

**CHAPTER 12** 

# Viewing Administrative Information from the Web Interface

To access the Administrative page of the MWTM web interface, click **Administrative** in the navigation tree in the left pane. The right pane displays the following tabs:

- General
- SNMP
- Credentials
- Discovery
- Inventory Import
- User Management

#### This chapter contains:

- Viewing General Tab Details, page 12-2
- Viewing SNMP Tab Details, page 12-19
- Viewing Credentials Tab Details, page 12-21
- Viewing Discovery Tab Details, page 12-24
- Viewing Inventory Import Tab Details, page 12-29
- Viewing User Management Tab Details, page 12-30



If MWTM User-Based Access is enabled, only users with authentication level 3 (Network Operator) and higher can see all options. Users of all other levels see only the System Information and System Status panes (except License Information and Chassis Inventory (7600/SAMI) Report).

# **Viewing General Tab Details**

The MWTM web interface **General** tab provides access to MWTM system information, including messages, logs, status, and properties. To view the General tab information, click **Administrative** in the navigation tree and then click **General** tab in the right pane. This tab displays the information indicated in the following table.

Pane	GUI Elements	Description	Reference
System Status	<ul> <li>System Status</li> <li>System Versions</li> <li>System Check</li> <li>Connected Clients</li> <li>License Information</li> <li>Chassis Inventory (7600/SAMI) Report</li> </ul>	Shows the output of these system commands:  • mwtm status  • mwtm version  • sgmCheckSystemLog.txt  • mwtm who  • mwtm licenseinfo  • mwtm chassisinventory	For details, see Viewing System Status Information, page 12-8.
System Messages	<ul> <li>Info Messages</li> <li>Error Messages</li> <li>User Actions</li> <li>Message Archives</li> <li>Console Log Archives</li> </ul>	Shows tabular information about different types of system messages.	For details, see Viewing System Messages, page 12-3.
Properties	<ul><li>System</li><li>Server</li><li>WebConfig</li><li>Reports</li><li>Trap Forwarding</li></ul>	Shows the contents of these system property files:  • System.properties  • Server.properties  • WebConfig.properties  • Reports.properties  • TrapForwarder.properties	For details, see Viewing System Properties, page 12-14.
System Logs	<ul> <li>Install Log</li> <li>Console Log</li> <li>Backup Log</li> <li>Command Log</li> <li>Troubleshooting Log</li> <li>Event Automation Log</li> <li>Security Log</li> <li>Web Access Log</li> <li>Web Error Log</li> <li>Report Log</li> <li>ITP Report Timers</li> </ul>	Shows the contents of these system logs:  • sgmConsoleLog.txt  • mwtmBackupLog.txt  • sgmCommandLog.txt  • sgmTroubleshootLog.txt  • eventAutomationLog.txt  • sgmSecurityLog.txt  • cisco_sgmsvr_install.log  • access_log  • error_log  • sgmReportLog.txt	For details, see Viewing System Logs, page 12-9.

The General tab displays the following:

- Viewing System Messages, page 12-3
- Viewing System Status Information, page 12-8
- Viewing System Logs, page 12-9
- Viewing Properties, page 12-13

# **Viewing System Messages**

You can view the following MWTM system messages from the MWTM web interface by clicking **Administrative** in the navigation tree in the left pane and then clicking **General** tab in the right pane:



These messages are related to the MWTM system itself, not to your network.

- Viewing Info Messages, page 12-3
- Viewing Error Messages, page 12-4
- Viewing MWTM User Action Messages, page 12-4
- Viewing All Archived MWTM Messages, page 12-6
- Viewing Console Log Archived Messages, page 12-7

#### **Viewing Info Messages**

You can view info messages by clicking **Administrative > General > Info Messages**, or **Info** from the web page menu bar, if visible.

The System Messages: Last *number* Info Messages page shows informational messages in the MWTM system log. These messages can be useful when diagnosing and correcting MWTM operational problems.

The Last Info Messages table contains:

Column	Description	
Period (in heading)	Collection period of the table, such as Since Server Restart.	
Timestamp (in heading)	Date and time the MWTM last updated the information on the page.	
Row	Unique number identifying each entry in the table. You cannot edit this field.	
Time	Date and time the message was logged.	
	To sort the messages by time, click the Time heading.	
Source	Source for the message, with the format <i>process.host.id</i> , where:	
	• process is the process that logged the message.	
	• host is the hostname of the process that logged the message.	
	• <i>id</i> is an MWTM ID that uniquely identifies the process that logged the message; or in the event that two or more clients are running on the same node, connected to the same MWTM server.	

Column	Description	
Task	Task, or thread, that logged the message.	
Message	Text of the message.	
	To sort the messages alphabetically by message text, click the Message heading.	

#### **Viewing Error Messages**

The System Messages: Last *number* Error Messages page shows error messages stored in the MWTM system log. These messages can be useful when diagnosing and correcting MWTM operational problems.

To access this page, click:

- Administrative > General > Error Messages.
- Error from the web page menu bar, if visible.

The Last Error Messages table contains:

Column	Description	
Period (in heading)	Collection period of the table, such as Since Server Restart.	
Timestamp (in heading)	Date and time the MWTM last updated the information on the page.	
Row	Unique number identifying each entry in the table. You cannot edit this field.	
Time	Date and time the message was logged.	
	To sort the messages by time, click the Time heading.	
Source	Source for the message, with the format process.host.id, where:	
	• process is the process that logged the message.	
	• <i>host</i> is the hostname of the process that logged the message.	
	• <i>id</i> is an MWTM ID that uniquely identifies the process that logged the message; or in the event that two or more clients are running on the same node, connected to the same MWTM server.	
Task	Task, or thread, that logged the message.	
Message	Text of the message.	
	To sort the messages alphabetically by message text, click the Message heading.	

# **Viewing MWTM User Action Messages**

The System Messages: Last *number* Action Messages page shows user action messages stored in the MWTM system log. These messages can be useful when diagnosing and correcting MWTM operational problems, and when monitoring audit trails of user actions.

To access this page, use one of these procedures. Click:

- Administrative > General > User Actions.
- Action from the web page menu bar, if visible.

The MWTM shows the System Messages: Last *number* Action Messages page. The System Messages: Last *number* Action Messages page has these sections:

- Last Action Messages Menu, page 12-5
- Last Action Messages Table, page 12-5

#### **Last Action Messages Menu**

By default, the MWTM shows action messages of all classes on the System Messages: Last *number* Action Messages page. However, the MWTM provides menu options that enable you to display only messages of a specific class on the page.

The Last Action Messages menu contains:

Column	Description	
Create	Opens the System Messages: Last number Action: specified web page:	
Delete	Create—Opens the Create Messages web page, showing only Create action messages.	
Discover	Delete—Opens the Delete Messages web page, showing only Delete action messages.	
Edit	• <b>Discover</b> —Opens the Discover Messages web page, showing only Discover action messages.	
Ignore	Edit—Opens the Edit Messages web page, showing only Edit action messages.	
OverWrite	• Ignore—Opens the Ignore Messages web page, showing only Ignore action messages.	
Poll	• OverWrite—Opens the OverWrite Messages web page, showing only OverWrite action messages.	
Purge	Poll—Opens the Poll Messages web page, showing only Poll action messages.	
LogInOut	• Purge—Opens the Purge Messages web page, showing only Purge action messages.	
All	• LogInOut—Opens the LogInOut Messages web page, showing only Log in and Log out action	
LaunchTerminal	messages.	
Provision	All—Opens a web page that shows all action messages.	
	• LaunchTerminal—Opens a web page showing all Launch Terminal messages.	
	• <b>Provision</b> —Opens a web page that shows all provisioning messages.	

#### **Last Action Messages Table**

The Last Action Messages table contains:

Column	Description	
Period (in heading)	Collection period of the table, such as Since Server Restart.	
Timestamp (in heading)	Date and time the information on the page was last updated by the MWTM.	
Row	Unique number identifying each entry in the table. You cannot edit this field.	
Time	Date and time the message was logged.	
	To sort the messages by time, click the Time heading.	

