

# **CHAPTER 4**

## **Getting Started**

This chapter provides information about starting and stopping the Cisco Mobile Wireless Transport Manager (MWTM), and an overview of how to use the MWTM to manage your network.

This chapter contains:

Starting the MWTM Server, page 4-cix
Starting the MWTM Client, page 4-cxi
Discovering Your Network, page 4-cxii
Displaying the MWTM Main Window, page 4-cxxiii
Using the MWTM Toolbar, page 4-cxxxii
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Accessing the MWTM Through a Web Browser, page 4-cxxxiii
Loading and Saving MWTM Files, page 4-cxxxiv
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Using the Windows Start Menu, page 4-cxxxv
Locating Technology Specific Information, page 4-cxxxvii
Exiting the MWTM Client, page 4-cxxxix

requirements, see the Installation Guide for the Cisco Mobile Wireless Transport Manager 6.1.2

Note

/opt

/opt

## **Starting the MWTM Server**

- Each node uses a supported IOS image
- The MWTM server has IP connectivity to each node SNMP is enabled on each node

(Optional, but recommended) Traps are enabled on each node

Because the MWTM application c both components to run the applic	omprises a server component and a client component, you must start
Because the MWTM application c both components to run the applic	omprises a server component and a client component, you must start
	ation.
To start the MWTM server on a So	olaris or Linux system:
Note	
page 2-18.	
Enter:	
# cd /opt/CSCOsgm/bin	
<pre># ./mwtm start</pre>	

#### **Becoming the Root User (Server Only)**

# su



of the commands that you use. If you are a relatively inexperienced UNIX user, limit your activities as the root user to the tasks described in this manual.

If you are not logged in, log in as the root user:

> login:
> Password: root-password

su

### **Starting the MWTM Client**

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#### **Before Starting the MWTM Client**

#### Setting the DISPLAY Variable for Solaris or Linux Clients

Could not launch client: Can't connect to X11 window server using <x> as the value of the DISPLAY variable.

The DISPLAY variable is set as part of your login environment on Solaris or Linux. However, if you use Telnet or SSH to access a workstation, you must set the DISPLAY variable to local display by using this command:

#### # setenv DISPLAY local\_ws:0.0

local\_ws

setenv

# export DISPLAY= :0.0

#### **Starting the MWTM Client on Solaris or Linux**

./mwtm client

cd /opt/CSCOsgmClient/bin ./mwtm client server\_name\_or\_ip\_address

server\_name\_or\_ip\_address

#### **Access the Node**

, page 3-cv).

To access the node, right-click a node in a window, then choose Node Connect

#### **Starting the MWTM Client on Windows**

Start > Programs > Cisco MWTM Client >

#### Launch MWTM Client

You can change the amount of memory used by the Windows MWTM client, GTT Editor, and Address Table Editor by adding the following entries to the C:\Program Files\Cisco Systems\MWTM Client\properties\System.properties file JVM\_CLIENT\_HEAP=1200 JVM\_GTT\_HEAP=1200 JVM\_CLIENT\_HEAP=1200 JVM\_CLIENT\_HEAP=1200 JVM\_GTT\_HEAP=1200 JVM\_GTT\_HEAP=1200

This reserves 1,200 megabytes (MB) of memory for each application. The default is 768 MB.

### **Discovering Your Network**

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#### **Discovery Overview**

The MWTM uses a Discovery process to populate the MWTM database, discovering the objects in your network.

You can run Discovery if MWTM User-Based Access is disabled; or, if it is enabled, and you are a Network Administrator or System Administrator. (For more information about user authorization levels in the MWTM, see Configuring MWTM User Account Levels (Server Only), page 2-6.)

To discover your network:

Start the MWTM client, as described in Starting the MWTM Client, page 4-cxi.

If you want to change SNMP settings, do so running Discovery. See Configuring SNMP Settings, page 3-xcix for more information.

Step 3 If you want to discover ONS nodes and did not choose the option to discover your network during installation, you must add the ONS nodes and set the credentials before running discovery (see Adding Nodes, page 3-cvi for more information.)

Step 4	Network > Network Discover
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- Step 5 Seed Settings
- Step 6

Next

**Entire Network** 

#### **Delete Existing Data**

#### Max. Hops

Step 7

#### Discover Network

When the "Discovery In Progress" message disappears, discovery is running. The Discovered Nodes table in the Discovery tab lists all nodes that the MWTM discovered (all nodes, including new and excluded nodes, not just the nodes in the current view). See Discovered Nodes, page 4-cxxiii for more information.



