APPENDIX G

Trap Reference

This appendix contains:

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General Traps

The Cisco Mobile Wireless Transport Manager (MWTM) supports these general traps/notifications, which apply to:

- IP Transfer Point (ITP) networks
- IP Radio Access Network (IPRAN) networks
- Mobile Services Exchange Framework (mSEF) networks, which include:
  - Content Services Gateway (CSG)
  - Gateway GPRS Support Node (GGSN)
  - Home Agent (HA)
  - Broadband Wireless Gateway (BWG)

Note Some traps are platform/IOS specific.

Trap Name	Description
authenticationFailure	An authenticationFailure trap signifies that the IP address is accessing this node using the wrong community string.
caemTemperatureNotification	A caemTemperatureNotification is sent if the over temperature condition is detected in the managed system. This is a replacement for the ciscoEnvMonTemperatureNotification trap because the information ciscoEnvMonTemperatureStatusValue required by the trap is not available in the managed system.

Trap Name	Description
caemVoltageNotification	A caemVoltageNotification is sent if the over voltage condition is detected and ciscoEnvMonVoltageState is not set to notPresent in the managed system. This is a replacement for the ciscoEnvMonVoltageNotification trap because the information ciscoEnvMonVoltageStatusValue required by the trap is not available in the managed system.
casServerStateChange	An AAA server state change notification is generated whenever an AAA server connection state changes value. An AAA server state can be either *up* or *dead*.
ccmCLIRunningConfigChanged	Indicates that the running configuration of the managed system has changed from the CLI. If the managed system supports a separate configuration mode (where the configuration commands are entered under a configuration session which affects the running configuration of the system), then this notification is sent when the configuration mode is exited. During this configuration session there can be one or more running configuration changes.
cefcFRUInserted	Indicates that a FRU was inserted. The varbind for this notification indicates the entPhysicalIndex of the inserted FRU, and the entPhysicalIndex of the FRU container.
cefcFRURemoved	Indicates that a FRU was removed. The varbind for this notification indicates the entPhysicalIndex of the removed FRU, and the entPhysicalIndex of the FRU container.
cefcModuleStatusChange	This notification is generated when the value of cefcModuleOperStatus changes.It can be utilized by an NMS to update the status of the module it is managing.
cefcPowerStatusChange	Indicates that the power status of a FRU has changed. The varbind for this notification indicates the entPhysicalIndex of the FRU, and the new operational-status of the FRU.
cempMemBufferNotify	Whenever the cempMemBufferPeak object is updated in the buffer pool, a cempMemBufferNotify notification is sent. The sending of these notifications can be enabled/disabled via the cempMemBufferNotifyEnabled object.
cEventMgrPolicyEvent	This notification is configured to be sent from within an Embedded Event Manager policy after an Embedded Event Manager event ceemHistoryEventType has occurred. If one or more of the objects ceemHistoryPolicyIntData1, ceemHistoryPolicyIntData2, and ceemHistoryPolicyStrData are not instantiated, the varbind for the object(s) not instantiated contains the value noSuchInstance.
cEventMgrServerEvent	This notification is sent by the Embedded Event Manager server after it has run a policy associated with the event ceemHistoryEventType that was received.
chassisAlarmOff	Signifies that the agent entity has detected that the chassisTempAlarm, chassisMinorAlarm, or chassisMajorAlarm object in this MIB has transitioned to the off(1) state. The generation of this trap can be controlled by the sysEnableChassisTraps object in this MIB
chassisAlarmOn	Signifies that the agent entity has detected that the chassisTempAlarm, chassisMinorAlarm, or chassisMajorAlarm object in this MIB has transitioned to the on(2) state. The generation of this trap can be controlled by the sysEnableChassisTraps object in this MIB.
cHsrpStateChange	A cHsrpStateChange notification is sent when a cHsrpGrpStandbyState transitions to either active or standby state, or leaves active or standby state. There will be only one notification issued when the state change is from standby to active and vice versa.