Column	n Description	
Class	Class of the message. Possible classes are:	
	• Create—Creation event, such as the creation of a seed file.	
	• <b>Delete</b> —Deletion event, such as the deletion of an object or file.	
	• <b>Discover</b> —Discovery event, such as Discovery beginning.	
	• Edit—Edit event. A user has edited an object.	
	• Ignore—Ignore event. A user has flagged a link or linkset as Ignored.	
	• Login—Login event. A user has logged in to the MWTM.	
	• LoginDisable—LoginDisable event. The MWTM has disabled a user's User-Based Access authentication as a result of too many failed attempts to log in to the MWTM.	
	• LoginFail—LoginFail event. An attempt by a user to log in to the MWTM has failed.	
	• Logout—Logout event. A user has logged out of the MWTM.	
	• OverWrite—OverWrite event. An existing file, such as a seed file or route file, has been overwritten.	
	• Poll—Poll event, such as an SNMP poll.	
	<ul> <li>Purge—Purge event. A user has requested Discovery with Delete Existing Data chosen, and the MWTM has deleted the existing MWTM database.</li> </ul>	
	To sort the messages by class, click the Class heading.	
Message	Text of the message.	
	To sort the messages alphabetically by message text, click the Message heading.	

#### **Viewing All Archived MWTM Messages**

The System Message Archives: All Messages page shows all archived messages in the MWTM system logs, including:

- error
- informational
- trace
- debug
- dump
- messages
- SNMP

To access the System Message Archives: All Messages page, use one of these options. Click:

- Administrative > General > Message Archives.
- Archives from the web page menu bar, if visible.

On the System Message Archives: All Messages page, messages are archived by timestamp. Each archived file contains all MWTM system messages for a single session for the server to which you are connected, and which is currently running the MWTM server. (If you restart the server, the MWTM creates a new file.)

To view archived messages, click a timestamp. The System Messages Archive: Last *number* All Messages page appears, which shows all messages that were in the system log at the specified timestamp.



You might observe an entry labeled <code>messageLog-old</code> among a list of files that have timestamps in the filenames. A daily cron job creates the files with the timestamps. The cron job, which runs at midnight, searches through the <code>messageLog.txt</code> and <code>messageLog-old.txt</code> files for all entries from the past day. The <code>messageLog-old.txt</code> file exists only if the size of <code>messageLog.txt</code> exceeds the limit set by the <code>mwtm</code> <code>logsize</code> command. The MWTM lists the contents of <code>messageLog-old.txt</code> because it could contain important data from the day the message log file rolled over.

The Last All Messages table contains this information (without column headers):

Description	Information	
Index	Message number that the MWTM assigns to the message.	
Time	Date and time the message was logged.	
Туре	Type of message. Possible types are:	
	• Action	
	• Debug	
	• Dump	
	• Error	
	• Info	
	• SNMP	
	• Trace	
Source	Source for the message, with the format process.host.id, where:	
	• process is the process that logged the message.	
	• host is the hostname of the process that logged the message.	
	• <i>id</i> is an MWTM ID that uniquely identifies the process that logged the message; or, in the event that two or more clients are running on the same node, connected to the same MWTM server.	
Task	Task, or thread, that logged the message.	
Message	Text of the message.	

### **Viewing Console Log Archived Messages**

The System Console Archives: All Messages page shows all archived system console messages.

To access the System Console Archives: All Messages page, choose **Administrative > General > Console Log Archives**.

On the System Console Archives: All Messages page, messages are archived by timestamp. Each archived file contains all MWTM system console messages for a single session for the server to which you are connected, and which is currently running the MWTM server. (If you restart the server, the MWTM creates a new file).

To view these archived messages, click a timestamp. The Console Archive: Last *number* All Messages page appears, which shows all the console messages that were in the system log at the specified timestamp.

# **Viewing System Status Information**

You can view the MWTM system status information from the MWTM web interface by clicking **Administrative** in the navigation tree in the left pane and then clicking **General** tab in the right pane:

- Viewing System Status, page 12-8
- Viewing System Versions, page 12-8
- Viewing System Check, page 12-8
- Viewing Connected Clients, page 12-8
- Viewing License Information, page 12-8
- Viewing Chassis Inventory (7600/SAMI) Report, page 12-9
- Viewing RTU Compliance Report, page 12-9

#### Viewing System Status

To access system status information, choose **Administrative > General > System Status** (the MWTM might take a few seconds to display this page). This page shows the status of all MWTM servers, local clients, and processes.

#### **Viewing System Versions**

To access version information, choose **Administrative > General > System Versions** (the MWTM might take a few seconds to display this page). This page shows version information for all MWTM servers, clients, and processes.

### **Viewing System Check**

To access system information, choose **Administrative > General > System Check**. MWTM displays the output from the following command:

/opt/CSCOsgm/logs/sgmCheckSystemLog.txt

### **Viewing Connected Clients**

To access connected client information, choose **Administrative > General > Connected Clients**. This page lists all MWTM clients that are currently connected to the MWTM server. It also lists all Solaris and Linux users that are logged in to the MWTM server.



Due to security reasons, only the System Administrator has the privilege to view the IP address of the clients connected.

### **Viewing License Information**

To access license information and to verify license compliance, choose **Administrative > General > License Information**.

MWTM displays the output from the following command:

/opt/CSCOsgm/bin/mwtm licenseinfo

When you select **Administrative > License Information**, MWTM displays the number of devices and cards that are managed by the MWTM software. For example, for an mSEF network, MWTM displays the number of 7600, 7300, and 7200 devices in addition to the number of SAMI cards. For ITP networks, MWTM displays the number of 7600, including the number of different types of cards on the 7600 device, 7300, 7200, and 2800 devices.

#### **Viewing Chassis Inventory (7600/SAMI) Report**

To access chassis inventory (7600/SAMI) report information, choose **Administrative > General > Chassis Inventory (7600/SAMI) Report.** 

MWTM displays the output from the following command:

/opt/CSCOsgm/bin/ mwtm chassisinventory

#### **Viewing RTU Compliance Report**

To access RTU compliance report information, choose **Administrative > General > RTU Compliance Report.** 

MWTM displays the output from the following command:

/opt/CSCOsgm/bin/ mwtm complianceinfo generate

# **Viewing System Logs**

You can view the MWTM system logs information from the MWTM web interface by clicking **Administrative** in the navigation tree in the left pane and then clicking **General** tab in the right pane:

- Viewing the Install Log, page 12-9
- Viewing the Console Log, page 12-10
- Viewing the Backup Log, page 12-10
- Viewing the Command Log, page 12-10
- Viewing the Troubleshooting Log, page 12-10
- Viewing the Event Automation Log, page 12-11
- Viewing the Security Log, page 12-11
- Viewing the Install Log, page 12-12
- Viewing the Web Access Logs, page 12-12
- Viewing the Web Error Logs, page 12-13
- Viewing the Report Log, page 12-13
- Viewing the ITP Report Timers, page 12-13

# Viewing the Install Log

The Install Log shows the contents of the MWTM installation log file for the server to which you are connected, and which is currently running the MWTM.

To access the Install Log, choose **Administrative > General > Install Log**. You can also view the Console Log with the **mwtm installlog** command.

#### **Viewing the Console Log**

The Console Log shows the contents of the MWTM system console log file for the server to which you are connected, and which is currently running the MWTM. The console log file contains unexpected error and warning messages from the MWTM server, such as those that might occur if the MWTM server cannot start. It also provides a history of start-up messages for server processes and the time each message appeared.

To access the Console Log, choose **Administrative > General > Console Log**. You can also view the Console Log with the **mwtm console** command.

#### Viewing the Backup Log

The Backup Log shows the contents of the MWTM backup log file for the server to which you are connected, and which is currently running the MWTM.

The default path and filename for the backup log file is /opt/CSCOsgm/logs/mwtmBackupLog.txt. If you installed the MWTM in a directory other than /opt, then the backup log file is in that directory.

To access the Backup Log, choose **Administrative > General > Backup Log**. You can also view the Backup Log with the **mwtm backuplog** command.

