Working with Interfaces

MWTM enables you to view information about all discovered interfaces, including their status and other important information.

This section includes the following information:

Related Topics:

Viewing Detailed Information for an Interface

MWTM can display detailed information about a selected interface, including its status and other information.

Updates for the interface that are received from the MWTM server are reflected automatically in this window.

To display detailed information for an interface, select the turner beside **Nodes** in the left pane of the MWTM Main Window. Then select the turner beside a specific node to display its interfaces. Finally, select an interface.

MWTM displays the Interface Details Window.

The Interface Details Window is composed of the following sections:

Related Topics:

Interface Details: Right-Click Menu

The Interface Details Window provides a right-click menu. To see this menu, select an interface in the left pane and click the right mouse button. The interface details right-click menu provides the following options:

Menu Command	Description
Show In New Window	Opens the Interface Details Window for the selected interface in a new window.
Edit > Notes	Opens the Edit Notes Dialog for the selected interface.
	If you have implemented MWTM User-Based Access, this option is available to users with authentication level Power User (Level 2) and higher.
Clear Event Icon	Deletes the event icon (orange triangle) from MWTM displays for the selected interface, for this MWTM client only. The actual events are not deleted from MWTM, only the event icon for the selected interface for this MWTM client.
	This option is grayed-out if the selected interface has no associated event icon.
Delete	Deletes the currently selected interface from the MWTM database. MWTM displays the Confirm Deletion dialog:
	• To delete the selected interface, click **Yes**. The interface is deleted from the MWTM database and the Confirm Deletion dialog is closed.
	• To retain the selected interface, click **No**. The interface is kept in the MWTM database and the Confirm Deletion dialog is closed.
	• To prevent MWTM from displaying the Confirm Deletion dialog, select the **Do not show this again** checkbox.
	Note If you select the **Do not show this again** checkbox, and you later decide you want MWTM to begin displaying the Confirm Deletion dialog again, you must select the **Confirm Deletions** checkbox in the General GUI settings in the Preferences window. For more information, see the description of the **Confirm Deletions** checkbox in the "Startup/Exit Settings" section on page 11-6.
	If you have implemented MWTM User-Based Access, this option is available to users with authentication level Network Administrator (Level 4) and higher.
Go to > _Parent Node_	Navigates to the Node Details window of the parent node.
Back > _List of Windows_	Navigates back to a window viewed in this session.
	MWTM maintains a list of up to 10 **Back** windows.

Menu Command	Description
Forward > *List of Windows*	Navigates forward to a window viewed in this session. MWTM maintains a list of up to 10 **Forward** windows.
View > Configuration Details	Displays the Configuration Details panel for the selected interface.
View > Notes	Displays the Notes panel for the selected interface. If there are no notes associated with the selected interface, this option is grayed-out.
View > Events	Displays the Recent Events panel for the selected interface and its associated network objects.
View > Center in Topo	Opens the Topology Window and displays the interface in the center of the topology map.
Event History > Status Change Messages	Displays the MWTM Network Status Log for Status Change Messages in a Web browser, with messages displayed for only the selected node.
Event History > SNMP Trap Messages	Displays the MWTM Network Status Log for SNMP Trap Messages in a Web browser, with messages displayed for only the selected interface.
Event History > Status and Trap Messages	Displays the MWTM Network Status Log for Status Change Messages and SNMP Trap Messages in a Web browser, with messages displayed for only the selected interface.
Event History > Network Status Metrics	Displays the MWTM Network Status Log for Metrics in a Web browser, with messages displayed for only the selected interface.
Ignore	Ignores the selected interface at the next polling cycle. If you have implemented MWTM User-Based Access, this option is available to users with authentication level Power User (Level 2) and higher.
Unignore	Stops ignoring the selected interface at the next polling cycle. If you have implemented MWTM User-Based Access, this option is available to users with authentication level Power User (Level 2) and higher.
Latest Reports > RAN Capacity Planning	Displays the RAN Capacity Planning Report for the interface, in a Web browser. This option is not available if the interface is in **Unknown** or **Unmanaged** status.
Latest Reports > RAN Statistics	Displays the RAN Backhaul 15 Minutes Statistics report associated with the interface, in a Web browser. This option is not available if the interface is in **Unknown** or **Unmanaged** status.

Interface Details: Configuration Details

The Interface Details: Configuration Details section is composed of the following sub-sections:

Naming Information

The Naming Information sub-section contains the following fields:

Field	Description
Name	Name of the interface.
Node	Name of the node to which the interface belongs.
Physical Address	Physical address of the interface.
IF Index	Interface index number.
IF Type	Interface type.
RAN Connection To	Node to which the interface is connected.

