



CHAPTER 26

Usage of GOLD in RME

This chapter consists of the following:

- [What is Gold?](#)
- [Types of Diagnostics](#)
- [Support for GOLD Tests in RME](#)

What is Gold?

GOLD (Generic OnLine Diagnostics) is a device-specific IOS feature with fault detection capabilities. It defines a common framework for diagnostic operations across Cisco platforms running Cisco IOS Software.



Note

Only Cisco Catalyst 6500 (IOS), 2900XL, 2970, 2960, 3550, 3560, 3750, and 3750E switches are supported.

It provides:

- Fault Detection framework
- Proactive Diagnostics to detect hardware and software failures

The GOLD framework specifies the platform-independent fault-detection architecture for centralized and distributed systems.

The platform-specific diagnostics provide hardware-specific fault-detection tests and take corrective action in response to diagnostics test results.

Diagnostics Operations

GOLD implementation checks the health of hardware components and verifies proper operation of the system data and control planes. Some tests take effect when the system starts, whereas other tests take effect when the system is running.

Types of Diagnostics

The diagnostics performed by GOLD (Generic OnLine Diagnostics) are:

- [Boot-Up Diagnostics](#)
- [Runtime Monitoring](#)

Boot-Up Diagnostics

A booting module goes through a series of checks before coming online. This allows the system to detect faults in the hardware components at boot-up time and helps to ensure that a failing module is not introduced in a live network.

When boot-up diagnostics detect a diagnostics failure on a Cisco Catalyst 6500 Series, the failing modules are shut down.

As an administrator, you can enable or disable the boot-level diagnostics. If you enable the boot level diagnostics, you can set the diagnostics levels to either complete or minimal.

Runtime Monitoring

Defects are also diagnosed during system operation or runtime. A series of diagnostics checks can be enabled to determine the condition of an online system. You must take care to distinguish between disruptive and non-disruptive diagnostics tests.

Although nondisruptive tests occur in the background and do not affect the system data or control planes, disruptive tests do affect live packet flows and should be scheduled during special maintenance windows.

The Runtime monitoring tests consist of [Health-monitoring Diagnostics Tests](#)

Health-monitoring Diagnostics Tests

Health-monitoring diagnostics tests are nondisruptive, and they run in the background while the system is in operation. The role of online diagnostics health monitoring is to proactively detect hardware failures in the live network environment and inform appropriate entities of a failure.

Health-monitoring tests do not affect system performance. However, software restricts the health-monitoring interval to a minimum threshold to prevent affecting the CPU performance.

When health monitoring tests detect several consecutive failures, they can reset a module. By default, health-monitoring tests include:

- Data verification
- Control Plane verification
- Verification of proper function of hardware registers

Support for GOLD Tests in RME

You can use RME to configure the following on Cisco Catalyst 6500, 2900XL, 2970, 2960, 3550, 3560, 3750, and 3750E Switches:

- Bootup Diagnostics
- Health Monitoring Diagnostics

You can use RME NetConfig Gold-specific tasks to configure the diagnostic tests on the Cisco Catalyst 6500 IOS switches, Cisco Catalyst 2900XL, 2970, 2960, 3550, 3560, 3750, and 3750E switches managed by RME.

This section consists of:

- [RME NetConfig Tasks for GOLD Tests](#)
- [Configuring GOLD Tests using RME](#)
- [GOLD Tests and RME Reports](#)
- [GOLD Tests and RME NetShow](#)

RME NetConfig Tasks for GOLD Tests

You can configure GOLD tests using NetConfig tasks available for this purpose. The GOLD-specific NetConfig tasks are:

- [GOLD Boot Level Task](#)
- [GOLD Monitoring Test Task](#)

GOLD Boot Level Task

You can use this task to configure Boot Level Diagnostic tests on the following device category:

Cisco Catalyst 6500 devices

For more details, see [NetConfig System-Defined Tasks Supported by the RME 4.2 Device Categories](#).

You can enter the details for this task in the GOLD Boot Level Configuration dialog box. (To invoke this dialog box, see [Starting a New NetConfig Job](#).)

For the features of system-defined tasks and a description of a system-defined task dialog box, see [Understanding the System-defined Task User Interface \(Dialog Box\)](#).

