prompts are:

- Routers
  - “Username:”, “Username: ”
  - “Password:”, “Password: ”
- Switches
  - “username: ”, “Username: ”
  - “password: ”, “Password: ”
- Cisco Interfaces and Modules — Network Analysis Modules
  - “login: ”
  - “Password: ” “password: ”
- Security and VPN — PIX
  - “username: ”, “Username: ”
  - “passwd: ”, “password: ”, “Password: ”

- Content Networking—Content Service Switch  
“Username: ”, “username: ”, “login: ”, “Username:” , “username:” , “login:”  
“Password: ”, “password: ”, “passwd: ”, “Password:” , “password:” , “passwd:”
- Content Networking — Content Engine  
“Username: ” , “login: ”  
“Password: ”
- Storage Networking — MDS Devices  
“Username:” , “Username: ”  
“Password:” , “Password: ”

### Troubleshooting Archive Management

Message ID	Error Message	Probable Cause	Possible Action
CM0002	Could not archive config.	The device may: <ul style="list-style-type: none"> <li>• Not be reachable,</li> <li>• Be in a suspended state</li> <li>• Have wrong credentials</li> </ul>	Verify that device is managed, credentials are correct and file system has correct permissions. Increase timeout value, if required
CM0003	Version \$1 does not exist in archive \$2	Version may have been deleted	None
CM0005	Archive does not exist for \$1	Error during archive creation.	Check the file system/user privileges.
CM0006	Archives do not exist	Error during archive creation.	Check the file system/user privileges.
CM0008	Checkout not permitted on archive \$1	You may not have the required permission	Check with the administrator for your privilege.
CM0010	Checkin not permitted on archive \$1	You may not have the required permission	Check with the administrator for your privilege.
CM0011	Delete not permitted	You may not have the required permission	Check with the administrator for your privilege.
CM0012	Could not create new version on archive \$1	Insufficient disk space or config file may be incomplete.	Check whether disk space is available and that the directory has required permissions
CM0013	Cannot delete version on archive \$1	You may not have the required permission	Check with the administrator for your privilege.
CM0015	Could not check out config for archive \$1	You may not have the required permission	Check with the administrator for your privilege.
CM0016	Could not undo check out config for archive \$1	You may not have the required permission	Check with the administrator for your privilege.
CM0017	Could not check in config for archive \$1	\$2	Check whether the file system is full and if you have required permissions.
CM0021	Version does not exist in archive \$1	Version may have been deleted	None
CM0022	Archive already exists	Archive names should be unique	Enter a different name



Message ID	Error Message	Probable Cause	Possible Action
CM0023	Archive creation not permitted	You may not have the required permission	Check with the administrator for your privilege.
CM0024	Error while deleting archive	You may not have the required permission	Check with the administrator for your privilege.
CM0025	Cannot delete device archive	Only the system purge can delete the device archive	Schedule for a purge job.
CM0026	Archive Relocation failed	The destination folder may not have the required disk space or required permission.	<ul style="list-style-type: none"> <li>• Check if the destination folder has the required permission</li> <li>• Check if the disk space is available</li> <li>• Check if the user has the write permission.</li> </ul>
CM0034	Cannot list versions for \$1	You may not have the required permission or version do not exist.	Check with the administrator for your privilege.
CM0037	Database Connection Error	Database Engine may be down	Restart the RMEDbMonitor and CmfDbMonitor services
CM0038	Error in Database	Database Engine may be down	Restart the RMEDbMonitor and CmfDbMonitor services
CM0040	Error while reading the file from the system	Either: <ul style="list-style-type: none"> <li>• The file may not exist</li> </ul> Or <ul style="list-style-type: none"> <li>• You may not have required permissions.</li> </ul>	Verify whether you have the correct privileges and that the file system is not corrupted.
CM0041	Error while writing the file to the system	Either: <ul style="list-style-type: none"> <li>• The file may not exist</li> </ul> Or <ul style="list-style-type: none"> <li>• You may not have required permissions.</li> </ul>	Verify whether you have the correct privileges and that the file system is not full
CM0043	Error while copying the file	Either: <ul style="list-style-type: none"> <li>• The source or destination file may not exist</li> </ul> Or <ul style="list-style-type: none"> <li>• You may not have required permissions.</li> </ul>	Verify whether: <ul style="list-style-type: none"> <li>• The files exist</li> <li>• The file system is not full.</li> <li>• You have permission</li> </ul>
CM0050	Cannot compare the configurations since they are not of the same type.	Configuration types are different	Select device of the same type.
CM0051	Cannot connect to ConfigMgmtSever process	Process may be down or maximum connection have been reached.	Restart the ConfigMgmtSever process.

Message ID	Error Message	Probable Cause	Possible Action
CM0054	Error while initializing Transport for \$1	Device packages may not exist.	Check whether: <ul style="list-style-type: none"> <li>• The user exists in RME and has required permissions,</li> <li>• Device is reachable</li> <li>• Required device packages are available in RME.</li> </ul>
CM0076	Job creation failed	\$1	Check whether jrm and CTMJrmServer processes are running
CM0077	Job modification failed	\$1	Check whether jrm and CTMJrmServer processes are running
CM0080	Could not send e-mail.	The e-mail configuration in your profile may be either missing or incorrect	Check e-mail configuration.
CM0082	Job execution failed.	The job policy may not be enabled	Enable the policy and try again
CM0085	Cannot list jobs of type	Jobs of this type may not exist in RME.	Enable the policy and try again.
CM0086	Cannot load job with id.	Job may not exist in RME	Verify that the Job ID exists and try again
CM0087	Cannot obtain lock on device	Another application/job may have locked the device.	Verify that there are no other jobs is running on the device. Retry the job after some time.
CM0088	Configuration archival failed for \$1	Not enough disk space.	Check whether the device is reachable and that the credentials are correct.
CM0090	Reload operation failed on device	Device may not be reachable.	Check whether the device is reachable and that the credentials are correct.
CM0096	Job ID is not valid	The job may not exist in RME	Verify that the job exists and try again.
CM0097	No failed devices in the job	There may not be any failed devices in the job.	Check for failed devices and try again.
CM0098	Invalid Job-based password specified	The Job-based password data may be null or cannot be used.	Enter the correct Job-based password and try again.
CM0109	Cannot read admin preferences.	Application may not have been initialized correctly	Retry the operation
CM0122	No commands to write.	Command may not be available	Verify whether there are any commands to deploy
CM0123	Exception while getting all baseline templates.	Templates may have been deleted	Check if the template exist.
CM0125	Cannot persist template.	Template may be empty or invalid.	Check whether the commands are valid
CM0126	Cannot find baseline archive \$1	Archive may have been deleted	Check if the archive exist.
CM0128	Cannot get baseline branch.	Branch may not exist.	Check if the branch exist.
CM0131	Cannot find template	Template may have been deleted	Check if the template exist.

Message ID	Error Message	Probable Cause	Possible Action
CM0132	Cannot find result for job	Job may not exist.	Check if the job has been deleted.
CM0133	Invalid check-type for command	Check type may be invalid	Verify if the check-type is valid.
CM0136	Regular expression match failed.	Not a valid Regular expression.	Check if the expression is valid.
CM0137	No commandlets.	None	None
CM0138	Cannot find result for device	Device has been deleted.	Check if the device exist.
CM0139	Could not archive configuration	File system may be full or user may not have the required permission.	Check whether device is reachable and device credentials are correct. Increase timeout value, if required.
CM0148	User or device authorization failed.	User may not exist or does not have privileges to operate on any or all of the devices in the job.	Check whether the user exists and has required privileges to execute jobs.
CM0201	Could not start the SdiEngine.	The package path may be incorrect	Check whether the specified package path is correct
CM0202	Could not access the device via SNMP.	SNMP may be disabled on the device,	Check the Read Community string
CM0203	Could not create the CIDS Device Representation for device	Device package may not exist	Check if the required device packages are installed.
CM0204	Could not create Device Context for the device	Device package may not exist	Check whether the required device packages are available in RME.
CM0205	Device package not found	Device package may not exist	Check whether the required device packages are available in RME.
CM0206	Could not get the configuration transport implementation for \$1	Device package may not exist	Check whether the required device packages are available in RME.
CM0207	Could not get configuration analyzer implementation for \$1	Device package may not exist	Check whether the required device packages are available in RME.
CM0210	Cannot generate processed configuration	Configuration file may be corrupted or incomplete	Check that device returns complete configuration and the configuration file is not empty.

# NetConfig

This section provides the troubleshooting information for the NetConfig application:

Message ID	Error Message	Probable Cause	Possible Action
NCFG001	Error occurred while processing	-	-
NCFG002	Failed while deleting job(s).	-	-
NCFG003	Could not stop job.	-	-
NCFG004	Could not read the job.	-	-
NCFG005	Could not create job.	-	-
NCFG006	This operation is not supported on periodic jobs.	You have attempted a Retry operation on the job	The Retry operation is not supported for periodic jobs
NCFG007	Job approval is enabled. Do not select Immediate	-	Select a future date.
NCFG008	You can retry only failed jobs.	You have attempted to retry a successful job	-
NCFG009	The job does not have any failed devices.	You have attempted to retry a successful job	-
NCFG010	You cannot add new devices	You have attempted to add devices to a retry job.	You can perform Retry only on failed devices.
NCFG050	Could not modify the UDT.	-	-
NCFG051	Could not create the UDT	-	-
NCFG052	The user <i>username</i> is not authorized.	assign task is attempted to an unauthorized user.	Make sure that the user has at least Network Operator role.

# Config Editor

This section provides the troubleshooting information for the Config Editor application:

Message-ID	Error Message	Probable Cause	Possible Action
CEDT0001	CEDT0001: No device selected	You have not selected a device.	Select a device and try again.
CEDT0002	CEDT0002: There is no configuration file for the device.	There is no configuration file for the selected device in the archive.	Perform Synch Archive to get the configuration file for the device
CEDT0003	CEDT0003: Modified Config not selected.	You have not selected a modified configuration from the Modified Configs list.	Select a configuration file from Modified Configs list.
CEDT0004	CEDT0004: No Config Selected for Download.	You have not selected a configuration file for downloading either from the archive or from Modified Configs list.	Select a configuration file for downloading either from the archive or the Modified Configs list.
CEDT0005	CEDT0005: Enter job description.	You have not entered a job description while creating a job	Enter the job description. This is mandatory.
CEDT0006	CEDT0006: Failed to create job cause:	-	-
CEDT0007	CEDT0007: No job selected.	You have not selected a job.	Select a job
CEDT0008	CEDT0008: Only One Job can be {JobId} at a Time.	-	-
CEDT0009	CEDT0009: Job {JobId} cannot be {Action}.	You have tried to do any of the following: <ul style="list-style-type: none"> <li>Edit a completed job</li> <li>Copy an incomplete job</li> <li>Stop a completed job</li> <li>Stop an already stopped job.</li> </ul>	User should select the appropriate job and appropriate action.
CEDT0010	CEDT0010: Cannot get details for Job {JobId}.	The Job was recorded incorrectly.	-
CEDT0011	CEDT0011: Cannot get the summary of the job.	-	-
CEDT0012	CEDT0012: Job not found.	-	-
CEDT0013	CEDT0013: A change in Jsp has made it incompatible with the Action class.	-	-

Message-ID	Error Message	Probable Cause	Possible Action
CEDT0014	CEDT0014: Label not selected for search	You have tried to search labeled configurations without selecting a label	Select a label from the drop down.
CEDT0015	CEDT0015: Cannot open Config.	-	-
CEDT0016	CEDT0016: Cannot open Baseline Template.	Template may be deleted	Check whether the template exists.
CEDT0017	CEDT0017: Baseline Templates not present for the selected device.	There are no templates for the selected device type.	Create a Baseline Template for the selected device type from the archive.
CEDT0018	CEDT0018: No Config found for the specified search pattern	The pattern you have entered cannot be found in any of the configs	Change the search pattern.
CEDT0019	CEDT0019: External Config to be opened not selected	You have not selected an External Config.	Select the External Config File from the browser.
CEDT0020	CEDT0020: Invalid configuration file.	Configuration file is corrupted.	Recreate config.
CEDT0021	CEDT0021: Version to be opened not selected.	-	-
CEDT0022	CEDT0022: Cannot load query. Check whether the query exists.	The query you selected may have been deleted.	Use Config Mgmt > Archive Mgmt> Search Archive> Custom Queries to check whether the query exists. Create a query if it does not exist.
CEDT0023	CEDT0023: Cannot find query. Check whether the query exists	The query you selected may have been deleted.	Use Config Mgmt > Archive Mgmt> Search Archive> Custom Queries to check whether the query exists. Create a query if it does not exist.
CEDT0024	CEDT0024: No External Syntax Checker is registered with CMIC.	Either: <ul style="list-style-type: none"> <li>• You may have launched the External Syntax checker without registering the syntax checker tool with CMIC.</li> </ul> or <ul style="list-style-type: none"> <li>• The syntax checker is not registered correctly with CMIC.</li> </ul>	Register the syntax checker tool correctly with CMIC before Launching External Syntax checker.
CEDT0025	CEDT0025: Syntax Checking functionality is not supported by this device image.	The device image you have selected does not support Syntax Checking functionality.	Select another device image that supports Syntax Checking functionality.

Message-ID	Error Message	Probable Cause	Possible Action
CEDT0026	CEDT0026: RME 4.0 does not allow you to compare edited baseline template configuration with device configuration.	-	-
CEDT0027	CEDT0027: Failed to save config	-	-
CEDT0028	CEDT0028: Device ID is invalid.	-	-
CEDT0029	CEDT0029: One or more of the devices selected are already added to this job.	A config for the device has already been added	Only one config can be downloaded to a device in a Job.
CEDT0030	CEDT0030: No configuration file exists for the device	There is no configuration file for the selected device in the archive.	Perform Synch Archive to get the configuration file for the device
CEDT0031	CEDT0031: There are no commands to download.	-	-
CEDT0032	CEDT0032: Approval is enabled. Cannot schedule immediate jobs.	You cannot schedule Immediate jobs if Approval is enabled.	Select Schedule type, Once instead of Immediate
CEDT0033	CEDT0033: Selected Job Execution date is invalid.	You have selected a past date for executing a job.	Select a valid future date.
CEDIT0034	CEDIT0034: Job User Name or Password not entered.	If Job based password is checked and password is not entered.	Either: <ul style="list-style-type: none"> <li>Deselect the Job-based password option</li> </ul> Or <ul style="list-style-type: none"> <li>Enter the user name and password fields.</li> </ul>
CEDT0035	CEDT0035: Could not open config	-	-
CEDT0036	CEDT0036: Error connecting to Job Manager.	-	-
CEDT0037	CEDT0037: Select a version for device {0}.	-	-

Message-ID	Error Message	Probable Cause	Possible Action
CEDT0038	CEDT0038: {0} job(s) cannot be stopped.	-	-
CEDT0039	CEDT0039: Enter at least one pattern.	You have not entered any search patterns.	Either: <ul style="list-style-type: none"> <li>Select one of the queries listed</li> </ul> Or <ul style="list-style-type: none"> <li>Enter a search pattern.</li> </ul>

## Software Management

This section provides the troubleshooting information and FAQs for the Software Management applications:

- [Software Management FAQs](#)
- [Troubleshooting Software Management](#)

### Software Management FAQs

- [What are the high-level features of Software Management 4.0?](#)
- [What privilege level is required to run Software Management functions?](#)
- [How do I know which functions I can access in Software Management?](#)
- [Are there DNS dependencies for Remote Copy Protocol \(RCP\) to work properly for a device?](#)
- [Can I use Remote Copy Protocol \(RCP\) to transfer images to devices?](#)
- [What connection mechanism does Software Management use to upgrade software?](#)
- [What is the default Simple Network Management Protocol \(SNMP\) timeout used by Software Management? Can I configure it?](#)
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- [Can I configure default privileges on terminal lines for Cisco IOS devices that Software Management has upgraded?](#)
- [What is Job Approval?](#)
- [What is the approver list?](#)
- [Is the Job Approval policy enforced system-wide?](#)
- [How do I configure Job Approval for Software Management?](#)
- [Which Cisco IOS devices support bootldr images?](#)
- [How do you identify bootldr image files?](#)
- [How does the Software Management bootldr recommendation process work?](#)
- [Where is the storage location of the bootldr image on the Cisco IOS device?](#)
- [Does Software Management erase bootflash if there is not enough free space on bootflash?](#)
- [Does Software Management change the configuration file for bootldr upgrades?](#)



- Can Software Management back up the current bootldr image while Software Management runs the Distribute Images job?
- Does Software Management recommend bootldr images from Cisco.com in the Distribute Images function?
- Can I upgrade modules on the device using advanced Distribution mode?
- What image extension type are Not supported in Software Management?
- How can secured image upgrades be performed using Software Management?
- How to use Reboot order configuration feature?
- Is Image import from URL is treated as separate Job?
- What is the best effort verification performed while distributing the image using Advance mode?
- When does Software Management Application use SSH?
- How can a protocol be Enabled/Disabled for a job?
- How are devices upgraded using Secured Copy Protocol?
- How much Disk space should be available while performing parallel image upgrade to large number of devices (more than 100)?
- What is the swap file size required for Software Management application?
- What Version of SCP is supported in Software Management application?
- What are the pre requisites for using SCP for image upgrade?
- Why is the job still running after I cancel it?
- Why do I get an error message such as, Navigation to other areas of this application is not available until the opened wizard is finished or canceled.?
- The Cisco.com profile window is sometimes filled with user and password and sometimes not. Why?
- I am not able to select both sequential execution and sequential reboot at 'Schedule Job' step during distribution?
- During Distribution by Advance flow, I get “Software Management application could not verify the flash inputs since there was no flash information available. Edit the expert input file and verify once again. If you do not edit the expert input file, you can continue with the task by clicking Next. However, the results may be inaccurate.”?
- Why am I not able to see “Immediate” during software management jobs?
- Check if approval is enabled. If approval is enabled for Software Mgmt Jobs, you will not be able to schedule Immediate job.
- I am not able to select the device (greyed box) at Software Management device selector page, but I'm able to select at inventory.
- I am not able to select a user script which is in xxx path.
- In ACS login mode. I'm not able to see links that I usually get to see.
- In the Job Details Window (clicking on job ID in the Software Management Job Browser) I don't see the job status being updated.
- What Validations are performed by Software Management before actual image distribution onto the device?
- What is the minimum software version required to be running on the device for Software Management to upgrade the software?

- Can I have a different script for each device in a job?
- What device types can be used as remote stage device?
- What device types cannot be upgraded using remote stage flow?
- What are the pre-requisites for using the device as remote stage?
- What Configuration changes are performed by Software Management on the remote stage device?
- If I use the device as remote stage device does it impact the device's other functionalities? or what are the performance implications of using the device as remote stage device?
- Are there any Bad version of IOS for Remote stage device?
- Can I perform module upgrade (like Bootloader/mica/microcom etc.) using remote stage flow?
- How many devices in a job can be upgraded using remote stage?
- Can I Perform parallel upgrade using remote stage flow?
- Can I perform Slam dunk upgrade using the remote stage?
- What is the difference between Run-from-RAM and Run-from-Flash devices?
- When does Software Management use the remote copy protocol (rcp) to transfer images?
- How does Software Management ensure that file corruption does not occur during transfer?
- After an upgrade, why does Software Management sometimes leave behind image files in the tftpboot directory?
- How much temporary space do you need during image distribution?
- Is Cisco.com connection mandatory for Software Management?
- Cisco.com connection is not mandatory for using basic Software Management functionality. Image distribution, library management, tracking software upgrade changes, and other functions can run without Cisco.com connectivity.
- How does Software Management handle proxy environments?
- Does Software Management support proxy with user authentication environments?
- Why is the Cisco.com filter option on the Software Management Edit Preferences screen not provided for Catalyst or Cisco 700 Series images?
- How come the Cisco.com filter option does not work in LS1010 devices?
- Can I configure Software Management to retrieve images from a Cisco.com mirror site rather than the main Cisco.com site?
- Why I cannot download crypto images?
- How does Software Management verify the integrity of the images after importing them from Cisco.com?
- Why does the Flash size displayed in the Add Image to Repository (Source: Cisco.com) function not match the actual size for some Cisco IOS devices?
- What is a Dual Flash Bank device?
- Does Software Management support software upgrades on dual RSP-based systems?
- Why does Software Management require static IP routes or dynamic IP routing protocol for configuration for the upgrade of a run-from-Flash (RFF) partition on a Single Flash Bank (SFB) device?
- Although the configuration of the Single Flash Bank (SFB) device includes an IP default gateway, why does Software Management not upgrade the device?

- How do you change the IP default gateway configuration to allow Software Management to upgrade a device?
- Why does Software Management require Cisco IOS Software Release 11.1 or later to run on a Single Flash Bank (SFB) device for an upgrade when you have configured the device with Frame Relay subinterfaces?
- How is the job directory organized?
- What modem cards does Software Management support?
- What devices and software versions get support for the modem upgrades?
- Which formats of Microcom firmware images does Software Management support?
- Which format of Modem ISDN channel aggregation (MICA) portware do Cisco 3600 devices support?
- Why does the undo operation not receive support for modem upgrades?
- What connection mechanism does Software Management use for modem upgrades?
- Does Software Management erase Flash for modem upgrades if there is not enough free space on Flash?
- What is CIP?
- Which devices support the Channel Interface Processor (CIP) microcode upgrade? What is the minimum software version necessary?
- What is the minimum Channel Interface Processor (CIP) version that Software Management supports?
- How can you import Channel Interface Processor (CIP) images to the Software Management library?
- Is there support for the undo operation for Channel Interface Processor (CIP) upgrades?
- What connection mechanism does Software Management use to upgrade Channel Interface Processor (CIP)?
- Does Software Management change the configuration file for the Channel Interface Processor (CIP) upgrade?
- Does Software Management supports CIP2?
- In which order does Software Management upgrade modules on a Cisco Catalyst 5500/5000 device?
- Does the Supervisor Engine card reboot after the upgrade of all modules?
- Does Software Management determine if the newly deployed Supervisor Engine software or module software is compatible with the module types (or module hardware versions)?
- Does Software Management support the upgrade of software on redundant Supervisor Engine card-based systems?
- Does Software Management update the configuration file on Cisco Catalyst 5500/5000 devices during the software upgrade?
- Does Software Management determine if the Supervisor Engine has the minimum required RAM to run a new image?
- Are there restrictions on the downgrade of the software on the Supervisor Engine card and other modules?
- Do you need to reconfigure the device when you downgrade the Supervisor Engine software?