#### **Viewing the Command Log**

The Command Log shows the contents of the MWTM system command log file for the server to which you are connected, and which is currently running the MWTM server. The system command log lists all **mwtm** commands that have been entered for the MWTM server, the time each command was entered, and the user who entered the command.

To access the Command Log, choose **Administrative > General > Command Log**. You can also view the Command Log with the **mwtm cmdlog** command.

The MWTM Command Log page appears. The Command Log table contains:

Column	Description	
Timestamp	Date and time the command was logged.	
	To sort the messages by time, click the Timestamp heading.	
User Name	User who entered the command.	
	To sort the commands by user, click the User heading.	
Command	Text of the command.	
	To sort the messages alphabetically by command text, click the Command heading.	

# **Viewing the Troubleshooting Log**

The Troubleshooting Log shows the contents of the MWTM troubleshoot log file for the server to which you are connected, and which is currently running the MWTM server.



By default, the Troubleshoot logging is disabled. To enable this log, execute **mwtm tshootlog action** command.

The default path and filename for the troubleshoot log file is \( \langle opt/CSCOsgm/logs/sgmTroubleshootLog.txt \). If you installed the MWTM in a directory other than \( \langle opt \), then the troubleshoot log file is in that directory.

To access the Troubleshoot Log page, choose **Administrative > General > Troubleshooting Log**. You can also view the Troubleshoot Log page using the **mwtm tshootlog** command.

The Troubleshooting Log table contains these columns:

Column	Description
Timestamp	Time of command execution.
Client IP Address or User Name	User who executed the command.
Node	Node on which the command is executed.
Feature	Personality of the device.
Category	Category of the command.
Command Name	Name of the command.
Command	The actual command from execution.

#### **Viewing the Event Automation Log**

The Event Automation Log shows the contents of the system event automation log file for the server to which you are connected, and which is currently running the MWTM server. The system event automation log lists all messages that event automation scripts generate.

The default path and filename for the system event automation log file is \( \langle opt/CSCOsgm/logs/eventAutomationLog.txt \). If you installed the MWTM in a directory other than \( \langle opt \), then the system event automation log file is in that directory.

To access the Event Automation Log, choose **Administrative > General > Event Automation Log**. You can also view the Event Automation Log with the **mwtm eventautolog** command.

#### **Related Topic**

Changing the Way the MWTM Processes Events, page 9-24.

### **Viewing the Security Log**

The Security Log shows the contents of the MWTM system security log file for the server to which you are connected, and which is currently running the MWTM server. The system security log lists:

- All security events that have occurred for the MWTM server
- The time each event occurred
- The user and command that triggered the event
- The text of any associated message

The default path and filename for the system security log file is /opt/CSCOsgm/logs/sgmSecurityLog.txt. If you installed the MWTM in a directory other than /opt, then the system security log file is in that directory.

To access the Security Log, choose **Administrative > General > Security Log**. You can also view the Security Log with the **mwtm seclog** command.

The Last Security Entries table contains these columns:

Column	Description	
Timestamp	Date and time the security event occurred.	
	To sort the entries by time, click the Time heading.	
User	User who triggered the security event.	
	To sort the entries by user, click the <b>User</b> heading.	
Message	Text of the security event message.	
	To sort the entries alphabetically by message text, click the Message heading.	
Command	Text of the command that triggered the security event.	
	To sort the entries alphabetically by command text, click the Command heading.	

#### Viewing the Install Log

The Install Log shows the contents of the MWTM system installation log. The installation log contains messages and other information recorded during installation, which can be useful when troubleshooting problems. The Install Log also records the installer's selections (for example, whether the installer chose to configure the MWTM to receive SNMP traps).

The default path and filename for the install log file is /opt/CSCOsgm/install/cisco\_sgmsvr\_install.log. If you installed the MWTM in a directory other than /opt, then the install log file is in that directory.

To access the Install Log, choose **Administrative > General > Install Log**. You can also view the Install Log with the **mwtm installlog** command.

# **Viewing the Web Access Logs**

The Web Access Logs page shows a list of web access log files for the server to which you are connected, and which is currently running the MWTM server. The web access log lists all system web access messages that have been logged for the MWTM server, providing an audit trail of all access to the MWTM server through the MWTM web interface.

The default path and filename for the web access log file is /opt/CSCOsgm/apache/logs/access\_log. If you installed the MWTM in a directory other than /opt, then the web access log file is in that directory.

To access the Web Access Logs page, choose **Administrative > General > Web Access Logs**. You can also view the Web Access Logs page using the **mwtm webaccesslog** command.

#### **Viewing the Web Error Logs**

The Web Error Logs page shows a list of web error log files for the server to which you are connected, and which is currently running the MWTM server. The web server error log lists all system web error messages that have been logged for the MWTM web server. You can use the web error log to troubleshoot the source of problems that users may have encountered while navigating the MWTM web interface.

The default path and filename for the web error log file is /opt/CSCOsgm/apache/logs/error\_log. If you installed the MWTM in a directory other than /opt, then the web error log file is in that directory.

To access the Web Error Logs page, choose **Administrative > General > Web Error Logs**. You can also view the Web Error Logs page using the **mwtm weberrorlog** command.

#### **Viewing the Report Log**

The Report Log shows the message log for ITP reports for the server to which you are connected, and which is currently running the MWTM server. You can view this log to determine the beginning and finish times for report generation. The log also records errors that occurred during report generation (for example, server connection errors).

The default path and filename for the report log file is \( \lambda pt/CSCOsgm/logs/sgmReportLog.txt \). If you installed the MWTM in a directory other than \( \lambda pt \), then the report log file is in that directory.

To access the Report Log, choose **Administrative > General > Report Log**. You can also view the Report Log with the **mwtm replog** command.

#### **Viewing the ITP Report Timers**

To access the ITP Report Timers, choose **Administrative > General > ITP Report Timers**. This link is displayed only if the ITP personality is enabled.

The ITP Report Timers displays the output of the following command:

/opt/CSCOsgm/bin/mwtm statrep timer

The output displays the timer file for MWTM ITP network statistics reports. The timer file is useful for identifying how much time the MWTM spends gathering report data and generating reports.

# **Viewing Properties**

Property files for the MWTM are in the /opt/CSCOsgm/properties directory. You can view the MWTM properties from the MWTM web interface by clicking **Administrative** in the navigation tree in the left pane and then clicking **General** tab in the right pane:

- Viewing System Properties, page 12-14
- Viewing Server Properties, page 12-15
- Viewing Web Configuration Properties, page 12-16
- Viewing Reports Properties, page 12-17
- Viewing Trap Forwarding Properties, page 12-19

#### **Viewing System Properties**

To access the System Properties file, choose **Administrative > General > System** in the Properties pane. The MWTM shows the contents of the <code>/opt/CSCOsgm/properties/System.properties</code> file.

The System Properties file contains MWTM server and client properties that control various MWTM configuration parameters.

You can change some of the system properties using MWTM commands:

ATBLDIR  AUTO_SYNC_CONFIG  BACKUP_RMIPORT  BACKUP_SERVER  BACKUP_SERVER  BACKUP_MEBPORT  CHART_MAX_WINDOW  MWINT badlogindisable, page B-13  mwtm badlogindisable, page B-13  mwtm chartwindow, page B-16  mconsole_logize, page B-9  mwtm consolelogsize, page B-23  CSV_FIELD_DELIMITER  CSV_STRING_DELIMITER  CW2K_SERVER  MWINT collectstats, page B-22  CSV_STRING_DELIMITER  CW2K_WEB_PORT  CW2K_SECURE_WEB_PORT  GTTDIR  MWINT gttdir, page B-118  mwtm gttdir, page B-118  mwtm gttdir, page B-118  mwtm gttdir, page B-118  mwtm glogage, page B-51  LOGAGE  MWINT msglogage, page B-51  LOGAGE  MWINT msglogage, page B-51  LOGSIZE  MWINT msglogare, page B-42  LOG_TROUBLESHOOTING  MANAGE_BWG  MANAGE_BWG  MANAGE_CSG1  MANAGE_CSG2  MANAGE_GGSN  MANAGE_GGSN  MANAGE_GASN  MANAGE_TPP  MANAGE_RAN-O  PERSISTENCEDIR  mwtm datadir, page B-25	To change this system property	Use this MWTM command
BACKUP_RMIPORT BACKUP_SERVER BACKUP_WEBPORT BACKUPDAYS  BADLOGIN_TRIES_ALARM  BADLOGIN_TRIES_DISABLE  CHART_MAX_WINDOW  CONSOLE_ARCHIVE_DIR_MAX_SIZE  CSV_FIELD_DELIMITER  CW2K_SERVER  CW2K_WEB_PORT  CW2K_SECURE_WEB_PORT  GTTDIR  JSP_PORT  LOGAGE  LOGGE  LOGGIR  LOGGIR  MWITH Secondaryserver, page B-63  mwtm backupdays, page B-11  mwtm badloginalarm, page B-13  mwtm badlogindisable, page B-13  mwtm chartwindow, page B-16  mwtm archivedirsize, page B-9  console_LOG_MAX_SIZE  mwtm consolelogsize, page B-9  console_LoG_MAX_SIZE  mwtm consolelogsize, page B-23  csv_field_DellMiter  mwtm collectstats, page B-22  csv_String_DellMiter  mwtm cwsetup, page B-24  cw2k_web_port  cw2k_secure_web_port  mwtm gitdir, page B-118  mwtm gipport, page B-42  mwtm msglogage, page B-51  LOGAGE  mwtm msglogage, page B-51  LOGSIZE  LOGTIMEMODE  mwtm logsize, page B-45  LOG_TROUBLESHOOTING  mwtm tshootlog, page B-93  mwtm manage, page B-47  MANAGE_BWG  mwtm manage, page B-47  MANAGE_CSG1  MANAGE_CSG2  MANAGE_GGSN  MANAGE_HA  MANAGE_ITP  MANAGE_RAN-O	ATBLDIR	mwtm atbldir, page B-108
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BADLOGIN_TRIES_ALARM  BADLOGIN_TRIES_DISABLE  CHART_MAX_WINDOW  CONSOLE_ARCHIVE_DIR_MAX_SIZE  CSV_FIELD_DELIMITER  CW2K_SERVER  CW2K_WEB_PORT  CTDIR  GTTDIR  JSP_PORT  LOGAGE  LOGJIR  LOGGIR  LOGGIR  MANAGE_BWG  MANAGE_GGSN  MANAGE_GGSN  MANAGE_GGSN  MANAGE_GGSN  MANAGE_GGSN  MANAGE_RAN-O  mwtm badloginalarm, page B-13  mwtm badloginalarm, page B-16  mwtm chartwindow, page B-23  mwtm consolelogsize, page B-23  mwtm gudir, page B-118  mwtm msglogage, page B-51  mwtm logize, page B-51  mwtm logtimemode, page B-47  mwtm tshootlog, page B-47  mwtm tshootlog, page B-47  mwtm manage, page B-47  MANAGE_CSG1  MANAGE_CSG2  MANAGE_CSG1  MANAGE_CRAN-O	BACKUP_WEBPORT	
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CONSOLE_LOG_MAX_SIZE  CSV_FIELD_DELIMITER  CSV_STRING_DELIMITER  CW2K_SERVER  CW2K_WEB_PORT  CW2K_SECURE_WEB_PORT  GTTDIR  JSP_PORT  LOGAGE  LOGDIR  LOGSIZE  LOGTIMEMODE  LOG_TROUBLESHOOTING  MANAGE_CSG2  MANAGE_GGSN  MANAGE_RAN-O  mwtm consolelogsize, page B-23  mwtm consolelogsize, page B-22  mwtm cwsetup, page B-24  mwtm gttdir, page B-118  mwtm jsport, page B-42  mwtm msglogage, page B-42  mwtm msglogage, page B-51  mwtm logsize, page B-51  mwtm logsize, page B-45  mwtm logtimemode, page B-47  mwtm tshootlog, page B-93  mwtm manage, page B-47  MANAGE_CSG1  MANAGE_CSG2  MANAGE_RAN-O	CHART_MAX_WINDOW	mwtm chartwindow, page B-16
CSV_FIELD_DELIMITER  CSV_STRING_DELIMITER  CW2K_SERVER  CW2K_WEB_PORT  CW2K_SECURE_WEB_PORT  GTTDIR  JSP_PORT  LOGAGE  LOGAGE  LOGSIZE  LOGTIMEMODE  LOG_TROUBLESHOOTING  MANAGE_BWG  MANAGE_CSG2  MANAGE_GGSN  MANAGE_RAN-O  mwtm collectstats, page B-22  mwtm cwsetup, page B-24  mwtm gttdir, page B-118  mwtm gttdir, page B-118  mwtm gttdir, page B-118  mwtm gslogage, page B-42  mwtm msglogage, page B-51  mwtm logsize, page B-51  mwtm logtimemode, page B-45  mwtm tshootlog, page B-47  mwtm manage, page B-47	CONSOLE_ARCHIVE_DIR_MAX_SIZE	mwtm archivedirsize, page B-9
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CW2K_WEB_PORT  CW2K_SECURE_WEB_PORT  GTTDIR  JSP_PORT  LOGAGE  LOGAGE  mwtm msglogage, page B-51  LOGSIZE  mwtm logsize, page B-45  LOGTIMEMODE  LOG_TROUBLESHOOTING  MANAGE_BWG  MANAGE_CSG1  MANAGE_CSG2  MANAGE_GGSN  MANAGE_ITP  MANAGE_RAN-O	CSV_STRING_DELIMITER	
CW2K_SECURE_WEB_PORT  GTTDIR  mwtm gttdir, page B-118  JSP_PORT  mwtm jspport, page B-42  LOGAGE  LOGAGE  mwtm msglogage, page B-51  LOGSIZE  mwtm logsize, page B-45  LOGTIMEMODE  LOG_TROUBLESHOOTING  mwtm tshootlog, page B-93  MANAGE_BWG  MANAGE_CSG1  MANAGE_CSG2  MANAGE_GGSN  MANAGE_HA  MANAGE_RAN-O	CW2K_SERVER	mwtm cwsetup, page B-24
GTTDIR  ISP_PORT  INDEPTORE  INDEPTORE  INDEPTORE  INDEPTORE  INDEPTORE  INDEPTORE  INDEPTORE  INDEPTORE  INDEPTORE  INDEPTORE	CW2K_WEB_PORT	
JSP_PORT mwtm jspport, page B-42  LOGAGE mwtm msglogage, page B-51  LOGDIR mwtm msglogdir, page B-51  LOGSIZE mwtm logsize, page B-45  LOGTIMEMODE mwtm logtimemode, page B-47  LOG_TROUBLESHOOTING mwtm tshootlog, page B-93  MANAGE_BWG mwtm manage, page B-47  MANAGE_CSG1  MANAGE_CSG2  MANAGE_GGSN  MANAGE_HA  MANAGE_ITP  MANAGE_RAN-O	CW2K_SECURE_WEB_PORT	
LOGAGE mwtm msglogage, page B-51  LOGDIR mwtm msglogdir, page B-51  LOGSIZE mwtm logsize, page B-45  LOGTIMEMODE mwtm logtimemode, page B-47  LOG_TROUBLESHOOTING mwtm tshootlog, page B-93  MANAGE_BWG mwtm manage, page B-47  MANAGE_CSG1  MANAGE_CSG2  MANAGE_GGSN  MANAGE_HA  MANAGE_ITP  MANAGE_RAN-O	GTTDIR	mwtm gttdir, page B-118
LOGDIR  Mwtm msglogdir, page B-51  LOGSIZE  mwtm logsize, page B-45  LOGTIMEMODE  mwtm logtimemode, page B-47  LOG_TROUBLESHOOTING  mwtm tshootlog, page B-93  MANAGE_BWG  mwtm manage, page B-47  MANAGE_CSG1  MANAGE_CSG2  MANAGE_GGSN  MANAGE_HA  MANAGE_ITP  MANAGE_RAN-O	JSP_PORT	mwtm jspport, page B-42
LOGSIZE mwtm logsize, page B-45  LOGTIMEMODE mwtm logtimemode, page B-47  LOG_TROUBLESHOOTING mwtm tshootlog, page B-93  MANAGE_BWG mwtm manage, page B-47  MANAGE_CSG1  MANAGE_CSG2  MANAGE_GGSN  MANAGE_HA  MANAGE_ITP  MANAGE_RAN-O	LOGAGE	mwtm msglogage, page B-51
LOGTIMEMODE mwtm logtimemode, page B-47  LOG_TROUBLESHOOTING mwtm tshootlog, page B-93  MANAGE_BWG mwtm manage, page B-47  MANAGE_CSG1  MANAGE_CSG2  MANAGE_GGSN  MANAGE_HA  MANAGE_ITP  MANAGE_RAN-O	LOGDIR	mwtm msglogdir, page B-51
LOG_TROUBLESHOOTING mwtm tshootlog, page B-93  MANAGE_BWG mwtm manage, page B-47  MANAGE_CSG1  MANAGE_CSG2  MANAGE_GGSN  MANAGE_HA  MANAGE_ITP  MANAGE_RAN-O	LOGSIZE	mwtm logsize, page B-45
MANAGE_BWG MANAGE_CSG1 MANAGE_CSG2 MANAGE_GGSN MANAGE_HA MANAGE_ITP MANAGE_RAN-O	LOGTIMEMODE	mwtm logtimemode, page B-47
MANAGE_CSG1  MANAGE_CSG2  MANAGE_GGSN  MANAGE_HA  MANAGE_ITP  MANAGE_RAN-O	LOG_TROUBLESHOOTING	mwtm tshootlog, page B-93
MANAGE_CSG2  MANAGE_GGSN  MANAGE_HA  MANAGE_ITP  MANAGE_RAN-O	MANAGE_BWG	mwtm manage, page B-47
MANAGE_GGSN  MANAGE_HA  MANAGE_ITP  MANAGE_RAN-O	MANAGE_CSG1	
MANAGE_HA  MANAGE_ITP  MANAGE_RAN-O	MANAGE_CSG2	
MANAGE_ITP MANAGE_RAN-O	MANAGE_GGSN	
MANAGE_RAN-O	MANAGE_HA	
	MANAGE_ITP	
PERSISTENCEDIR mwtm datadir, page B-25	MANAGE_RAN-O	
	PERSISTENCEDIR	mwtm datadir, page B-25