The fields in the GOLD Bootup Level Configuration dialog box are:

Field/Button	Description
Action	Select either Enable to enable the actions or Disable to disable the actions
Level	Select either Complete to set the boot level to Complete or Minimal to set the boot level to Minimal This option is activated only if the Action option is enabled. This option is not activated, if you have selected Disable in the Action field.
Save	Saves the information you have specified.
Reset	Clears all fields and reverts to the default setting.
Cancel	Ignores your changes.

GOLD Monitoring Test Task

You can use this task to configure GOLD Monitoring tests on the following device categories:

- Cisco Catalyst 6500 IOS switches
- Cisco Catalyst 2900XL, 2970, 2960, 3550, 3560, 3750, and 3750E Switches

For more details, see [NetConfig System-Defined Tasks Supported by the RME 4.2 Device Categories](#).

You can enter the details of this task in the GOLD Monitoring Tests Configuration dialog box. To invoke this dialog box, see [Starting a New NetConfig Job](#).

For the features of system-defined tasks and a description of the features of a system-defined task dialog box, see [Understanding the System-defined Task User Interface \(Dialog Box\)](#).

The fields in the GOLD Monitoring Test Configuration dialog box are:

Pane	Description
GOLD Monitoring Test Configuration	
Configuring Health Monitoring Diagnostics	
Action	Select any of the following: <ul style="list-style-type: none"> • Add Interval - To add an interval • No Interval - To not to add an interval • No Change - No change to the Action
Enter Vendor Type or Name	Enter the Vendor type or Module Name. You can enter one or more comma separated module names. Example: cevCat6kVsS72010G This is a mandatory field and is available only if you select Cisco Catalyst 6500 devices.
Enter Switch ID	Enter the Switch ID. You can enter a single switch ID or a number of switch IDs separated by comma. Example 1: Enter 2 if you want to include switch with ID 2. Example 2: Enter 3, 6 if you want to include switches with IDs 3 and 6. This is a mandatory field and is available only if you select Cisco Catalyst 2900XL, 2970, 2960, 3550, 3560, 3750, or 3750E stack switches.
Enable/Disable Health Monitoring Diagnostics Test	
Action	Select any of the following: <ul style="list-style-type: none"> • Enable - To start the Health Monitoring tests • Disable - To stop the running Health Monitoring tests. The tests once stopped, will not start again until the Action is enabled. • No Change - No change to Action

Pane	Description
Test Details	
All	Allows you to configure all diagnostic tests.
Enter Testnames	Allows you to manually enter the test names. Enter one or more test names separated by comma. This option is activated only if the Enable Action is selected.
Range	Allows you to enter a range for tests to be run. This option is activated only if the Enable Action is selected. Example: Enter 2-8 if you want to run tests with IDs from 2 to 8.
Configure Health Monitoring Interval	
No. of Days	Enter the number of days till which you require the tests to be run on the devices. The number of days can be any value between 0 - 20. The default value is 1 day.
Hours	Select the hour frequency at which the tests should be run. The hour value can be any value between 00 and 23. This is a mandatory field if Add Interval is the Action.
Minutes	Select the minute frequency at which the tests should be run. The minute value can be any value between 00 and 59. This is a mandatory field.
Seconds	Enter the seconds frequency at which the tests should be run. The second value can be any value between 00 and 59. This is a mandatory field if Add Interval is the Action.
Milliseconds	Enter the millisecond frequency at which the tests should be run. The millisecond value can be any value between 0 and 999. This is a mandatory field if Add Interval is the Action.
Applicable Devices	Allows you to view the IOS devices in your selection that you want to monitor with GOLD Monitoring Tests.
Save	Saves the information you have specified.
Reset	Clears all fields and reverts to the default setting.
Cancel	Ignores your changes.