- In the 4.1(1) software release and later, Supervisor Engine III cards allow the storage of configuration files on Flash cards. Does Software Management preserve the backed up configuration files on Flash during a software upgrade?
- Does Software Management allow you to upgrade epsboot images on Token Ring cards on Cisco Catalyst 5500/5000 devices?
- Why does the Add Image to Repository (Source: Cisco.com) task not display Token Ring LAN Emulation (LANE) or Permanent Virtual Circuit (PVC)-only ATM software images?
- How do you identify software image files for each of the ATM modules that Software Management does support? What are the file-name conventions on Cisco.com?
- How can I make the Image Recommendation faster?
- Why do the software version numbers that the show module command output displays from the Supervisor Engine command-line interface (CLI) and the version numbers that Software Management uses fail to match in some cases?
- Does Software Management recommend the right ATM image for your ATM module type?
- Should you use special images with Software Management for Cisco Catalyst 2900XL/3500XL devices?
- How does Software Management handle image import functionality of TAR and bin types of images for Catalyst 2900XL/3500XL devices?
- Why do software upgrades take longer on Cisco Catalyst 2900XL/3500XL devices?
- How do you upgrade Route Switch Module (RSM) and LightStream 1010 (LS1010) module software on Cisco Catalyst 5500/5000 and 6500/6000 series switches?
- Why does the Distribute Images task show all the images from Cisco.com for LightStream 1010 (LS1010) and Cisco Catalyst 8500 devices, even though you have configured Cisco.com filtering?
- What is the minimum version that Cisco 700 series ISDN routers support?
- What connection mechanism does Software Management use for Cisco 700 series upgrades?
- Both Cisco 760 and 770 series devices run the same image. Why do you see only some images with versions later than 4.0(1) for 770 series devices but see all images for 760 series devices?
- Why do you not see the option to reboot the device later on the Job Control page for Cisco 700 series routers?
- Why do you not see the option to modify the boot commands on the Job Control page for Cisco 700 series routers?
- Why does Software Management report download failures for some images even though the device runs the new image after the job completes?
- In which order does Software Management upgrade modules on a Catalyst 5000 device?
- Does Software Management check to see that the newly deployed Supervisor software or module software is compatible with the module types (or module hardware versions)?
- Does Software Management support upgrading software on redundant Supervisor card-based systems?
- What is the purpose of user scripts?
- What if the user script crashes? Will it crash the Software Management job also?
- When a Software Management job is scheduled, how is the baseline determined? When I distribute a job, is an automatic backup performed?
- Can I set up a periodic download of Software Management images from Cisco.com?

- Is browser timeout something I should consider when downloading?
- What are crypto images?
- How much temporary space is required during image distribution?
- At what time will the images directory get created during the process of obtaining images from a device? Does this happen during the initial step?
- How can I speed up Image Recommendation?
- When a job is rejected, can it be edited or should I resubmit?
- Can different group members edit jobs? What are the restrictions?
- What is the role of the registry files in RME?
- How do I upgrade Network Analysis Module (NAM) using Software Management?
- Can I change the job scheduled time?
- How does Software Management handle the job status for an abnormally terminated job?
- How does Software Management handle the job status of a pending job whose scheduled time has passed?
- Why are some files left in the Software Management folder after Software Management has been uninstalled?

Q. What are the high-level features of Software Management 4.0?

A. Software Management offers the following management functions:

- Software Distribution — Schedules download of software images to a single device or groups of devices. Hardware and firmware validation verifies whether the new image can run on the device. Image Upgrade can be performed in Sequential or in parallel. Also the In Parallel mode of upgrade device reboot can be controlled for the job.

Provides several workflow to achieve this functionality

- Distribute By Device [Basic]
- Distribute [Advance]
- Distribute by Image
- Distribute by Remote Stage
- Software Repository — Builds and maintains a library archive of software images. Software images can be added to repository from,
  - Device— Allows to archive the current software images on the device
  - Cisco.com— Integrates with Cisco Connection Online (Cisco.com) to download software images.
  - File System—Allows to import an image from a directory accessible from the RME server
  - Network—Allows the library to synchronize with the software images running on the devices. A periodic job can generate a list of images that are not in the library. You then have the option to import new images into the library and then check them for discrepancies between software images running on the network and images in the library.
  - URL—Allows to download images from URL you specify.
- Upgrade Analysis—Determines the hardware upgrades required on network devices to enable them to run new software. Software Management allows analysis based on the location of image to be analyzed. Following locations are supported.

- Cisco.com
- Local Repository
- Job Management
  - Job Approval — Allows organizations to require approvals before allowing software upgrades.
  - Software Management jobs can be operated upon to,
    - Retry
    - Undo
    - Cancel
    - Stop
- Reports
  - Work order — Displays changes that will be made to network devices as part of the software upgrade.
  - Synchronization report — Displays which Software Management-supported devices are running software images that are not in the software image repository.
  - Audit trail—Tracks software changes made on the RME server

Q. What privilege level is required to run Software Management functions?

A. Different operations in Software Management require different levels of user privileges. Privilege levels are known as “roles” in RME. For a list of RME functions and required user roles, use the Permissions Report function (**Common Services > Server > Reports**).

Q. How do I know which functions I can access in Software Management?

A. To find which functions you can access in Software Management:

- Select **Common services > Server > Reports > Who Is Logged On** to find your assigned roles.
- Select **Common services > Server Reports > Permissions Report** to verify which RME and Software Management tasks you can run.

Q. Are there DNS dependencies for Remote Copy Protocol (RCP) to work properly for a device?

A. Yes. If there are multiple IP addresses configured on the device, all IP addresses on the device must be configured in the Domain Name System (DNS). Examples of devices with multiple IP addresses are those having many interfaces, with each interface configured with its own IP address, or a device that interfaces configured with primary and secondary IP addresses.

Configure the DNS so that all IP addresses are resolved to the same host name. The host name in the DNS should match the host name entered in the Device and Credential Repository.

Q. Can I use Remote Copy Protocol (RCP) to transfer images to devices?

A. Use the RCP transport protocol for image transfers only on Cisco IOS devices that support the CISCO-FLASH-MIB. Catalyst switches that run Supervisor software older than 5.2, and 700 Series devices do not support the RCP protocol.

The Cisco IOS devices can not use RCP if they only support OLD-CISCO-FLASH-MIB, (for example, MC3810) or if they do not support any Flash Management Information Base (MIB) (for example, RSP 7000 devices running Cisco IOS Software Releases 10.3-11.0).

Q. What connection mechanism does Software Management use to upgrade software?

- A. Simple Network Management Protocol (SNMP) is the preferred mechanism used by Software Management to upgrade software. Some devices, however, cannot be upgraded using SNMP alone. For such devices, Software Management uses a Telnet interface to do the upgrades. SNMP upgrades all Run-from-RAM Cisco IOS devices, Dual Flash Bank Run-from-Flash (DFB RFF) devices, and all Catalyst switches. If SSH is preferred for device connection then SSH is Used for connecting to the device.

Software Management uses Telnet to perform the following upgrades:

- Single Flash Bank Run-from-Flash Cisco IOS devices (SFB 2500s, 1600s, AS5200)
- RSP 7000 devices running Cisco IOS Software Releases 10.3 - 11.0
- Cisco 700 Series
- CIP, MICA, Microcom upgrades
- 3500/2900 series of devices
- 1900/2820 Series
- VPN 3000 Series of devices.

For complete list of supported protocols see Supported Device Table for Software Management.

- Q. What is the default Simple Network Management Protocol (SNMP) timeout used by Software Management? Can I configure it?
- A. Default retry is 2 and default SNMP time out value is 2. This value is configurable using **RME > Admin > System Preference**.
- Q. Can I configure TACACS or Radius authentication for devices that Software Management has upgraded?
- A. Software Management supports upgrading devices that are configured for TACACS or Radius authentication. An exception is software upgrades on the Run-from-Flash partition if the device is configured with Radius protocol authentication. The Common Services Device and Credential Repository must be configured with the appropriate information to access the device.
- Q. Can I configure default privileges on terminal lines for Cisco IOS devices that Software Management has upgraded?
- A. Software Management upgrades software by using the Telnet interface or Command-Line Interface (CLI) on devices that do not support enough Management Information Base (MIB) instrumentation for software management. Software Management telnets into the devices and executes privileged commands such as copy tftp flash, copy flash tftp, erase flash, show version, copy flash modem to perform upgrades.

Software Management modifies the configuration file using the Telnet interface to upgrade the software. For Software Management to work on a device, there are some restrictions on how default privileges and enable mode authentication are configured. The restrictions apply to only those Cisco IOS devices that are managed by Software Management through the Telnet interface. Cisco 700 Series and Catalyst 5000/6000/4000 devices are not affected. Restrictions include the following:

- Software Management tries to run the above CLI commands from privilege level 15. The user must always configure an enable password/secret for privilege level 15, and the same password/secret must be entered in the Device and Credential Repository. If the device is configured with TACACS authentication for enable mode access, then the Enable TACACS user name and password must be entered in the Device and Credential Repository. The Enable User name and password authenticated by TACACS+ server always should receive a privilege level of 15.

- The default privilege level configured on a vty line must allow Software Management to run the CLI commands mentioned earlier as well change the configuration file on the device. The privilege level does not need to be 15, but setting the privilege level to 15 guarantees Software Management can always work on the device.

See [How are the device credentials mapped in Device and Credential Repository?](#) for information on how Device and Credential Repository maps the device credentials.

- Q. What is Job Approval?
- A. Job Approval allows an organization to require approvals before an administrator distributes software images. When an image distribution job is created, the administrator (or whoever creates the job) selects from a list of users who can approve the job. For the job to run, one of the users on the approver list must approve it before its scheduled time. If the job is not approved, it will be rejected at the scheduled time.
- Q. What is the approver list?
- A. An approver list consists of user names in RME who have the authority to approve software upgrades.
- Following steps are required:
- Create a approver (**Common Service > Server > Security > Single-Server Management > Local User Setup > Add**).
  - Create the list by using the Create Approver List (**Resource Manager Essentials > Admin > Approval > Create/Edit Approver Lists**). Only users who have an Approver role can be added to the Approver List.
- Q. Is the Job Approval policy enforced system-wide?
- A. Yes. To create a job that does not require approval, disable the Software Management option (**RME > Admin > Approval > Approval Policies**)
- Q. How do I configure Job Approval for Software Management?
- A. To configure Job Approval, do the following:
- Add the approver user (**Common Service > Server > Security > Single-Server Management > Local User Setup > Add**).
  - Create an Approver List (**Resource Manager Essentials > Admin > Approval > Create/Edit Approver Lists**)
  - Enable the Job Approval option (**RME > Admin > Approval > Approval Policies > Software Management**)
- Q. Which Cisco IOS devices support bootldr images?
- A. The following Cisco IOS device families support bootldr images:
- Cisco 4500 and 4700
  - Cisco 7500, Route Switch Processor (RSP)-based 7000
  - Cisco 7200
  - Cisco AS5200, AS5300, and AS5800 Access Servers
  - Route Switch Module (RSM) on Cisco Catalyst 5500/5000
  - ESR 10K, 10K2 devices



See the Supported Device Table for Software Management application on Cisco.com for further information.

Q. How do you identify bootldr image files?

A. Bootldr image files follow this name convention, *platform-boot-mz.version*

An example is *rsp-boot-mz.11.0(17)BT*. If the second part (feature part) of the image file name contains “boot”, then the image is a bootldr image. The software library recognizes the file name and imports the image as a bootldr image. Bootldr images earlier than Cisco IOS Software Release 10.3 contain *xboot* in the feature part of the image. Software Management does not support such images.

Q. How does the Software Management bootldr recommendation process work?

A. Different hardware platforms in Cisco IOS Software have different bootldr images. For example, the bootldr image for the Cisco 4500 device is *c4500-boot-mz*; the bootldr image for the Cisco 7200 is *c7200-boot-mz*. From the library, Software Management determines which bootldr images belong to the same family as the target device. Software Management then recommends the most current of all available images.

Unlike system software images, bootldr images do not have RAM requirements. Therefore, Software Management does not perform prerequisite matches between the device and the image.

Q. Where is the storage location of the bootldr image on the Cisco IOS device?

A. Software Management always uses the bootflash card as the target Flash for the bootldr image. Software Management stores bootldr images on the bootflash card only, even though Cisco IOS Software allows the store of bootldr images on a Flash card. If you use other Flash cards for the store of bootldr images, problems can occur when you have stored other types of images, such as system software, Microcom, or Modem ISDN channel aggregation (MICA), in the same location.

Q. Does Software Management erase bootflash if there is not enough free space on bootflash?

A. If the bootflash card does not have enough free space to store the new bootldr image, Software Management erases the bootflash to make room for the new boot image. A verification warning alerts you of the bootflash erase. To see this warning, click the Failure/Warning link in the Status column of the Verify Image Upgrade window.

Software Management backs up and restores files on bootflash with sizes of less than 1 MB.

Q. Does Software Management change the configuration file for bootldr upgrades?

A. Upon bootldr upgrade, Software Management changes the device configuration file such that the configuration file that downloads to the device contains:

Assume that the file name of the newly downloaded bootldr image is *c4500-boot-mz.112-13.bin*.

- no boot bootldr
- boot bootldr *c4500-boot-mz.112-13.bin*

Q. Can Software Management back up the current bootldr image while Software Management runs the Distribute Images job?

A. Software Management backs up the system software image only during the Cisco IOS Distribute Images job execution. The backup of bootldr images cannot take place. Use the *add images* function to import the bootldr image from device to library. (Select **Resource Manager Essentials > Software Mgmt > Software Repository > Add**).

- Q. Does Software Management recommend bootldr images from Cisco.com in the Distribute Images function?
- A. Yes, Software Management does recommend the download of bootldr images directly from <http://www.cisco.com> during the Distribute Images job creation.
- Q. Can I upgrade modules on the device using advanced Distribution mode?
- A. No. Expert flow is Not officially tested with all the possible module upgrade scenarios. Current implementation claims only system software upgrades using the expert flow.
- Q. What image extension type are Not supported in Software Management?
- A. The following file/image types are not supported:
- doc, txt, pdf, xls, ppt, jpg, jpeg, bmp, csv, mpg, au, xml, html, htm, java, class, tex, ps, pps.
- Q. How can secured image upgrades be performed using Software Management?
- A. Current Version (4.0) supports new protocols such as, SCP and SSH. You can choose the appropriate protocols based on the device support. For the devices that are upgraded using Telnet/SSH, new feature called Job based password can be enabled for scheduled job. You can specify a temporary password for the upgrade job and it will take precedence over all the credentials in the Device and Credential Repository.
- Q. How to use Reboot order configuration feature?
- A. This feature is applicable only in case of “parallel” mode of image upgrade. This feature can be used to perform sequential rebooting of devices. You can make this decision based on the network topology or any other deployment policy. The devices will be rebooted in the order specified by you.
- Q. Is Image import from URL is treated as separate Job?
- A. Yes, the workflow results in a job.
- Q. What is the best effort verification performed while distributing the image using Advance mode?
- A. Verification in Advance distribution mode is referred as the best effort verification because you can proceed to schedule the image upgrade even without RME inventory data. This is designed to support devices that are not yet managed in CiscoWorks (pre-deployed devices).
- Q. When does Software Management Application use SSH?
- A. If the device type selected is to be upgraded using the CLI then Software Management application uses SSH (if opted in the preference). Even for fetching information required during the job creation stage SSH is used.
- Q. How can a protocol be Enabled/Disabled for a job?
- A. Using the User Interface, **Resource Manager Essential > Admin > Software Mgmt > View/Edit preference**. Available protocols list the Software Management supported protocols. You have to add or remove the protocols to selected protocol order in order to enable or disable the protocol used for image transfer.
- Q. How are devices upgraded using Secured Copy Protocol?

- A. Image staging and other checks performed before the image distribution remains same for upgrade using SCP. The operations like flash erasure /delete etc. are performed using Cisco Flash mib or old Cisco flash mib only. The difference lie in the model used for image upgrade. RME positions itself as a client for the Secured copy operations. Devices with SCP server are (like 2650XM) requested to initiate a file transfer operation. Device “pull” the image from RME.
- Q. How much Disk space should be available while performing parallel image upgrade to large number of devices (more than 100)?
- A. The amount of disk depends upon the number of images staged in the upgrade job. If the image selected is common for all the devices then disk space required is equal to size of the image. If different images are selected for each job then disk space required is the sum of all the images.
- Q. What is the swap file size required for Software Management application?
- A. RME 4.0 recommend a swap size of 2MB for managing 300 devices.
- Q. What Version of SCP is supported in Software Management application?
- A. Current implementation of SCP is based on the fcpsvc library that uses the SSHv1 stack. Current version of SCP supported is 1.0
- Q. What are the pre requisites for using SCP for image upgrade?
- A. The device should have SCP server Any image having 3DES feature has SCP server in it. SSH should be enabled on the device.
- Q. Why is the job still running after I cancel it?
- A. In Sequential mode, the job stops only after the image upgrade for the current device or module is finished. Canceling a running job does not cancel the software upgrade being performed at that time. The job stops only after the current upgrade is complete. During this time, the Browse Job Status screen shows that the job is still running. In case of parallel upgrades, when a job is cancelled, the current set of devices being processed will be continued and not stopped. But processing of no new devices will be started after the currently executing set of devices complete.
- Q. Why do I get an error message such as, Navigation to other areas of this application is not available until the opened wizard is finished or canceled.?
- A. Yes, you get this when you are in a wizard (you will see 'Back', 'Next', 'Finish' & 'Cancel' when you are in a wizard at the bottom) and you click any of the other navigational links.
- Q. The Cisco.com profile window is sometimes filled with user and password and sometimes not. Why?
- A. If the Cisco.com user name and password is configured for you the same will be pre-populated. You can configure the Cisco.com credentials in the Cisco.com User Account Setup dialog box (**Common Services > Server > Security > Cisco.com Connection Management > Cisco.com User Account Setup**).
- Q. I am not able to select both sequential execution and sequential reboot at 'Schedule Job' step during distribution?
- A. If you had selected execution to be sequential the same order applies to reboot. However, if the execution is parallel you will be allowed to select reboot sequential.

- Q. During Distribution by Advance flow, I get “Software Management application could not verify the flash inputs since there was no flash information available. Edit the expert input file and verify once again. If you do not edit the expert input file, you can continue with the task by clicking Next. However, the results may be inaccurate.”?
- A. You get this when there are no inventory information available for the device. You can expect this error for 2900, 3500, 3550 x1 devices.
- Q. Why am I not able to see “Immediate” during software management jobs?
- A. Check if approval is enabled. If approval is enabled for Software Mgmt Jobs, you will not be able to schedule Immediate job.
- Q. I am not able to select the device (greyed box) at Software Management device selector page, but I'm able to select at inventory.
- A. Software Management support might not be there. See the Supported Device Table for RME 4.0 on Cisco.com
- Q. I am not able to select a user script which is in xxx path.
- A. The scripts are expected to be available in the specific path. *NMSROOT*/files/scripts/swim is the location for Software Management scripts.  
Where *NMSROOT* is the CiscoWorks installed directory.
- Q. In ACS login mode. I'm not able to see links that I usually get to see.
- A. On the ACS server, check if some role to task mapping (tree) has got changed. The required Software Management task option should be selected on the ACS server for a particular role.
- Q. In the Job Details Window (clicking on job ID in the Software Management Job Browser) I don't see the job status being updated.
- A. The job status will not be updated, as only the job running status is getting refreshed.
- Q. What Validations are performed by Software Management before actual image distribution onto the device?
- A. Software performs the following checks before the job execution:
- Check whether job file is Available at the job id and has required data in the format and prepares a list of devices to be upgraded in the job.
  - Checks whether RME License is valid
    - Whether license file is valid
    - Number of devices managed
  - Remove all devices from the list which are not authorized for the user to perform image distribution. Remove all devices from the list which are in Suspended state or Conflicting state. Pre-deployed state devices are not removed.
  - Checks for the proper pre/post job script (if any) ownership and permission
    - On Solaris, check is performed for *rxwxr-x---* permissions for script file (0750)
    - On Windows, check is performed if the given script has write permissions for any non-admin and non-casuser
  - Verifies that critical data required for image upgrade are present in the job file.

- Q. What is the minimum software version required to be running on the device for Software Management to upgrade the software?
- A. For Cisco IOS device minimum supported version is 11.0 where as for Catalyst Images Minimum supported version is 3.8.
- For more details on minimum supported version for each device type refer to Supported Devices Table for Resource Manager Essentials 4.0
- Q. Can I have a different script for each device in a job?
- A. No, you cannot have separate script for each device. In Software Management 4.0, script is defined in admin preference option and is common for all Software Management jobs.
- Q. What device types can be used as remote stage device?
- A. All IOS devices with running image version  $\geq 12.0$  version and complete CISCO-FLASH-MIB support can be used as Remote-Stage device.
- Q. What device types cannot be upgraded using remote stage flow?
- A. Content Engines (CE), Network Analysis Modules (NAM), Content Service Switches (CSS), and PIX.
- Q. What are the pre-requisites for using the device as remote stage?
- A. It must be an IOS device and it must be running  $\geq 12.0$  version and it must support CISCO-FLASH-MIB completely.
- Q. What Configuration changes are performed by Software Management on the remote stage device?
- A. `tftp-server <flash-partition-name>:<image-name> alias <image-name>` is the only command that will be added to the Remote stage device to make the image copied to Remote Stage device as accessible through TFTP from other devices.
- Q. If I use the device as remote stage device does it impact the device's other functionalities? or what are the performance implications of using the device as remote stage device?
- A. There will not be any impact on device's other functionalities and also they will not be any performance implications on the device that is used as Remote-Stage.
- Q. Are there any Bad version of IOS for Remote stage device?
- A. 12.3(5x) series.
- Q. Can I perform module upgrade (like Bootloader/mica/microcom etc.) using remote stage flow?
- A. No.
- Q. How many devices in a job can be upgraded using remote stage?
- A. There is no limit specific to remote stage flow. the number of devices in a remote stage job is same as that of other distribution flow.
- Q. Can I Perform parallel upgrade using remote stage flow?
- A. Yes
- Q. Can I perform Slam dunk upgrade using the remote stage?
- A. No. The image that you want to use must be in the Software Repository.

- Q. What is the difference between Run-from-RAM and Run-from-Flash devices?
- A. Most Cisco IOS devices load the software image from Flash to RAM when rebooting, then run the software from RAM. Such devices are called Run-from-RAM (RFR) devices. For these devices, the software image on Flash can be upgraded without rebooting the device.
- Certain Cisco IOS devices (namely 2500s, 1600s, and AS5200s) run the system software image directly from Flash. These are Run-from-Flash (RFF) devices. The Flash partition in which the current image is stored is the RFF partition, which is read-only.
- Software Management supports upgrading software images on RFF partitions by using a procedure called Rxboot upgrade. Before upgrading, reboot the device and put it into Rxboot mode, which makes the RFF partition available to write a new software image.
- Q. When does Software Management use the remote copy protocol (rcp) to transfer images?
- A. Generally the order defined in selected protocol list will be used for transferring (to upload and download) Cisco IOS® Softwares. If RCP is in the top of the selected protocol list then RCP is used as the first protocol for image transferring on to the devices that support CISCO-FLASH-MIB. Check the supported protocol list for the device to find out whether device supports RCP or not. Cisco Catalyst 5500/5000 switches and Cisco 700 series devices do not support rcp. Cisco IOS devices that do not support rcp include the Cisco 7000 series (route processor [RP]-based 7000 only) and MC3810. All other Cisco IOS devices support the rcp protocol. Protocol order defined for config operation in **Resource Manager Essentials > Admin > Config Mgmt** will be used for Config operation.
- Q. How does Software Management ensure that file corruption does not occur during transfer?
- A. Software Management computes the checksum of the image file. Then, Software Management compares this checksum to the checksum from the device after the copy of the image file to the device Flash. Software Management also verifies the size of the file on the Flash. If either the size or checksum do not match, Software Management aborts the distribution and marks the job status as an error.
- Q. After an upgrade, why does Software Management sometimes leave behind image files in the tftpboot directory?
- A. Software Management removes the image files from the tftpboot directory after the upgrade unless the TFTP fallback job option is set. If the TFTP fallback option is set, Software Management uploads the image from the device and leaves the image in the tftpboot directory for fallback. Software Management also modifies the boot system commands on the device to add a fallback command to boot from the original image on the RME TFTP server if the upgraded image does not boot.
- Q. How much temporary space do you need during image distribution?
- A. The amount of free space necessary depends on the image file size and the number of devices for simultaneous upgrade. If the TFTP fallback option is set, you need additional free disk space to keep the current image in the tftpboot directory. Both the tftpboot and temp directories use disk space.
- Q. Is Cisco.com connection mandatory for Software Management?
- A. Cisco.com connection is not mandatory for using basic Software Management functionality. Image distribution, library management, tracking software upgrade changes, and other functions can run without Cisco.com connectivity.