Trap Name	Description
cisco_authenticationFailure	Signifies that the IP address is accessing this node using the wrong community string.
cisco_coldStart	Signifies that the SNMPv2 entity, acting in an agent role, is reinitializing itself such that its configuration might be altered.
cisco_linkDown	Signifies a failure in one of the communication links represented in the node's configuration has occurred.
cisco_linkUp	Signifies that one of the communication links represented in a node's configuration has come up.
cisco_warmStart	Signifies that the SNMPv2 entity, acting in an agent role, is reinitializing itself such that its configuration is unaltered.
ciscoConfigManEvent	Notification of a configuration management event as recorded in ccmHistoryEventTable.
ciscoEnvMonFanNotification	A ciscoEnvMonFanNotification trap is generated if any one of the fans in the fan array (where extant) fails. Since such a notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.
ciscoEnvMonFanStatusChangeNotif	A *ciscoEnvMonFanStatusChangeNotif is sent if there is change in the state of a device being monitored by ciscoEnvMonFanState.*
ciscoEnvMonRedundantSupply Notification	A ciscoEnvMonRedundantSupplyNotification trap is generated if the redundant power supply (where extant) fails. Since such a notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.
ciscoEnvMonShutdownNotification	A ciscoEnvMonShutdownNotification trap is generated if the environmental monitor detects a testpoint reaching a critical state and is about to initiate a shutdown. This notification contains no objects so that it can be encoded and sent in the shortest amount of time possible. Even so, management applications should not rely on receiving such a notification as it might not be sent before the shutdown completes.
ciscoEnvMonSuppStatusChangeNotif	A ciscoEnvMonSupplyStatChangeNotif is sent if there is change in the state of a device being monitored by ciscoEnvMonSupplyState.
ciscoEnvMonTemperatureNotification	A ciscoEnvMonTemperatureNotification trap is generated if the temperature measured at a given testpoint is outside the normal range for the testpoint (that is, is at the warning, critical, or shutdown stage). Since such a Notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.
ciscoEnvMonTempStatusChangeNotif	A ciscoEnvMonTempStatusChangeNotif is sent if there is change in the state of a device being monitored by ciscoEnvMonTemperatureState.
ciscoEnvMonVoltageNotification	A ciscoEnvMonVoltageNotification trap is generated if the voltage measured at a given testpoint is outside the normal range for the testpoint (that is, is at the warning, critical, or shutdown stage). Since such a notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.
ciscoEnvMonVoltStatusChangeNotif	A ciscoEnvMonVoltStatusChangeNotif is sent if there is change in the state of a device being monitored by ciscoEnvMonVoltageState.

Trap Name	Description
ciscoFlashCopyCompletionTrap	A ciscoFlashCopyCompletionTrap is sent at the completion of a flash copy operation if such a trap was requested when the operation was initiated.
ciscoFlashDeviceChangeTrap	A ciscoFlashDeviceChangeTrap is sent whenever a removable Flash device is inserted or removed.
ciscoFlashDeviceInsertedNotif	A ciscoFlashDeviceInsertedNotif notification is sent whenever a removable Flash device is inserted.
ciscoFlashDeviceInsertedNotifRev1	A ciscoFlashDeviceInsertedNotif notification is sent whenever a removable Flash device is inserted ciscoFlashDeviceInsertedNotifRev1 deprecates ciscoFlashDeviceInsertedNotif since it uses ciscoFlashDeviceName as a varbind which is deprecated.
ciscoFlashDeviceRemovedNotif	A ciscoFlashDeviceRemovedNotif notification is sent whenever a removable Flash device is removed.
ciscoFlashDeviceRemovedNotifRev1	A ciscoFlashDeviceRemovedNotif notification is sent whenever a removable Flash device is removed. ciscoFlashDeviceRemovedNotifRev1 deprecates ciscoFlashDeviceRemovedNotif since it uses ciscoFlashDeviceName as a varbind, which is deprecated.
ciscoFlashMiscOpCompletionTrap	A ciscoFlashMiscOpCompletionTrap is sent at the completion of a miscellaneous flash operation (enumerated in ciscoFlashMiscOpCommand) if such a trap was requested when the operation was initiated.
ciscoFlashPartitioningCompletionTrap	A ciscoFlashPartitioningCompletionTrap is sent at the completion of a partitioning operation if such a trap was requested when the operation was initiated.
ciscoICsuDsuT1LoopStatus Notification	Indicates a change in T1 Loop Status.
ciscoRFProgressionNotif	A ciscoRFProgressionNotif trap is sent by the active redundant unit whenever its RF state changes or the RF state of the peer unit changes.
ciscoRFSwactNotif	A ciscoRFSwactNotif trap is sent by the newly active redundant unit whenever a switch of activity (SWACT) occurs. In the case where a SWACT event might be indistinguishable from a reset event, a network management station should use this notification to differentiate the activity.
clogMessageGenerated	When a syslog message is generated by the node a clogMessageGenerated notification is sent. The sending of these notifications can be enabled/disabled via the clogNotificationsEnabled object.
coldStart	Signifies that the SNMPv2 entity, acting in an agent role, is reinitializing itself such that its configuration might be altered.
cpmCPUFallingThreshold	A cpmCPUFallingThreshold trap is generated when CPU is below the falling threshold.
cpmCPURisingThreshold	A cpmCPURisingThreshold trap is generated when CPU is above the rising threshold.