Configuring GOLD Tests using RME

You can configure the following GOLD Tests using RME NetConfig:

- GOLD Boot Level Tests, see [Configuring GOLD Boot Level Tests](#)
- GOLD Monitoring Tests, see [Configuring GOLD Monitoring Tests](#)

Configuring GOLD Boot Level Tests

To configure GOLD tests using RME:

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- Step 1** Select **Resource Manager Essentials > Config Mgmt > NetConfig > NetConfig Jobs**.
The NetConfig Job Browser appears.
For the fields in the NetConfig Job Browser, see [Browsing and Editing Jobs Using the NetConfig Job Browser](#).
- Step 2** Click **Create**.
The Devices and Tasks dialog box appears.
- Step 3** Select the devices from the Device Selector pane.
For more information on the device selector, see the topic [Using RME Device Selector](#) in the section [Adding and Troubleshooting Devices Using Device Management](#).
- Step 4** Select the GOLD Boot Level task, using the Task Selector.
- Step 5** Click **Next**.
The Add Tasks dialog box appears.
- Step 6** Select **GOLD Boot Level** from the Applicable Tasks pane and click **Add Instances**.
The GOLD Boot Level Configuration dialog box appears. For more information on the fields in the GOLD Boot Level Configuration dialog box, see [GOLD Boot Level Task](#).
- Step 7** Set the parameters in the task dialog box and click **Save**.
To reset the values that you have selected click **Reset**. Click **Cancel** to return to the previous dialog box, without saving your changes.
You will see the instance of the task in the Added Tasks pane of the Add Tasks dialog box. The instance appears in this format:
Taskname_n, where *Taskname* is the name of the task you have added, and *n* is the number of the instance. For example, the first instance of a GOLD Boot Level task is Gold Boot Level_1.
You can add as many instances as required, for a task.
- Step 8** Click **Next**.
The Job Schedule and Options dialog box appears with these panes:

Pane	Description
Scheduling	Allows you to schedule the job.
Job Options	Allows you to set the job options.

Step 9 Set the schedule for the job, in the Scheduling pane:

Field	Description
Scheduling	
Run Type	Select the run type or frequency for the job—Immediate, Once, Daily, Weekly, Monthly, or Last Day of Month. If Job Approval is enabled, the Immediate option is not available.
Date	Select the start date for the job.
at	Select the start time for the job from the hour and minute drop-down lists.
Job Info	
Job Description	Enter the Job Description. Enter unique descriptions to help you to identify jobs easily. This is mandatory.
E-mail	Enter e-mail addresses to which the job will send status notices. Separate multiple addresses with commas or semicolons. You must configure the SMTP server to send e-mails (Common Services > Server > Admin > System Preferences). If the user who has created the job has a valid e-mail address, an e-mail notification is sent with the user's address in the sender address field, when job is started and completed. If the user who has created the job does not have a valid e-mail address, then the notification e-mails will be sent with the sender address field blank. Notification e-mails include a URL that displays the job details (see Viewing Job Details for the more information about what details are displayed). If you are not logged in, you must log in using the provided login panel to view the job details.
Comments	Enter your comments for the job. Comments appear in the work order of the job and are stored in the configuration archive.
Approver Comments	Enter comments for the Job Approver. This field is displayed only if you have enabled Job Approval for NetConfig. For more details see the section Enabling Approval and Approving Jobs Using Job Approval .
Maker E-mail	Enter the e-mail-ID of the job creator. This field is displayed only if you have enabled Job Approval for NetConfig. This is a mandatory field. For more details see the section Enabling Approval and Approving Jobs Using Job Approval .

Step 10 Set the job options, in the Job Options pane.

Option	Description
Fail on Mismatch of Config Versions	Causes the job to be considered as failed when the most recent configuration version in the configuration archive is not identical to the most recent configuration version that was in the configuration archive when you created the job.
Sync Archive before Job Execution	Causes the job to archive the running configuration before making configuration changes.
Copy Running Config to Startup	Causes the job to write the running configuration to the startup configuration on each device after configuration changes are made successfully. Does not apply to Catalyst OS devices.