Cisco.com connectivity provides the additional benefits of obtaining images and their attributes from Cisco.com and viewing the status of outstanding bugs against the software images running on the devices in the network. The following features of Software Management require Cisco.com connectivity:

- Adding image to Repository from Cisco.com. Software Management can import images for all supported devices.
- Distributing images directly from Cisco.com to devices, also called Recommend Images from Cisco.com. Without a Cisco.com connection, the Recommend Images screen Image list box will not show any images from Cisco.com when it creates the Distribute Images job.
- Cisco.com upgrade analysis.
- Cisco IOS image deferral processing.

Q. How does Software Management handle proxy environments?

A. Software Management uses HTTP protocol to communicate to Cisco.com about downloading images and their attributes. If you use an HTTP proxy for Internet connectivity, configure Proxy URL information in **Common Services > Server > Security > Proxy Server Setup**.

Q. Does Software Management support proxy with user authentication environments?

A. Yes, Software Management support proxy that requires user authentication.

Q. Why is the Cisco.com filter option on the Software Management Edit Preferences screen not provided for Catalyst or Cisco 700 Series images?

A. During the Distribute Images task, Software Management communicates with Cisco.com to obtain a list of applicable images and their attributes. Based on this information, Software Management recommends an image. There is a large number of Cisco IOS images available on Cisco.com, which can cause a substantial delay in retrieving image attributes from Cisco.com. Not all these images will be meaningful or relevant to the user. Software Management filters the amount of images being considered to make a more meaningful and manageable subset.

For Catalyst and 700 devices, fewer images are available on Cisco.com than for Cisco IOS; therefore, it is not necessary to filter the images.

Q. How come the Cisco.com filter option does not work in LS1010 devices?

A. Although LS1010 devices run Cisco IOS images, there are some differences in how the LS1010 images are released. LS1010 images do not follow the Cisco IOS-type image releases like general deployment (GD), limited deployment (LD), and early deployment (ED). Therefore, Software Management cannot effectively filter LS1010 type images. Nor does Software Management filter Catalyst 8500 Series images.

Q. Can I configure Software Management to retrieve images from a Cisco.com mirror site rather than the main Cisco.com site?

A. No. Although the mirror Cisco.com sites contain the images, they do not store image attributes, such as minimum RAM and FLASH requirement. This information is available only from the main Cisco.com site at <http://www.cisco.com>.

Q. Why I cannot download crypto images?

- A. Crypto images are available only to authorized Cisco.com users. All users can view the images during the Recommendation stage but only users with the right privileges can download the image. Make sure that the Cisco.com Login user configured in CiscoWorks has permission to download crypto images.
- Q. How does Software Management verify the integrity of the images after importing them from Cisco.com?
- A. Software Management checks the validity of the downloaded images by comparing the MD5 checksum of the image with the MD5 checksum value retrieved from the Cisco.com database.
- Q. Why does the Flash size displayed in the Add Image to Repository (Source: Cisco.com) function not match the actual size for some Cisco IOS devices?
- A. Software Management does not erase files whose sizes are less than 1 MB on Cisco IOS devices because those files may be config files that are backed up to Flash partitions or .html files or Java applets used for management. Software Management subtracts sizes of all files whose sizes are less than 1 MB from the size of the Flash partition. The result of the subtraction is displayed as the size of the Flash partition in the Software Management user interface.

The Software Repository Management window (**Resource Manager Essentials > Software Mgmt > Software Repository**) displays the size of the largest Flash partition on the device. The size is displayed as an integer-truncated value in megabytes. The Distribute Images screen displays information for all Flash partitions on the device. The values are displayed with two-decimal-digit precision.

The example below illustrates Software Management's behavior on a Cisco IOS device, which has two files whose sizes are 10 KB and 50 KB respectively. The Flash card's total size is 8 MB. Because it has two files whose sizes are less than 1 MB, the Add Image to Repository screen displays the size as 7 MB. The Distribute Images screen displays the size as 7.94 MB.

```
enm-2502> show flash
System flash directory:
File Length Name/status
1 8089628 c2500-js-1.112-14.bin
2 10470 test_file1
3 52995 test_file2
8153288 bytes used, 235320 available, 8388608 total]
8192K bytes of processor board System flash (Read ONLY)
```

- Q. What is a Dual Flash Bank device?
- A. The Flash card can be partitioned into two equal banks. Each bank is called a Flash partition. A Flash card that is not partitioned is Single Flash Bank (SFB) and the device is called an SFB device. A device that has its Flash card divided into two partitions is a Dual Flash Bank (DFB) device.

When Flash is partitioned into two separate banks, they are named flash1 and flash2. Software image files have to be completely stored in a single partition, so the maximum size of a software image is limited by the total size of any Flash partition. On a Dual Flash Bank Run-from-Flash (DFB RFF) device, Software Management supports upgrading the flash partition that does not contain the running image. In other words, Software Management cannot upgrade the RFF partition on DFB devices. This is because the other partition, which can be upgraded directly, is the recommended partition for storing the new software image.



The AS5200 device has two Flash cards, bootflash and flash. The flash is an RFF system and bootflash is an RFR system. The bootflash is intended for storing bootldr images on the AS5200 and flash is for storing Cisco IOS System Software.

- Q. Does Software Management support software upgrades on dual RSP-based systems?
- A. Software Management updates the software on the master RSP processor by copying the software image file to the master RSP Flash card (bootflash: slot0: slot1:) and updating the config file on the master RSP. Software Management cannot do a complete job of upgrading the software on the slave RSP processor. Software Management can only copy the software image file to the slave RSP processor, but it cannot update the config file on that processor. Users will have to run a separate Distribute Images job to copy the software image file to the slave RSP processor. Because Software Management cannot update the config file on the slave RSP processor, users must select “Don't touch config file” and select the “no reboot” option in the job created for upgrading software on the slave RSP processor.
- Q. Why does Software Management require static IP routes or dynamic IP routing protocol for configuration for the upgrade of a run-from-Flash (RFF) partition on a Single Flash Bank (SFB) device?
- A. Software Management upgrades SFB devices that are in Rxboot mode. Rxboot mode does not support IP routing, IP bridging, or Simple Network Management Protocol (SNMP). The Rxboot image can support only one IP interface. Before the reboot of the device while in the Rxboot mode, Software Management determines the:
- Interface that connects the device to RME servers. Software Management shuts down all interfaces except the one that connects to the RME server.
  - Default gateway IP address for the forward of all IP traffic when the device is in the Rxboot mode.
  - Software Management queries the ipRouteEntry MIB variables ipRouteDest and ipRouteIfIndex to determine the default gateway IP address and the interface that connects. If the device configuration does not include static IP routes or dynamic IP routing protocol, the ipRouteEntry table is not set on the device. Consequently, Software Management cannot determine the default gateway and the interface that connects to RME.
- Q. Although the configuration of the Single Flash Bank (SFB) device includes an IP default gateway, why does Software Management not upgrade the device?
- A. Software Management requires an IP default gateway address and an interface that connects. If you configure only the IP default gateway with the configuration command (ip default-gateway ip-address), you do not generate the ipRouteEntry MIB table on the device. You can parse the IP default gateway from the configuration file; however, there is no reliable way to get the connecting interface from the device without the ipRouteEntry MIB. Without the ipRouteEntry MIB, Software Management does not allow upgrades, even if you have manually configured the IP gateway on the device.
- Q. How do you change the IP default gateway configuration to allow Software Management to upgrade a device?
- A. Use the IP default gateway configuration command to convert to a static IP route. Replace ip default-gateway gateway\_ip\_address with ip route 0.0.0.0 0.0.0.0 gateway\_ip\_address, which removes the ip default-gateway command from the configuration file. Check the output of the show ip route command to verify the correct configuration of a static IP route on the device.

- Q. Why does Software Management require Cisco IOS Software Release 11.1 or later to run on a Single Flash Bank (SFB) device for an upgrade when you have configured the device with Frame Relay subinterfaces?
- A. Releases earlier than Cisco IOS Software Release 11.1 do not include Frame Relay subinterfaces in `ifTable` and `ipRouteTable` in RFC 1213. Software Management requires information from these tables to perform Rxboot mode upgrades. Therefore, Software Management requires Cisco IOS Software Release 11.1 or later to run on an SFB device when the device has Frame Relay subinterfaces.
- Q. How is the job directory organized?
- A. When Software Management schedules a job, it creates a new directory:
- On Solaris: `/var/adm/CSCOpX/files/rme/swim`
- On Windows, `NMSROOT/files/rme/swim`
- Where `NMSROOT` is the `CiscoWorks` installed directory.
- The directory name is the integer ID of the job. (Example: `/var/adm/CSCOpX/files/rme/swim/23`, where 23 is the job id.)
- The job directory contains the following files depending upon the type of Software Management task:

Distribution Job	Image Import Job Image	Synchronization Job
• <code>swim_debug.log</code>	• <code>swim_debug.log</code>	• <code>swim_debug.log</code>
• <code>workorder.html</code>	• <code>workorder.html</code>	• <code>workorder.html</code>
• <code>distribution.xml</code>	• <code>import.xml</code>	• <code>synchreport.xml</code>
• <code>PostOperation.txt</code>	• <code>PostOperation.txt</code>	• <code>jobinfo.xml</code>
• <code>SwOperation.txt</code>	• <code>SwOperation.txt</code>	• <code>synchReport.txt</code>
• <code>SummaryTable.tab</code>	• <code>SummaryTable.tab</code>	
• <code>Hostname.upgStatus</code>	• <code>Hostname.upgStatus</code>	
• <code>HostName_Config_Snap</code>		

Where,

- `swim_debug.log` contains the debug information during the job execution.
- `workorder.html` contains the changes that user has chosen to perform with the job
- `<deviceName>.upgStatus`- a serialized file created on job completion for retry/undo operations.
- `PostOperation.txt` used for all jobs scheduled through UI.
- `SwOperation.txt` indicates Job has been triggered. Absence indicate job has crashed for what ever reasons
- `SummarTable.tab` for UI purposes always exists for executed job.
- `_Config_snap` contains the Changes that are performed by Software Management on the original configuration.
- `HostName_telnet.log` for some device types only.

- Q. What modem cards does Software Management support?
- A. Software Management upgrades Modem ISDN channel aggregation (MICA) and Microcom 56K modems.
- Q. What devices and software versions get support for the modem upgrades?
- A. Support is available for Modem ISDN channel aggregation (MICA) portware upgrades on:
- Cisco AS5200 that runs Cisco IOS Software Release 11.3(2)T or later and Bootldr version 11.2(11)P or later.
  - Cisco AS5300 that runs Cisco IOS Software Release 11.2(9)XA, 11.3(2)T, or later.
  - Cisco 3640 that runs Cisco IOS Software Release 11.2(12)P, 11.3(2)T, or later.

Support is available for Microcom firmware upgrades on:

- AS5200 that runs Cisco IOS Software Release 11.2(10a)P or later.
- AS5300 that runs Cisco IOS Software Release 11.1(14)AA, 11.2(7a)P, or later.



**Note**

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Cisco AS5800 devices also have modems. However, the modem microcode for these devices is bundled with the system software only and receives upgrades as part of the system software upgrade.

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- Q. Which formats of Microcom firmware images does Software Management support?
- A. The Microcom firmware for 56K modems is available in two formats:
- Controller firmware and the Digital Signal Processor (DSP) code as two files, for example, mcom-modem-fw-xx.bin and mcom-modem-dsp-xx.bin.
  - A combination of firmware and the DSP code in a single format, for example, mcom-modem-code-xx.bin.

The Cisco AS5300 supports only the image combination. If the Cisco AS5200 runs a Cisco IOS Software release later than Cisco IOS Software Release 11.2(10)P, the AS5200 supports only the combination file format. Software Management supports only the combination format files (for example, mcom-modem-code-xx.bin). Software Management does not support separate firmware and DSP code files. You cannot import the files to the software library.

- Q. Which format of Modem ISDN channel aggregation (MICA) portware do Cisco 3600 devices support?
- A. The 3640 digital modem network modules can run two types of modem microcode.
- 3600-Specific Modem Microcode File—This file has a 3600-specific header and should have the characters c3600-mica in the file name. Software Management does not support such files.
  - Cisco AS5300 Modem Microcode File—In Cisco IOS Software Release 11.2(12)P, 11.3(2)T, and later, the 3640 supports the AS5300 microcode files directly and the 3600-specific microcode files. The AS5300 microcode files have Executable and Linking Format headers that contain the version and other information about the image file. Even though the microcode file formats differ between the 3600 and the AS5300, the actual microcode that downloads to the MICA modems is the same.

Software Management supports only AS5300 format files. Therefore, the earliest Cisco IOS Software release that the 3640 supports is Cisco IOS Software Release 11.2(12)P.

- Q. Why does the undo operation not receive support for modem upgrades?

- A. To support the undo operation, Software Management must determine the version of software that runs and identify the image file on the device that corresponds. The image file must be present in the library or available on [Cisco.com](http://Cisco.com). In the case of modem upgrades, Software Management cannot precisely determine the current software version on the modems in all cases. Moreover, different modems can run different software versions, which makes the undo process difficult to support.
- Q. What connection mechanism does Software Management use for modem upgrades?
- A. Software Management uses Simple Network Management Protocol (SNMP) to initiate the modem image file transfer to the device Flash. After Software Management copies the image to Flash, Software Management uses the Telnet interface to the device to run a command line interface (CLI) command that downloads the code to the modems. (The command is copy flash modem.)
- Q. Does Software Management erase Flash for modem upgrades if there is not enough free space on Flash?
- A. Yes, if the target Flash card does not have enough free space for the store of the new modem image, Software Management erases the target Flash. Software Management does not erase the Flash card if:
- The upgrade of the system software does not occur within the same job as the modem upgrade.
  - The target Flash partition for the modem upgrade contains the current system software image.

Instead, Software Management prevents the modem upgrade on that Flash partition. On the Cisco AS5200, the bootflash card stores modem images, which can contain the bootloader image that currently runs. If there is not enough free space to contain the new modem image, Software Management erases the bootflash card. Back up and restore bootloader images in the case that an erase of the bootflash is necessary for the upgrade of the modem image. Software Management issues a verification warning if Software Management needs to erase the bootflash.

- Q. What is CIP?
- A. CIP stands for Channel Interface Processor card. This interface card allows you to connect the Cisco 7000 router to IBM or IBM-compatible mainframes.
- Q. Which devices support the Channel Interface Processor (CIP) microcode upgrade? What is the minimum software version necessary?
- A. Software Management supports CIP upgrades on Cisco 7000 and 7500 routers that run Cisco IOS Software Release 11.1(1) or later.
- Q. What is the minimum Channel Interface Processor (CIP) version that Software Management supports?
- A. Software Management supports CIP version 22.0 at minimum.
- Q. How can you import Channel Interface Processor (CIP) images to the Software Management library?
- A. The Add Images function (**Resource Manager Essentials > Software Mgmt > Software Repository > Add**) does not support the import of CIP microcode images from [Cisco.com](http://Cisco.com). You first must download the images to the file system on the RME server. Then, choose Add option with source as File System to import them to the software repository. Software Management does not recommend the download of CIP microcode directly from [Cisco.com](http://Cisco.com) for an upgrade. Populate the software Repository with modem images before you run the Distribute Images function.
- Q. Is there support for the undo operation for Channel Interface Processor (CIP) upgrades?

- A. No, there is no support for the undo operation for CIP upgrades.
- Q. What connection mechanism does Software Management use to upgrade Channel Interface Processor (CIP)?
- A. Software Management uses the Telnet interface to the device to copy the CIP image to the flash. Software Management uses TFTP (via Simple Network Management Protocol [SNMP]) for the configuration upgrade to add the boot command to load CIP microcode.
- Q. Does Software Management change the configuration file for the Channel Interface Processor (CIP) upgrade?
- A. To load the new CIP microcode, the CIP upgrade process adds these configuration commands:
- ```
microcode cip flash new_cip_image_name
microcode reload
```
- Q. Does Software Management supports CIP2?
- A. Yes, Software Management supports CIP2 images for CIP supported device types.
- Q. In which order does Software Management upgrade modules on a Cisco Catalyst 5500/5000 device?
- A. Software Management upgrades the Supervisor Engine module on the device before other modules. Software Management upgrades the remainder of the modules in slot-number order. For example, Software Management upgrades the module on Slot 3 before Slot 5.
- Q. Does the Supervisor Engine card reboot after the upgrade of all modules?
- A. If you elect to reboot devices immediately after the upgrade of software, Software Management reloads the Supervisor Engine card. The reload of the card results in the reload of all modules, before the upgrade of software on other intelligent modules. This process supports instances in which the new module requires a newer version of Supervisor Engine software.
- If you choose not to reboot the device after the download of software, you then must reload the Supervisor Engine module manually. You also should consider that software that you have newly loaded on a module may require new Supervisor Engine software. If new Supervisor Engine software is necessary, you should reload the Supervisor Engine module before you load the new software to the other intelligent modules (such as ATM, FDDI, and Token Ring). For example, you may download 3.1(1) FDDI software and 4.1(1) Supervisor Engine software in a single job. The 3.1(1) FDDI software may require 4.1(1) Supervisor Engine software. Then, you must reset the Supervisor Engine module before you can upgrade the FDDI software. In such cases, you must have already chosen the Reboot Immediately option.
- Q. Does Software Management determine if the newly deployed Supervisor Engine software or module software is compatible with the module types (or module hardware versions)?
- A. Software Management does not verify whether the newly deployed Supervisor Engine software supports all modules that are available on the chassis. Usually, with the upgrade of Supervisor Engine software to a newer release, the software provides backward compatibility for all the modules that exist on the chassis. But you should check the release notes of the Supervisor Engine software or module software to be sure that the software versions are compatible.
- Q. Does Software Management support the upgrade of software on redundant Supervisor Engine card-based systems?

- A. The redundant architecture of Cisco Catalyst devices ensures that when the device reboots after a software upgrade, the redundant Supervisor Engine automatically synchronizes all the data from the primary Supervisor Engine. No special processes are necessary.
- Q. Does Software Management update the configuration file on Cisco Catalyst 5500/5000 devices during the software upgrade?
- A. Software Management updates the configuration file on Catalyst 5500/5000 devices only when the device has a Supervisor Engine III card. Software Management updates the boot system commands and the config register value if necessary. For Supervisor Engine I and II and other module upgrades, Software Management does not update the configuration file on the device. Instead, Software Management uses CISCO-STACK-MIB and TFTP to download the configuration file. Before Software Management changes the configuration file on the device, Software Management backs up the file to the Job Schedule directory.

The example below illustrates the Software Management update of the configuration file. Assume that a Supervisor Engine III card runs 3.1(1) software. Also, assume that the software image file is on slot0 with the name cat5000-sup3.3-1-1.bin.

The configuration file boot system commands before the upgrade are:

```
set boot system flash slot0:cat5000-sup3.3-1-1.bin
```

Software Management has upgraded the software to 4.1(2). The new software image is on the same Flash card as cat5000-sup3-4-1-2.bin. Software Management then performs these configuration updates:

```
clear all boot system all
```

This removes all boot system commands on the device.

```
set boot system flash slot0:cat5000-sup3.4-1-2.bin
```

```
set boot system flash slot0:cat5000-sup3.3-1-1.bin
```

The update modifies the BOOT environment variable on the Supervisor Engine III card. You can display the environment values on the device if you issue the show boot command from the Supervisor Engine command-line interface (CLI).

The config register update occurs only if the least significant four bits of the config register are not all set to "1". For example, if the current config register value is 0x10F (with the least significant four bits all 1s), Software Management requires no change to the config register. If the current config register value is, for example, 0x111 or 0x11A, Software Management modifies the config register to 0x11F. The action generates this command:

```
set boot config-register 0x11F
```

- Q. Does Software Management determine if the Supervisor Engine has the minimum required RAM to run a new image?
- A. Software Management uses the Minimum Required RAM field for the Supervisor Engine software image. You can set this field when you import the image into the library. If you do not input a value in this field, Software Management uses this matrix to determine the RAM requirement:

Image Type Software Version RAM Requirement

- I, II sup < 2.1(1) 4 MB
- I, II sup >= 2.1(1) & < 3.1(1) 8 MB
- I, II sup >= 3.1(1) & < 4.1(1) 8 MB (8 MB RAM image)
- I, II sup >= 3.1(1) & < 4.1(1) 16 MB
- I, II sup >= 4.1(1) 16 MB

- III sup3 >= 3.1(1) 32 MB

Images that are 8 MB RAM are available in 3.1 and 3.2 software releases only for Supervisor Engine I and II cards.

Software Management tries to use CISCO-MEMORY-POOL MIB to determine the available memory on a device. The MIB is implemented from 4.1(1) Supervisor Engine software (on all different Supervisor Engine card types—I, II, and III). If a device runs the software that implements this MIB, Software Management performs a memory check between the image requirement and the size of DRAM that is on the device. If the device does not have enough RAM to run the image, Software Management generates a verification warning. If the current software on the device is earlier than 4.1, Software Management generates a generic verification warning about memory requirements.

- Q. Are there restrictions on the downgrade of the software on the Supervisor Engine card and other modules?
- A. You can downgrade Supervisor Engine card software to version 4.1(1) or later.
- For example, if a Supervisor Engine card runs 4.2(1) software, you can downgrade the software to 4.1(2) or 4.1(1). However, you cannot downgrade the same Supervisor Engine card to 3.2(1b). If a Supervisor Engine card runs 3.2(2), you cannot downgrade the software to 3.1(1) or 2.4(1).
- There are no restrictions for the downgrade of software on other modules, such as ATM, FDDI, and Token Ring. However, you should check the release notes of new software before you attempt downgrades on modules.
- Q. Do you need to reconfigure the device when you downgrade the Supervisor Engine software?
- A. When you downgrade Supervisor Engine software, parts of the configuration may be lost. You must check the configuration file and reconfigure as necessary. Use the backed up Software Management configuration file from the Job Schedule directory as a reference, or use the backed up configuration file from the Config Archive.
- Q. In the 4.1(1) software release and later, Supervisor Engine III cards allow the storage of configuration files on Flash cards. Does Software Management preserve the backed up configuration files on Flash during a software upgrade?
- A. Software Management erases a Flash card on Supervisor Engine III if the free space on the Flash card cannot store the target software image. Software Management does not erase files of sizes that are less than 1 MB during software upgrades. Because configuration files generally do not exceed 1 MB, Software Management does not erase these files.
- Q. Does Software Management allow you to upgrade epsboot images on Token Ring cards on Cisco Catalyst 5500/5000 devices?
- A. Software Management does not allow upgrades of epsboot images on Catalyst 5500/5000 devices. An epsboot string in the file names can identify epsboot images. Epsboot upgrades are not often necessary. You can perform the upgrades with the Supervisor Engine card command-line interface (CLI).
- Q. Why does the Add Image to Repository (Source: Cisco.com) task not display Token Ring LAN Emulation (LANE) or Permanent Virtual Circuit (PVC)-only ATM software images?
- A. The Add Image to Repository (Source: Cisco.com) function in Software Management displays software images for only a subset of these ATM modules:
- WS-X5153

- WS-X5154
- WS-X5155
- WS-X5156
- WS-X5157
- WS-X5158

Software images for these modules have version numbers that range from 2.2 to 3.2(8).