Trap Name	Description
entConfigChange	An entConfigChange notification is generated when the value of entLastChangeTime changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls. An agent should not generate more than one entConfigChange notification-event in a given time interval (five seconds is the suggested default). A notification-event is the transmission of a single trap or inform PDU to a list of notification destinations. If additional configuration changes occur in the throttling period, then notification-events for these changes should be suppressed by the agent until the current throttling period expires. At the end of a throttling period, one notification-event should be generated if any configuration changes occurred since the start of the throttling period. In such a case, another throttling period is started right away. An NMS should periodically check the value of entLastChangeTime to detect any missed entConfigChange notification-events (for example, because of throttling or transmission loss).
fallingAlarm	The SNMP trap that is generated when an alarm entry crosses its falling threshold and generates an event that is configured for sending SNMP traps.
linkDown	Signifies a failure in one of the communication links represented in the node's configuration has occurred.
linkUp	Signifies that one of the communication links represented in a node's configuration has come up.
moduleDown	Signifies that the agent entity has detected that the moduleStatus object in this MIB has transitioned out of the ok(2) state for one of its modules. The generation of this trap can be controlled by the sysEnableModuleTraps object in this MIB
moduleUp	Signifies that the agent entity has detected that the moduleStatus object in this MIB has transitioned to the ok(2) state for one of its modules. The generation of this trap can be controlled by the sysEnableModuleTraps object in this MIB.
risingAlarm	The SNMP trap that is generated when an alarm entry crosses its rising threshold and generates an event that is configured for sending SNMP traps.
rttMonConnectionChangeNotification	This notification is only valid when the RttMonRttType is *echo* or *pathEcho*. An rttMonConnectionChangeNotification indicates that a connection to a target (not to a hop along the path to a target) has either failed on establishment or been lost and when reestablished. This causes rttMonCtrlOperConnectionLostOccurred to change value. If history is not being collected, the instance values for the rttMonHistoryCollectionAddress object will not be valid. When RttMonRttType is not *echo* or *pathEcho*, the rttMonHistoryCollectionAddress object will be null.
rttMonLpdDiscoveryNotification	Indicates that the LSP Path Discovery to the target PE has failed, and it also indicates the clearing of such condition. This causes rttMonLpdGrpStatsLPDFailOccurred to change value. When the rttMonLpdGrpStatsLPDFailOccurred is *false*, the instance value for rttMonLpdGrpStatsLPDFailCause is not valid.
rttMonLpdGrpStatusNotification	Indicates that the LPD Group status rttMonLpdGrpStatsGroupStatus has changed, indicating some connectivity change to the target PE. This causes rttMonLpdGrpStatsGroupStatus to change value.

Trap Name	Description
rttMonNotification	Indicates the occurrence of a threshold violation, and it indicates the previous violation has subsided for a subsequent operation. When the RttMonRttType is *pathEcho*, this notification will only be sent when the threshold violation occurs during an operation to the target and not to a hop along the path to the target. This also applies to the subsiding of a threshold condition. If history is not being collected, the instance values for the rttMonHistoryCollectionAddress object will not be valid. When RttMonRttType is not *echo* or *pathEcho*, the rttMonHistoryCollectionAddress object will be null. rttMonReactVar defines the type of reaction that is configured for the probe (for example, jitterAvg). Trap definitions for the probes are in the rttMonReactTable, and each probe can have more than one trap definition for various types (for example, jitterAvg). So the object rttMonReactVar indicates the type (for example, packetLossSD) for which threshold violation traps have been generated. The object rttMonEchoAdminLSPSelector will be valid only for the probes based on *mplsLspPingAppl* RttMonProtocol. For all other probes it will be null.
rttMonThresholdNotification	Indicates the occurrence of a threshold violation for a RTT operation, and it indicates the previous violation has subsided for a subsequent RTT operation. This causes rttMonCtrlOperOverThresholdOccurred to change value. When the RttMonRttType is *pathEcho*, this notification will only be sent when the threshold violation occurs during an operation to the target and not to a hop along the path to the target. This also applies to the subsiding of a threshold condition. If history is not being collected, the instance values for the rttMonHistoryCollectionAddress object will not be valid. When RttMonRttType is not *echo* or *pathEcho* the rttMonHistoryCollectionAddress object will be null.
rttMonTimeoutNotification	Indicates the occurrence of a timeout for a RTT operation, and it indicates the clearing of such a condition by a subsequent RTT operation. This causes rttMonCtrlOperTimeoutOccurred to change value. When the RttMonRttType is *pathEcho*, this notification will only be sent when the timeout occurs during an operation to the target and not to a hop along the path to the target. This also applies to the clearing of the timeout. If history is not being collected, the instance values for the rttMonHistoryCollectionAddress object will not be valid. When RttMonRttType is not *echo* or *pathEcho*, the rttMonHistoryCollectionAddress object will be null.
rttMonVerifyErrorNotification	Indicates the occurrence of a data corruption in an RTT operation.
warmStart	Signifies that the SNMPv2 entity, acting in an agent role, is reinitializing itself such that its configuration is unaltered.