Event processing in the MWTM might experience congestion when discovering very large networks. If the number of events exceeds the capacity of the event queue, the event congestion icon appears in the lower left of the MWTM client and web windows. If the icon appears, the presentation of event information in the MWTM will lag behind the actual state of the network objects until the congestion clears. No user action is necessary.

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Step 9		
Note		
	Related Topics	
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## Launching the Discovery Dialog

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Menu Command	Description	
File > Load Seeds (Ctrl-L)	<ul> <li>Opens the Load File Dialog: Seed File List, enabling you to load a seed file into the MWTM:</li> <li>Enter the name of the seed file, and click <b>OK</b></li> </ul>	
	Cancel	

Menu Command	Description

#### **Discovery Dialog Tabs**

Tab	Description

## Loading Seed Nodes and Seed Files

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#### Loading a Seed Node

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		Add Node	Enter	
Note				

#### Loading a Seed File

#### File > Load Seeds

Field or Button	Description
ОК	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 , or enter the name of the file and click .
	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.

#### Saving a Seed File

- To save the changes you made to the seed file without changing the name of the file, choose from the Discovery Dialog menu.
- To save the changes you have made to the seed file with a new name, choose from the Discovery Dialog menu. The MWTM displays the Save File Dialog: Seed File List dialog box.

The MWTM stores the seed file in the seed file directory on the MWTM server:

• If you installed the MWTM in the default directory, , then the MWTM seed file directory is /opt/CSCOsgm/seeds

want to overwrite that user's changes. If you choose to do so, the other user's changes are overwritten and lost. If you choose not to do so, your changes are lost, unless you save the seed file to a different filename.

The Save File Dialog: Seed File List contains:

Туре	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 $as a-b-c$	

Field or Button	Description
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### Creating a New Seed File

Field or Button	Description		
	IP address of the seed node. The default value is *.*.*.		
	Follow the guidelines for IP addresses in SNMP Configuration Table, page 3-c.		
Retries	Number of times the MWTM attempts to connect to the seed node. The valid range is 0 to 99. The default value is 2.		
Timeout (sec)	Time, in seconds, the MWTM waits for a response from the seed node. The valid range is 0 (no timeout) to 9999. The default value is 1 second.		
Read Community	SNMP community name for read access to the information maintained by the SNMP agent on the node. This value can be up to 32 characters in length. Do not include special characters such as the opening single quote ('), at symbol (@), dollar sign (\$), caret (^), closing single quote ('), double quote ("), ampersand (&), or pipe (I). This value is usually set to <b>public</b> (the default).		
Poll Interval (mins)	Time, in minutes, between polls. The valid range is 0 to 9999. The default value is 15 minutes.		

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	Subnet, CIDR: 1.2.3.0/24, 1.2.3.0/255.255.255.0	
	DNS Hostname: mwtm.cisco.com	
	The MWTM displays details of the SNMP settings for the seed node in the Seed Details pane.	
	Continue to add as many seed nodes as necessary to discover your entire network.	
	When you are ready to save the list of seed nodes in a new seed file, choose from the	
	Discovery Dialog menu. The MWTM displays the Save File Dialog: Seed File List dialog box. See	
	Saving a Seed File, page 4-cxvi, for more information about saving seed files.	
Add Node	Adds a new seed node to the MWTM.	
Delete	Deletes the chosen seed node. The MWTM deletes the seed node without asking for confirmation.	
Next	Displays the Discovery tab in the Discovery dialog box.	
	If you enter a seed node IP address or name in the IP Address, Address range, Subnet, CIDR, or DNS Hostname field, then click , MWTM automatically adds the seed node before displaying the Discovery tab.	

#### **Changing an Existing Seed File**

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Step 3		
Step 4	 	 

### Creating and Changing Seed Files Using a Text Editor

new-york-a new-york-b chicago-c

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The MWTM saves the seed file in the MWTM server's seed file directory, :

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new-york-a<space>
<space>new-york-b
zzzzzzzzzz
<blank line>
<tab>chicago-c<tab>

new-york-a new-york-b chicago-c

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Discovery In Progress

#### **Discovered Nodes**

## **Verifying Discovery**

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## **Displaying the MWTM Main Window**

Element	Description
	MWTM main window title bar that displays: MWTM main window <(networks) server name

Information	Description
8	
<b>_</b>	
10037 Events	
1 File	

Updated Node sgm-75-93b	
	• View Saved
	Node does not have a note
CHANGED	
NEW!	
View: AutoInstanceView	
ancp-64-102-82-102-CISCO-COM	
System Admin: n.n. n.	