The WS-X5153 to WS-X5158 modules can run:

- ATM LANE
- PVC Traffic Shaping
- Token Ring LANE software images

Software Management also supports the upgrade of software on these modules:

- WS-X5161
- WS-X5162
- WS-X5165
- WS-X5167
- WS-X5168

However, no mechanism exists to import the images from Cisco.com directly into the Software Management software library for these modules. The software images that run on the modules support LANE on Ethernet, Token Ring, and PVC traffic shaping. You must download the software images for these modules directly from Cisco.com. Then, import the images into the library with the Add Image to Repository function.

Software Management does not support software management on WS-X5166 modules.

- Q. How do you identify software image files for each of the ATM modules that Software Management does support? What are the file-name conventions on Cisco.com?
- A. ATM software image file names and version numbers determine on which modules the software image can run and identify the features that receive support. This table provides details on version numbers and file-name conventions.
- Q. How can I make the Image Recommendation faster?
- A. If you select Cisco.com image recommendation, try to limit the images by filtering (RME > Admin > Software Management > View/Edit Preferences).

| Module IDs           | Image Feature/Version                       | Image File Name Format (Example)                                                  | Version to Input in Software Management |
|----------------------|---------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------|
| WS-X5153 to WS-X5158 | Ethernet LAN Emulation (LANE) 2.2 to 3.2(7) | cat5000-atm.ver_number 3.2(7)<br>cat5000-atm.3-2-7.bin                            | 2.2-3.2(7)                              |
| WS-X5153 to WS-X5158 | Ethernet LANE 3.2(8)                        | c5atm-wblane.Cisco<br>_IOS_Software_rel_number<br>c5atm-wblane.113-2.5.WA4.4m.bin | 3.2(8)                                  |



| Module IDs                                       | Image Feature/Version                                        | Image File Name Format (Example)                                                                | Version to Input in Software Management |
|--------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------|
| WS-X5153 to WS-X5158                             | Token Ring LANE 70.x                                         | c5k-trlane. <i>ver_number</i> c5k-trlane.70-1-1.bin                                             | 70.x                                    |
| WS-X5153 to WS-X5158                             | Permanent Virtual Circuit (PVC) Traffic Shaping 50.x         | cat5000-atm-pvcshape. <i>ver_number</i><br>cat5000-atm-pvcshape.50-1-1.bin                      | 50.x                                    |
| WS-X5153 to WS-X5158                             | PVC Traffic Shaping 51.x                                     | c5atm-wbpvc. <i>Cisco</i><br><i>_IOS_Software_rel_number</i><br>c5atm-wbpvc.113-2.5.WA4.5.x.bin | 51.x                                    |
| WS-X5161, WS-X5162, WS-X5167, WS-X5168 (Truckee) | Ethernet LANE, Token Ring LANE, PVC Traffic Shaping 4.3, 4.4 | c5atm-wtall. <i>Cisco</i><br><i>_IOS_Software_rel_number</i><br>c5atm-wtall.113-2a.WA4.4b.bin   | 4(3), 4(4b)                             |

ATM version-number conventions differ for different classes of ATM images. PVC, Token Ring LANE, and Truckee types of ATM images have unique version-number conventions. Software Management recognizes the version numbers that appear in the last column of the table. The input of an incompatible version number results in upgrade job failures.

ATM software release notes give the original version number of the image as well as a version number that is close to the Software Management version-number scheme. Check the release notes for version-number schemes.

- Q. Why do the software version numbers that the show module command output displays from the Supervisor Engine command-line interface (CLI) and the version numbers that Software Management uses fail to match in some cases?
- A. ATM module software for Cisco Catalyst devices uses Cisco IOS Software code as a basis. The software release for Truckee ATM modules as well as ATM software releases 3.2(7) and later use the Cisco IOS Software version-number scheme. Software Management does not recognize the Cisco IOS Software version-number scheme for Catalyst ATM software images. Use the simple version-number scheme that appears in the table in this document. (See the Version to Input in Software Management column.)

Output of the show module command of the Supervisor Engine CLI and the show command on the ATM module can display different versions. If the software that runs on the Supervisor Engine is earlier than 4.1, the Supervisor Engine software does not recognize the Cisco IOS Software version-number scheme of ATM images. Therefore, the Supervisor Engine displays a different version number than the output of the show version command on the ATM module.

- Q. Does Software Management recommend the right ATM image for your ATM module type?
- A. Yes, Software Management distinguishes different flavours of ATM images and recommends images based on current class of ATM card on the device.
- Q. Should you use special images with Software Management for Cisco Catalyst 2900XL/3500XL devices?
- A. The 2900XL/3500XL devices have three images:
- Regular Cisco IOS Software image.

- A TAR format HTML image that contains files for Visual Switch Manager.
- A TAR format image that contains both these images.

Software Management uses the TAR format image that contains the Cisco IOS Software and HTML image. This image posts on Cisco.com, as do other images for 2900XL/3500XL. When you use RME for software upgrades, you should use images with the description “Enterprise-IOS and HTML-Use with RME 2.1 or later” or “Standard-IOS and HTML-Use with RME 2.1 or later”. When you use Add Image to Repository from Cisco.com/Slam Dunk, you are able to see only these images.

- Q. How does Software Management handle image import functionality of TAR and bin types of images for Catalyst 2900XL/3500XL devices?
- A. For 2900/3500 device types Both .tar format and .bin format images are supported as system software. Network synchronization operation (Add image from network as source) will not be able import tar images because when the image downloads to the switch, the image distributes as small individual files on the flash in different directories. The switch command-line interface (CLI) does not provide commands to combine all the files and make a new TAR file that Software Management can then upload. Where as the .bin image can be imported from the device as well as from the network synchronization operation.
- Q. Why do software upgrades take longer on Cisco Catalyst 2900XL/3500XL devices?
- A. Software Management uses command-line interface (CLI) to download software to 2900XL/3500XL devices. Because the software on these devices has many HTML/gif files on the Flash, the software must first delete all the files and then proceed with the new software download. Deletion of the images takes time, which is why software downloads to devices can take up to 20 minutes.
- Q. How do you upgrade Route Switch Module (RSM) and LightStream 1010 (LS1010) module software on Cisco Catalyst 5500/5000 and 6500/6000 series switches?
- A. The RSM (also called the VLAN router) on a Catalyst 5500/5000 or 6500/6000 switch and the LS1010 module on a Catalyst 5500/5000 switch run Cisco IOS Software. RSMs and LS1010 modules have individual IP addresses and Simple Network Management Protocol (SNMP) agents. The RME Inventory manages these modules as separate devices.
- You can find the IP address of the RSM if you look at the Detailed Inventory report of the Catalyst 5500/5000 and 6500/6000 device that has the RSM on the chassis. The Module IP Address column in the Stack Modules section shows the IP addresses of all modules on the chassis. If you do not find the addition of RSM or LS1010 to Inventory, you must first add the module as a device to Inventory before you attempt Software Management functions. Software Management functions that run on Cisco IOS devices also can run on an RSM or an LS1010.
- Q. Why does the Distribute Images task show all the images from Cisco.com for LightStream 1010 (LS1010) and Cisco Catalyst 8500 devices, even though you have configured Cisco.com filtering?
- A. Although LS1010 and the 8500 devices run Cisco IOS Software images, differences exist in the means of image release. The images do not follow the Cisco IOS Software image releases, such as general deployment (GD), limited deployment (LD), and early deployment (ED). Therefore, Software Management cannot effectively filter LS1010-type and 8500-type images.
- Q. What is the minimum version that Cisco 700 series ISDN routers support?
- A. For Cisco 760 Series ISDN routers, Software Management requires a minimum software version of 3.2(4) on the device. For Cisco 770 Series ISDN routers, the minimum version necessary is 4.0(1).

- Q. What connection mechanism does Software Management use for Cisco 700 series upgrades?
- A. Software Management uses the Telnet interface to the device to copy the 700 series image to the flash. Software Management uses TFTP protocol. The RME workstation is the TFTP client, and the device is the TFTP server.
- Q. Both Cisco 760 and 770 series devices run the same image. Why do you see only some images with versions later than 4.0(1) for 770 series devices but see all images for 760 series devices?
- A. When you load an image with a version earlier than 4.0(1) onto a 770 series device, the sysObjectID box changes to something other than Cisco-assigned. Also, RME identifies the device as a non-Cisco device. Therefore, Software Management does not list images with versions earlier than 4.0(1) for Cisco 770 series upgrades.
- Q. Why do you not see the option to reboot the device later on the Job Control page for Cisco 700 series routers?
- A. There is no option to reboot the device later because 700 series routers reboot at the time of the new image download.
- Q. Why do you not see the option to modify the boot commands on the Job Control page for Cisco 700 series routers?
- A. Only one image at a time can appear on the 700 series devices, which means the boot command does not apply to these devices.
- Q. Why does Software Management report download failures for some images even though the device runs the new image after the job completes?
- A. Some new Cisco 700 series images use nonstandard name convention or nonstandard versions. Software Management incorrectly parses the version number from file names of those images. After the download of the new image, the device reboots. Software Management retrieves the new image version from the device and compares that with the version that Software Management parsed. The two versions do not match. As a result, the software download appears to have failed, which generates as an error.
- This problem occurs with `c760-in.b-US.42-3.5.bin` and `c760-in.b-US.43.1.bin` images for all countries.
- You can resolve this issue by entering the correct version number when you import the image from the file system.
- For example, for `c760-in.b-US.42-3.5.bin`, enter `4.2(3.5)`. For `c760-in.b-US.43.1.bin`, enter `4.3(1)` as the version number.
- Q. In which order does Software Management upgrade modules on a Catalyst 5000 device?
- A. Software Management upgrades the Supervisor module on the device before other modules. The remainders of the modules are upgraded in the order of their slot number. For example, the module on Slot #3 is upgraded before Slot #5.
- Q. Does Software Management check to see that the newly deployed Supervisor software or module software is compatible with the module types (or module hardware versions)?
- A. Software Management does not verify whether the newly deployed Supervisor software supports all modules that are available on the chassis. Usually, when Supervisor software is upgraded to a newer release, the software provides backward compatibility for all the modules that exist on the chassis. Users are encouraged to check the release notes of the Supervisor software or module software to make sure that the software versions are compatible.

- Q. Does Software Management support upgrading software on redundant Supervisor card-based systems?
- A. The redundant architecture of Catalyst devices ensures that when the device reboots after a software upgrade, the redundant Supervisor automatically synchronizes all the data from the primary Supervisor. No special processing is required.
- Q. What is the purpose of user scripts?
- A. User-supplied scripts are run before and after each device upgrade. They can be used for pre- and post validation checks. For example,
- The pre-upgrade script can check whether the device is accessible.
  - The pre-upgrade script can check whether any users are connected to the access server. If the script finds that some users are connected, it can decide whether to disable the connections before proceeding with the upgrade.
  - The post-upgrade script can check whether the device has upgraded successfully or not. Depending on the return value, Software Management either halts or continues with the rest of the upgrade job.
- See [Understanding User-supplied Scripts](#) for more details on Software Management script.
- Q. What if the user script crashes? Will it crash the Software Management job also?
- A. No, crashing of the script will not stop the Software Management job. Software Management executes the script in a different process space so the script crashing will not crash the Software Management job. But Software Management will assume the script has failed.
- Q. When a Software Management job is scheduled, how is the baseline determined? When I distribute a job, is an automatic backup performed?
- A. There are two operations that import images from the network to the software Repository:
- Baseline tasks
  - Synchronization
- The baseline task (**Resource Manager Essentials > Software Mgmt > Software Repository > Add > Network**) should be done only once as a part of the initial setup. This imports the images running on the network to your Repository.
- To keep the Repository synchronized with any new images and changes caused by upgrades from sources other than Software Management, schedule a synchronization job to run periodically at appropriate intervals.
- When this synchronization job runs, it looks for differences between the Repository and the network and allows any new images to be imported. During job distribution, Software Management backs up the current running image only if the option, Use current running image as tftp fallback image was selected when the job was created.
- Q. Can I set up a periodic download of Software Management images from Cisco.com?
- A. No. However, you can schedule a one-time import from Cisco.com to occur at a later time. Software Management does not allow you to automatically import images from Cisco.com to the Repository based upon your preferences.
- Q. Is browser timeout something I should consider when downloading?

- A. The image import operation from Cisco.com and other devices can be done on a scheduled basis. Since this process runs as a background task on the server, the browser is not involved. However, when an immediate import operation is done, it is performed as a foreground task, and the browser can still timeout.
- Q. What are crypto images?
- A. Crypto images are software images that use 56-bit Data Encryption Standard (DES) (or higher) encryption, and are subjected to export regulations. You must be a registered Cisco.com user, and be eligible and authorized to download such images.
- Q. How much temporary space is required during image distribution?
- A. The amount of free space that is required depends upon the image file size and the number of devices that are being upgraded simultaneously. If the tftp fallback option is set, additional free disk space is required to keep the current image in the tftpboot directory. Disk space is used both in the tftpboot and temp directories.
- Q. At what time will the images directory get created during the process of obtaining images from a device? Does this happen during the initial step?
- A. The software images directory gets created at the time of importing an image to the Repository; however, this should be transparent to you.
- Q. How can I speed up Image Recommendation?
- A. If you include Cisco.com for Image Recommendation, try to limit the images by filtering (**Resource Manager Essentials > Admin > Software Mgmt > View/Edit Preferences**).
- Q. When a job is rejected, can it be edited or should I resubmit?
- A. No. You cannot edit or retry the rejected job. You should schedule a new job.
- Q. Can different group members edit jobs? What are the restrictions?
- A. The only job attribute that can be edited is the schedule time for non-Job Approval jobs. Any user who has the *Network Administrator* role defined can edit jobs or create new jobs; however, in the Job Approval model, the jobs can only be approved by users who are in the approver list specified during the creation of the job.
- Q. What is the role of the registry files in RME?
- A. Software Management manipulates the Windows registry to automatically manage remote authentication during the **rcp** transfers on Windows. The following registry parameters are important for **rcp** service on Windows:
- HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\crrmsh\Parameters\DEBUG  
Dictates the amount of debug information written in the Windows event log.  
(Default = 0, Maximum = 0xff)
  - HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\crrmsh\Parameters\rhosts  
Contains the list of authenticated hosts that can run remote commands on this machine. This list is automatically managed by Software Management.
  - HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\crrmsh\Parameters\rusers  
Contains the list of authenticated remote users that can run remote commands on this machine. This list is automatically managed by Software Management.

- HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\crmrsh\Parameters\NoRuser Check

If set to 1, the remote user authentication is skipped or, in other words, any remote user from authenticated hosts can run commands on this machine. (Default = 0)

- HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\crmrsh\Parameters\NoRhost Check

If set to 1, the remote host authentication is skipped or, in other words, commands can be run on this machine from any remote machine. (Default = 0)

Q. How do I upgrade Network Analysis Module (NAM) using Software Management?

A. To upgrade NAM using Software Management:

- Ensure that the passwords for NAM's application and maintenance modes are the same.

This is because Software Management takes the password information from Inventory. However, Inventory requires the application mode password to manage the device, and Software Management requires the maintenance mode password to upgrade the device. Therefore, the passwords for NAM's application and maintenance modes should be the same.

- For a NAM card present in a Catalyst 6000 device running CatOS, ensure that you set auto logout to a value that is high enough to allow the copying of the new image.

This is because a NAM image is usually very large (nearly 65 MB), and it may take between 1 to 2 hours to copy this image during Software Management upgrade. We recommend that you set the auto logout to 0 to ensure that there is no auto logout while the image is being copied.

To set the auto logout value, use the CLI command, `set logout 0`.

For a NAM card present in a Catalyst 6000 device running IOS, ensure that you set exec timeout to a value that is high enough to allow the copying of the new image. We recommend that you set the exec timeout value to 0 (`exec-timeout 0 0`) on all the vty lines.

- Ensure that the htdocs directory under CSCOpX has enough space to stage the NAM image.

During the NAM upgrade, Software Management first copies the NAM image from the NMSROOT/CSCOpX/files/sw\_images directory, to the NMSROOT/CSCOpX/htdocs/swimtemp directory and then copies the NAM image to the NAM card, using HTTP.

- Ensure that NAM is added with the correct Local User (root) and its password.
- Ensure that NAM is added with the correct SNMP read/write community strings.
- Ensure that the switch, which contains NAM, is added with the correct attributes.

Q. Can I change the job scheduled time?

A. The job scheduled time can be modified only for pending jobs that do not require approval.

For a job that requires approval, you must cancel the job and retry or recreate the job.

Q. How does Software Management handle the job status for an abnormally terminated job?

A. Software Management checks the last modification time of the job results file for each running job when the Browse Job Status screen is displayed. If the results file has not been modified for the last six hours, Software Management assumes that the job was terminated abnormally (server reboot is a probable cause for the termination), and the job status is changed to Error.

- Q. How does Software Management handle the job status of a pending job whose scheduled time has passed?
- A. Software Management checks the scheduled time for each pending job when the Browse Job Status screen is displayed. If the current time is an hour past the scheduled time for starting the job, (lack of operating system resources is a probable cause for the job not running at the scheduled time), the job status is changed to Error.
- Q. Why are some files left in the Software Management folder after Software Management has been uninstalled?
- A. When uninstalled, Software Management does not remove the software images directory from the RME server. The software images directory contains subdirectories for storing software images for various device families.

### Troubleshooting Software Management

| Message-ID | Error Message                                                                                   | Probable Cause                                                                                                                                                                                     | Possible Action                                                                                                                                                                                                                    |
|------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SWIM0013   | Image Import operation not supported for the selected device(s)                                 | Image Import operation is not supported because of device limitations.<br><br>Check Software Management feature support matrix against the selected device platform.                               | None.                                                                                                                                                                                                                              |
| SWIM0014   | No images to import into library from the selected device(s)                                    | Either:<br><ul style="list-style-type: none"> <li>There are no images on the Flash</li> </ul> Or<br><ul style="list-style-type: none"> <li>Cannot get Flash information from inventory.</li> </ul> | Check the Inventory Detailed Device Report to ensure that Flash file information exists for the device.<br><br>If report generation fails, schedule an inventory collection job and redo the Software Management image import job. |
| SWIM0019   | Could not perform Image recommendation for the selected device(s) because of insufficient data. | Could not fetch Image information from the Inventory database.                                                                                                                                     | Check the Inventory Detailed Device Report to ensure that Inventory data exists for the device.<br><br>If report generation fails, schedule an inventory collection job and perform Software Management recommendation.            |
| SWIM0020   | Image Import operation not supported for the selected device(s)                                 | Image Import operation is not supported because of device limitations.<br><br>Check Software Management feature support matrix against the selected device platform.                               | None.                                                                                                                                                                                                                              |
| SWIM0021   | Error encountered while parsing Job Data.                                                       | Either the Job Data file could not be located or the data for Image Upgrade was not provided.                                                                                                      | Check whether you have access permissions to Job Directory, or re-create the job.<br><br>If the problem persists, send all log files under job directory to TAC.                                                                   |

| Message-ID | Error Message                                                                                         | Probable Cause                                                                                                                                                 | Possible Action                                                                                                                                                                                                                                                                                                                                                  |
|------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SWIM0027   | Staging of the Image on the Remote Stage Device failed.                                               | Image Copy to Remote Stage device failed because of SNMP Agent problems during transfer.                                                                       | Check for any known bugs against the Image running on Remote Stage, or choose a different device.<br><br>If the problem persists, send all log files under job directory to TAC                                                                                                                                                                                  |
| SWIM0028   | Cleanup operation on Remote Stage Device failed.                                                      | Image Erase or a Configuration download caused an error.                                                                                                       | Check for any known bugs against the Image running on Remote Stage.                                                                                                                                                                                                                                                                                              |
| SWIM0034   | Device reboot failed.                                                                                 | Either:<br><br>The device configuration for reboot is missing<br><br>Or<br><br>The image downloaded onto the device is not suitable for the device to come up. | Check whether the <b>snmp-server shutdown</b> command is configured on the device.<br><br>You can do any of the following: <ul style="list-style-type: none"> <li>• Configure the devices and re-schedule the jobs.</li> <li>• Use NetConfig reload template to reload the devices.</li> <li>• Reload manually if you have only a few set of devices.</li> </ul> |
| SWIM0036   | Image addition to Software Library failed                                                             | Either an invalid image was imported into library or the image is corrupted.                                                                                   | Check whether the image is downloaded completely in the directory                                                                                                                                                                                                                                                                                                |
| SWIM0056   | Invalid Remote Stage device selected.                                                                 | Cannot use this device as Remote stage because of device limitations.                                                                                          | Check the Help documentation to see which devices can be used as Remote Stage.                                                                                                                                                                                                                                                                                   |
| SWIM0067   | System software analysis failed                                                                       | This is an unexpected runtime error.                                                                                                                           | Contact TAC.                                                                                                                                                                                                                                                                                                                                                     |
| SWIM0089   | Could not perform Image Import from Cisco.com on the selected device(s).                              | Add Image from Cisco.com not supported for the device.<br><br>This is because CCO could not find the device platform in the supported list.                    | Check the Software Management feature support matrix against the selected device(s) platform.                                                                                                                                                                                                                                                                    |
| SWIM0092   | Could not perform Image Import from Cisco.com on the selected device(s) because of insufficient data. | The device information needed to fetch images from Cisco.com does not exist in Inventory.                                                                      | Check the Inventory Detailed Device Report to ensure that Chassis information exists for the device.<br><br>If Chassis information is missing, schedule an inventory collection job and retry the import workflow.                                                                                                                                               |
| SWIM0093   | Could not get Image information from Cisco.com                                                        | Could not connect to Cisco.com from CiscoWorks Server either because of incorrect Cisco.com credentials or missing proxy configuration.                        | Check whether Cisco.com credentials are correct. If they are correct, check whether the proxy server is configured with right proxy credentials.<br><br>To configure proxy, go to: CiscoWorks Home page > Server > Security > Proxy Server Setup.                                                                                                                |