ITP Specific Traps

The MWTM supports these ITP specific traps, listed in alphabetical order:

Trap Name	Description
ciscoBitsClockFreerun	This trap is for Building Integrated Timing Supply (BITS) clocking sources. It is used to generate notifications to indicate when clocking source is unavailable. The internal clock will operate in *freerun* mode using appropriate local oscillator. Therefore, it does not provide synchronous clocking. This is the least stable of all operating modes.
ciscoBitsClockHoldover	This trap is for Building Integrated Timing Supply (BITS) clocking sources. It is used to generate notifications to indicate when clocking source is unavailable and the internal clock will operate in holdover mode. The network clock module has stored information about the incoming clock signal, it can faithfully reproduce the lost signal while in holdover mode until a switchover to another clock source occurs.
ciscoBitsClockSource	This trap is for Building Integrated Timing Supply (BITS) clocking sources. It is used to generate notifications to indicate when clocking sources change.
ciscoGftDestStateChangeRev1	A ciscoGftDestStateChangeRev1 trap is generated whenever one or more destination changes states within the cgrtDestNotifWindowTimeRev1 duration. Latest state information at the end of cgrtDestNotifWindowTimeRev1 is provided. It may be necessary to suppress the sending of notification when a large number destinations change state, due the failure of some common resource. The number of notifications can be controlled by specifying values for cgrtDestNotifWindowTimeRev1 and cgrtDestNotifMaxPerWindowRev1 objects. When the number of destination state changes exceed the specified value, the notification will provide a count of notifications that got suppressed for the remainder of the window.
ciscoGrtDestStateChange	A ciscoGrtDestStateChange trap is generated whenever one or more destination changes states. This notification contains a list of destination state changes in the cgrtDestNotifChanges object. State changes are accumulated until the cgrtDestNotifChanges is full or the maximum delay time is reached. The delay time is specified by the cgrtDestNotifDelayTime object. It might be necessary to suppress the sending of notification when a large number destinations change state, due to the failure of some common resource. The number of notifications can be controlled by specifying values for cgrtDestNotifWindowTime and cgrtDestNotifMaxPerWindow objects. When the number of destination state changes exceed the specified value the last notification will indicate that notifications are suppressed for the remainder of the window. This notification deprecates ciscoGrtDestStateChange.

Trap Name	Description
ciscoGrtMgmtStateChange	A ciscoGrtMgmtStateChange trap is generated whenever one or more management routes change state. This notification contains a list of management route state changes in the cgrtMgmtNotifChanges object. State changes are accumulated until the cgrtMgmtNotifChanges is full or the maximum delay time is reached. The delay time is specified by the cgrtMgmtNotifDelayTime object. It might be necessary to suppress the sending of notification when a large number of routes change state, due to the failure of some common resource. The number of notifications can be controlled by specifying values for cgrtMgmtNotifWindowTime and cgrtMgmtNotifMaxPerWindow objects. When the number of route state changes exceed the specified value the last notification will indicate that notifications are suppressed for the remainder of the window.
ciscoGrtMgmtStateChangeRev1	This notification is generated whenever one or more management routes change states within the cgrtMgmtNotifWindowTimeRev1 duration. Latest state information at the end of cgrtMgmtNotifWindowTimeRev1 is provided. It may be necessary to suppress the sending of notification when a large number of routes change state, due the failure of some common resource. The number of notifications can be controlled by specifying values for cgrtMgmtNotifWindowTimeRev1 and cgrtMgmtNotifMaxPerWindowRev1 objects. When the number of route state changes exceed the specified value, the last notification will provide a count of notifications that got suppressed for the remainder of the window. This notification deprecates ciscoGrtMgmtStateChange.
ciscoGrtNoRouteMSUDiscards	This notification is generated whenever one or more MSU discards happen due to route data error for a specific signalling point instance in the configured cgrtNoRouteMSUsNotifWindowTime. For cases when there is a non-zero number of MSUs discarded, this notification will be sent at the end of the cgrtNoRouteMSUsNotifWindowTime interval, with cgrtIntervalNoRouteMSUs indicating the total count of MSUs discarded for that specific signalling point instance during the entire cgrtNoRouteMSUsNotifWindowTime interval Q752/5.5.
ciscoGrtRouteTableLoad	A ciscoGrtRouteTableLoad trap is generated whenever a load operation is started or completed. Route table configurations can be loaded by CLI requests. In addition, route tables can loaded using configuration statements. This allows route tables to be reloaded whenever a node restarts.
ciscoGsccpGttErrors	This notification is generated whenever any global title error is encountered in last interval specified by the cgsccpGttErrorPeriod and the cgsccpInstErrorIndicator will be set to true. The notification will also be generated when errors have abated. The notification is generated after the number of recovery intervals as specified by the cgsccpGttErrorRecoveryCount object has passed without any global title errors.
ciscoGsccpGttLoadTable	A ciscoGsccpGttLoadTable trap is generated whenever a load operation is started or completes.
ciscoGsccpGttMapStateChange	A ciscoGsccpGttMapStateChange is generated when a mated application subsystem changes to a new state. The value of cgsccpGttMapSsStatus indicates the new state for the subsystem.
ciscoGspCongestionChange	A ciscoGspCongestionChange trap is generated when a link changes to a new congestion level as specified by the cgspLinkCongestionState object.