Option	Description
Enable Job Password	
Login Username	<p>Enter the Login username. This option is available if you have set the appropriate job password policy in the Configuration Management module.</p> <p>This overrides the credentials that you had entered when you added the device in the Device and Credentials Administration module of Common Services.</p>
Login Password	<p>Enter the Login password. This option is available if you have set the appropriate job password policy in the Configuration Management module.</p> <p>This overrides the credentials that you had entered when you added the device in the Device and Credentials Administration module of Common Services.</p>
Enable Password	<p>Enter the Enable password. This option is available if you have set the appropriate job password policy in the Configuration Management module.</p> <p>This overrides the credentials that you had entered when you added the device in the Device and Credentials Administration module of Common Services.</p>

Option	Description
Failure Policy	<p>Select one of these options to specify what the job should do if it does not run on a device.</p> <ul style="list-style-type: none"> • Stop on failure: If the job does not run on a device, the job is stopped. The database is updated only for the devices on which the job was run successfully. • Ignore failure and continue If the job fails on a device, the job skips the device and continues running on the remaining devices. The database is updated only for the devices on which the job was run successfully. • Rollback device and stop Rolls back the changes on the failed device and stops the job. • Rollback device and continue Rolls back the changes on the failed device and continues the job. • Rollback job on failure Rolls back the changes on all devices and stops the job. Roll back configuration changes to failed device or all devices configured by job (see Configuring a Job to Roll Back on Failure.)
Execution	<p>Specify the order in which the job should run on the devices.</p> <ul style="list-style-type: none"> • Parallel Allows the job to run on multiple devices at the same time. By default, the job runs on five devices at a time. • Sequential Allows the job to run on only one device at a time. If you select sequential execution, you can click Set Device Order to set the order of the devices. In the Device Ordering dialog box: <ul style="list-style-type: none"> a. Select a device name b. Click Move Up or Move Down to change its place in the order. c. Click OK to save the current order and close the dialog box <p>or</p> <p>Click Cancel to close the dialog box without making any changes.</p>

Step 11 Click **Device Order** to view the device order.

The Set Device Order pop-up appears. You can reset the order in which the job should be run on the devices using the Up and Down arrows.

Step 12 Click **Done** after re-ordering the devices.

The pop-up closes.

Step 13 Click **Next**.

The Job Work Order dialog box appears with information about the job policies, the job approval details (if you have enabled Job Approval), the device details, and the task. It also displays details of the CLI commands that will be run on the selected devices as part of this job.

- Step 14** Click **Finish** after you review the details of your job in the Job Work Order dialog box. A notification message appears along with the Job ID. The newly created job appears in the NetConfig Job Browser.

Configuring GOLD Monitoring Tests

To configure GOLD Monitoring tests using RME:

- Step 1** Go to **Resource Manager Essentials > Config Mgmt > NetConfig > NetConfig Jobs**.
The NetConfig Job Browser appears.
For the fields in the NetConfig Job Browser, see [Browsing and Editing Jobs Using the NetConfig Job Browser](#).
- Step 2** Click **Create**.
The Devices and Tasks dialog box appears.
- Step 3** Select the devices from the Device Selector pane.
For more information on device selector, see the topic [Using RME Device Selector](#) in the section [Adding and Troubleshooting Devices Using Device Management](#).
- Step 4** Select the GOLD Monitoring Tests task, using the Task Selector.
- Step 5** Click **Next**.
The Add Tasks dialog box appears.
- Step 6** Click **Add Instances**.
The GOLD Boot Level Configuration dialog box appears.
For more information on the fields, see [GOLD Monitoring Test Task](#).
- Step 7** Set the parameters in the task dialog box and click **Save**.
To reset the values that you have selected click **Reset**. Click **Cancel** to return to the previous dialog box, without saving your changes.
You will see the instance of the task in the Added Tasks pane of the Add Tasks dialog box. The instance appears in this format:
Taskname_n, where *Taskname* is the name of the task you have added, and *n* is the number of the instance. For example, the first instance of a GOLD Monitoring task is `Gold Monitoring Tests_1`.
You can add as many instances as required, for a task.
- Step 8** Click **Next**.
The Job Schedule and Options dialog box appears with these panes:

Pane	Description
Scheduling	Allows you to schedule the job.
Job Options	Allows you to set the job options.