General Information

The General Information sub-section contains the following fields:

Field	Description
Maximum Packet Size	Maximum packet size on the interface, in bytes.
Speed (Bits/Sec)	Interface speed in bits per second.

Status Information

The Status Information sub-section contains the following fields:

Field	Description
Is Ignored	Indicates whether the interface is **Ignored** (that is, whether the interface is to be included when aggregating and displaying MWTM status information).
Admin Status	Displays the administrative status of the interface. Status can be:
	Unknown—Unknown administrative status
	Up —Administratively up
	Shutdown—Administratively down
	Testing—Administrator is testing the interface
Operational Status	Displays the operational status of the interface. Status can be:
	Unknown—Unknown operational status.
	Up —Interface is up.
	Down—Interface is down.
	Testing—Interface is in test mode.
	Dormant—Interface is dormant.
	Not Present —An interface component is missing.
	Lower Layer Down —An interface is down because of a lower-layer interface.

Field	Description
Connect State (for GSM Abis)	Displays the connection state of a GSM interface. States can be:
	Connected —The device is monitoring local and remote alarm status.
	Disconnected—The system ignores the local alarm status. The local transmitter on the short-haul is disabled. Capabilitymessages are transmitted to the remote describing the provisioning. The system stays disconnected until the remote capabilities are known and the peer state is transitioned to connected.
	Send Connect —One or more attempts have been made to connect to remote peer.
	Receive Connect —The local-peer has received a connect request from the remote-peer.
	Connect Rejected —Connection was rejected.
	ACK Connect —The initial connect request was sent and acknowledged by remote-peer. The local-peer is now waiting for a connect request from the remote-peer.
	Check Connect —The local peer has reason to believe its remote peer has failed. Additional tests are being processed to verify peer's state.
Connect State (for UMTS Iub)	Displays the connection state of a UMTS interface. States can be:
	Initialized —The connection is starting initialization.
	Starting—The shorthaul interface is administratively active, but the backhaul interface is down.
	Closed—The backhaul interface is active, but the shorthaul is administratively closed.
	Stopped—Unable to connect to peer in specified time interval. Additional attempts will be tried based on peer request or restart timers.
	Closing—Connection closed by administration request.
	Stopping —Connection shut down by peer's Term-Request. Will transition to stopped state.
	Connect Sent —Connection request sent to peer.
	ACK Received —Connection request sent and acknowledgement has been received from peer. Now waiting for peer's connection request.
	ACK Sent —Connection request received and acknowledgement has been sent to peer. Connection request sent and waiting for peer's acknowledgement.
	Open —Connection open and available for traffic.

Field	Description
Local Receive Alarm State **Local Transmit Alarm State** **Remote Receive Alarm State** **Remote Transmit Alarm State**	Displays alarm states for UMTS Iub interface. States can be: **Remote Alarm** —Indicates a problem at the remote end. The alarm generated by the remote interface in the E1/T1 data stream is sent and no other action is required. **No Alarm** —No alarm is present. **Local Alarm** —Indicates local interface problem. The interface has not received synchronization from the GSM device. Device stops transmitting backhaul samples. **Received Alarm** —Indicates receive problem in the local device. The remote device stops transmitting backhaul data and indicates a blue alarm. **Alarm State Unavailable** —Indicates the alarm state is not available. This state only applies to the remote and occurs when the peer connection is inactive.
Redundancy State	Displays information about the GSM Abis or UMTS Iub interface redundancy state. States can be: **Active**—Active owner of interface. **Standby**—Active owner of interface.
Status	Current status of the interface. Possible values are: **Active** **Discovering** **Down** **Polling** **Unknown** **Unmanaged** **Waiting** **Warning** For detailed definitions of each status, see the "Status Definitions for Nodes" section on page A-4.

Field	Description
Last Status Change	Date and time of last change to status.
Status Reason	Reason for the current status of the interface.
	For a full list of possible reasons, see the *stateReasons.html* file:
	• If you installed MWTM in the default directory, */opt*, then the file is located at */opt/CSCOsgm/apache/share/htdocs/eventHelp* directory.
	• If you installed MWTM in a different directory, then the help directory and file are located in that directory.
	If the cell is too small to show all of the status reason, place the cursor over the cell to see the full status reason in a mouse over help popup.
	The status reasons are listed in order of decreasing magnitude. If two or more reasons apply, the reason of greatest magnitude is displayed.
	If the status reason is **Unsupported Configuration**, correct the configuration and enter the **mwtm cleandiscover** command to delete all current network data and begin a clean discovery of the RAN-O network. If the status reason is still **Unsupported Configuration**, enter the **mwtm clean** command to restore the MWTM server to a "clean" state, such as would exist after a new installation of MWTM. For more information on the use of these commands, see the "MWTM Command Reference" section on page C-1.

RAN Information

> **Note** This sub-section appears only for configured RAN interfaces (GSM Abis and UMTS Iub interfaces).