Trap Name	Description
ciscoGspIsolation	This notification indicates the instance specified by cgspInstDisplayName and cgspInstDescription has become isolated. All linkset used to connect MTP3 node (instance) are unavailable. Isolation is ended when any linkset supported by this instance reaches the active state.
ciscoGspLinkRcvdUtilChange	A ciscoGspLinkRcvdUtilChange trap is generated when the cgspLinkUtilStateRcvd changes states.
ciscoGspLinkSentUtilChange	A ciscoGspLinkSentUtilChange trap is generated when the cgspLinkUtilStateSent changes states.
ciscoGspLinksetStateChange	A ciscoGspLinksetStateChange trap is generated when a linkset changes to a new state. The value of cItpSpLinksetState indicates the new state.
ciscoGspLinkStateChange	A ciscoGspLinkStateChange trap is generated when a link changes to a new state. The value of cItpSpLinkState indicates the new state.
ciscoGspUPUReceived	The notification is generated when a UPU MSU is received from a remote signalling point, for a specific instance and user part for the first time in the configured cgspUPUNotifWindowTime. For cases when there is a non-zero number of UPU MSUs received, this notification will be sent at the end of the cgspUPUNotifWindowTime interval, with cgspIntervalUPUs indicating the total count of UPU MSUs received for that specific instance and user part during the entire cgspUPUNotifWindowTime interval Q752/5.6.
ciscoGspUPUTransmitted	The notification is generated when a UPU MSU is transmitted to a remote signalling point, for a specific instance and user part for the first time in the configured cgspUPUNotifWindowTime. For cases when there is a non-zero number of UPU MSUs received, this notification will be sent at the end of the cgspUPUNotifWindowTime interval, with cgspIntervalUPUs indicating the total count of UPU MSUs transmitted for that specific instance and user part during the entire cgspUPUNotifWindowTime interval Q752/5.7.
ciscoItpMsuRateState	This notification is generated once for the interval specified by the cimrMsuRateNotifyInterval object when the cimrMsuTrafficRateState object has the following state transitions: • acceptable to warning • acceptable to overloaded • warning to overloaded At the end of the interval specified by the cimrMsuRateNotifyInterval object another notification will be generated if the current state is different from state sent in last notification even if the state transition is not one of the previously mentioned transitions. When the cimrMsuRateNotifyInterval is set to zero all state changes will generate notifications.
ciscoItpXuaAspAssocStateChange	The ciscoItpXuaAspAssocStateChange trap is generated when the association used to connect to the ASP changes state.
ciscoItpXuaAspCongChange	A ciscoItpXuaAspCongChange trap is generated when an ASP changes to a congestion level as specified by the cItpXuaAspCongLevel object.
ciscoItpXuaAspDestAddrStateChange	The ciscoItpXuaAspDestAddrStateChange to trap is generated when a destination IP address used by ASP changes state.

Trap Name	Description
ciscoItpXuaAspStateChange	A ciscoItpXuaAspStateChange trap is generated when an ASP changes to a new state. The value of cItpXuaAspAsState indicates the new state for the ASP that is serving the AS specified by cItpXuaAsDisplayName.
ciscoItpXuaAsStateChange	A ciscoItpXuaAsStateChange trap is generated when an AS changes to a new state. The value of cItpXuaAsState indicates the new state for the AS.
ciscoItpXuaSgmAssocStateChange	The ciscoItpXuaSgmAssocStateChange trap is generated when the association used to connect to the SG Mate changes state.
ciscoItpXuaSgmCongChange	A ciscoItpXuaSgmCongChange trap is generated when an SGMP changes to a congestion level as specified by the cItpXuaSgmCongLevel object.
ciscoItpXuaSgmDestAddrStateChange	The ciscoItpXuaSgmDestAddrStateChange trap is generated when a destination IP address used by SG Mate changes state.
ciscoItpXuaSgmStateChange	A ciscoItpXuaSgmStateChange trap is generated when an SG Mate changes to a new state. The value of cItpXuaSgmState indicates the new state for the SG Mate.
ciscoMlrTableLoad	A ciscoMlrTableLoad trap is generated when a load operation is started or completed. Route table configurations can be loaded by CLI requests. In addition, route tables can loaded using configuration statements, which allows route tables to be reloaded whenever a node restarts.
cItpRouteStateChange	A cItpRouteStateChange trap is generated whenever one or more route destination status changes states and includes the count of all route state changes. This notification contains a list of route state changes in the cItpRtNotifInfoStateChanges object. State changes are accumulated until the cItpRtNotifInfoStateChanges is full or the maximum delay time is reached. The delay time is specified by the cItpRtChangeNotifDelayTime object. It might be necessary to suppress the sending of notification when a large number route change state, due the failure of some common resource. The number of notifications can be controlled by specifying values for cItpRtChangeNotifWindowTime and cItpRtChangeNotifMaxPerWindow objects. When the number of route state changes exceed the specified value the last notification will indicate that notifications are suppressed for the remainder of the window.
cItpSccpGttMapStateChange	A cItpSccpGttMapStateChange trap is generated when a mated application subsystem changes to a new state. The value of cItpSccpGttMapSsStatus indicates the new state for the subsystem.
cItpSpCongestionChange	A cItpSpCongestionChange trap is generated when a link changes to a new congestion level as specified by the cItpLinkCongestionState object.
cItpSpLinkRcvdUtilChange	A cItpSpLinkRcvdUtilChange trap is generated when the cItpSpLinkUtilStateRcvd changes states.
cItpSpLinkSentUtilChange	A cItpSpLinkSentUtilChange trap is generated when the cItpSpLinkUtilStateSent changes states.
cItpSpLinksetStateChange	A cItpSpLinksetStateChange trap is generated when a linkset changes to a new state. The value of cItpSpLinksetState indicates the new state.
cItpSpLinkStateChange	A cItpSpLinkStateChange trap is generated when a link changes to a new state. The value of cItpSpLinkState indicates the new state.
cSctpExtDestAddressStateChange	A cSctpExtDestAddressStateChange trap is generated when the state transition of cSctpAssocRemAddressStatus has occurred.