Step 9 Set the schedule for the job, in the Scheduling pane:

Field	Description
Scheduling	
Run Type	Select the run type or frequency for the job—Immediate, Once, Daily, Weekly, Monthly, or Last Day of Month. If Job Approval is enabled, the Immediate option is not available.
Date	Select the start date for the job.
at	Select the start time for the job from the hour and minute drop-down lists.
Job Info	
Job Description	Enter the Job Description. Enter unique descriptions to help you to identify jobs easily. This is mandatory.
E-mail	Enter e-mail addresses to which the job will send status notices. Separate multiple addresses with commas or semicolons. You must configure the SMTP server to send e-mails (Common Services > Server > Admin > System Preferences). If the user who has created the job has a valid e-mail address, an e-mail notification is sent with the user's address in the sender address field, when job is started and completed. If the user who has created the job does not have a valid e-mail address, then the notification e-mails will be sent with the sender address field blank. Notification e-mails include a URL that displays the job details (see Viewing Job Details for the more information about what details are displayed). If you are not logged in, you must log in using the provided login panel to view the job details.
Comments	Enter your comments for the job. Comments appear in the work order of the job and are stored in the configuration archive.
Approver Comments	Enter comments for the Job Approver. This field is displayed only if you have enabled Job Approval for NetConfig. For more details see the section Enabling Approval and Approving Jobs Using Job Approval .
Maker E-mail	Enter the e-mail-ID of the job creator. This field is displayed only if you have enabled Job Approval for NetConfig. This is a mandatory field. For more details the section Enabling Approval and Approving Jobs Using Job Approval .

Step 10 Set the job options, in the Job Options pane.

Field	Description
Fail on Mismatch of Config Versions	Causes the job to be considered as failed when the most recent configuration version in the configuration archive is not identical to the most recent configuration version that was in the configuration archive when you created the job.
Sync Archive before Job Execution	Causes the job to archive the running configuration before making configuration changes.
Copy Running Config to Startup	Causes the job to write the running configuration to the startup configuration on each device after configuration changes are made successfully. Does not apply to Catalyst OS devices.
Enable Job Password	
Login Username	Enter the Login Username. This option is available to you if you have set the appropriate job password policy in the Configuration Management module. This overrides the credentials that you have entered at the time of adding the device in the Device and Credentials Administration module of Common Services.
Login Password	Enter the job password. This option is available to you if you have set the appropriate job password policy in the Configuration Management module. This overrides the credentials that you had entered when you added the device in the Device and Credentials Administration module of Common Services.

Field	Description
Enable Password	<p>Enter the Enable password. This option is available if you have set the appropriate job password policy in the Configuration Management module.</p> <p>This overrides the credentials that you had entered when you added the device in the Device and Credentials Administration module of Common Services.</p>
Failure Policy	<p>Select one of these options to specify what the job should do if it does not run on a device.</p> <ul style="list-style-type: none"> • Stop on failure: <p>If the job does not run on a device, the job is stopped. The database is updated only for the devices on which the job was run successfully.</p> • Ignore failure and continue <p>If the job fails on a device, the job skips the device and continues running on the remaining devices. The database is updated only for the devices on which the job was run successfully.</p> • Rollback device and stop <p>Rolls back the changes on the failed device and stops the job.</p> • Rollback device and continue <p>Rolls back the changes on the failed device and continues the job.</p> • Rollback job on failure <p>Rolls back the changes on all devices and stops the job. Roll back configuration changes to failed device or all devices configured by job (see Configuring a Job to Roll Back on Failure.)</p>
Execution	<p>Specify the order in which the job should run on the devices.</p> <ul style="list-style-type: none"> • Parallel <p>Allows the job to run on multiple devices at the same time. By default, the job runs on five devices at a time.</p> • Sequential <p>Allows the job to run on only one device at a time. If you select sequential execution, you can click Set Device Order to set the order of the devices. In the Device Ordering dialog box:</p> <p>In the Device Ordering dialog box:</p> <ol style="list-style-type: none"> a. Select a device name b. Click Move Up or Move Down to change its place in the order. c. Click OK to save the current order and close the dialog box <p>or</p> <p>Click Cancel to close the dialog box without making any changes.</p>

Step 11 Click **Device Order** to view the device order.

The Set Device Order pop-up appears. You can reset the order in which the job should be run on the devices, using the Up and Down arrows.

Step 12 Click **Done** after re-ordering the devices.

The pop-up closes.

Step 13 Click **Next**

The Job Work Order dialog box appears with information about the job policies, the Job Approval details (if you have enabled Job Approval), the device details, and the task. It also displays details of the CLI commands that will be run on the selected devices as part of this job.