## **MWTM** Client Navigation Tree

<u>)</u> Note

Object	Description		
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### **MWTM Client Content Area**

### **Displaying Summary Lists Alarms**

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Note	

Column	Description	
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#### **Right-Click Menu for the Summary Lists**

Menu Command	Description	

## Using the MWTM Main Menu

Menu Command	Description		
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	Exits the MWTM application, after prompting you for confirmation.		
(Ctrl-Q)	If you are working in a custom view (that is, not the DEFAULT view), the MWTM automatically saves any changes you made to the view.		
Edit > Views (Ctrl-M)	Opens the View Editor window to allow you to edit any views that you have created.		
Edit > Clear All Events (Ctrl-E)	Deletes the event icon (orange triangle) from MWTM displays for all known objects. The actual events are not deleted from the MWTM, only the event icon for all known objects.		
	<b>Note</b> During Discovery, the MWTM might flag most objects with an event icon. If the event icons are too distracting, use the menu option to remove them.		

Edit > Find	Opens the Find dialog box, in which you find a specific object, event, or text in the window.
(Ctrl-F)	If you select an object in the navigation tree in the MWTM main window, this option is dimmed and cannot be chosen.
Edit > Delete (Delete)	Deletes the currently chosen element or elements from the MWTM database. The MWTM displays the Confirm Deletion dialog box. To:
	• Delete the chosen elements, click <b>Yes</b>
	No
	Do not
	show this again
	Do not show this again
	mwtm purgedb
	Unknown

	Opens a Telnet window to the server.
(Ctrl+Shift-T)	
View > MWTM Server >	Opens a Secure Shell (SSH) window to the server.
Connect via SSH (Ctrl+Shift-S)	The key size on the SSH server must be a minimum of 512 bits and a maximum of 2048 bits.
View > MWTM Server > Server Status	Displays the MWTM web status page in a web browser.
View > MWTM Web Links > Home	Displays the MWTM web interface home page in a web browser.
View > MWTM Web Links > Administrative	Displays the MWTM web administrative page in a web browser.
View > MWTM Web Links > Groups	Displays the MWTM web groups page in a web browser.
View > MWTM Web Links > Tools	Displays the MWTM web tools page in a web browser.
View > MWTM Web Links > Reports	Displays the MWTM web reports main page in a web browser.
View > MWTM Web Links > CSV File Archive	Displays the MWTM web file archive page in a web browser.
View > MWTM Web Links > Archived Event Logs > Status Changes	Displays the archived status changes in a web browser.
View > MWTM Web Links > Archived Event Logs > SNMP Traps	Displays the archived SNMP traps in a web browser.
View > MWTM Web Links > Archived Event Logs > Status Changes and SNMP Traps	Displays both the archived status changes and archived SNMP traps in a web browser.
View > MWTM Web Links > Software Version Inventory	Displays the MWTM software versions for the server you are connected to, and which is currently running the MWTM server, in a web browser.
View > MWTM Web Links > Point Code Inventory	Displays the point codes inventory reports page which shows all point codes that are currently being used by all nodes that the MWTM detected, in a web browser.
View > MWTM Web Links > IP Address Inventory	Displays the report of IP addresses of the nodes that the MWTM manages, in a web browser.
View > Message of the Day	Opens the Message of the Day dialog box.
View > Cisco.com	Displays the Cisco.com Home Page in a web browser.
Go > Back (Alt-Left Arrow) <sup>1</sup>	Navigates back to the last window viewed in this session.
Go > Forward (Alt-Right Arrow) <sup>1</sup>	Navigates forward to the last window viewed in this session.