CDT Specific Traps

The MWTM supports these CDT specific traps, listed in alphabetical order:

Trap Name	Description
titanAlarmStatusChange	A titanAlarmStatusChange trap signifies that an error condition has occurred or cleared causing a change of status in a TITAN resource. The severity of the alarm is given in titanAlarmSeverity; the alarm identifier, titanAlarmId, is the specific ID of the alarm; the affected subsystem and subsystem type are given in titanAlarmSubsystemName and titanAlarmSubsystemType; the details are given in titanAlarmProbableCause and titanAlarmSpecificCause. The time the alarm occurred, titanAlarmTimestamp, is in UTC Time.
titanHeartbeat	A titanHeartbeat trap indicates that the server on the system given by titanSystemName is running and able to send traps. The time the trap was sent is given in titanHeartbeatTimestamp in UTC Time.

IPRAN Specific Traps

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- PWE3 Specific Traps, page G-11

RAN-O Specific Traps

The MWTM supports these RAN-O specific traps, listed in alphabetical order:

Trap Name	Description
cerent454Events	The CERENT-454-MIB defines the events and alarms that are raised by the ONS 15454. The MWTM processes each ONS event by creating an MWTM event with a severity that maps to the severity of the ONS event.
ciscoIpRanBackHaulGsmAlarm	A ciscoIpRanBackHaulGsmAlarm trap is generated when the values of these objects change: connect state, local alarm state, remote alarm state, and redundancy state.
ciscoIpRanBackHaulUmtsAlarm	A ciscoIpRanBackHaulUmtsAlarm trap is generated when the values of these objects change: connect state, received local state, received remote state, transmit local state, transmit remote state, and redundancy state.

PWE3 Specific Traps

The MWTM supports these PWE3 specific traps, listed in alphabetical order:

Trap Name	Description
cpwVcDown	The cpwVcDown trap is generated when the cpwVcOperStatus object for one or more contiguous entries in cpwVcTable are about to enter the down(2) state from some other state. The included values of cpwVcOperStatus MUST all be set equal to this down(2) state. The two instances of cpwVcOperStatus in this notification indicate the range of indexes that are affected. Note that all the indexes of the two ends of the range can be derived from the instance identifiers of these two objects. For cases where a contiguous range of cross-connects have transitioned into the down(2) state at roughly the same time, the device SHOULD issue a single notification for each range of contiguous indexes in an effort to minimize the emission of a large number of notifications. If a notification has to be issued for just a single cross-connect entry, then the instance identifier (and values) of the two cpwVcOperStatus objects MUST be identical.
cpwVcUp	This notification is generated when the cpwVcOperStatus object for one or more contiguous entries in cpwVcTable are about to enter the up(1) state from some other state. The included values of cpwVcOperStatus MUST both be set equal to this new state (that is, up(1)). The two instances of cpwVcOperStatus in this notification indicate the range of indexes that are affected. Note that all the indexes of the two ends of the range can be derived from the instance identifiers of these two objects. For cases where a contiguous range of cross-connects have transitioned into the up(1) state at roughly the same time, the device SHOULD issue a single notification for each range of contiguous indexes in an effort to minimize the emission of a large number of notifications. If a notification has to be issued for just a single cross-connect entry, then the instance identifier (and values) of the two cpwVcOperStatus objects MUST be the identical.

mSEF Specific Traps

The MWTM supports these mSEF specific traps, listed in alphabetical order:

- Generic mSEF Traps, page G-12
- CSG1 Traps, page G-13
- CSG2 Traps, page G-14
- GGSN Traps, page G-15
- BWG Traps, page G-17
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Generic mSEF Traps

The MWTM supports these generic mSEF traps, listed in alphabetical order:

Trap Name	Description
ciscoSlbRealState Change	The notification generated when a real server changes to a new state. The value of slbRealServerState indicates the new state.