Step 14 Click **Finish** after you review the details of your job in the Job Work Order dialog box.

A notification message appears along with the Job ID. The newly created job appears in the NetConfig Job Browser.

GOLD Tests and RME Reports

You can use RME Custom Reports along with Syslogs to generate GOLD test reports.

Before you generate reports, you need to configure those devices on which GOLD tests are configured, to send Syslog messages to the LMS server.

Each device sends out Syslog messages after running each diagnostic test. You can identify the GOLD Syslog messages, based on their facility names. The facility names for GOLD Syslog messages will consist of DIAG or CONST-DIAG.

You can use the Syslog GOLD Custom report to ascertain the results of the test run on each device.

To generate this custom report, see [Overview: Syslog Analyzer Reports](#). The fields in the generated Syslog GOLD Custom Report are given below:

Field	Description
Device Name	Name of the device generating the Syslog message.
Interface	Name or IP Address of the interface in that device generating the Syslog message.
Timestamp	Time when the Syslog message was generated. The format used by timestamp is: <code>mmm dd yyyy hh:mm:ss</code> where: <code>mmm</code> represents month <code>dd</code> represents date <code>yyyy</code> represents year <code>hh</code> represents hour <code>mm</code> represents minute <code>ss</code> represents second Example: <code>Nov 18 2008 12:24:36</code>

Field	Description
Facility/Sub Facility	<p>Displays the facility or sub-facility codes.</p> <p>A facility is a hardware device, a protocol, or a module of the system software.</p> <p>See System Error Messages in the Cisco IOS Reference manual, for a predefined list of system facility codes.</p> <p>A sub-facility is the sub-facility in the device that generates the Syslog message.</p>
Severity	<p>Displays the message severity levels.</p> <p>Representations for the severity codes are:</p> <p>0—Emergencies</p> <p>1—Alerts</p> <p>2—Critical</p> <p>3—Errors</p> <p>4—Warnings</p> <p>5—Notifications</p> <p>6—Informational</p>
Mnemonics	<p>Codes that uniquely identifies an error message.</p> <p>Example:</p> <p>TEST_RUNNING</p> <p>TEST_OK</p>
Description	Description of each Syslog message.
Details	Other details for each Syslog message.

GOLD Tests and RME NetShow

RME NetShow allows you to generate reports based on various commandsets. You can use RME NetShow to generate:

- [Report on Configured GOLD Tests on each Device](#)
- [Detailed Report of All the GOLD Test Results](#)

Report on Configured GOLD Tests on each Device

Use RME NetShow to view the list of GOLD tests configured on each device.

The commandset which is used for this purpose is Show Configured GOLD Tests Info.

This commandset consists of the following commands:

```
show diagnostic content all
show diagnostic schedule module all
show diagnostic schedule switch all
show diagnostic status
show diagnostic bootup level
show diagnostic ondemand settings
show diagnostic content module all
```

To generate this report:

-
- Step 1** Select **Resource Manager Essentials > Tools > NetShow > NetShow Jobs**.
The NetShow Job Browser window appears.
- Step 2** Click **Create** .
The Select Devices and Commandsets window appears.
- Step 3** Select the devices from the Device Type Selector.
- Step 4** Select **Show Configured GOLD Tests Info** commandset from the Commandset List.
- Step 5** Enter the custom commands in the Custom Commands text area if required.
- Step 6** Click **Next** to continue.
The Set Schedule Options dialog box appears.
- Step 7** Enter the following information in the Set Schedule Options dialog box:

Field	Description
Scheduling	
Run Type	<p>The run type of the job. The Run Types could be any or all of these, depending on the type of the job:</p> <ul style="list-style-type: none"> • Immediate—Runs the job immediately. • Once—Once at the specified date and time. • 6 -hourly—Every 6 hours, starting from the specified time. • 12 -hourly—Every 12 hours, starting from the specified time. • Daily—Daily at the specified time. • Weekly—Weekly on the day of the week and at the specified time. • Monthly—Monthly on the day of the month and at the specified time. • Last day of Month—On the last day of the month at the specified time. <p>The subsequent instances of periodic jobs will run only after the earlier instance of the job is complete.</p> <p>For example, if you have scheduled a daily job at 10:00 a.m. on November 1, the next instance of this job will run at 10:00 a.m. on November 2 only if the earlier instance of the November 1 job has completed. If the 10.00 a.m. November 1 job has not completed before 10:00 a.m. November 2, the next job will start only at 10:00 a.m. on November 3.</p>
Date	Scheduled date and time of the job.
Job Information	
Job Description	Enter the Job Description. Enter unique descriptions to help you to identify jobs easily. This is mandatory.
E-mail	<p>Enter the e-mail addresses to which the job sends messages at the beginning and at the end of the job.</p> <p>You can enter multiple e-mail addresses; separate these addresses by commas.</p> <p>Configure the SMTP server to send e-mails in the View / Edit System Preferences dialog box (Common Services > Server > Admin > System Preferences).</p> <p>We recommend that you configure the CiscoWorks E-mail ID in the View / Edit System Preferences dialog box (Common Services > Server > Admin > System Preferences). When the job starts or completes, an e-mail is sent with the CiscoWorks E-mail ID as the sender's address.</p>

Field	Description
Comments	Enter your comments for the job. Comments appear in the Job Work Order.
Job Options	
Enable Job Password	<ul style="list-style-type: none"> If you have enabled the Enable Job Password option and disabled the User Configurable option in the Job Policy dialog box (Resource Manager Essentials > Admin > Config Mgmt > Config Job Policies) enter the device login user name and password and Device Enable password. If you have enabled the Enable Job Password option and enabled the User Configurable option in the Job Policy dialog box (Resource Manager Essentials > Admin > Config Mgmt > Config Job Policies) either: <ul style="list-style-type: none"> Enter the device login user name and password and Device Enable password. The credentials are for contacting the device and not the DCR credentials. <p>Or</p> <ul style="list-style-type: none"> Disable the Job Password option in the Set Schedule Options dialog box.
Execution	Specify the order in which the job should run on the devices. <ul style="list-style-type: none"> Parallel—Allows the job to run on multiple (up to five) devices at the same time. Sequential—Allows the job to run on only one device at a time.
MakerComments	This field appears if you have enabled Job Approval Policies for NetShow. Enter the Maker Comments. See Setting Up Job Approval for more details on enabling Job Approval Policies.
Maker E-mail	This field appears if you have enabled Job Approval Policies for NetShow. Enter the Maker E-mail address. This is mandatory. See Setting Up Job Approval for more details on enabling Job Approval Policies.

Step 8 Click **Next**.

The View Job Work Order page appears with the Job Work Order.

The Job Work Order contains general information on the job and on:

- Job policies.
- Job Approval details (if you have enabled Job Approval).
- Device details.
- Command sets and the commands to be executed.

Step 9 Click **Finish** after you review the details of your job in the Job Work Order.

A message appears, *Job ID created successfully*.

The newly created job appears in the NetShow Job Browser.

If your job failed and you want to run the same job, click **Retry** and perform steps 7 through 9 above.

Step 10 Click on the Job ID to view the results of the NetShow job created.

When a NetShow job is created for the commandset **Show Configured GOLD Tests Info**, It fails for any kind of devices that are selected. For each device that is selected in the job, only a particular command in the commandset is successful. Other commands fail and hence the job fails.

Example:

The command `show diagnostic bootup level` will be successful for a Cisco Catalyst 6000 device but will fail for Stack and Non Stack devices.

Detailed Report of All the GOLD Test Results

Use RME NetShow to view a detailed report of the GOLD test results.

The commandset which is used for this purpose is Show GOLD Test Results.