| Message-ID | Error Message                                                                                                                                                                                                                                                                                                         | Probable Cause                                                                                                                                                                                                                                                                                                                                   | Possible Action                                                                                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SWIM0101   | The current version of the image on the device is different from the earlier version of the image.                                                                                                                                                                                                                    | This message is displayed when you retry a failed distribution job. This mainly happens when other jobs change the current running image of this device before scheduling the retry.                                                                                                                                                             | Try a new distribution job instead of retrying.                                                                                                                                     |
| SWIM0118   | Software Management application could not verify the inputs since there was no running image information. The device package may not have been installed. You can install it now and retry the task or you can install it before running the job. However, the results may not be accurate.                           | Advanced Distribution Flow: Either the selected device is not yet deployed in the network (pre-provisioned device) or is still not supported by RME.                                                                                                                                                                                             | Schedule the distribution job for a future date when the device is deployed else, the device package for this unsupported device will be installed and available in the RME server. |
| SWIM0119   | Software Management application could not verify the flash inputs since there was no flash information available. Edit the expert input file and verify it again. If you do not want to edit the expert input file, you can continue with the task by clicking Next. However, the results may not be accurate.        | The selected device does not have any Flash related information. Generally the flash details are present in the Inventory. You can check the Detailed Device Report to see the flash details.<br><br>If there are no flash details for this device, SWIM will allow the user to schedule a distribution job without verifying the flash details. |                                                                                                                                                                                     |
| SWIM0120   | Software Management application did not verify the inputs since there was no running image information. If you find that the device package is not installed, install it before running the job.<br><br>The image distribution will proceed based on the unverified inputs. However, the results may not be accurate. | Advanced Distribution Flow: Either the selected device is not yet deployed in the network (pre-provisioned device) or is still not supported by RME.                                                                                                                                                                                             | Schedule the distribution job for a future date when the device is deployed else, the device package for this unsupported device will be available and installed in the RME server. |

| Message-ID | Error Message                                                                                                                                                                                                                                                                                                      | Probable Cause                                                                                                                                                                                                                                                                                                                                    | Possible Action                                                                                                                                                                            |
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| SWIM0121   | <p>Software Management application did not verify the Flash inputs as there was no Flash information.</p> <p>The image distribution will proceed based on the unverified inputs. However, the results may not be accurate.</p>                                                                                     | <p>The selected device does not have any Flash related information. Generally the flash details are present in the Inventory. You can check the Detailed Device Report to see the flash details.</p> <p>If there are no flash details for this device, SWIM allows a user to schedule a distribution job without verifying the flash details.</p> |                                                                                                                                                                                            |
| SWIM0122   | <p>Software Management application could not verify the inputs since there was no running image information available.</p> <p>Update your inventory and retry the task. If you do not want to update the inventory, you can continue with the task by clicking Next. However, the results may not be accurate.</p> | <p>Advanced Distribution Flow: Either the selected device is not yet deployed in the network (pre-provisioned device) or is still not supported by RME.</p>                                                                                                                                                                                       | <p>Schedule the distribution job for a future date when the device is deployed else, the device package for this unsupported device will be available and installed in the RME server.</p> |
| SWIM0123   | <p>Software Management application could not verify the inputs since there was no running image information. Update your inventory and retry the task. The image distribution will proceed based on the unverified inputs. However, the results may not be accurate.</p>                                           | <p>Advanced Distribution Flow: The selected device is not yet deployed in the network (pre-provisioned device) OR Still not supported by RME.</p>                                                                                                                                                                                                 | <p>Schedule the distribution job for a future date when the device is deployed else, the device package for this unsupported device will be available and installed in the RME server.</p> |

| Message-ID | Error Message                                                                                                                                                                                                                                                                                          | Probable Cause                                                                                                                      | Possible Action                                                                                                                                                                                            |
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| SWIM0125   | An unexpected error has occurred. Contact Cisco support and attach the swim_debug.log file.                                                                                                                                                                                                            |                                                                                                                                     | Please contact TAC with the UI log available under:<br><br>Windows:<br>CSCOPx\logs\swim_debug.log<br><br>Solaris :<br>/var/adm/CSCOPx/log/swim_debug.log                                                   |
| SWIM0126   | An unexpected error has occurred. Contact Cisco support and attach the swim_debug.log file.                                                                                                                                                                                                            |                                                                                                                                     | Please contact TAC with the UI log available under:<br><br>Windows:<br>CSCOPx\logs\swim_debug.log<br><br>Solaris :<br>/var/adm/CSCOPx/log/swim_debug.log                                                   |
| SWIM0138   | Cannot connect to the Job Manager. Check whether the jrm process is running properly. If it is not running, restart it and try scheduling the job again.                                                                                                                                               |                                                                                                                                     | To check whether jrm is executing or not, execute command:<br><br>pdshow jrm<br><br>If jrm is down, restart CiscoWorks.                                                                                    |
| SWIM0139   | Running image information is not available in Inventory for Remote-Stage device <i>Devicename</i> . Perform Update Inventory and check whether the required Flash data appears in the Detailed Device report. If it appears, retry the operation; else, the data is not yet available from the device. | Either the Inventory is not updated or the image device running on the device is not populating the required Flash MIB information. | If data is not available from the device (due to bug in the image), upgrade the device with the higher version image. This higher image populates the Detailed Device report with the required Flash data. |
| SWIM0141   | There is not enough free space on the repository to store the selected files. Please free up some disk space and retry the operation.                                                                                                                                                                  | Disk space is not sufficient on the server.                                                                                         | Free up some disk space and retry the operation.                                                                                                                                                           |
| SWIM0142   | RepositoryException while checking for disk space.                                                                                                                                                                                                                                                     | Disk space is not sufficient on the server.                                                                                         | Free up some disk space and retry the operation.                                                                                                                                                           |

| Message-ID | Error Message                                                                                                                                  | Probable Cause                                                                                                                                                                                                                             | Possible Action                                                                                                                                                                     |
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| SWIM0146   | Could not get active image information. Either the device is not reachable or the sysconfigName OID information is not provided by the device. | A distribution job scheduled using Advanced flow for pre-provisioned devices has failed and user has tried a Retry operation on the same. The pre-provisioned devices does not have running images and so this error message is displayed. | Ensure that the device is deployed or the device package for this device is installed before a distribution job is run on this device.                                              |
| SWIM1001   | The input parameters to the Image Distribution/Image Import/Image Activate are invalid.                                                        | You may have used incorrect Device Data for this task.                                                                                                                                                                                     | Check the application log file for more details.                                                                                                                                    |
| SWIM1002   | An error occurred in staging Image <Image Name>.                                                                                               | There may not be correct permissions for the image in the software repository or for the directories required for staging.                                                                                                                 | Retry the Image Upgrade operation.                                                                                                                                                  |
| SWIM1003   | SNMP Agent does not support the required instrumentation to get information about the Flash File system.                                       | The SNMP Agent on the device does not support CISCO-FLASH-MIB/OLD-CISCO-FLASH-MIB.                                                                                                                                                         | Check for any known bugs related to these MIBs for the image version running on the device.                                                                                         |
| SWIM1004   | Cannot get details about the Flash File system on the device.                                                                                  | There may be a faulty implementation of the MIB on the device.                                                                                                                                                                             | Check the Bug Toolkit application for any known issues on the running image version.                                                                                                |
| SWIM1005   | Flash Device/Partition does not exist on the device.                                                                                           | Either the Inventory data on the device is stale, or the selected Flash Device/Partition is invalid.                                                                                                                                       | Trigger inventory collection on the device.                                                                                                                                         |
| SWIM1006   | Flash Partition does not exist on the device.                                                                                                  | Either the Inventory data on the device is stale, or the selected Flash Partition is invalid.                                                                                                                                              | Update the inventory collection on the device.                                                                                                                                      |
| SWIM1007   | You have specified the storage location on the device in an invalid format.                                                                    | —                                                                                                                                                                                                                                          | Enter a valid format.<br>For example:<br>[moduleName\]flashPartitionName:[partitionNumber]:filename<br>In case of Andiamo devices:<br>flashDeviceName://flashPartitionName/filename |

| Message-ID | Error Message                                                                                                                                                                       | Probable Cause                                                                                               | Possible Action                                                                                                                                                                       |
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| SWIM1008   | You have specified an invalid format for the destination storage location.                                                                                                          | —                                                                                                            | Enter a valid format.<br>For example:<br>[moduleNumber\]flashPartitionName:[partitionNumber]:filename<br>In case of Andiamo devices:<br>flashDeviceName://flashPartitionName/filename |
| SWIM1009   | Inventory reported enough space on Flash partition, but the distribution task found that the space is insufficient and requires erasure. The distribution task is being terminated. | The inventory data may be stale.                                                                             | Update the inventory for the device and retry the job.                                                                                                                                |
| SWIM1010   | The size of the partition selected to copy the image, is less than the image size.                                                                                                  | —                                                                                                            | Select another partition to copy the image.                                                                                                                                           |
| SWIM1011   | Destination file size on storage location and the source file size are different.                                                                                                   | This may be because of a network problem or a bug on the device.                                             | Check the Bug Toolkit application for any known issues on the running image version. If there are no issues, retry the task.                                                          |
| SWIM1012   | The file copied on the destination storage location is invalid.                                                                                                                     | The File Copy operation may have failed because of temporary network errors.                                 | Retry the File Copy operation.                                                                                                                                                        |
| SWIM1013   | You have specified an invalid Job directory.                                                                                                                                        | The destination directory that has been specified to copy the configuration file from the device is invalid. | Check whether the destination directory exists. If the directory exists, check whether there are write permissions. Check whether there is enough disk space.                         |
| SWIM1014   | Cannot generate configuration changes for Remote Stage Operation.                                                                                                                   | —                                                                                                            | Check for file permissions on the Job Directory.                                                                                                                                      |
| SWIM1015   | Cannot generate configuration changes for activating the device.                                                                                                                    | —                                                                                                            | Check for file permissions on the Job Directory.                                                                                                                                      |
| SWIM1016   | Cannot load new configuration to Remote Stage Device.                                                                                                                               | —                                                                                                            | Check the Bug Toolkit application for any known issues on the running image version. If there are no issues, retry the task.                                                          |
| SWIM1017   | Cannot fetch configuration file from the device.                                                                                                                                    | —                                                                                                            | Check the Bug Toolkit application for any known issues on the running image version. If there are no issues, retry the task.                                                          |
| SWIM1018   | Cannot upload new configuration to the device during image activation.                                                                                                              | —                                                                                                            | Check the Bug Toolkit application for any known issues on the running image version. If there are no issues, retry the task.                                                          |

| Message-ID | Error Message                                                                                          | Probable Cause                                                                                                              | Possible Action                                                                                                                                                                                           |
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| SWIM1019   | Cannot reload the device. Device is not responding after the Reload command.                           | The image upgraded on the device has some issues.                                                                           | Check the Bug Toolkit application for any known issues on the upgraded image version.<br>Manually restore the device through the console.                                                                 |
| SWIM1020   | The device is not running the new image.                                                               | This may be because the new image is invalid or corrupted and the device has booted from another image.                     | Check the Bug Toolkit application for any known issues on the upgraded image version.                                                                                                                     |
| SWIM1021   | Cannot get the IP Address of the server.                                                               | The DNS resolution of the RME server may have failed.                                                                       | Enable DNS resolution.                                                                                                                                                                                    |
| SWIM1023   | Distribution task is not supported for this device.                                                    | —                                                                                                                           | Check whether the correct device packages are installed on the server.                                                                                                                                    |
| SWIM1024   | Either the file already exists in the directory or the system cannot create this file.                 | Check whether another file with the same name already exists in the directory, or check whether there is enough disk space. | Create disk space and retry the task.                                                                                                                                                                     |
| SWIM1025   | The Configuration Register on the device does not allow you to boot the image from Flash.              | The Configuration Register is not set to value 0x2102.                                                                      | Change the Configuration Register on the device and retry the operation.                                                                                                                                  |
| SWIM1026   | Cannot create a file and store the modified configuration.                                             | —                                                                                                                           | There may not be sufficient permissions for the application to create the file, or there may not be enough disk space.                                                                                    |
| SWIM1027   | Error while fetching inventory information.                                                            | The data required for the selected task is either incomplete or missing in Inventory.                                       | Check whether the Inventory data exists for the device in the Inventory Detailed Device Report.<br>If there is no inventory data for the device, schedule an Inventory Collection job and retry the task. |
| SWIM1029   | Cannot get the required inventory information for the device.                                          | Either there was no inventory collection for the device or the device is not responding.                                    | Update inventory for the device and retry the task.                                                                                                                                                       |
| SWIM1030   | This is a Run From Flash (RFF) device, but the application cannot find the running image on the Flash. | Either the inventory has not been updated or the Flash file is deleted from the Flash.                                      | Update the inventory and retry the task.                                                                                                                                                                  |
| SWIM1031   | No Candidate Images found for the running software.                                                    | —                                                                                                                           | Check Admin preference or add images to software repository.                                                                                                                                              |

| Message-ID | Error Message                                                                                                                                                    | Probable Cause                                                                                                                                            | Possible Action                                                                                                                                                                                                                                                                          |
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| SWIM1032   | Images obtained for Recommendation do not meet the hardware and software requirements of the selected device.                                                    | Either the Candidate Images were filtered based on the selected Admin Preferences or they did not meet the Flash/RAM/BootROM needed to run on the device. | Check the Admin Preference or add more images to software repository and retry the operation.                                                                                                                                                                                            |
| SWIM1033   | Cannot find the Best-fit image for the device by applying compatibility checks.                                                                                  | Either the Candidate Images were filtered based on the selected Admin Preferences or they did not meet the Flash/RAM/BootROM needed to run on the device. | Check the Admin Preference or add more images to software repository and retry the operation.                                                                                                                                                                                            |
| SWIM1034   | No applicable images found for the device from the configured image sources.                                                                                     | Either Cisco.com is not included in the admin preferences or there are no applicable images in the software repository or Cisco.com                       | Check the Admin Preference or add more images to software repository and retry the operation.                                                                                                                                                                                            |
| SWIM1035   | Error while performing Recommendation operation.<br><br>Runtime error encountered while filtering images caused by a problem with a running image on the device. | —                                                                                                                                                         | Retry the operation. If the problem persists, send the debug logs to Cisco Technical Assistance Center (TAC).<br><br>The debug logs are available at this location:<br>On Windows:<br><i>NMSROOT</i> \log\swim_debug.log<br><br>On Solaris:<br><i>/var/adm/CSCOpX/log/swim_debug.log</i> |
| SWIM1036   | Runtime error while performing Recommendation.                                                                                                                   | —                                                                                                                                                         | Retry the operation. If the problem persists, send the debug logs to Cisco Technical Assistance Center (TAC).<br><br>The debug logs are available at this location:<br>On Windows:<br><i>NMSROOT</i> \log\swim_debug.log<br><br>On Solaris:<br><i>/var/adm/CSCOpX/log/swim_debug.log</i> |
| SWIM1037   | Error while fetching Flash Partition information.                                                                                                                | Either the Flash information cannot be got from Inventory or there is a problem with the running image on the device.                                     | Update the inventory and retry the task. If the problem persists, check the Bug Toolkit application for any known issues on the running image version.                                                                                                                                   |
| SWIM1038   | No Read-Write Partition found on the device.                                                                                                                     | —                                                                                                                                                         | Install a flash device with a read-write partition and update the inventory.                                                                                                                                                                                                             |

| Message-ID | Error Message                                                                               | Probable Cause                                                                                                                 | Possible Action                                                                                                                                                                                                                                                                                           |
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| SWIM1039   | No Storage<br>Recommendation is made<br>for the device.                                     | —                                                                                                                              | Check whether the selected device has the sufficient free size partition to copy the image.                                                                                                                                                                                                               |
| SWIM1040   | Cannot get the Flash<br>information for the device.                                         | Either the Flash information<br>cannot be got from Inventory<br>or there is a problem with the<br>running image on the device. | Perform Inventory Collection and check<br>whether the Flash information appears in the<br>Detailed Device report. If so, retry the<br>operation. Else, data is not available from the<br>device.                                                                                                          |
| SWIM1041   | This device upgrade<br>requires opening an<br>SSH/Telnet connection to<br>the device.       | Enable password is not<br>configured correctly in<br>Device and Credential<br>Repository.                                      | Make sure that the appropriate SSH/Telnet<br>passwords are configured correctly in Device<br>and Credential Repository.                                                                                                                                                                                   |
| SWIM1042   | The amount of Bootflash<br>on the device may not be<br>enough to run the selected<br>image. | —                                                                                                                              | Specify the Bootflash size for the image by<br>editing the attributes of the image stored in<br>the software repository, increase the<br>Bootflash size for the device, or select a<br>different image for upgrading.                                                                                     |
| SWIM1043   | Runtime error while<br>performing Bootloader<br>image verification.                         | Selected image version may<br>not be in the standard version<br>format.                                                        | Retry the operation. If the problem persists,<br>send the debug logs to Cisco Technical<br>Assistance Center (TAC).<br><br>The debug logs are available at this location:<br>On Windows:<br><code>NMSROOT\log\swim_debug.log</code><br><br>On Solaris:<br><code>/var/adm/CSCOpX/log/swim_debug.log</code> |
| SWIM1044   | Bootflash partition will be<br>erased before copying new<br>image.                          | Selected Bootloader image<br>does not fit in available space<br>on Bootflash.                                                  | Select a different Bootloader image if<br>available.                                                                                                                                                                                                                                                      |
| SWIM1046   | Selected software does not<br>fit in selected Flash<br>partition.                           | —                                                                                                                              | Select a different Flash partition for<br>upgrading.                                                                                                                                                                                                                                                      |
| SWIM1047   | Minimum software version<br>required for MICA image<br>upgrade is not known.                | —                                                                                                                              | Select the image in the software repository<br>and update the minimum system software<br>version using View/Edit Image Attributes<br>operation.                                                                                                                                                           |
| SWIM1048   | The system software that is<br>active on the device,<br>cannot run the selected<br>image.   | —                                                                                                                              | Select a different image that can be upgraded<br>with the current system software or upgrade<br>the system software to <i>&lt;Software Version&gt;</i> .                                                                                                                                                  |
| SWIM1049   | The selected image<br>requires Flash to be erased<br>during image upgrade.                  | —                                                                                                                              | Check whether you have performed the<br>necessary backup.                                                                                                                                                                                                                                                 |



| Message-ID | Error Message                                                                                                                                                         | Probable Cause                                                                               | Possible Action                                                                                                                                                |
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| SWIM1050   | Read-Write SNMP community string is not in the Device and Credential Repository.                                                                                      | —                                                                                            | Add Read-Write community string for the device in the credentials repository.                                                                                  |
| SWIM1051   | Credential information cannot be obtained for the device.                                                                                                             | —                                                                                            | Either the device is not managed in the RME server or the device credentials are not correct or the device access privileges are insufficient.                 |
| SWIM1052   | Enable password is not configured for the device.                                                                                                                     | For Run For Flash (RFF) partition software upgrades, the Enable password must be configured. | Configure the Enable password in the credentials repository.                                                                                                   |
| SWIM1053   | Selected MICA Image is the same as the running image on the device.                                                                                                   | —                                                                                            | —                                                                                                                                                              |
| SWIM1054   | Error while checking the Telnet credential of the device.                                                                                                             | —                                                                                            | Make sure that the Telnet credentials for the device are correct.                                                                                              |
| SWIM1055   | Selected Flash partition is ReadOnly                                                                                                                                  | —                                                                                            | Check whether the Read-Write partition exists. Set the Flash partition to be write-enabled.                                                                    |
| SWIM1056   | The method to update the software on the selected storage device is unknown.                                                                                          | —                                                                                            | Select a different Flash partition, if available.                                                                                                              |
| SWIM1057   | The device will be put into Rxboot mode for the image upgrade.                                                                                                        | —                                                                                            | Select a different Flash device for the system software, if available.                                                                                         |
| SWIM1058   | The selected software version has some known problems in the Flash MIB operations which will make this application unable to perform software upgrades on the device. | —                                                                                            | Upgrade the device manually or select a later software version, if available.                                                                                  |
| SWIM1059   | Ensure Dial Shelf runs a compatible software image with the newly loaded Router Shelf software image.                                                                 | —                                                                                            | See the Release Notes for the Router Shelf software image to make sure the current Dial Shelf software is compatible. If not, upgrade the Dial Shelf software. |
| SWIM1060   | Cannot obtain the file size of the selected image.                                                                                                                    | The selected image may have been removed from Cisco.com.                                     | Select another image for upgrading.                                                                                                                            |

| Message-ID | Error Message                                                                                                         | Probable Cause                                                                | Possible Action                                                                                                                                                                                                                                                                                                 |
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| SWIM1061   | Image available at Cisco.com is selected for upgrade. This image will be imported from Cisco.com when the job is run. | —                                                                             | Verify that connectivity to Cisco.com is available when the job is scheduled to run or select an image from the software repository.                                                                                                                                                                            |
| SWIM1062   | Selected image is already running on the device.                                                                      | —                                                                             | Verify that this is the image you want to upgrade for the device. If so, no action is required. If this is not the image you want, select a different image.                                                                                                                                                    |
| SWIM1063   | Minimum RAM requirement of the selected image cannot be determined.                                                   | RAM available on the device may not be enough to activate this image.         | Update the minimum RAM value using View/Edit Image attributes or make sure that the device has enough RAM to activate the selected image or select a different image.                                                                                                                                           |
| SWIM1064   | RAM available on the device may not be large enough to activate the selected image.                                   | —                                                                             | Select a different image or upgrade the RAM on the device and retry Upgrade.                                                                                                                                                                                                                                    |
| SWIM1065   | RAM available on the device may not be enough to activate the selected image.                                         | —                                                                             | Specify the RAM size for the image by editing the attributes of the image stored in the software repository, increase the RAM size for the device, or select a different image for upgrading.                                                                                                                   |
| SWIM1067   | Runtime error while performing verification of the selected image.                                                    | —                                                                             | Select a different image for upgrading. If the problem persists, send the debug logs to Cisco Technical Assistance Center (TAC).<br><br>The debug logs are available at this location:<br><br>On Windows:<br><i>NMSROOT</i> \log\swim_debug.log<br><br>On Solaris:<br><i>/var/adm/CSCOPx/log/swim_debug.log</i> |
| SWIM1063   | Minimum RAM requirement of the selected image cannot be determined.                                                   | RAM available on the device may not be enough to activate the selected image. | Update the minimum RAM value using View/Edit Image attributes or make sure that the device has enough RAM to activate the selected image or select a different image.                                                                                                                                           |
| SWIM1068   | Selected image does not have the minimum system software version required for the upgrade.                            | —                                                                             | Select a different image with a version higher than 11.0.                                                                                                                                                                                                                                                       |