Trap Name	Description
ciscoSlbVirtualState Change	The notification generated when a virtual server changes to a new state. The value of slbVirtualServerState indicates the new state.
cslbxFtStateChange	The notification generated when the Fault Tolerance process changes to a new state. The value of cslbxFtState indicates the new state.

CSG1 Traps

The MWTM supports these CSG1 traps, listed in alphabetical order:

Trap Name	Description
ciscoCsgAgentLostRecordEvent	This notification is issued when csgAgentNotifsEnabled is set to true, and the CSG must discard accounting records that should be sent to the billing mediation agent. Initially, csgAgentLostRecords is set to 0. When a record is discarded, csgAgentLostRecords is incremented, a period timer is started, and this notification is issued. The NMS and the agent save this value. The agent continues to increment csgAgentLostRecords each time a record is lost. When the period timer expires, the agent compares the current value of csgAgentLostRecords with the previous (saved) value. If the values are equal this notification is issued again, signalling to the NMS that the condition has been cleared. Otherwise, the timer is restarted to monitor the next period. When a record is lost and no period timer is active, this notification is issued and the above procedure is repeated.
ciscoCsgAgentStateChange	This notification is issued when csgAgentNotifsEnabled is set to 'true', and the billing mediation agent changes state. There is one exception: No notification is issued for state changes involving *echowait* because this would cause an excessive number of notifications.
ciscoCsgQuotaMgrLostRecordEvent	This notification is issued when csgQuotaNotifsEnabled is set to true, and the CSG must discard request records to be sent to the quota manager. The processing is the same as described in the description for ciscoCsgAgentLostRecordEvent.
ciscoCsgQuotaMgrStateChange	This notification is issued when csgQuotaNotifsEnabled is set to true, and the quota manager changes state. There is one exception: No notification is issued for state changes involving *echowait* because this would cause an excessive number of notifications.
ciscoCsgUserDbStateChange	This notification is issued when csgDatabaseNotifsEnabled is set to true, and the user database changes state.

CSG2 Traps

The MWTM supports these CSG2 traps, listed in alphabetical order:

Trap Name	Description
ciscoContentServicesBMALost RecordEvent	This notification is issued when ccsBMAStateChangeNotifEnabled is set to true, and accounting records, which should be sent to the billing mediation agent, must be discarded. Initially, ccsBMALostRecords is set to 0. When a record is discarded, ccsBMALostRecords is incremented, a period timer is started, and this notification is issued. The NMS and the agent save this value. The agent continues to increment ccsBMALostRecords each time a record is lost. When the period timer expires, the agent compares the current value of ccsBMALostRecords with the previous (saved) value. If the values are equal this notification is issued again, signalling to the NMS that the condition has been cleared. Otherwise, the timer is restarted to monitor the next period. When a record is lost and no period timer is active, this notification is issued and the above procedure is repeated.
ciscoContentServicesBMAState Change	This notification is issued when ccsBMAStateChangeNotifEnable is set to true, and the billing mediation agent changes state. There is one exception: No notification is issued for state changes involving *echowait* because this would cause an excessive number of notifications.
ciscoContentServicesLicenseKut LimitExceeded	This notification is issued when ccsLicenseKutLimitExceededNotifEnabled is set to *true*, and when KUT entry creation limit exceeds licensed limit i.e., configured with ccsgsLicenseValueConfigured.
ciscoContentServicesQuotaMgrLost RecordEvent	This notification is issued when ccsQuotaMgrStateChangeNotifEnable is set to true, and request records to be sent to the quota manager must be discarded. The processing is the same as described in the description for ccsQuotaMgrLostRecordEvent.
ciscoContentServicesQuotaMgr StateChange	This notification is issued when ccsQuotaMgrStateChangeNotifEnabled is set to true, and the quota manager changes state. There is one exception: No notification is issued for state changes involving *echowait* because this would cause an excessive number of notifications.
ciscoContentServicesUserDbState Change	This notification is issued when ccsUserDbStateChangeNotifEnabled is set to true, and the user database changes state.
cPsdClientDiskFullNotif	This notification is generated when the PSD server's disk become full. If the disk of a writable PSD server becomes full, the client shall not be able to write any CDR into the server. It shall then behave as a retrieve only PSD server.
cPsdClientDownNotif	A notification of this type is generated when the PSD server goes DOWN. If the PSD client was in write/retrieving state, then that operation shall be stopped.
cPsdClientUpNotif	A notification of this type is generated when the PSD server comes UP. A GTP' (GTP enhanced for charging) path will be created fulfilling all the specific requirements of the PSD interface.