The RAN Information sub-section contains the following fields:

Field	Description
Protocol	Protocol of the interface (GSM-Abis or UMTS-Iub).
Local IP Address	IP address of the local device.
Local Port	Local port used by the interface.
Remote IP Address	IP address of the remote (peer) device.
Remote Port	Remote port used by the interface.

Interface Details: Notes

The Interface Details: Notes section displays:

- Notes associated with the interface.
- The date and time the notes associated with the interface were last updated, or the phrase **Not Set** if there are no notes associated with the interface.
- The phrase **No Notes** if there are no notes associated with the interface.

Interface Details: Recent Events

The Interface Details: Recent Events table displays all recent events associated with the interface, and enables you to perform event-related tasks, such as setting filters and acknowledging events.

To see mouse over help popup for each column in the table, place the cursor over a column header.

If a cell is too small to show all of its data, place the cursor over the cell to see the full data in a mouse over help popup.

You can resize each column, or sort the table based on the information in one of the columns. By default, MWTM displays the following columns: **Act** , **Category**, **Severity**, **Time**, and **Message**.

- To display hidden columns, right-click in the table header and select the checkboxes for the columns you want to display.

- To hide columns, right-click in the table header and clear the checkboxes for the columns you want to hide.

See the "Resizing, Sorting, and Hiding Table Columns" section on page 3-30 for more information about resizing, sorting, displaying, or hiding columns.

The Interface Details: Recent Events table contains the following toolbar buttons and columns:

Toolbar Button or Column	Description
Set Filter	Opens the Event Filter dialog.
Apply Filter or **Remove Filter**	Activates and deactivates the event filter specified in the Event Filter dialog: • If the filter is activated, MWTM displays only those events that pass the filter. • If the filter is deactivated, MWTM displays all events. • If you activate a filter in an object's Recent Events table in the MWTM Main Window, the filter is activated in all Recent Events tables in the MWTM Main Window for all other network objects. The filter is not activated in Recent Events tables in Show In New Window windows or real-time data and charts windows.
Pause or **Resume**	Pauses or resumes the table. While the table is paused, MWTM does not display new events in the table (unless you apply an event filter or edit your event preferences). When the table is resumed, all new events since the table was paused are added to the display. If events are deleted while the table is paused, they are not removed from the table. Instead, they are grayed-out and cannot be acknowledged or edited. Deleted events are removed from the table when you resume the table.
Acknowledge	Makes the selected event or events acknowledged.
Unacknowledge	Makes the selected event or events unacknowledged.
Event Properties	Opens the Event Properties window.
Edit Notes	Opens the Edit Event Dialog.
Time Difference	Displays the difference in days, minutes, hours, and seconds between two events.
Find	Finds specific text in the event table.
Create Sound Filter	Opens the Event Sound Filters dialog and the Event Sound Filters List dialog, with fields populated based on the selected event.

Toolbar Button or Column	Description
Adjust Row Height	Adjusts the table row height and wraps the message text as follows: • Click once to double the row height and wrap the message text. • Click again to triple the row height and wrap the message text. • Click again for single row height and no message text wrapping. This is the default setting. This setting is saved automatically with your preferences.
Help for Event	Displays context-sensitive help for the selected event in a separate Web browser.
Internal ID	Internal ID of the event. The internal ID is a unique ID for every object, assigned by MWTM for its own internal use. It can also be useful when the TAC is debugging problems.
Ack	Indicates whether the event has been acknowledged: • To acknowledge an unacknowledged event, use the **Acknowledge** toolbar button. • To make a previously acknowledged event unacknowledged, use the **Unacknowledge** toolbar button.
Category	Type of the event. Default values are: • **Create**—Creation event, such as the creation of a seed file. • **Delete**—Deletion event, such as the deletion of an object or file. • **Discover**—Discovery event, such as Discovery beginning. • **Edit**—Edit event. A user has edited an object. • **Ignore**—Ignore event. A user has **Ignored** a link or linkset. • **Login**—Login event. A user has logged in to MWTM. • **LoginDisable**—LoginDisable event. MWTM has disabled a user's User-Based Access authentication as a result of too many failed attempts to log in to MWTM. • **LoginFail**—LoginFail event. An attempt by a user to log in to MWTM has failed. • **Logout**—Logout event. A user has logged out of 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. • **Purge**—Purge event. A user has requested Discovery with **Delete Existing Data** selected, and MWTM has deleted the existing MWTM database. • **Status**—Status change message generated. • **Trap**—SNMP trap message generated. You can customize this field. See the "Changing Event Categories" section on page 5-23 for more information.