This commandset consists of the following two commands:

```
show diagnostic result switch all detail
```

```
show diagnostic result all
```

To generate this report:

-
- Step 1** Select **Resource Manager Essentials > Tools > NetShow > NetShow Jobs**.
The NetShow Job Browser window appears.
 - Step 2** Click **Create** .
The Select Devices and Commandsets window appears.
 - Step 3** Select the devices from the Device Type Selector.
 - Step 4** Select **Show GOLD Test results** commandset from the Commandset List
 - Step 5** Enter Custom Commands in the Custom Commands text area if required.
 - Step 6** Click **Next** to continue.
The Set Schedule Options dialog box appears.
 - Step 7** Enter the following information in the Set Schedule Options dialog box:

Field	Description
Scheduling	
Run Type	<p>The run type of the job. The Run Types could be any or all of these, depending on the type of the job:</p> <ul style="list-style-type: none"> • Immediate—Runs the job immediately. • Once—Once at the specified date and time. • 6 -hourly—Every 6 hours, starting from the specified time. • 12 -hourly—Every 12 hours, starting from the specified time. • Daily—Daily at the specified time. • Weekly—Weekly on the day of the week and at the specified time. • Monthly—Monthly on the day of the month and at the specified time. • Last day of Month—On the last day of the month at the specified time. <p>The subsequent instances of periodic jobs will run only after the earlier instance of the job is complete. For example, if you have scheduled a daily job at 10:00 a.m. on November 1, the next instance of this job will run at 10:00 a.m. on November 2 only if the earlier instance of the November 1 job has completed. If the 10.00 a.m. November 1 job has not completed before 10:00 a.m. November 2, the next job will start only at 10:00 a.m. on November 3.</p>

Field	Description
Date	Scheduled date and time of the job.
Job Information	
Job Description	Enter a description for the job. This is mandatory. You can enter only alphanumeric characters.
E-mail	<p>Enter the e-mail addresses to which the job sends messages at the beginning and at the end of the job. You can enter multiple e-mail addresses; separate these addresses by commas.</p> <p>Configure the SMTP server to send e-mails in the View / Edit System Preferences dialog box (Common Services > Server > Admin > System Preferences).</p> <p>We recommend that you configure the CiscoWorks E-mail ID in the View / Edit System Preferences dialog box (Common Services > Server > Admin > System Preferences). When the job starts or completes, an e-mail is sent with the CiscoWorks E-mail ID as the sender's address.</p>
Comments	Enter your comments for the job. Comments appear in the Job Work Order.
Job Options	
Enable Job Password	<ul style="list-style-type: none"> If you have enabled the Enable Job Password option and disabled the User Configurable option in the Job Policy dialog box (Resource Manager Essentials > Admin > Config Mgmt > Config Job Policies) enter the device login user name and password and Device Enable password. If you have enabled the Enable Job Password option and enabled the User Configurable option in the Job Policy dialog box (Resource Manager Essentials > Admin > Config Mgmt > Config Job Policies) either: <ul style="list-style-type: none"> Enter the device login user name and password and Device Enable password. The credentials are for contacting the device and not the DCR credentials. <p>Or</p> <ul style="list-style-type: none"> Disable the Job Password option in the Set Schedule Options dialog box.
Execution	<p>Specify the order in which the job should run on the devices.</p> <ul style="list-style-type: none"> Parallel—Allows the job to run on multiple (up to five) devices at the same time. Sequential—Allows the job to run on only one device at a time.
Maker Comments	This field appears if you have enabled Job Approval Policies for NetShow. Enter the Maker Comments. See Setting Up Job Approval for more details on enabling Job Approval Policies.
Maker E-mail	This field appears if you have enabled Job Approval Policies for NetShow. Enter the Maker E-mail address. This is mandatory. See Setting Up Job Approval for more details on enabling Job Approval Policies.

Step 8 Click Next.

The View Job Work Order page appears with the Job Work Order.

The Job Work Order contains general information on the job and on the:

- Job policies.
- Job approval details (if you have enabled job approval).
- Device details.
- Command Sets and the commands to be executed.

Step 9 Click **Finish** after you review the details of your job in the Job Work Order.

A message appears, *Job ID created successfully*.

The newly created job appears in the NetShow Job Browser.

If your job failed and you want to run the same job, click **Retry** and perform steps 7 through 9 above.

Step 10 Click on the Job ID to view the results of the NetShow job created.

When a NetShow job is created for the commandset **Show GOLD Test Results**, It fails for any kind of devices that are selected. For each device that is selected in the job, only a particular command in the command set is successful. Other commands fail and hence the job fails.

Example:

The command `show diagnostic result switch all detail` will be successful for Stack devices but will fail for Cisco Catalyst 6000 devices and Non Stack devices.