To change this system property	Use this MWTM command
PROMPT_CREDS	mwtm logincreds, page B-45
REQUIRE_ARCHIVE_COMMENTS	mwtm deploycomments, page B-113
ROUTEDIR	mwtm routedir, page B-131
SBACKUPDIR	mwtm backupdir, page B-12
SERVER_NAME	mwtm servername, page B-65
SNMPCONFFILE	mwtm snmpconf, page B-68
SSL_ENABLE	mwtm ssl, page B-78
TFTP_ATBLPATH	mwtm atbldir, page B-108
TFTP_GTTPATH	mwtm gttdir, page B-118
TFTP_ROUTEPATH	mwtm routedir, page B-131
TRAP_LIST_ENABLE	mwtm trapsetup, page B-92
TRAP_PORT	
USE_TERMINAL_PROXY	mwtm termproxy, page B-90
VCS_REPOSITORY_DIR	mwtm archivedir, page B-107
WEB_PORT	mwtm webport, page B-101
WEB_BROWSER	mwtm browserpath, page B-14

For these system properties, you can view related documentation:

System Property	Related Documentation
CLIENT_PORT	Configuring Port Numbers and Parameters, page H-5
DATASERVER_PORT	
LOGINSERVER_PORT	
RMIREGISTRY_PORT	
MAX_CHART_SERIES	Displaying Backhaul Performance Statistics, page 11-37

# **Viewing Server Properties**

To access the Server Properties file, choose **Administrative > General > Server** in the Properties pane. The MWTM shows the contents of the */opt/CSCOsgm/properties/Server.properties* file.

The Server Properties file contains various properties that control the MWTM server.

You can use MWTM commands to change these server properties:

To change this server property	Use this MWTM command	
DEMAND_POLLER_TIMELIMIT	mwtm pollertimeout, page B-55	
SNMP_MAX_ROWS	mwtm snmpwalk, page B-75	
UNKNOWN_AGING_TIMEOUT	mwtm unknownage, page B-94	

To change poller parameters in the Server Properties file, see the "Changing MWTM Server Poller Settings" section on page 5-2.

#### **Viewing Web Configuration Properties**

To access the Web Configuration Properties file, choose **Administrative > General > WebConfig** in the Properties pane. The MWTM shows the contents of the /opt/CSCOsgm/properties/ WebConfig.properties file.

The Web Configuration Properties file contains properties that control the configuration of the MWTM web interface. For example:

```
MAX_ASCII_ROWS = 6000
MAX_HTML_ROWS = 100

# The selectable page sizes start at MIN_SELECTABLE_PAGE_SIZE and doubles until
# the MAX_SELECTABLE_PAGE_SIZE value is reached
# (e.g. 25, 50, 100, 200, 400, 800)
MIN_SELECTABLE_PAGE_SIZE = 25
MAX_SELECTABLE_PAGE_SIZE = 800
LOG_UPDATE_INTERVAL = 300
WEB_UTIL = percent
WEB_NAMES = display
MAX_EV_HIST = 15000
```

You can use the MWTM to change the web configuration properties:

<b>Web Configuration Property</b>	Changing Default Setting
LOG_UPDATE_INTERVAL	To control how often, in seconds, the MWTM updates certain web output, use the <b>mwtm weblogupdate</b> command. The valid range is 1 second to an unlimited number of seconds. The default value is 300 seconds (5 minutes).
MAX_ASCII_ROWS	To set the maximum number of rows for MWTM ASCII web output, such as displays of detailed debugging information, use the <i>mwtm maxasciirows</i> command. The valid range is 1 row to an unlimited number of rows. The default value is 6,000 rows.
MAX_EV_HIST	To set the maximum number of rows for MWTM to search in the event history logs, use the <b>mwtm maxevhist</b> command. The event history logs are the current and archived MWTM network status logs for status change and SNMP trap messages. The MWTM sends the results of the search to the web browser, where the results are further limited by the setting of the mwtm maxhtmlrows command. The valid range is 1 row to an unlimited number of rows. The default value is 15,000 rows.
MAX_HTML_ROWS	To set the maximum number of rows for MWTM HTML web output, such as displays of statistics reports, status change messages, or SNMP trap messages, use the <b>mwtm maxhtmlrows</b> command. This lets you select a page size (if you have not explicitly chosen a page size). Once you select a page size from any page, the MWTM remembers your preference until you delete your browser cookies. The default value is 100 rows.

Web Configuration Property	Changing Default Setting
MIN_SELECTABLE_PAGE _SIZE	This setting determines the minimum page size for the user to select from the Page Size drop-down menu. The page size values start with the MIN_SELECTABLE_PAGE_SIZE and double until they reach the MAX_SELECTABLE_PAGE_SIZE.
MAX_SELECTABLE_ PAGE_SIZE	This setting determines the maximum page size for the user to select from the Page Size drop-down menu. The page size values start with the MIN_SELECTABLE_PAGE_SIZE and double until they reach the MAX_SELECTABLE_PAGE_SIZE.
WEB_NAMES	To specify whether the MWTM should show real DNS names or display names in web pages, enter the <b>mwtm webnames</b> command. To show:
	• The real DNS names of nodes, as discovered by the MWTM, enter <b>mwtm webnames real</b> .
	• Display names, enter <b>mwtm webnames display</b> . Display names are new names that you specify for nodes. This is the default setting. For more information about display names, see the "Editing Properties" section on page 8-49.
WEB_UTIL	To specify whether the MWTM should display send and receive as percentages or in Erlangs in web pages, enter the <b>mwtm who</b> command. To show:
	• as a percentage, enter <b>mwtm webutil percent</b> . This is the default setting.
	• Display in Erlangs (E), enter <b>mwtm webutil erlangs</b> .
	See Displaying RAN-O Statistics, page 11-36 and Displaying Error Statistics, page 11-39 for more information.
	See Chapter 13, "Managing Reports" for more information on send and receive for linksets and links.