Toolbar Button or Column	Description
Severity	Severity of the event. Default values are: • **Critical**—The default color is red. • **Indeterminate**—The default color is aqua. • **Informational**—The default color is white. • **Major**—The default color is orange. • **Minor**—The default color is yellow. • **Normal**—The default color is green. • **Warning**—The default color is blue. You can customize this field. See the "Changing Event Severities and Colors" section on page 5-24 for more information.
Note	Indicates whether there is a note associated with the event.
Message Name	User-specified message name for the event, used by MWTM for trap forwarding. The default message name is **MWTM**. For more information about user-specified message names and trap forwarding, see the "Forwarding Events as Traps to Other Hosts" section on page 5-35.
Time	Date and time the event was logged.
Ack By	If you have not implemented MWTM User-Based Access, name of the device that last acknowledged the event. If you have implemented MWTM User-Based Access, name of the user who last acknowledged the event. If no one has acknowledged the event, this field is blank.
Ack Time	Date and time the event was last acknowledged or unacknowledged.
Node	Name of the node associated with the event. If there is no node associated with the event, **None** is displayed.
Message	Text of the message. You can customize this field. See the "Changing the Way MWTM Processes Events" section on page 5-17 for more information.

Attaching a Note to an Interface

MWTM enables you to annotate an interface, attaching a descriptive string to it.

To attach a note to an interface, right-click the interface in a window, then select **Edit > Notes** in the right-click menu. MWTM displays the Edit Notes Dialog for an Interface .

The Edit Notes Dialog for an Interface contains the following fields and buttons:

Field or Button	Description
Name	Name of the interface. You cannot edit this field.
Note Last Updated	Date and time the **Notes** field for this interface was last updated. If there is no note currently associated with this interface, this field displays the value **Not Set**. You cannot edit this field.
Notes	Notes to associate with this interface. In this field, you can enter any important information about the interface, such as a detailed description, its location, its service history, and so on.
Save	Saves changes you have made to the interface's notes, updates all MWTM windows to reflect your changes, and exits the dialog. When you annotate a node, MWTM displays a note icon in the **Notes** column of all interface tables for the annotated interface.
Cancel	Exits the dialog without saving any changes.
Help	Displays online help for the dialog.

Viewing Notes for an Interface

MWTM enables you to view any notes that have been associated with an interface.

To view a note for an interface, right-click a node in a window, then select **View > Notes** in the right-click menu. (The **Notes** option is grayed-out if there is no note associated with the selected node.)

MWTM displays the Notes panel for the selected node, which displays:

- Notes associated with the interface.
- The date and time the notes associated with the interface were last updated, or the phrase **Not Set** if there are no notes associated with the interface.
- The phrase **No Notes** if there are no notes associated with the interface.

Related Topics:

Deleting an Interface

After Discovery, the interfaces in your network are known to MWTM and added to the MWTM database. Physically deleting interfaces from your network is not the same as deleting them from the MWTM database. The following sections describe the differences between deleting interfaces from your network, from the MWTM database, and from the MWTM Discovery database, and the procedures for doing so:

Deleting an Interface from Your Network

If you physically delete a known interface from your network (for example, by powering down a router), it remains in the MWTM database, MWTM labels it **Unknown**, and it is the system administrator's responsibility to delete it from the MWTM database, if you choose to do so.

Deleting an Interface from the MWTM Database

Typically, you delete an interface from the MWTM database because you have physically deleted the interface from your network. This is the most common reason for deleting an interface from the MWTM database.

If you have physically deleted an interface from your network, and you then delete it from MWTM, it is no longer in the MWTM database, it does not appear in MWTM windows, and it is not discovered when you run Discovery.

> **Note**   If you delete an interface from the MWTM database, the interface is deleted for *all* MWTM clients and views connected to that MWTM server. If the interface is still configured on the router, it will re-appear on the MWTM at the next poll.

To delete an interface from the MWTM database, use one of the following procedures:

- Select an interface in a window, then select **Edit > Delete** from the MWTM Main Menu.
- Right-click an interface in a window, then select **Delete** in the right-click menu.

MWTM asks you to confirm the deletion:

- Select **Yes** to delete the selected interface. MWTM deletes the interface from the MWTM database.
- Select **No** to return to the window without deleting any interfaces from the MWTM database.

Ignoring an Interface

You can instruct MWTM to ignore an interface. Setting interfaces to **Ignored** prevents known interface problems from affecting MWTM displays for associated network objects. In effect, you are preventing a known problem from distracting you from other, more urgent network problems.

Note If you set an interface to **Ignored**, the interface is ignored for *all* MWTM clients and views connected to that MWTM server.

Also, if you set an interface to **Ignored**, make a note of the change, and do not forget to reset the interface when the problem is corrected or the maintenance is complete.

To set an interface to **Ignored**, right-click the interface in the left panel, then select **Ignore** from the right-click menu.