| Message-ID | Error Message                                                                                                        | Probable Cause                                                                                                                                               | Possible Action                                                                                                                                                        |
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| SWIM1069   | Feature subset of the running image cannot be determined. Select a different image.                                  | This is a wrong message due to a bug. The correct message is :<br>Feature subset of the selected image is a subset or equal to running software feature set. |                                                                                                                                                                        |
| SWIM1070   | Feature subset of the running image cannot be determined. Select a different image.                                  | —                                                                                                                                                            | —                                                                                                                                                                      |
| SWIM1071   | System software analysis failed.                                                                                     | Some Unknown error has occurred during image analysis.                                                                                                       | Please contact TAC with the UI log available under:<br>Windows:<br>CSCOpX\logs\swim_debug.log<br><br>Solaris :<br>/var/adm/CSCOpX/log/swim_debug.log                   |
| SWIM1072   | Boot loader analysis failed.                                                                                         | Some Unknown error has occurred during analysis of the image.                                                                                                | Please contact TAC with the UI log available under:<br>Windows:<br>CSCOpX\logs\swim_debug.log<br><br>Solaris :<br>/var/adm/CSCOpX/log/swim_debug.log                   |
| SWIM1074   | The selected image does not have any requirement to be analyzed.<br><br>The image can be used to upgrade the device. | —                                                                                                                                                            | —                                                                                                                                                                      |
| SWIM1075   | Cannot find an image that is newer and can fit on the Bootflash.                                                     | —                                                                                                                                                            | Add , to the Software Repository, Bootloader images with version greater than the running image version and that can fit into the Bootflash. Then retry the operation. |
| SWIM1076   | Cannot find a Read-Write Boot partition on the device.                                                               | —                                                                                                                                                            | Insert a read-write Bootflash on the device and update the inventory.                                                                                                  |
| SWIM1077   | Cannot find a Bootflash partition for the Bootloader image.                                                          | —                                                                                                                                                            | Insert a read-write Bootflash on the device and update the inventory.                                                                                                  |

| Message-ID | Error Message                                                                   | Probable Cause | Possible Action                                                                                                                                                                                                                                                                                                          |
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| SWIM1078   | System and Bootloader images are getting upgraded to the same Flash partition.  | —              | Select individual partitions for both, if available.                                                                                                                                                                                                                                                                     |
| SWIM1079   | Image version cannot be compared.                                               | —              | Check the format of the version. Select a different image for upgrading.                                                                                                                                                                                                                                                 |
| SWIM1080   | Read-Write partition exists but you have selected the ReadOnly partition.       | —              | Select the Read-Write partition for upgrading.                                                                                                                                                                                                                                                                           |
| SWIM1081   | You have selected the Compressed System Image for Run From Flash (RFF) Upgrade. | —              | Select the correct image.                                                                                                                                                                                                                                                                                                |
| SWIM1082   | Runtime error while comparing Modem Image.                                      | —              | Select a different Modem Image for upgrading.<br><br>If the problem persists, send the debug logs to Cisco Technical Assistance Center (TAC).<br><br>The debug logs are available at this location:<br>On Windows:<br><i>NMSROOT</i> \log\swim_debug.log<br><br>On Solaris:<br><i>/var/adm/CSCOpX/log/swim_debug.log</i> |
| SWIM1083   | Cannot find an image that is newer and fits in the Flash.                       | —              | Add another image into software repository and retry the task.                                                                                                                                                                                                                                                           |
| SWIM1084   | Cannot find a Minimum Flash Requirement for the device.                         | —              | Check whether the image fits on the device.                                                                                                                                                                                                                                                                              |
| SWIM1085   | The MinFlash Attribute is unknown for the selected image.                       | —              | Check whether the image fits on the selected partition or select a different image.                                                                                                                                                                                                                                      |
| SWIM1086   | Device not supported.                                                           | —              | Check whether the appropriate device packages are installed correctly on the server.                                                                                                                                                                                                                                     |
| SWIM1087   | Cannot get the device representation.                                           | —              | Check whether the appropriate device packages are installed correctly on the server.                                                                                                                                                                                                                                     |

| Message-ID | Error Message                                                                                                               | Probable Cause                                                                                  | Possible Action                                                                                                                                                                                                                                                                                      |
|------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SWIM1088   | Runtime error occurred while creating the device upgrade data.                                                              | —                                                                                               | <p>Retry the operation. If the problem persists, send the debug logs to Cisco Technical Assistance Center (TAC).</p> <p>The debug logs are available at this location:</p> <p>On Windows:<br/><i>NMSROOT</i>\log\swim_debug.log</p> <p>On Solaris:<br/><i>/var/adm/CSCOpX/log/swim_debug.log</i></p> |
| SWIM1091   | Minimum BootROM version of the selected image is not available in the software repository, or on Cisco.com.                 | —                                                                                               | Update the minimum BootROM value using View/Edit Image attributes of the selected image in the software repository.                                                                                                                                                                                  |
| SWIM1092   | Selected image does not have the minimum system software version required for system upgrade.                               | —                                                                                               | <p>Select an image that has a higher version than the minimum supported version.</p> <p>See the documentation for the Compatibility Matrix for Cisco IOS software.</p>                                                                                                                               |
| SWIM1093   | Cannot get Chassis Information from the inventory.                                                                          | Check whether the Inventory data exists for the device in the Inventory Detailed Device Report. | If there is no inventory data for the device, schedule an Inventory Collection job and retry the task.                                                                                                                                                                                               |
| SWIM1094   | SNMP-V3 parameters not in the Device and Credential Repository.                                                             | —                                                                                               | Check whether the SNMP-V3 password, SNMP-V3 algorithm, and SNMP-V3 engine ID is configured in the Device and Credential Repository.                                                                                                                                                                  |
| SWIM1095   | Error while checking the SNMP-V3 user name in the device context.                                                           | —                                                                                               | Update the SNMP-V3 credentials in the Device and Credential Repository and retry the task.                                                                                                                                                                                                           |
| SWIM1096   | Selected image is not applicable to this module.                                                                            | —                                                                                               | Use the Cisco.com Upgrade Analysis feature to find an appropriate image.                                                                                                                                                                                                                             |
| SWIM1097   | Selected Bootloader image is a lower version than the version of the Bootloader running on the device.                      | —                                                                                               | Check whether the higher version is available for upgrading.                                                                                                                                                                                                                                         |
| SWIM1098   | The selected image is lower than the running image on the device.                                                           | —                                                                                               | Select a higher image for device software upgrade.                                                                                                                                                                                                                                                   |
| SWIM1099   | Image Upgrade procedure may revert to the SSH/Telnet-based approach, based on the MIB instrumentation on the running image. | —                                                                                               | Make sure that appropriate SSH/Telnet passwords are configured in the Device and Credential Repository.                                                                                                                                                                                              |

| Message-ID | Error Message                                                                                                 | Probable Cause                                                                                                           | Possible Action                                                                                                                                                                        |
|------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SWIM1100   | Cannot find SNMP-V2 Read-Write Community String in the Device and Credential Repository.                      | —                                                                                                                        | Check whether the SNMP-V2 credentials are configured correctly in the Device and Credential Repository.                                                                                |
| SWIM1101   | This Device Upgrade requires opening an SSH/Telnet connection to the device.                                  | Enable password for the device is not configured in Device and Credential Repository.                                    | Make sure that appropriate SSH/Telnet passwords are configured correctly in the Device and Credential Repository.                                                                      |
| SWIM1102   | This Device Upgrade requires opening a SSH/Telnet connection to the device.                                   | There was an error while checking the credentials of the device.                                                         | Make sure that appropriate SSH/Telnet passwords are configured correctly in the Device and Credential Repository.                                                                      |
| SWIM1103   | Selected image may not be compatible to the device.                                                           | Image belongs to the same device family as the running image on the device. However, it is identified as non-compatible. | Check the Cisco.com documentation whether any caveats are identified for the selected image.                                                                                           |
| SWIM1104   | The total space on the selected partition is not enough to upgrade all of the selected modules.               | Multiple modules may be selected for upgrading on the same partition.                                                    | Select individual partitions for the selected modules, or deselect some modules.                                                                                                       |
| SWIM1105   | Image status for the selected image cannot be determined.                                                     | —                                                                                                                        | Ensure that the image is not in the Deferred status. See the relevant documentation on Cisco.com before upgrading the images.                                                          |
| SWIM1106   | Image selected for upgrade is compressed in .tar format. Flash will be overwritten while upgrading the image. | —                                                                                                                        | Ensure that necessary backup operations are completed before upgrading.                                                                                                                |
| SWIM1107   | This operation requires <i>&lt;devicename&gt;</i> data in the inventory.                                      | The required device information is not in the inventory.                                                                 | Perform Update Inventory and check whether the required data appears in the Detailed Device Report.<br><br>If so, retry the operation. Else the data is not available from the device. |
| SWIM1109   | Image status for the selected image is either Deferred or Not Supported.                                      | —                                                                                                                        | Ensure that the image is supported by Software Management application.<br><br>Check the documentation on Cisco.com before upgrading the image.                                         |
| SWIM1110   | .bin images are not supported for Stack Upgrade.                                                              | —                                                                                                                        | Select a tar image for Stack Upgrade.                                                                                                                                                  |
| SWIM1111   | The available free space is not enough for upgrading this type of image.                                      | —                                                                                                                        | Select a different image or free up some space. Update the inventory and retry the operation.                                                                                          |

| Message-ID | Error Message                                                                                                                       | Probable Cause                                                                                      | Possible Action                                                                                                                                                                                                                                                                                      |
|------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SWIM1112   | This module can be upgraded if managed independently.                                                                               | —                                                                                                   | Assign an independent IP Address to this module. Manage it as a separate device and select that device to upgrade this module.                                                                                                                                                                       |
| SWIM1113   | Device Reboot operation failed or Reboot Verification failed.                                                                       | The device is not running the new image after it is rebooted.                                       | Verify the configuration used to load the new image. Verify whether the new image exists on the device in a valid Flash partition.                                                                                                                                                                   |
| SWIM1114   | The device cannot be reached after the reboot. Number of attempts to verify the device status has exceeded the maximum retry count. | Either an invalid image has been loaded onto the device or there are network connectivity problems. | Use the device console to determine if the device has reloaded with the desired image.                                                                                                                                                                                                               |
| SWIM1115   | Device is booted from TFTP server.                                                                                                  | —                                                                                                   | The backup running image is not supported.                                                                                                                                                                                                                                                           |
| SWIM1116   | Read-Write SNMP community string cannot be fetched from the Device Context.                                                         | —                                                                                                   | Add the Read-Write community string to the Device and Credential Repository.                                                                                                                                                                                                                         |
| SWIM1117   | The selected image is incompatible and cannot run on the selected device.                                                           | —                                                                                                   | Use the Cisco.com Upgrade Analysis feature to find an appropriate image.                                                                                                                                                                                                                             |
| SWIM1118   | Selected image has a lower version than the version of the running image.                                                           | —                                                                                                   | Verify whether the correct image is running on the device. If so, no action is required. If not, select a different image.                                                                                                                                                                           |
| SWIM1119   | Telnet credentials are not present for this device.<br><br>There was an error while checking the credentials of the device.         | —                                                                                                   | Ensure that appropriate SSH/Telnet passwords are configured correctly in the Device and Credential Repository.                                                                                                                                                                                       |
| SWIM1120   | Cannot obtain the sysObjectID of the device.                                                                                        | Either the device did not respond when you added it to RME or the device cannot be added correctly. | Manually enter the device type information in the Device and Credential Repository.                                                                                                                                                                                                                  |
| SWIM1121   | Storage not applicable for the selected device.                                                                                     | —                                                                                                   |                                                                                                                                                                                                                                                                                                      |
| SWIM1122   | Runtime error found during verification.                                                                                            | —                                                                                                   | <p>Retry the operation. If the problem persists, send the debug logs to Cisco Technical Assistance Center (TAC).</p> <p>The debug logs are available at this location:</p> <p>On Windows:<br/><i>NMSROOT</i>\log\swim_debug.log</p> <p>On Solaris:<br/><i>/var/adm/CSCOPx/log/swim_debug.log</i></p> |

| Message-ID | Error Message                                                                                                             | Probable Cause                                                                                                                                                                       | Possible Action                                                                                                                                                                                                                                                                                                                   |
|------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SWIM1123   | Telnet username not present for this device.                                                                              | —                                                                                                                                                                                    | Check whether the primary username is configured for the selected device, in Device and Credential Repository.                                                                                                                                                                                                                    |
| SWIM1124   | Cannot copy the image from Flash with return code of <Code>.                                                              | —                                                                                                                                                                                    | Retry the operation. If the problem persists, check the Bug Toolkit application for any known issues on the running image version.                                                                                                                                                                                                |
| SWIM1125   | Cannot copy the image from Flash with return code of <Code>.                                                              | —                                                                                                                                                                                    | Retry the operation. If the problem persists, check the Bug Toolkit application for any known issues on the running image version.                                                                                                                                                                                                |
| SWIM1126   | Image copy to module failed with return code of <Code>.                                                                   | —                                                                                                                                                                                    | <p>Retry the operation. If the problem persists, send the debug logs to Cisco Technical Assistance Center (TAC)</p> <p>The debug logs are available at this location:</p> <p>On Windows:</p> <pre>NMSROOT\files\rme\jobs\swim\&lt;JobID&gt;</pre> <p>On Solaris:</p> <pre>/var/adm/CSCOpX/files/rme/jobs/swim/&lt;JobID&gt;</pre> |
| SWIM1127   | Cannot connect to device through SSH/Telnet because <of Device>.                                                          | —                                                                                                                                                                                    | Check whether the SSH/Telnet credentials are correctly configured in the Device and Credential Repository.                                                                                                                                                                                                                        |
| SWIM1128   | Cannot disconnect from device because <of Device>.                                                                        | —                                                                                                                                                                                    | Check whether the device is configured correctly.                                                                                                                                                                                                                                                                                 |
| SWIM1139   | Select any available boot flash partition, for bootldr upgrade. We recommend that you use boot flash for bootldr upgrade. | This happens when the user has selected a Bootloader image for Distribution and a storage location other than bootflash.                                                             | Select any available boot flash partition for bootldr upgrade.                                                                                                                                                                                                                                                                    |
| SWIM1150   | Unable to get Command Service instance for device <i>DeviceName</i> due to CmdSvc Exception.                              | <p>Either the device login credentials in DCR are wrong or empty.</p> <p>or</p> <p>The SSH option is selected in the Swim Admin pane and the target device does not support SSH.</p> | Check whether the Login credentials in DCR and Login credentials specified during job scheduling are correct.                                                                                                                                                                                                                     |



| Message-ID | Error Message                                                                                                                                                                                                                                                           | Probable Cause                                                                                                                                                                                            | Possible Action                                                                                                                                                                                              |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SWIM1151   | Unable to connect to the device <i>DeviceName</i> due to <i>CmdSvcException</i> .                                                                                                                                                                                       | Either the device login credentials in DCR are wrong or empty.<br><br>or<br>The SSH option is selected in the Swim Admin pane and the target device does not support SSH.                                 | Check whether the Login credentials in DCR and Login credentials specified during job scheduling are correct.                                                                                                |
| SWIM1161   | RXBOOT credentials are not configured for the device. If TACACS is used by the device, configure RXBOOT Mode credentials in the credentials repository.<br><br>This will be used to contact the device in RXBOOT Mode (if configured) for Run From Flash (RFF) devices. | RXBOOT credentials are not configured for the device in Device Credentials Repository (DCR). This will be used for Run From Flash (RFF) devices when connecting in RX boot mode.                          | If TACACS is used by the device, configure RXBOOT Mode credentials in the Device credentials repository.                                                                                                     |
| SWIM1162   | Error when recommending image for the device.                                                                                                                                                                                                                           | Swim recommends the image based on device ROM, RAM and Flash which it collects from RME Inventory module. If the device is having a faulty hardware (FLASH) then this will not be available in inventory. | Check the Inventory Detailed Device Report to ensure that Inventory data exists for the device (like Flash Partition size). If not, check the device for a faulty hardware or a bug in device software.      |
| SWIM1163   | Image Import from Device Failed due to some unexpected error.                                                                                                                                                                                                           |                                                                                                                                                                                                           | Please contact TAC with the Job logs available under:<br><br>Windows:<br><i>NMSROOT\CSCOpX\files\rme\jobs\swim\&lt;jobID&gt;</i><br><br>Solaris:<br><i>/var/adm/CSCOpX/files/rme/jobs/swim/&lt;jobID&gt;</i> |

| Message-ID | Error Message                                                                                                                        | Probable Cause                                                                                                                                                                                            | Possible Action                                                                                                                                                                                                                                                                                                           |
|------------|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SWIM1164   | Image Distribute to Device Failed due to some unexpected error.                                                                      |                                                                                                                                                                                                           | Please contact TAC with the Job logs available under:<br><br>Windows:<br><i>NMSROOT\CSCOpX\files\rme\jobs\swim\&lt;jobID&gt;</i><br><br>Solaris:<br><i>/var/adm/CSCOpX/files/rme/jobs/swim/&lt;jobID&gt;</i>                                                                                                              |
| SWIM129    | Selected image does not fit on the free Flash size on the device. Selected storage partition will be erased during the distribution. | Either the boot loader image is selected for upgrade (and no system software image is selected along with it)<br><br>or<br><br>The storage location is not erased for the boot loader image to be copied. | Since the system software is not selected for upgrade, ensure that running system software is not in the selected storage partition.<br><br>Back up the running system software and ensure that the device boots from the backed up image in case the job fails.                                                          |
| SWIM1501   | Supervisor cannot be downgraded to an image version less than 4.1(1).                                                                | This happens when you try to distribute a CATOS image lesser than 4.1(1).                                                                                                                                 | If you continue to downgrade, the device may lose its configuration.<br><br>Use a higher version.                                                                                                                                                                                                                         |
| SWIM1506   | Cannot move file from <Location 1> to <Location 2>.                                                                                  | —                                                                                                                                                                                                         | There may not be sufficient permissions for the application to move or copy the file, or there may not be enough disk space.                                                                                                                                                                                              |
| SWIM1507   | Cannot back up the running image.                                                                                                    | Either the file name or the storage partition name specified for backup is invalid.                                                                                                                       | You can stop the job, manually back up the running image, and retry the job.                                                                                                                                                                                                                                              |
| SWIM1508   | Cannot copy image <Imagename> to storage partition <Partitionname> .                                                                 | Either the filename or the storage destination is invalid or the device does not provide the required MIB instrumentation for copying an image.                                                           | Retry the operation. If the problem persists, check the Bug Toolkit application for any known issues on the running image version.                                                                                                                                                                                        |
| SWIM1510   | Runtime error while performing Reload on a device.                                                                                   | —                                                                                                                                                                                                         | Retry the operation. If the problem persists, send the debug logs to Cisco Technical Assistance Center (TAC).<br><br>The debug logs are available at this location:<br><br>On Windows:<br><i>NMSROOT\files\rme\jobs\swim\&lt;JobID&gt;</i><br><br>On Solaris:<br><i>/var/adm/CSCOpX/files/rme/jobs/swim/&lt;JobID&gt;</i> |

| Message-ID | Error Message                                                                         | Probable Cause                                                       | Possible Action                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SWIM1518   | Runtime error during configuration upload.                                            | —                                                                    | <p>Check the Bug Toolkit application for any known issues on the running image version. If there are no issues, retry the operation.</p> <p>If the problem persists, send the debug logs to Cisco Technical Assistance Center (TAC).</p> <p>The debug logs are available at this location:</p> <p>On Windows:<br/> <i>NMSROOT\files\rme\jobs\swim\&lt;JobID&gt;</i></p> <p>On Solaris:<br/> <i>/var/adm/CSCOpX/files/rme/jobs/swim/&lt;JobID&gt;</i></p> |
| SWIM1525   | Unknown package type.                                                                 | —                                                                    | Check whether the module is supported in the Software Management Function and Device Support Matrix on Cisco.com.                                                                                                                                                                                                                                                                                                                                        |
| SWIM1529   | There is no module information available in the inventory for <devicename>.           | —                                                                    | Update the inventory and retry the task.                                                                                                                                                                                                                                                                                                                                                                                                                 |
| SWIM1530   | Storage not applicable for the Module <modulename>.                                   | —                                                                    | —                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| SWIM1532   | No read-write partition exists on the device to accommodate the selected image.       | —                                                                    | Create some free space.                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| SWIM1542   | Minimum supported version for Supervisor is 3.8.                                      | —                                                                    | Select a higher version of the image to upgrade.                                                                                                                                                                                                                                                                                                                                                                                                         |
| SWIM1543   | Selected image has the same or a lower version than the version of the running image. | —                                                                    | Verify whether the correct image is running on the device. If so, no action is required. If not, select a different image.                                                                                                                                                                                                                                                                                                                               |
| SWIM1546   | The NVRAM size on the device may not be large enough to run the image.                | —                                                                    | Select a different image or upgrade the NVRAM on the device and retry the Upgrade operation.                                                                                                                                                                                                                                                                                                                                                             |
| SWIM1547   | Available NVRAM size on the selected image cannot be determined.                      | RAM size on this module may not be large enough to store this image. | Make sure the module has enough NVRAM to run the selected image. Else, select a different image or upgrade the RAM on the module.                                                                                                                                                                                                                                                                                                                        |
| SWIM1548   | There are no software requirements found for the selected image.                      | —                                                                    | —                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Message-ID | Error Message                                                                                                                              | Probable Cause                                                         | Possible Action                                                                                                                            |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| SWIM1549   | Verify that the new software selected is compatible.                                                                                       | Software Management cannot determine the features in the ATM software. | Check the Release Notes for the new software to determine if all the features in the old software are available in the new software.       |
| SWIM1554   | The selected image cannot be used to upgrade the device.                                                                                   | The device does not have any module that can run the selected image.   | Select a different image.                                                                                                                  |
| SWIM1556   | Select the Storage partition.                                                                                                              | —                                                                      | —                                                                                                                                          |
| SWIM1560   | Slot number corresponding to the module cannot be got from inventory.                                                                      | —                                                                      | Update Inventory and retry the task.                                                                                                       |
| SWIM2001   | Telnet error while connecting to the device.<br>Cannot connect to device %s .                                                              | Invalid access information in the inventory.                           | Verify the username and the passwords in Device and Credential Repository and retry the task.                                              |
| SWIM2002   | Cannot get details about Flash File system on the device.                                                                                  | —                                                                      | Either the Flash device is not available or the Flash information format has changed.                                                      |
| SWIM2503   | Different images have been selected for upgrade of the Active and Stand-by processors. This may make the device unavailable.               | —                                                                      | Select the same image for upgrade of Active and Stand-by CPUs.                                                                             |
| SWIM3501   | Cannot fetch device credentials for the selected device.                                                                                   | —                                                                      | Check whether there are credentials are configured correctly in Device and Credential Repository.                                          |
| SWIM3502   | Cannot fetch the credentials of the parent device, for the selected device.                                                                | —                                                                      | Add the Supervisor of the NAM device to the RME inventory.                                                                                 |
| SWIM3503   | Telnet credentials are not present for the parent device.                                                                                  | —                                                                      | Check whether the Telnet credentials are configured for the parent device.                                                                 |
| SWIM3504   | If Auto Logout is enabled on the parent device, it may get disconnected during upgrade.<br>Configure No Auto Logout for the parent device. | —                                                                      | —                                                                                                                                          |
| SWIM3505   | NAM images are large.                                                                                                                      | —                                                                      | Ensure that there is enough disk space available in:<br><br><code>htdocs/swimtemp</code> directory under the CiscoWorks install directory. |

| Message-ID | Error Message                                                                                 | Probable Cause                                                                                                                                         | Possible Action                                                                                                                                                                                                                                                                                                                            |
|------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SWIM3701   |                                                                                               | —                                                                                                                                                      | Since different versions of System and KickStart images are selected, they may not be compatible on the device.<br><br>Select images with the same version for both KickStart and System images.                                                                                                                                           |
| SWIM3703   | Selected image does not have the minimum system software version required for system upgrade. | —                                                                                                                                                      | Select a different Image with a version higher than 11.3(0).                                                                                                                                                                                                                                                                               |
| SWIM3705   | This NRP2 is in ROMMON state. Cannot perform software upgrade on this device.                 | —                                                                                                                                                      | Manually bring the device into the normal mode and retry the task.                                                                                                                                                                                                                                                                         |
| SWIM5001   | Cannot connect to the device <devicename> using <protocol>.                                   | The device may be not reachable or there is invalid access information in the Device and Credential Repository.                                        | Verify whether the device is reachable and the credentials in Device and Credential Repository are correct and retry the operation.                                                                                                                                                                                                        |
| SWIM2002   | Cannot get details about Flash File system on the device.                                     | —                                                                                                                                                      | Either the Flash device is not available or the Flash information format has changed.                                                                                                                                                                                                                                                      |
| SWIM4602   | Only image versions 6.2 or above are supported through AUS.                                   | —                                                                                                                                                      | Manually upgrade the device to a version higher than 6.2.                                                                                                                                                                                                                                                                                  |
| SWIM4800   | The version running on the device is less than the minimum supported version.                 | —                                                                                                                                                      | Manually upgrade the device to the minimum supported version or higher.                                                                                                                                                                                                                                                                    |
| SWIM5003   | Cannot copy the image.                                                                        | —                                                                                                                                                      | Check whether the server address is correct and whether the image is accessible to the device.                                                                                                                                                                                                                                             |
| SWIM5004   | Cannot initiate SNMPset operation.                                                            | The SNMP Write Community String might be wrong.                                                                                                        | Check whether the correct SNMP Write Community String is entered in Device and Credential Repository.                                                                                                                                                                                                                                      |
| SWIM5005   | Device reboot operation failed.                                                               | The device is not configured for reboot. The command, <code>snmp-server system-shutdown</code> , should be in the running configuration on the device. | Modify the device configuration and retry the operation.<br><br>If the problem persists, send the debug logs to Cisco Technical Assistance Center (TAC).<br>The debug logs are available at this location:<br>On Windows:<br><code>NMSROOT\log\swim_debug.log</code><br><br>On Solaris:<br><code>/var/adm/CSCOpX/log/swim_debug.log</code> |

| Message-ID | Error Message                                                  | Probable Cause                                                                                                      | Possible Action                                                                                                                                                                                                                                                                       |
|------------|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SWIM5006   | Device reboot operation failed.                                | The device is not configured for reboot. The SNMP Write Community string might be wrong.                            | The command SNMP server system shutdown should be in the running configuration on the device.<br><br>Modify the device configuration and check whether the Write Community string is configured on the device is same as the one that is entered in Device and Credential Repository. |
| SWIM5007   | CPU switchover failed.                                         | Either the SNMP set failed or the device is not in hot standby mode or the two CPUs are not running similar images. | Check the SNMP credentials in the Device and Credential Repository, or ensure that the device is in hot standby mode, or ensure that the two CPUs are running similar images, before attempting the switchover.                                                                       |
| SWIM5008   | Device not responding after running the switch cpu command.    | —                                                                                                                   | Check the Bug Toolkit application for any known issues on the running image version.                                                                                                                                                                                                  |
| SWIM5009   | Device is not in HotStandby Mode. Switch Operation terminated. | —                                                                                                                   | Bring up the standby CPU and retry the operation.                                                                                                                                                                                                                                     |