Each of the web configuration commands requires you to be logged in as the root user, as described in the "Becoming the Root User (Server Only)" section on page 3-2, or as a superuser, as described in the "Specifying a Super User (Server Only)" section on page 2-21.

#### **Related Topic**

PDSN Reports, page 13-182.

### **Viewing Reports Properties**

To access the Reports Properties file, choose **Administrative > General > Reports** in the Properties pane. The MWTM shows the contents of the /opt/CSCOsgm/properties/Reports.properties file.

The Reports Properties file contains properties that control various aspects of the reports that are available in the MWTM web interface.

You can use MWTM commands to change these reports properties:

To change this server property	Use this MWTM command
AAA_REPORTS	mwtm statreps, page B-80
ACC_REPORTS	mwtm accstats, page B-105
APN_REPORTS	mwtm statreps, page B-80
CHASSISINVENTORY_REPORTS	mwtm statreps, page B-80
CSG_REPORTS	mwtm statreps, page B-80
CPU_REPORTS	mwtm statreps, page B-80
EPC_REPORTS	mwtm statreps, page B-80
GGSN_REPORTS	mwtm ggsnstats, page B-135
GTTRATES_REPORTS	mwtm gttstats, page B-119
GTP_REPORTS	mwtm statreps, page B-80
HA_REPORTS	mwtm statreps, page B-80
INTERFACE_REPORTS	mwtm statreps, page B-80
IPLOCALPOOL_REPORTS	mwtm statreps, page B-80
LINK_REPORTS	mwtm linkstats, page B-120
MEM_REPORTS	mwtm statreps, page B-80
MLR_REPORTS	mwtm mlrstats, page B-123
MSU_REPORTS	mwtm statreps, page B-80
MTP3EV_REPORTS	mwtm evreps, page B-113
PDSN_REPORTS	mwtm statreps, page B-80
PWE3_REPORTS	mwtm statreps, page B-80
Q752_REPORTS	mwtm q752stats, page B-129
QOS_REPORTS	mwtm statreps, page B-80
RAN_REPORTS	mwtm statreps, page B-80
RANO_REPORTS	mwtm statreps, page B-80
RPT_15MIN_AGE	mwtm statreps 15minage, page B-86
RPT_CUSTOM_AGE	mwtm repcustage, page B-130
RPT_DAILY_AGE	mwtm statreps, page B-80
RPT_HOURLY_AGE	mwtm statreps, page B-80
RPT_INV_AGE	mwtm statreps, page B-80
RPT_RAN_AGE	mwtm statreps, page B-80
RPT_IPLINKS	mwtm statreps, page B-80
RPT_MONTHLY_AGE	mwtm statreps monthlyage, page B-87
RPT_NULLCAPS	mwtm statreps, page B-80
RPT_UTILRATIO	mwtm statreps, page B-80
RPT_SERVRATIO	mwtm statreps, page B-80
RPT_TIMEMODE	mwtm statreps, page B-80
SCTP_REPORTS	mwtm statreps, page B-80

To change this server property	Use this MWTM command
SLB_REPORTS	mwtm statreps, page B-80
STATS_REPORTS	mwtm statreps, page B-80
XUA_REPORTS	mwtm xuastats, page B-133

#### **Viewing Trap Forwarding Properties**

To access the Trap Forwarding Properties file, choose **Administrative > General > TrapForwarding** in the Properties. The MWTM shows the contents of the <code>/opt/CSCOsgm/properties/TrapForwarder.properties</code> file.

The Trap Forwarder Properties file contains a list of the destination addresses for the trap forwarder. Enter each destination address on its own line and use this format:

**SERVER***xx*=*destination\_IP\_address*[:*port\_number*]

The *port\_number* parameter is optional.

# **Viewing SNMP Tab Details**

The MWTM web interface **SNMP** tab provides access to SNMP (Simple Network Management Protocol) Editor to edit the SNMP settings. To view the **SNMP** tab information, click **Administrative** in the navigation tree and then click **SNMP** tab in the right pane. The **SNMP** tab contains:

- SNMP Editor Buttons, page 12-20
- SNMP Editor Table, page 12-21

# **SNMP Editor Buttons**

The SNMP tab contains the following buttons:

Button	Description
+	Adds the new SNMP settings to the MWTM database. It opens Add SNMP Entry window.  To add a new node or range of nodes, enter the SNMP information in the appropriate fields of the
Add a new SNMP entry	Add SNMP Entry window and click <b>OK</b> . The new SNMP settings are added to the MWTM database and are displayed in the SNMP Editor table in the right pane.
	Click Cancel to close the Add SNMP Entry window.
	Click <b>Help</b> to display the online help for the window.
Save All SNMP entries	Saves all the SNMP entries added.
<b>@</b>	Reloads all the SNMP entries from the server.
Reload SNMP entries the server	

# **Add SNMP Entry**

The Add SNMP Entry window contains the following fields:

Field or Button	Description
IP Address Range or Hostname	IP address or DNS name of a node or range of nodes. An asterisk (*) indicates a wildcard value.
Read Community	SNMP community name used by the node for read access to the information maintained by the SNMP agent on the node.
Timeout (secs)	Time, in seconds, the MWTM waits for a response from the node.
Retries	Number of times the MWTM attempts to connect to the node.
Poll Interval (mins)	Time, in minutes, between polls for the node.
OK	Applies the new SNMP settings to the MWTM database.
Cancel	Closes the Add SNMP Entry window without applying any changes.
Help	Shows online help for the current window.

### **SNMP Editor Table**

The SNMP Editor table contains:

Column	Description
IP Address Range or Hostname	IP address or DNS name of a node or range of nodes. An asterisk (*) indicates a wildcard value.
Read Community	SNMP community name used by the node for read access to the information maintained by the SNMP agent on the node.
Timeout (secs)	Time, in seconds, the MWTM waits for a response from the node.
Retries	Number of times the MWTM attempts to connect to the node.
Poll Interval (mins)	Time, in minutes, between polls for the node.
Action	Delete—Deletes the entries in the corresponding row.

# **Viewing Credentials Tab Details**

The MWTM web interface Credentials tab provides access to Device Credentials Editor to edit the credential details for the nodes. To view the Credentials tab information, click Administrative in the navigation tree and then click Credentials tab in the right pane. The Credentials tab contains:

- Device Credentials Editor Buttons, page 12-21
- Global Settings Table, page 12-22
- Node Settings Table, page 12-22

# **Device Credentials Editor Buttons**

The Credentials tab contains the following buttons:

Button	Description
4	Adds new credentials to a specified node. It opens Add a Credential window.
Add a new credential for a node	To add a new credential, enter the credential information in the appropriate fields of the Add a Credential window and click <b>OK</b> . The new credentials are added to the MWTM database and are displayed in the Global Settings table in the right pane.
	Click Cancel to close the Add a Credential window.
	Click <b>Help</b> to display the online help for the window.
	Saves all the new credentials added.
Save All Credentials	
<b>@</b>	Reloads all the credentials from the server.
Reload credentials from the server	

#### **Add a Credential**

The Add a Credential window contains the following fields:

Field or Button	Description
Node	Name of the node.
User Name	Login username.
Password	Login password.
Enable User Name	Login enable username.
Enable Password	Login enable password.
Protocol	Choose the protocol to use when connecting to the node, either SSH or Telnet.
	<b>Note</b> The key size on the node must be configured to a minimum of 768 bits and a maximum of 2048 bits.
OK	Adds the new credential information to the MWTM database.
Cancel	Closes the current window without saving the changes.
Help	Displays the online help for the window.