Go > Back > <i>List of Windows</i>	
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List of	
Windows	
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Launch > CiscoView < >	Launches CiscoView, which provides a real-time, color-coded, graphical representation of Cisco objects. You can use CiscoView to quickly identify an incorrect status on a port or interface.
	This option is dimmed if the chosen node is: not a recognized node; in Unmanaged status; or has a Device Type of Unknown. (CiscoWorks cannot monitor Unmanaged, Unknown, or unrecognized nodes.)
	This option is not visible if you did not specify a CiscoWorks server during installation. See the "Installing MWTM on Solaris" and "Installing MWTM on Windows" chapters of the for more
	information.
Launch > CiscoWorks LMS Portal	Launches CiscoWorks LMS Portal, which provides a dashboard of tools and utilities such as CiscoView, Resource Manager Essentials, and Device Center.
<u> </u>	
Launch > Device Center	Launches the CiscoWorks Device Center, which provides a number of web-based functions, including reachability trends, response time trends, interface status, syslog browsing, and detailed inventory. The MWTM prompts you for a CiscoWorks user ID and password before linking to CiscoWorks.
	The link to CiscoWorks has these prerequisites. CiscoWorks must:
	• Be installed somewhere in the network.
	• Monitor the specific device.
	This option is dimmed if the chosen node is: not an recognized node; in Unmanaged status; or has a Device Type of Unknown. (CiscoWorks cannot monitor Unmanaged, Unknown, or unrecognized nodes.)
	This option is not visible if you did not specify a CiscoWorks server during installation. See the "Installing MWTM on Solaris" and "Installing MWTM on Windows" chapters of the for more
	information.
Help > Topics (F1)	Displays the table of contents for the MWTM online help.
Help > Window (Shift-F1)	Displays online help for the current window.
Help > About (F3)	Displays build date, version, SSL support, and copyright information about the MWTM application.

1. In the UNIX environment (Solaris or Linux), this key combination can be mapped to a different function based on the Common Desktop Environment (CDE) that a user might have. For example, in Solaris CDE, Alt-Left Arrow and Alt-Right Arrow combinations are typically mapped to move back and forward through the different desktops. To remap the keys for use with the MWTM, see your UNIX Desktop Environment guide.

## **Using the MWTM Toolbar**

The MWTM toolbar appears under the menu bar in the MWTM client windows, and above the navigation tree in the MWTM web interface.

a *Z	Sorts all content in the navigation tree alphabetically by name.
Sort tree by name	
	Sorts all content in the navigation tree by status, from the highest alarms to the lowest.
Sort tree by status	
	(Only in MWTM client) Click to browse forward or backward in your navigation changes. In the MWTM web interface, click the browser's back and forward buttons.
Go back or forward one navigation change	
Location Summary Lists → Nodes	Shows your current location in MWTM. Some locations are clickable links to which you can navigate directly.
Location	

## Accessing the MWTM Through a Web Browser

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• **MWTM client interface**—The standard interface for accessing MWTM data. (This interface is described in Displaying the MWTM Main Window, page 4-cxxiii.)

—A browser interface for accessing MWTM data. (This interface is introduced here and fully described in Chapter 11, "Accessing Data from the Web Interface.")

A comparison of the GUI features supported in each interface is shown in this matrix:

<b>GUI Features</b>	Web Interface	Client Interface	Notes

GUI Features	Web Interface	Client Interface	Notes
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			•
			•
			•

http://

:1774

**View > MWTM Web Links > Home** 

## Loading and Saving MWTM Files

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Launched From	Choose	Window Launched	Notes



Launched From	Choose	Window Launched	Notes

## **Using the Windows Start Menu**

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### **Changing the Default MWTM Server Name**

Step 1

Step 2

Step 3			
<u>)</u> Tip			

Launching the MWTM Client

#### Launching the MWTM DOS Prompt

. The MWTM opens a DOS window, starting in the \

directory:

- If you installed the MWTM client in the default directory, , then the DOS prompt starts at .
- If you installed the MWTM client in a different directory, then the \ directory is located in that directory.

#### Launching the MWTM Event Editor



#### Launching the MWTM SSL Certificate Tool

### **Displaying the MWTM README File**

Start > Programs > Cisco MWTM Client > Readme

## Uninstalling the MWTM

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## **Locating Technology Specific Information**

Technology	Topic and Location
	• User Guide for the Cisco Mobile Wireless Transport Manager 6.1.2:
	• OSS Integration Guide for the Cisco Mobile Wireless Transport Manager 6.1.2:
	• Alarm Guide for the Cisco Mobile Wireless Transport Manager 6.1.2:
	User Guide for the Cisco Mobile Wireless Transport Manager 6.1.2:
	OSS Integration Guide for the Cisco Mobile Wireless Transport Manager 6.1.2:
	Alarm Guide for the Cisco Mobile Wireless Transport Manager 6.1.2:

Technology	Topic and Location
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## **Exiting the MWTM Client**

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Step 2

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