# Syslog Analyzer and Collector

This section provides the troubleshooting information and FAQs for the Analyzer and Collector application:

- [Syslog Analyzer and Collector FAQs](#)
- [Troubleshooting Syslog Analyzer and Collector](#)

## Syslog Analyzer and Collector FAQs

- [Why am I not getting syslog messages for my devices?](#)
- [Where does RME keep syslog messages?](#)
- [When I tried to generate a syslog report I got an outofmemory exception. Why does this happen?](#)
- [Where can I get the description of the error messages?](#)
- [Does the RME 3.x Remote Syslog Analyzer Collector \(RSAC\) work with RME 4.0?](#)
- [How do I change the location of the syslog.log file??](#)
- [How do I check the size of the syslog.log file, and delete it when required?](#)

Q. Why am I not getting syslog messages for my devices?

A. You might not be getting syslog messages for one of the following reasons:

- The device is not managed by RME.
- The syslog parameters are not enabled correctly on the device.
- Too many messages are being received by the syslog program. On Windows systems, logging for the PIX firewall has a tendency to lock the syslog function due to the massive number of messages from the firewall.
- Filters might be applied to incoming syslog messages. By default, Link Up/Down, PIX, Severity 7, and IOS Firewall Audit Trail messages are filtered out.

Q. Where does RME keep syslog messages?

A. For the location of the log file (syslog.log) that contains syslog information, check the `SYSLOG_FILES` property in the `Collector.properties` file. This file is available at the following location: `NMSROOT\MDC\tomcat\webapps\rme\WEB-INF\classes\com\cisco\nm\rmeng\csc\data`, where `NMSROOT` is the CiscoWorks install directory.

Q. When I tried to generate a syslog report I got an outofmemory exception. Why does this happen?

A. When you are generating a syslog report, you may sometimes get an outofmemory exception.

This may occur if the number of syslog messages that were generated in the Date Range that you specified for the syslog report job, exceed 6 lakhs.

Specify a shorter Date Range in the Report Generator (**Resource Manager Essentials > Reports > Report Generator**), and run the report job again.

Q. Where can I get the description of the error messages?

A. To get the description of the error messages follow either of these procedures:

#### Procedure 1

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**Step 1** Select **Resource Manager Essentials > Reports > Report Generator**.

The RME Report Generator dialog box appears, in the Report Generator page.

**Step 2** From the first drop-down list box, select Syslog.

**Step 3** From the second drop-down list box, select the Standard Report.

Select the required devices using the Device Selector.

For details about the Device Selector, see the topic [“Using RME Device Selector”](#) in the section [“Adding and Troubleshooting Devices Using Device Management”](#).

Enter the date range and select the Run Type as Immediate.

**Step 4** Click **Finish**.

The Standard Report appears.

**Step 5** Click on \* in the details column for the respective device name.

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#### Procedure 2

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**Step 1** Select **Resource Manager Essentials > Reports > Report Generator**.

The RME Report Generator dialog box appears, in the Report Generator page.

**Step 2** From the first drop-down list box, select Syslog.

**Step 3** From the second drop-down list box, select the Unexpected Device Report.

Select the required devices using the Device Selector.

For details about the Device Selector, see the topic [“Using RME Device Selector”](#) in the section [“Adding and Troubleshooting Devices Using Device Management”](#).

Enter the date range and select the Run Type as Immediate.

**Step 4** Click **Finish**.

The Unexpected Device Report appears.

**Step 5** Click on \* in the details column for the respective device name.

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Q. Does the RME 3.x Remote Syslog Analyzer Collector (RSAC) work with RME 4.0?

A. No, the RME 3.x Remote Syslog Analyzer Collector (RSAC) does not work with RME 4.0.

RME 3.x does not work with the new Remote Syslog Collector (RSC) 4.0.

Also, you cannot upgrade RSAC 3.x to RSC 4.0. You must uninstall the previous version of RSAC before installing the new RSC 4.0 which is provided with RME 4.0.

To install RSC 4.0, see the section Installing the Remote Syslog Collector in the Installation and Setup Guide for Resource Manager Essentials 4.0 on Solaris/Windows.

Q. How do I change the location of the syslog.log file?

A. The file from which syslog messages are read, is syslog.log. The default location of the file is:



On Solaris:

`/var/log/syslog_info`

On Windows:

`%NMSROOT%\log\syslog.log`

However, you can change the location of this file. To change the location of the `syslog.log` file, you should appropriately modify the Syslog Collector Properties file (filename: `Collector.properties`) which is available at:

On Solaris: `$NMSROOT/MDC/tomcat/webapps/rme/WEB-INF/classes/com/cisco/nm/rmeng/csc/data/Collector.properties`

On Windows: `%NMSROOT%\MDC\tomcat\webapps\rme\WEB-INF\classes\com\cisco\nm\rmeng\csc\data\Collector.properties`

For more about the `Collector.properties` file, see:

[http://cisco.com/en/US/products/sw/cscowork/ps2073/products\\_installation\\_guide\\_chapter09186a00803c0157.html#wp1031846](http://cisco.com/en/US/products/sw/cscowork/ps2073/products_installation_guide_chapter09186a00803c0157.html#wp1031846)

The following procedure shows you how the location of the `syslog.log` file can be changed on Solaris and Windows:

#### On Solaris

- 
- Step 1** In the syslog configuration file, `syslog.conf`, (available at `/etc/syslog.conf`) look for `local7` and change the location of the `syslog.log` file.
- A new file, `syslog.log`, will be created in this location. Make sure that this new file has read permissions to `casuser`.
- Step 2** Ensure that the syslog process (`syslogd`) can both read and write to the file.
- Step 3** Restart the syslog process (`syslogd`). Enter the following commands to stop and restart `syslogd`:
- ```
/etc/init.d/syslog stop
/etc/init.d/syslog start
```
- Step 4** Stop the SyslogCollector process. To do this:
- Select **Common Services > Server > Admin > Processes**. The Process Management dialog box appears.
  - Select **SyslogCollector** and click **Stop**.
- Step 5** Edit the `SYSLOG_FILES` property in the `Collector.properties` file to reflect the changed location. (The `Collector.properties` file is located at: `$NMSROOT/MDC/tomcat/webapps/rme/WEB-INF/classes/com/cisco/nm/rmeng/csc/data/Collector.properties`)
- Step 6** Start the SyslogCollector process. To do this:
- Select **Common Services > Server > Admin > Processes**. The Process Management dialog box appears.
  - Select **Syslog Collector** and click **Start**.

- Step 7** Update the location of the syslog.log file in the logstat.conf file. (The logstat.conf file is located at /opt/CSCOPx/conf.) This ensures that the new syslog.log file is referenced when you generate a Log File Status report (**Common Services > Server > Reports > Log File Status**).
- 

### On Windows

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- Step 1** Edit the location of the syslog.log file in the LogFile (available at HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\crmlog\Parameters\ in Registry Editor (REGEDIT). A new file, syslog.log, will be created in this location. Make sure that this new file has read permissions to casuser.
- Step 2** Stop and restart CWCS syslog service. To do this:
- Go to Services (**Start > Programs > Administrative tools > Services**).
  - Select CWCS syslog service, and click Stop.
  - To restart the syslog service in the Control Panel, click Start next to the CWCS syslog service.
- Step 3** 3) Stop the SyslogCollector process. To do this:
- Select **Common Services > Server > Admin > Processes**. The Process Management dialog box appears.
  - Select SyslogCollector and click Stop.
- Step 4** Edit the SYSLOG\_FILES property in the Collector.properties file to reflect the changed location. (The Collector.properties file is located at: %NMSROOT%\MDC\tomcat\webapps\rme\WEB-INF\classes\com\cisco\nm\rmeng\csc\data\Collector.properties).
- Step 5** Start the SyslogCollector process. To do this:
- Select **Common Services > Server > Admin > Processes**. The Process Management dialog box appears.
  - Select SyslogCollector and click Start.
- Step 6** Update the location of the syslog.log file in the logstat.conf file. (The logstat.conf file is located at NMSROOT\CSCOPx\conf.) This ensures that the new syslog.log file is referenced when you generate a Log File Status report (**Common Services > Server > Reports > Log File Status**).
- 

Q. How do I check the size of the syslog.log file, and delete it when required?

A. You can check the size of the syslog.log file by generating the Log File Status report. To do this:

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- Step 1** Go to **Common Services > Server > Reports > Log File Status**.

The Reports Generator dialog box appears.

- Step 2** Click **Log File Status** and then click **Generate**.

The Log File Status report appears.

If the File Size is displayed in red it means that the file has exceeded its size limit. If the File System Utilization is displayed in red it means that the file exceeds 90% utilization.

You should reduce the size of your log file if your file system utilization is over 90%. You can:

- c. Back up the log file (To back up your log files, see Maintaining Log Files ([http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/cw2000\\_d/comser30/usrguide/admin.htm#wp271790](http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/cw2000_d/comser30/usrguide/admin.htm#wp271790)) in the User Guide for CiscoWorks Common Services.
- d. Stop the Syslog Analyzer (**Start > Settings > Control Panel > Services**). (For the procedure, see “Deleting the Log File”.)
- e. Delete the file. (For the procedure, see “Deleting the Log File”.)

### Deleting the Log File

To delete the log file:



#### Note

View the Permission Report (**Common Services > Server > Reports**) to check if you have the required privileges to perform this task.

- Step 1** Select **Common Services > Server > Admin > Processes**.  
The Process Management dialog box appears.
- Step 2** Select **SyslogAnalyzer** and click **Stop**.
- Step 3** Open the Windows Control Panel and select **Administrative tools > Services**.
- Step 4** Select **CWCS syslog service**, and click **Stop**.
- Step 5** Delete the log file in:
  - *NMSROOT*\log\syslog.log file on Windows.
  - or
  - /var/log/syslog\_info on Solaris.
- Step 6** Restart the CWCS syslog service and the SyslogAnalyzer process:
  - To restart the syslog service in the Control Panel, click **Start** next to the **CWCS syslog service**.
  - To restart the SyslogAnalyzer process in RME, select **Common Services > Server > Admin > Processes** and click **Start**.

### Troubleshooting Syslog Analyzer and Collector

This section provides the troubleshooting information for the Syslog Analyzer and Collector application:

Message ID	Error Message	Probable Cause	Possible Action
SA0001	Could not load Syslog Registry.	Either the CCR entry for the registry file is corrupted or the registry file is corrupted.	Enter a valid CCR entry called SA_REGISTRY_FILE and ensure that it points to a valid registry file.
CA0002	Could not initialize the database connection.	Either the database is down, too busy, or run out of connections.	Restart the database engine, if it is down.
CA0024	Could not run the report job.	JRM service might be down	Restart JRM and Syslog Analyzer Audit Services.

Message ID	Error Message	Probable Cause	Possible Action
SA0016.	Cannot contact SyslogAnalyzer service to add a Collector.	Syslog Analyzer service might be down.	Restart Syslog Analyzer.
SLCA0114	{0} <sup>1</sup> could not be exported.	Either file specified already exists or file specified does not have permissions to write.	<ul style="list-style-type: none"> <li>Choose another file or allow overwrite by checking overwrite file option.</li> <li>Give write permissions to the selected file or choose another file with the valid permission.</li> </ul> <p>The casuser must have the write permission.</p>
SLCA0115	{0} <sup>1</sup> could not be imported.		<p>Check if file {1}<sup>2</sup> specified exists, has read permissions and contains valid {0}<sup>1</sup>.</p> <p>Check if the database is running normally.</p>
SLCA0122	Cannot schedule job in the past, Current Server {0} <sup>3</sup> , please enter proper schedule.	You have scheduled a job in the past.	Select a future date.
SLCA0126	Failed to subscribe to the Collector.	-	<ul style="list-style-type: none"> <li>Check if the collector is running.</li> <li>Make sure that SSL certificates are imported/exported correctly and process restarted.</li> <li>Check if the Certificates exported/imported are valid and have not expired.</li> <li>Check if SyslogAnalyzer process is running.</li> </ul>
SLCA0130	{0} <sup>4</sup> location does not have permissions to create files for backing up data.	-	Give write permissions or change the location and try again.
SLCA0131	<p>There are more than {0}<sup>5</sup> records generated for this date range.</p> <p>Only {0}<sup>5</sup> records are being displayed, starting with the records generated on the end date.</p>	-	To view the complete report, schedule a job that does not have Immediate as the Run Type.

1. Displays the task name, Automater Action or Message Filter
2. Displays the filename.
3. Displays the current date and time
4. Displays the location
5. Displays total number of records

# Change Audit

This section provides the troubleshooting information for the Change Audit application:

Message ID	Error Message	Probable Cause	Possible Action
CA0001	Could not load Syslog Registry.	Either the CCR entry for the registry file is corrupted or the registry file is corrupted	Enter a valid CCR entry called CAS_REGISTRY_FILE and ensure that it points to a valid registry file.
CA0002	Could not initialize the database connection.	Either the database is down, too busy, or run out of connections.	Restart the database engine, if it is down.
CA0018	Error while communicating with Change Audit Service	Change Audit Service may not be running.	Restart Change Audit Service.
CA0027	Could not create Force Purge job	Could not create Force Purge job.	Restart JRM and Change Audit Services.
CA0028	Could not edit Default Purge job.	JRM service might be down.	Restart JRM and Change Audit Services
CA0030	Could not get exception period definitions.	Either the database is down, too busy, or run out of connections.	Restart the database engine, if it is down.

# Job Approval

This section provides the troubleshooting information for the Job Approval application:

Message ID	Error Message	Probable Cause	Possible Action
JBAP0001	Cannot enable approval for applications that do not have an Approver-List assigned to them	You have attempted to enable Approval without assigning a list to the application.	Go to the <b>Approval &gt; AssignLists</b> screen and assign a list to the application. Enable Approval again.
JBAP0002	Specify a valid E-mail address.	You have entered an invalid E-mail-address.	Enter a valid E-mail address
JBAP0003	Select at least one job.	You have attempted to perform an action on a job without selecting a job	Select a job before performing an action on it.
JBAP0004	Select only one job.	You have attempted to view JobDetails, with more than one job selected	Select only one job.
JBAP0005	List {0} has no users. To save the list successfully, add users and click <b>Save</b>	This is not an error. This is an Information message when you add a list for the first time.	Add users before saving the list

Message ID	Error Message	Probable Cause	Possible Action
JBAP0006	{0} is not a valid Approver. Enter a user with Approver role	You have attempted to add a user who has not been added as Approver in CMF.	You must first add the user as Approver into CMF. Only then can you add this user into RME.
JBAP0007	Select an Approver, to change E-mail.	You are trying to do a 'Save' without selecting a user.	Go back and select a user.
JBAP0008	List {0} already exists.	You have attempted to add a list that already exists.	Add the list with a different list name.
JBAP0009	Could not approve/reject the job {0}. Verify that the database and mail server are running.	Either approve/reject mails cannot be sent, or the database is not running.	Make sure mail server is configured properly and that the database is running.
JBAP0010	Cannot reject a job without comments.	You have attempted to reject a job without giving reasons for rejecting	Add comments if you want the job to be rejected.
JBAP0011	Select a future start date.	You have selected a past date while changing a job schedule	Select a future date.
JBAP0012	Job {0} is changed successfully.	Not an error message	
JBAP0013	Are you sure you wish to delete? Approval will be disabled for applications to which {list-name} is assigned.	Alert message before deleting – not an error message	
JBAP0014	Enter a valid Approver-List name.	You may have entered invalid characters such as spaces in the Approver name.	Add a valid user-name
JBAP0015	{list-name} already exists.	You have attempted to add a list name that already exist	Select a different name
JBAP0016	{user-name} already exists.	You have attempted to add a user name that already exists.	Add a new user name. This field is case-sensitive.
JBAP0017	Are you sure you wish to delete? This will disable approval for applications having {user-name} as the sole approver.	Warning message for deleting a user. If you have enabled Approval for an application whose sole approver is this user, it will be disabled.	-

Message ID	Error Message	Probable Cause	Possible Action
JBAP0018	You have attempted an action without selecting a user. Select a user before performing the action.	-	Select a user before performing the action.
JBAP0019	You have attempted an action without selecting a list. Select a list before performing the action	-	Select a list before performing the action
JBAP0021	Cannot save a list that has no approvers in it	-	Add approvers before trying to save the list.
JBAP0022	Cannot change schedule for {0}. A runtime error occurred when you tried to change the schedule of the job. See the Troubleshooting section of the RME 4.0 help.	-	This exception will appear in the MakerChecker.log in the following location: <i>NMSROOT</i> \log  where <i>NMSROOT</i> is the CiscoWorks install directory. Contact Cisco Technical Assistance Center (TAC) with this log file.
JBAP0024	Cannot send approval E-mails. Make sure that SMTP Server is configured correctly.	-	Go to <b>Common Services &gt; Server &gt; Admin &gt; System Preferences</b> and configure SMTP Server correctly.

## Bug Toolkit

This section provides the troubleshooting information for the Bug Toolkit application:

- [Troubleshooting Bug Toolkit](#)

### Troubleshooting Bug Toolkit

Message ID	Error Message	Probable Cause	Possible Action
BTKT0001	BTKT0001: Report data not found.	-	-
BTKT0002	BTKT0002: Report name not found.	-	-
BTKT0003	BTKT0003: You have not selected any device.	No device selected	Select at least one device
BTKT0004	BTKT0004: You have selected an invalid date.	The date is invalid. It may be a past date.	Select a future date
BTKT0005	BTKT0005: Error while formatting the selected date.	-	Check if the selected date is valid

Message ID	Error Message	Probable Cause	Possible Action
BTKT0006	BTKT0006: Job creation failed.	-	
BTKT0007	BTKT0007: No Bug ID found.	You have not entered a Bug ID.	Enter a Bug ID or a group of Bug IDs separated by commas.
BTKT0008	BTKT0008: Invalid Bug ID found in the input: {0	You have entered an invalid Bug ID.	Enter a valid Bug ID
BTKT0009	BTKT0009: No data found in the input file	-	-
BTKT0010	BTKT0010: No details found in Cisco.com for the given bugs input.	There is no information in Cisco.com for this bug.	
BTKT0011	BTKT0011: The CCO interface did not return any information for all the bugs.	Information is not available for the bugs that you have entered.  The bugs may be invalid or you may not have privilege to access them.	Check whether the bugs are valid and also whether you have permission to see them.
BTKT0012	BTKT0012: Input file not found.	-	Select a valid input file.
BTKT0013	Information could not be fetched from Cisco.com. Please check User Guide for RME for more details.	Information could not be fetched from Cisco.com either because information not available on Cisco.com (or) could not connect to Cisco.com.	Check if the Cisco.com credentials are correct. If credentials are correct, check the proxy server configuration if direct connection to Cisco.com is unavailable from CiscoWorks Server.  You can check the proxy server configuration using Common Services > Server > Security > Cisco.com Connection Management > Proxy Server Setup.
BTKT0014	Information could not be fetched from Cisco.com. Please check User Guide for RME for more details.	Information could not be fetched from Cisco.com either because information not available on Cisco.com (or) could not connect to Cisco.com.	Check if the Cisco.com credentials are correct. If credentials are correct, check the proxy server configuration if direct connection to Cisco.com is unavailable from CiscoWorks Server.  You can check the proxy server configuration using Common Services > Server > Security > Cisco.com Connection Management > Proxy Server Setup.
BTKT0015	BTKT0015: Inventory data does not exist for the device(s) selected. So could not find the report.	The devices that you have selected for this report do not have any Inventory data.	Ensure that the Inventory data is collected for these devices.