# **Global Settings Table**

The Global Settings table contains:

Column	Description
Node Type	Type of node.
User Name	Login username.
Password	Login password.
Enable User Name	Login enable username.
Enable Password	Login enable password.
Connection Protocol	Choose the protocol to use when connecting to the node, either SSH or Telnet.
	<b>Note</b> The key size on the node must be configured to a minimum of 768 bits and a maximum of 2048 bits.
Action	This column contains the following buttons:
	• Test the Credentials—You can test the credentials you have configured on the corresponding node or the default credentials against a selected node type. This opens Test Credentials for Node Type window. An error message is displayed, if there are no nodes in data model to test.
	• Clear the Row—Clears the entries in the corresponding row. The entries are cleared from the user interface.

# **Node Settings Table**

The Node Settings table contains:

Column	Description
Node	Type of node.
User Name	Login username.
Password	Login password.
Enable User Name	Login enable username.
Enable Password	Login enable password.
Connection Protocol	Choose the protocol to use when connecting to the node, either SSH or Telnet.
	<b>Note</b> The key size on the node must be configured to a minimum of 768 bits and a maximum of 2048 bits.
Action	Test the Credentials—You can test the credentials you have configured on the corresponding node. This opens Test Credentials for Node window.
	• Clear the Row—Clears the entries in the corresponding row. The entries are cleared in the user interface alone.

#### **Test Credentials for Node Type**

The Test Credentials for Node Type window contains:

• Select a Node Pane

The Select a Node pane contains a drop-down menu which lists all the nodes of the corresponding *Node Type*.

• Logging Information Pane

The Logging Information pane displays the logging information about the node that you selected from the Select a Node drop-down menu. The information for the selected node is displayed after clicking **OK** button in the window.

• Test Credentials for Node Type Buttons

The Test Credentials for *Node Type* contains the following buttons:

Button	Description
OK	Tests the credentials you have configured on the corresponding node or the default credentials against a selected node type.
Close	Closes the current window.
Help	Displays the online help for the window.

#### Test Credentials for Node

The Test Credentials for *Node* window contains:

• Logging Information Pane

The Logging Information pane displays the logging information about the node. a timeout error is displayed if the credential information is not present for the corresponding node.

• Test Credentials for *Node* Buttons

The Test Credentials for *Node* contains the following buttons:

Button	Description
Close	Closes the current window.
Help	Displays the online help for the window.

# **Viewing Discovery Tab Details**

The MWTM web interface **Discovery** tab allows you to discover the network. To view the **Discovery** tab information, click **Administrative** in the navigation tree and then click **Discovery** tab in the right pane. The **Discovery** tab contains:

- Discover Network Buttons, page 12-24
- Discovery Seeds Pane, page 12-27
- Discovery Settings Pane, page 12-28

See Discovering Your Network, page 3-4 for more information on Discovery feature.

### **Discover Network Buttons**

The Discover Network pane contains the following buttons:

Button	Description
Load Seeds	Opens Load File Dialog window, enabling you to load a seed file into the MWTM.
Save Seeds	Saves the changes you have made to the chosen seed file.

Button	Description
Save As	Opens the Save File Dialog, using which you can save the updated seed file with a new name, or overwrite an existing seed file.
Discover Network	Begins discovering the network.
	Click <b>Discover Network</b> to begin Discovery.
	If you have not defined at least one seed node in the Seed Settings tab, the MWTM prompts you to do so.
	When Discovery begins:
	• The Discover Network button changes to Stop Discovery.
	• The Discovery In Progress message appears in the title bar of all MWTM client windows.
	Discovery progresses in bursts. You might see a number of updates, followed by a pause, followed by more updates. The information that MWTM windows displays is not fully updated until Discovery is complete.
	By default, Discovery times out after 600 seconds (10 minutes). To change the Discovery timeout, change the value of the DISCOVERY_TIMELIMIT entry in the <i>Server.properties</i> file:
	• If you installed the MWTM in the default directory, /opt, then the location of the Server.properties file is /opt/CSCOsgm/properties/Server.properties.
	• If you installed the MWTM in a different directory, then the <i>Server.properties</i> file resides in that directory.
	Because the MWTM is an asynchronous system, with the MWTM server contacting clients one at a time, and because clients might run at different speeds, the information that MWTM clients display during Discovery might not always be synchronized.
	All other MWTM windows (Node, topology, and so on) are also populated with the newly discovered network data.

# **Load File Dialog**

The Load File Dialog window contains:

Field or Button	Description
Seed File List	The Seed File List pane contains:
	Go up one Folder—Click this icon to go up one folder in the directory structure.
	Type—Icon indicating whether the item in the table is a file or a folder.
	Name—Name of the seed file or folder.
	• Last Modified—Date and time the seed file or folder was last modified.
	• Size (bytes)—Size of the seed file or folder, in bytes.
Make this my preferred start option	Specifies whether the chosen seed file should be loaded automatically whenever this MWTM client is started or the Discovery dialog box is opened.
	By default, this check box is unchecked for all seed files. That is, no seed file is loaded automatically when the MWTM client is started or the Discovery dialog box is opened.

Field or Button	Description
OK	Loads the chosen seed file, saves any changes you made to the list of files, and closes the dialog box.
	To load a seed file, double-click it in the list, select it in the list and click <b>OK</b> , or enter the name of the file and click <b>OK</b> .
	The MWTM saves any changes you made to the list of files, closes the Load File Dialog: Seed File List dialog box, loads the seed file, and returns to the Discovery dialog box. The MWTM lists all of the seed nodes in the seed file in the Seed Nodes pane, and displays details of the SNMP settings for the seed nodes in the Seed Details pane.
Delete	Deletes the chosen file from the seed file list. The MWTM issues an informational message containing the name and location of the deleted file.
Cancel	Closes the dialog box without loading a seed file or saving any changes to the seed file list.
Help	Displays online help for the dialog box.

See Loading a Seed File, page 3-8 for more information about loading the seed files.

### **Save File Dialog**

The Save File Dialog window contains:

Field or Button	Description
Seed File List	The Seed File List pane contains:
	Go up one Folder—Click this icon to go up one folder in the directory structure.
	• New Folder—Click this icon to create a new folder in the current directory. This action opens the Input dialog box. Enter a folder name and click <b>OK</b> . The new folder appears in the Save File dialog box. Double-click the folder to open it. You can save files in this folder or create another folder at this level.
	• Type—Icon indicating whether the item in the table is a file or a folder.
	Name—Name of the seed file or folder.
	• Last Modified—Date and time the seed file or folder was last modified.
	• Size (bytes)—Size of the seed file or folder, in bytes.
Filename	Name by which you want to save the seed file.
	If you create a new seed filename, you can use any letters, numbers, or characters in the name that are allowed by your operating system. However, if you include any spaces in the new name, the MWTM converts those spaces to hyphens. For example, the MWTM saves file $a \ b \ c$ as $a \ b \ c$ .
Make this my preferred start option	Specifies whether the chosen seed file should be loaded automatically whenever this MWTM client is started or the Discovery dialog box is opened.
	By default, this check box is unchecked for all seed files. That is, no seed file is loaded automatically when the MWTM client is started or the Discovery dialog box is opened.

Field or Button	Description
ОК	Saves the seed file and any changes you made to the seed file list and closes the dialog box.
	To save the seed file with a new name, you can either save the file with:
	• A completely new name. Enter the new name and click <b>OK</b> .
	• An existing name, overwriting an old seed file. Select the name in the list and click <b>OK</b> .
	The MWTM:
	• Saves the seed file with the new name
	Saves any changes you made to the list of files
	Closes the Save File Dialog: Seed File List dialog
	Returns to the Discovery dialog box
Delete	Deletes the chosen file from the seed file list. The MWTM issues an informational message containing the name and location of the deleted file.
Cancel	Closes the dialog box without saving the seed file or saving any changes to the seed file list.
Help	Displays online help for the dialog box.

See Saving a Seed File, page 3-8 for more information on saving the seed files.