Message ID	Error Message	Probable Cause	Possible Action
BTKT0016	BTKT0016: Problem with posting and getting the results from CCO	-	Try again later.
BTKT0017	BTKT0017: Enter Job Description	There is no Job Description.	Enter Job Description.
BTKT0018	BTKT0018: Enter a valid E-mail address	You have entered an invalid E-mail address.	Enter valid E-mail address
BTKT0019	BTKT0019: Internal error: Cannot schedule a job.	Either the CTMJrmServer or the JrmServer may not be running	<ol style="list-style-type: none"> <li>1. Check the status of JRMServer using the pdshow command</li> <li>2. Start JRM and try creating the job.</li> </ol>
BTKT0020	BTKT0020: Device(s) are not supported by Cisco.com.	For a device to get the details of its bug from the Cisco.com database, the device must have been added to this database. In this case it has not been added.	Check bugtoolkit.log for more details.
BTKT0021	BTKT0021: Cannot retrieve the URL limits or the Thread limits.	-	Check whether the file Bugtool.properties exists or if you have entered the values correctly or ensure that the url limits and thread limits are given in the Bugtool.properties file and the file exists.
BTKT0022	BTKT0022: Devices are not supported by Cisco.com or Cisco.com URL	Connection Timeout.	-

# cwcli config

This section provides the troubleshooting information for the cwcli config commands:

Message-ID	Error Message	Probable Cause	Possible Action
CCLI0001	CCLI0001: Could not get any device(s) to work on.	<ol style="list-style-type: none"> <li>1. Specified device(s) is not managed by RME.</li> <li>2. You have not used the correct Device Display name</li> <li>3. DCR server is down</li> </ol>	<ol style="list-style-type: none"> <li>1. Specify valid devices that are managed by RME</li> <li>2. Use a valid Device Display name.</li> <li>3. Use the pdshow command to verify whether the DCR server is running.</li> </ol>
CCLI0002	CCLI0002: The job could not be created since no device is available.	<ol style="list-style-type: none"> <li>1. You have entered invalid arguments for the command.</li> <li>2. You have entered devices that are not managed by RME.</li> <li>3. CTMJrmServer and jrm are down.</li> <li>4. ConfigMgmtServer process is down.</li> </ol>	<ol style="list-style-type: none"> <li>1. Enter valid arguments.</li> <li>2. Verify that the devices you have entered are managed by RME.</li> <li>3. Use the pdshow command to verify whether the CTMJrm server and jrm are running.</li> <li>4. The ConfigMgmtServer process should be up for the configuration download/fetch operations.</li> </ol>
CCLI0003	CCLI0003: Could not get results for device(s) within the specified time interval	Less timeout is configured	<ol style="list-style-type: none"> <li>1. Increase the timeout value using the -timeout option.</li> <li>2. Use Archive Management's Job Browser to see the results.</li> </ol>
CCLI0004	CCLI0004: Could not retrieve the Device Identification number for the device.	<ol style="list-style-type: none"> <li>1. Specified device(s) is not managed by RME.</li> <li>2. You have not used the correct Device Display name</li> <li>3. DCR server is down</li> </ol>	<ol style="list-style-type: none"> <li>1. Specify valid devices that are managed by RME.</li> <li>2. Use a valid Device Display name.</li> <li>3. Use the pdshow command to verify whether the DCR server is running.</li> </ol>
CCLI0005	CCLI0005: There are no archived configurations for this device	Sync Archive has not happened for the specified device.	<p>Archive the configuration using the Synch Archive feature.</p> <p>For details on using the Synch Archive feature, see the Online Help.</p>
CCLI0006	CCLI0006: Cannot create a temporary file to store the running configuration.	<ol style="list-style-type: none"> <li>1. There is not enough space to create a file in your file system.</li> <li>2. You do not have permissions to create a file in the specified location.</li> </ol>	<ol style="list-style-type: none"> <li>1. Verify whether there is enough space to create a file in your file system.</li> <li>2. Verify whether you have permissions to create a file in the specified location.</li> <li>3. Try again.</li> </ol>
CCLI0007	CCLI0007: Cannot retrieve the configuration file from the archive.	The specified version does not exist in the archive.	<ol style="list-style-type: none"> <li>1. Verify whether the specified version exists in the archive.</li> <li>2. Use the <b>listversions</b> command to see the available versions.</li> </ol>

Message-ID	Error Message	Probable Cause	Possible Action
CCLI0008	CCLI0008: Could not create a temporary file in DCMA temporary directory.	<ol style="list-style-type: none"> <li>1. There is not enough space to create a file in your file system.</li> <li>2. You do not have permissions to create a file in the specified location.</li> </ol>	<ol style="list-style-type: none"> <li>1. Verify whether there is enough space to create a file in your file system.</li> <li>2. Verify whether you have permissions to create a file in the specified location.</li> <li>3. Try again.</li> </ol>
CCLI0009	CCLI0009: Cannot get running configuration.	The archive does not contain any versions for the device.	<ol style="list-style-type: none"> <li>1. Verify whether the archive contains any versions for the device.</li> <li>2. Use the <b>listversions</b> command to see the available versions.</li> </ol>
CCLI0010	CCLI0010: Device has only one version archived. Nothing to compare it with.	Synch Archive has not happened for the specified device	<p>Archive the configuration using the Synch Archive feature.</p> <p>For details on using the Synch Archive feature, see the Online Help.</p>
CCLI0011	CCLI0011: The specified version of the configuration does not exist.	You have entered an invalid version of the configuration.	Use the <b>listversions</b> command to see the available versions and enter an existing version
CCLI0012	CCLI0012: No baseline templates exist for this device.		Use the <b>listversions</b> command to see the available baseline templates.
CCLI0013	CCLI0013: Data file does not contain any devices.		Add the devices in the data file and try again
CCLI0014	CCLI0014: The job could not be created because of the errors reported.	<ol style="list-style-type: none"> <li>1. You have entered invalid arguments.</li> <li>2. The data file is missing some parameters.</li> </ol>	<ol style="list-style-type: none"> <li>1. Verify whether you have entered valid arguments.</li> <li>2. Update the data file if there are missing parameters.</li> </ol>
CCLI0015	CCLI0015: You should not use the <b>-f</b> option with more than one device.	Multiple devices are specified for the command to be executed along with <b>-f</b> option.	Use the <b>-input</b> option to specify the file for every device

# cwcli export

This section provides the FAQs for the `cwcli export` tool:

- [What does cwcli export do?](#)
- [What is ComputerSystemPackage Class?](#)
- [Where does cwcli export collect the configuration information from?](#)
- [Is the containment hierarchy in inventory schema exactly the same as that in CIM?](#)
- [What is an XSD file?](#)
- [What is the AdditionalInformation tag in the inventory schema used for?](#)
- [How do I know what fields come under AdditionalInformation?](#)
- [Where can I find information specific to a particular node which I can see in detailed device information but not in cwcli export?](#)
- [How can I make use of the servlet interface?](#)
- [How can I get data for some particular entity from devices which are managed by different RME servers?](#)
- [While using the -m option, can I use more than one E-mail id?](#)
- [Where can I get the descriptions of each node in the schema?](#)
- [Why am I getting parse error when trying to parse some of the output files?](#)

Q. What does `cwcli export` do?

A. `cwcli export` is a command line tool that also provides servlet access to export inventory, configuration and change audit data. You can use this tool to export inventory, configuration archive, and change audit data for devices in Resource Manager Essentials (RME), in the XML format.

The Data Extracting Engine (DEE) of RME 3.5, is now part of the CWCLI framework. You can use the `cwcli export` command to generate the Inventory and Configuration data in XML format. In addition to this, you can also export Change Audit data.

See these topics in the RME Help:

- [Running cwcli export changeaudit](#) for the usage and XML schema details.
- [Running cwcli export config](#) for the usage and XML schema details.
- [Running cwcli export inventory Command](#) for the usage and XML schema details.

Q. What is ComputerSystemPackage Class?

A. It is the class that contains the InstanceIDs of Cisco-Chassis and Cisco-NetworkElement, and relates the two.

Q. Where does `cwcli export` collect the configuration information from?

A. `cwcli export` collects the running configuration data from the latest configuration in the Config Archive.

Q. Is the containment hierarchy in inventory schema exactly the same as that in CIM?

A. No. Although the containment hierarchy in inventory schema is based on Common Information Model (CIM), it does not follow the exact containment hierarchy because of the limitations in the RME database schema.

Q. What is an XSD file?

A. XSD file is an XML based alternative to Document Type Definition (DTD). It is based on XML schema language which describes the structure of an XML document. An XML schema defines the legal building blocks of an XML document, just like a DTD.

An XML Schema:

- Defines elements that can appear in a document.
- Defines attributes that can appear in a document.
- Defines which elements are child elements.
- Defines the order of child elements.
- Defines the number of child elements.
- Defines whether an element is empty or can include text.
- Defines data types for elements and attributes.
- Defines default and fixed values for elements and attributes.

Q. What is the AdditionalInformation tag in the inventory schema used for?

A. The AdditionalInformation tag is provided to define information that is specific to a device. The inventory schema may not contain information for all the elements in all the devices supported by `cwcli export`. The AdditionalInformation tag addresses scenarios where the inventory schema does not have tags to define information that you want to collect for some of the elements in a particular device.

Q. How do I know what fields come under AdditionalInformation?

A. For this information, see the topic, Additional Information Table, in the RME Online Help.

Q. Where can I find information specific to a particular node which I can see in detailed device information but not in `cwcli export`?

A. For this information, see the topic, Additional Information Table, in the RME Online Help.

Q. How can I make use of the servlet interface?

A. You must write customized scripts which could connect to the servlet. The arguments and options have to be specified in XML format.

For more details, see the section, Using cwcli Commands in the RME Online Help.

Q. How can I get data for some particular entity from devices which are managed by different RME servers?

A. You have to write a script to connect to different RME servers and aggregate all data into a single file. After you get the aggregated data, you can parse it and get the data for any required entity.

Q. While using the `-m` option, can I use more than one E-mail id?

A. No. You can use only one E-mail address at a time, when you use the `-m` option of the `cwexport` command.

Q. Where can I get the descriptions of each node in the schema?

A. You can find the descriptions in the RME Online help. See the topic Overview: `cwcli export` and sub-topics.

- Q. Why am I getting parse error when trying to parse some of the output files?
- A. Some of the classes in IDU and Optical switches contains some special characters with ASCII code larger than 160. Most of the XML parsers does not support these characters and hence fails to parse these characters. To overcome this, you have to manually search for those elements with special characters and append CDATA as given in the example below:  
 If there is an element,  
`checksum <?xml /checksum`  
 you must change it to  
`checksum <![CDATA[ <?xml ]> /checksum`

## NetShow

This section provides the FAQs and troubleshooting information for the NetShow application:

- [NetShow FAQs](#)
- [Troubleshooting NetShow](#)

### NetShow FAQs

- [How can I add an adhoc command to only one particular device category in a command set?](#)
  - [How do I mask the credentials shown in NetShow job output?](#)
  - [Why am I not able to delete some adhoc commands?](#)
  - [What are the valid adhoc commands that I can enter?](#)
  - [Why are the system-defined command sets not displayed in the assign command sets flow?](#)
  - [What do I enter in the custom commands field during job creation?](#)
  - [Where can I specify the protocol order for NetShow?](#)
  - [Where can I specify the job policies for NetShow?](#)
  - [Why are the system-defined commands inside a command set, not shown based on device category?](#)
  - [How do I view the consolidated output of all the devices and the commands executed on these devices?](#)
  - [What is Output Archive?](#)
  - [When is the output of a command archived?](#)
  - [When I delete a job, does the corresponding archive also get deleted?](#)
  - [In the Output Archive page, what does Success = and Fail = under the heading Status mean?](#)
  - [Why do devices show Fail status in NetShow jobs?](#)
- Q. How can I add an adhoc command to only one particular device category in a command set?
- A. You need to choose that particular device category while creating the command and enter the adhoc command.
- Q. How do I mask the credentials shown in NetShow job output?
- A. You need to update the properties file  
`NMSROOT\MDC\tomcat\webapps\rme\WEB-INF\classes\com\cisco\nm`  
`\rmeng\config\netshow\NSCredCmds.properties` file  
 with the command for which the credentials are displayed.

We recommend that you enter the complete command in the file. For example, you must enter `show running-config`, not `show run`.

- Q. Why am I not able to delete some adhoc commands?
- A. You can delete adhoc commands only if they are not part of any command set. So in the Edit flow, you need to remove the command from the selected commands list and click **Finish**. Then you can edit the command set again and try deleting the adhoc command.
- Q. What are the valid adhoc commands that I can enter?
- A. `show`, `version`, `where`, `ping`, `traceroute`, and `?`. You can use the short forms of these commands. For example you can use `sh` for `show`.
- Q. Why are the system-defined command sets not displayed in the assign command sets flow?
- A. System-defined command sets are by default assigned to all. Since the system-defined command sets are already assigned to all users, they will not appear in the assign command sets flow.
- Q. What do I enter in the custom commands field during job creation?
- A. Enter the adhoc commands. These adhoc commands are downloaded on all devices even if a particular device does not support the command.
- Q. Where can I specify the protocol order for NetShow?
- A. See [Defining Protocol Order, page 11-46](#).
- Q. Where can I specify the job policies for NetShow?
- A. See [Job Options, page 11-14](#).
- Q. Why are the system-defined commands inside a command set, not shown based on device category?
- A. The system-defined commands do not map to a particular device category inside a command set. When you run a job, these commands will be downloaded on all applicable devices.
- Q. How do I view the consolidated output of all the devices and the commands executed on these devices?
- A. You can view the output of all the commands for all the devices by clicking the Print button on the top right hand corner of the NetShow Job Details page.
- Q. What is Output Archive?
- A. The Output Archive feature in NetShow helps you archive and access the stored output that is created from a NetShow job.
- The Output Archive will not display the Job Summary and Work Order details, to view these see [Viewing Job Details, page 11-7](#).
- Q. When is the output of a command archived?
- A. The command output is archived only if the job was executed completely. Cancelled jobs are not archived.
- Q. When I delete a job, does the corresponding archive also get deleted?
- A. No. If you want to delete an archive, you can do so from the Output Archive page.

- Q. In the Output Archive page, what does **Success** = and **Fail** = under the heading **Status** mean?
- A. It indicates the number of devices on which a particular command execution was successful and the number of devices on which it failed.
- Q. Why do devices show **Fail** status in NetShow jobs?
- A. A device will show **Fail** status if it is unreachable or if a single command execution fails.

### Troubleshooting NetShow

Message ID	Error Message	Probable Cause	Possible Action
NS0001	Could not get details for command set.	RMEDbEngine may be down.	Check whether RMEDbEngine is running properly. If not, restart it and try again.
NS0002	You have not selected a device category.	You did not select a device category while creating a new Command Set.	Select a device category in the Select Device Category page.
NS0003	You have not selected any command(s).	You did not select any command(s).	Selected any command(s) in the Select Commands page.
NS0004	Could not create Command Set. Check whether RMEDbEngine is running properly. If not, restart it and try again.	RMEDbEngine may be down.	Check whether RMEDbEngine is running properly. If not, restart it and try again.
NS0005	Could not edit Command Set. Check whether RMEDbEngine is running properly. If not, restart it and try again.	RMEDbEngine may be down.	Check whether RMEDbEngine is running properly. If not, restart it and try again.
NS0006	Edit operation not allowed for System-defined command sets. Select a User-defined command set to edit.	You may have tried to edit System-defined command sets.	You cannot edit System-defined command sets. Select a User-defined command set to edit.
NS0007	Adhoc command(s) are not valid.	You may have entered invalid adhoc command(s)	Enter valid adhoc commands. See the Online help for the list of valid adhoc commands. Separate multiple commands with commas.
NS0008	This operation is not allowed for System-defined command sets.	You may have tried to perform an invalid operation for the System-defined command sets.	Select a User-defined command set and continue to create or edit jobs.
NS0009	Command Set with this name already exists.	You may have entered an existing command set name.	Enter a unique command set name and continue to create the command set.
NS0010	You have not selected any adhoc command(s).	You may not have selected any adhoc command(s) while deleting command(s).	Select the command(s) to be deleted and continue with deleting the command set.



Message ID	Error Message	Probable Cause	Possible Action
NS0011	The command(s) are not deleted. This is because they may be system-defined or part of a command set or in the selected commands list.	You may have selected any of the following: <ul style="list-style-type: none"> <li>• System-defined command(s)</li> <li>• Command(s) that are part of a Command Set</li> <li>• Commands in the selected list</li> </ul>	Select a User-defined command(s) and continue.  Also check whether the adhoc command is in this command set or in any other command set.
NS0012	You have not specified any adhoc command(s). Enter the command(s) to be added.	You did not specify any adhoc command(s) while adding adhoc commands in the new command set.	Enter valid adhoc commands to be included in the command set and click <b>Add Adhoc</b> to include the adhoc command in the new command set.
NS0013	The username is invalid or not authorized.	You may have entered an invalid or unauthorized username while assigning command sets or showing assigned command sets.	Enter a valid or authorized username and continue to assign command sets or show assigned command sets.
NS0014	You have not selected a command set.	You did not select a command set.	Select a command set in the previous screen and continue to create or edit jobs.
NS0015	The username is invalid or not authorized. Command sets are not assigned to this user.	You may have selected an invalid or unauthorized user.  You may also have selected a user to whom no command sets are assigned.	Select a valid or authorized user. Also, select a user to whom command sets are assigned.
NS0016	Could not stop following job(s) {0}. This is because the job may have already completed.  You can only stop running jobs. See the Online help for details on stopping running jobs.	This is because you may have tried to stop a job has already completed.	You can only stop certain running jobs. See the Online help for details on stopping running jobs.
NS0017	Could not delete following jobs.	These jobs may be running.	You cannot delete running jobs.
NS0018	You cannot edit this job since the scheduled time has elapsed.	You have tried to edit a job whose scheduled completion time has elapsed.	You cannot edit a job that has already completed running.
NS0019	You have not selected any devices.	You have not selected any devices.	Select any device in the Select Devices and Command Sets screen and continue to create or edit jobs.
NS0020	You have not selected any command set or entered any adhoc commands.	You did not select any command set or enter any adhoc commands.	Select a command set or enter an adhoc command in the Select Devices and Command Sets screen and continue to create the job.

Message ID	Error Message	Probable Cause	Possible Action
NS0021	You are not authorized to run custom commands.	You do not have privileges to run custom commands.	You must get permission to run these commands.
NS0022	You have not selected any device or command sets. You also have not entered any custom commands.	You did not select any device or command sets. You also have not entered any custom commands.	Select at least one device and command set and enter custom commands.
NS0023	Job Approval is enabled. Do not select Immediate.	You may have enabled Job Approval and tried to schedule an immediate job.	Do not schedule an immediate job if you have already enabled job approval.
NS0024	You have entered a past date/time for creating the job.	You have entered a past date or time for creating a job.	Schedule this job to run either immediately or at a future date and time.
NS0025	Notification E-mail address is not valid.	You may have entered an invalid E-mail.	Enter the E-mail this format: a@b.c.
NS0026	Enter the Maker E-mail ID.	You may not have entered the Maker E-mail ID.	Enter the Maker E-mail ID.
NS0027	Maker E-mail address is not valid.	You may have entered an invalid Maker E-mail address.	Enter a valid Maker E-mail address.
NS0028	Could not create job.	CTMJrmServer and JRM processes may not be running properly.	Check whether CTMJrmServer and JRM processes are running properly. If not, restart them and try again.
NS0029	Could not delete the job(s)	You may have tried to delete a running job.	Try deleting the job after the job has completed running.
NS0030	Could not stop job.	You may have tried to stop jobs that are currently completed.	You cannot stop jobs that are already completed.
NS0031	Only one job can be stopped at a time.	You may have tried to stop more than one job at a time.	Select only one job and try to stop it.
NS0032	Could not get details for job.	CTMJrmServer and JRM processes may not be running properly.	Check whether CTMJrmServer and JRM processes are running properly. If not, restart it and try again.
NS0033	Error occurred while processing.	CTMJrmServer and JRM processes may not be running properly.	Check whether CTMJrmServer and JRM processes are running properly. If not, restart it and try again.
NS0034	Enter a value for the filter.	You may not have entered a value for the filter.	Select a value from the Filter by list and continue filtering the jobs.
NS0035	The device does not exist.	The device may not be managed through RME.	Add the device with proper credentials and try again.
NS0036	None of the device(s) have applicable commands.	You may have selected device(s) that do not have applicable commands.	Select device(s) that have applicable commands.

Message ID	Error Message	Probable Cause	Possible Action
NS0037	Could not delete the following archives.	The archives you are trying to delete, do not exist.	Some other user must have deleted the archive. Refresh the page to make sure that the archive has been deleted.
NS0038	Running job(s) cannot be deleted.	You may have tried to delete a running job.	You cannot delete a running job.
NS0039	Could not get details for the job.	CTMJrmServer and JRM processes may be down.	Check whether CTMJrmServer and JRM processes are running properly. If not, restart them and try again.
NS0040	Description cannot be more than 256 characters.	You may have tried to enter job description that has more than 256 characters.	Enter a description with less than 256 characters.
NS0041	Retry is not supported on periodic jobs.	You may have tried to retry a periodic job.	You can retry only immediate or non-periodic jobs.
NS0042	Cisco.com user credentials are not valid. Enter correct credentials.	The Cisco.com credentials entered are invalid.	Enter correct credentials.
NS0043	The Output Interpreter tool could not analyze the output.	This may be because caused by a problem while connecting to Cisco.com or with Cisco.com, itself.	Check whether Cisco.com connection is proper and try again.
NS0044	Enter the username.	You may not have entered a username while assigning command sets or showing assigned command sets.	Enter the username and continue to assign command sets or show assigned command sets.
NS0045	User is an administrator. All command sets are assigned to this user by default.	You may have tried to assign command sets to a user with Administrative privileges.	By default, all command sets are assigned to the Administrator.
NS0046	Enter job description.	You may not have entered the job description.	Enter a description for the job.
NS0047	Enter the login Username.	You may not have entered the device login username.	Enter the login username and continue to schedule the job.
NS0048	You have no jobs.	There are no jobs scheduled or running.	You can create new jobs using the NetShow job browser.
NS0049	You have no archives.	There are no job archives.	You can create new jobs using the NetShow job browser. The output of these jobs will be archived.
NS0050	You can retry only failed jobs.	You may have retried running or successful jobs.	You can retry only failed jobs.
NS0051	The job has already stopped.	You may have tried to stop a job that has already stopped.	Select a job that is running or scheduled to stop.

# Contract Connection

This section provides the FAQs and troubleshooting information for the Contract Connection application:

- [Contract Connection FAQs](#)
- [Troubleshooting Contract Connection](#)

## Contract Connection FAQs

- Q. Why does the Contract Status Detailed Report show no records for a valid contract?
- A. You may need to refresh the Contract Status Detailed Report page. It might take some time to display the report. This is because of slow Cisco.com response.

## Troubleshooting Contract Connection

Message ID	Error Message	Probable Cause	Possible Action
CCX0001	No device selected.	You may not have selected any device.	Select one or more devices and continue to generate the report.
CCX0002	Cisco.com user credentials are not valid.	You may not have entered valid Cisco.com credentials.	Enter correct Cisco.com credentials.
CCX0003	You have entered a past date/time for creating the job.	You have entered a past date or time for creating a job.	Schedule this job to run either immediately or at a future date and time.
CCX0004	Problem with posting and getting the results from Cisco.com. Try again later.	This may be caused by a problem while connecting to Cisco.com or with Cisco.com, itself.	Check the User Guide for more details on how to correct this.