# **Discovery Seeds Pane**

The Discovery Seeds pane contains:

- Seed Nodes File: No File panel, page 12-27
- Seed Details panel, page 12-28

# **Seed Nodes File: No File panel**

The Seed Nodes File: No File panel contains:

Field or Button	Description
IP Address, Address Range, Subnet, CIDR, or DNS Hostname	Address or name of the chosen seed node.  To create a new seed file, enter the name or address of a seed node in this field. Examples of acceptable input include:
	• IP Address: 1.2.3.4 (see the guidelines for IP addresses in SNMP Configuration Table, page 5-15).
	• Address Range: 1.2.3.2-15
	• Subnet, CIDR: 1.2.3.0/24, 1.2.3.0/255.255.255.0
	DNS Hostname: mwtm.cisco.com

Field or Button	Description
Add	Adds a new seed node to the MWTM.
Delete	Deletes the chosen seed node. A confirmation dialog is displayed before deleting the seed node.

### **Seed Details panel**

The Seed Details panel contains:

Field	Description
IP Address Range or Hostname	IP address or DNS name of a node or range of nodes. An asterisk (*) indicates a wildcard value.
Read Community	SNMP community name used by the node for read access to the information maintained by the SNMP agent on the node.
Timeout (secs)	Time, in seconds, the MWTM waits for a response from the node.
Retries	Number of times the MWTM attempts to connect to the node.
Poll Interval (mins)	Time, in minutes, between polls for the node.

# **Discovery Settings Pane**

The Discovery Settings pane contains:

Field	Description
Entire Network	Check box used to specify the extent of the network discovery:
	• To discover the entire network, check this check box. This is called <i>recursive discovery</i> , and it is the default setting.
	With this check box checked, the MWTM discovers all seed nodes and attempts to manage them; then attempts to discover and manage all nodes that are adjacent to those seed nodes (unless the nodes are connected by serial links only); then attempts to discover and manage all nodes that are adjacent to <i>those</i> nodes; and so on, until the Max Hops limit is reached.
	• To rediscover only seed nodes, uncheck this check box. This is called <i>nonrecursive discovery</i> .
	With this check box unchecked, the MWTM discovers all seed nodes and attempts to manage them, then labels all nodes that are adjacent to those seed nodes as Unmanaged.
	<b>Note</b> When the user unchecks this option, the Max Hops field gets grayed-out.

Field	Description
Max Hops	The maximum number of hops from the seed node to search for other nodes to discover. Default is 3.
Delete Existing Data	Check box used to keep or delete the existing MWTM database when discovering the network:
	• To keep all existing network data in the MWTM database before rediscovering the network, uncheck this check box. This is the default setting.
	• To delete all existing network data from the MWTM database before rediscovering the network, check this check box. Choose this option if you know that network elements have been deleted from your network since the last Discovery.
	If you discover the network with Delete Existing Data chosen, the MWTM stops any real-time polls that are running and issues appropriate messages.



Discovery Settings Pane is available only for User Lever 5.

# **Viewing Inventory Import Tab Details**

The MWTM web interface **Inventory Import** tab allows you to log in to Active Network Abstraction (ANA) to retrieve ANA inventory (IP Address, Node Name and SNMP strings) and discover the nodes.

To access the **Inventory Import**, click **Administrative** in the navigation tree and then click **Inventory Import** tab in the right pane. This tab displays the IP Address and credentials to be entered, and this tab is available for level 4 & 5 users.

The Inventory Import tab contains:

- Host Name or IP Address: This field allows the user to enter the ANA IP Address.
- User Name: This field allows the user to enter the User Name.
- **Password**: This field allows the user to enter the Password.
- Synchronize: This button allows the user to discover the added node. After entering the IP Address,
  User Name and Password, click the Synchronize button and wait for a few minutes for the nodes to
  get discovered and added to the Navigation Tree.
  - After the nodes get discovered and added to the Navigation Tree, select a node and delete. Click
    the Synchronize button to get the node re-discovered and added into the Navigation Tree.



The MWTM cronjob is scheduled periodically every 1 hour to sycronize the ANA inventory details with MWTM.



Inventory Import feature is available only to system administrator and network administrator as other features supported by MWTM.

# **Viewing User Management Tab Details**

The MWTM allows user management through the web interface. User access must be enabled for this feature. A level 5 user must be created during installation or post-installation using the MWTM CLI as root. A web user with user management permissions with MWTM access level five, can add or delete users and modify user passwords and roles/access levels.

To access the **User Management**, click **Administrative** in the navigation tree and then click **User Management** tab in the right pane. This tab displays all users in the system along with the time of their most recent login, their access level, and their account status.

The User Management tab contains:

- User Management Buttons, page 12-31
- User Management Table, page 12-32

# **User Management Buttons**

The User Management tab contains the following buttons:

Button	Description
+	When the local authentication is enabled, it opens the Add New User window. Password is the input when local authentication is enabled.
Create a new user account	When the solaris or linux authentication is enabled, it opens the Add New User window. But it does not prompt for passwords since it reuses the OS-based passwords.
	To add a new user, enter the user information in the appropriate fields of the Add New User window and click <b>OK</b> . The new user is added to the MWTM database and the new information is displayed in the User Management table.
	Click Cancel to close the window.
	Click <b>Help</b> to display the online help for the window.
_	Deletes an existing user. The user interface asks for confirmation and deletes the user.
Delete an existing user account	To delete multiple users, click the check box in the user row and then click the 'Delete an existing user account' button in the toolbar.
Users users selected	Number of currently selected users.
Clear Selection	Deselects the selected list of users.

#### **Add New User**

The Add New User window contains the following options when the local authentication is enabled:

Field or Button	Description
Name	The username.
Level	Authentication level for the user. The valid values are:
	Basic User
	Power User
	Network Operator
	Network Administrator
	System Administrator
	Custom Level 1
	• Custom Level 2
Password	User's password.
Confirm Password	Retype the password to confirm the new password.
Force user to reset password at login?	Whether to force the user to change the password at the next log in. The default is not to force the user to change the password.
OK	Saves the new user information.

Field or Button	Description
Cancel	Closes the window without saving the changes.
Help	Shows online help for the window.

#### **Add New User**

The Add New User window contains the following options when solaris or linux authentication is enabled:

Field or Button	Description
Name	The username.
Level	Authentication level for the user. The valid values are:
	Basic User
	Power User
	Network Operator
	Network Administrator
	System Administrator
	Custom Level 1
	Custom Level 2
Add users not known to system?	Whether to add the users who are not known to the system. The default is not to add the unknown users to the system.
OK	Saves the new user information.
Cancel	Closes the window without saving the changes.
Help	Shows online help for the window.

# **User Management Table**

The User Management table contains:

Field or Button	Description
Action	Allows you to change the user's password.
	Click the Change a user's password icon under the 'Action' column, To open Update user window. Enter the new passwords in the appropriate fields of the window and click <b>OK</b> .
	Click Cancel to close the window without saving the changes.
	Click <b>Help</b> to display the online help for the window.
User	The MWTM user for whom a User-Based Access account has been set up.
Last Login	Date and time the user last logged in to the MWTM.

Field or Button	Description
Access Level	Authentication level and number for the user. Valid levels and numbers are:
	• Basic User, 1
	• Power User, 2
	• Network Operator, 3
	• Network Administrator, 4
	• System Administrator, 5
	• Custom Level 1, 11
	• Custom Level 2, 12
Account Status	Current status of the user's account. Valid status settings are:
	• Enabled—The account has been enabled and is functioning normally.
	• <b>Disabled</b> —The account has been disabled for one of these reasons:
	<ul> <li>A System Administrator disabled the account. See the "mwtm disablepass" section on page B-28 and the "mwtm disableuser" section on page B-29 for more information.</li> </ul>
	<ul> <li>The MWTM disabled the account as a result of too many failed attempts to log in using the account.</li> <li>See the "mwtm badlogindisable" section on page B-13 for more information.</li> </ul>
	<ul> <li>The MWTM disabled the account because it was inactive for too many days. See the "mwtm inactiveuserdays" section on page B-38 for more information.</li> </ul>
	Expired Password
	Temporary Password

# Update *user* window

The Update user window contains:

Field or Button	Description
Password	User's password.
Confirm Password	Retype the password to confirm the new password.
Force user to reset password at login?	Whether to force the user to change the password at the next log in. The default is not to force the user to change the password.
OK	Saves the new user information.
Cancel	Closes the window without saving the changes.
Help	Displays online help for the window.

Viewing User Management Tab Details