GGSN Traps

The MWTM supports these GGSN traps, listed in alphabetical order:

Trap Name	Description
cGgsnAccessPointNameNotif	This notification indicates the occurrence of an APN (Access Point Name) related alarm.
cGgsnGlobalErrorNotif	This notification indicates the occurrence of a GGSN related alarm.
cGgsnInServiceNotif	A notification of this type is generated when GGSN is placed in inService mode, which is specified by cGgsnServiceModeStatus.
cGgsnMaintenanceNotif	A notification of this type is generated when GGSN is placed in maintenance mode which is specified by cGgsnServiceModeStatus.
cGgsnMemThreshold ClearedNotif	A notification of this type is generated when GGSN retains the memory and falls below threshold value specified by cGgsnMemoryThreshold.
cGgsnMemThreshold ReachedNotif	A notification of this type is generated when GGSN reaches the memory threshold value specified by cGgsnMemoryThreshold.
cGgsnNotification	This notification indicates the occurrence of a GGSN related alarm. If and when additional useful information is available for specific types of alarms, then that information may be appended to the end of the notification in additional varbinds.
cGgsnPacketData ProtocolNotif	This notification indicates the occurrence of a user related alarm.
cGgsnPdfStateDownNotif	A notification of this type is generated when PDF (Policy Decision Function) connection goes DOWN.
cGgsnPdfStateUpNotif	A notification of this type is generated when PDF connection comes UP.
cGgsnSACsgStateDownNotif	This notification is generated when CSG state goes down.
cGgsnSACsgStateUpNotif	This notification is generated when CSG state goes up.
cGgsnSADccaAuth RejectedNotif	This notification is generated when credit-control server failed in authorization of end user. The PDP (Packet Data Protocol) context is deleted and category is blacklisted.
cGgsnSADccaCredit LimReachedNotif	This notification is generated when the credit limit is reached. The credit-control server denies the service request since the end user's account could not cover the requested service. Client shall behave exactly as with cGgsnSADccaEndUsrServDeniedNotif.
cGgsnSADccaEndUsr ServDeniedNotif	This notification is generated when the credit-control server denies the service request due to service restrictions. On reception of this notification on category level, the CLCI-C shall discard all future user traffic for that category on that PDP context and not attempt to ask for more quotas during the same PDP context.
cGgsnSADccaRatingFailed	This notification is generated when the credit-control server cannot rate the service request, due to insufficient rating input, incorrect AVP combination or due to an AVP (Attribute Value Pair) or an AVP value that is not recognized or supported in the rating.
cGgsnSADccaUser UnknownNotif	This notification is generated when the specified end user is unknown in the credit-control server. Such permanent failures cause the client to enter the Idle state. The client shall reject or terminate the PDP context depending on whether the result code was received in a CCA (Credit Control Answer) (Initial) or CCA (Update).
cgprsAccPtCfgNotif	A notification of this type is generated when an entry is generated in the cgprsAccPtCfgNotifHistTable and cgprsAccPtCfgNotifEnable is set to true.

Trap Name	Description
cgprsAccPtInServiceNotif	A notification of this type is generated when APN is placed in *in-service* mode which is specified by cgprsAccPtOperationMode.
cgprsAccPtMaintenance Notif	A notification of this type is generated when APN is placed in maintenance mode which is specified by cgprsAccPtOperationMode.
cgprsAccPtSecDestViolNotif	A notification of this type is generated when security violation as specified by cgprsAccPtVerifyUpStrTpduDstAddr occurs on an APN.
cgprsAccPtSecSrcViolNotif	A notification of this type is generated when security violation as specified by cgprsAccPtVerifyUpStrTpduSrcAddr occurs on an APN.
cgprsCgAlarmNotif	A cgprsCgAlarmNotif signifies that a GPRS (General Packet Radio Service) related alarm is detected in the managed system. This alarm is sent after an entry has been added to cgprsCgAlarmHistTable.
cgprsCgGatewaySwitch overNotif	A notification of this type is generated when the charging gateway is switched, the new charging gateway is identified by cgprsCgActiveChgGatewayAddress and the old charging gateway is identified by cgprsCgOldChgGatewayAddress. The switchover will happen according to the value set in cgprsCgGroupSwitchOverTime and the selection of the new CG will be according to the value set in cgprsCgSwitchOverPriority.
cgprsCgInServiceModeNotif	A notification of this type is generated when the GGSN charging function is in normal mode. This can be identified by cgprsCgServiceMode object.
cgprsCgInServiceModeNotif	A notification of this type is generated when the GGSN charging function is in normal mode. This can be identified by cgprsCgServiceMode object.
cgprsCgMaintenance ModeNotif	A notification of this type is generated when the GGSN charging function is in maintenance mode. This can be identified by cgprsCgServiceMode object.
cGtpPathFailedNotification	This notification is sent when one of this GSN's peers failed to respond to the GTP (GPRS Tunneling Protocol) Echo Request message for the waiting interval.
cilpPercentAddrUsedHiNotif	A notification indicating that the percentage of used addresses of an IP local pool is equal to or exceeds the threshold value indicated by cIpLocalPoolPercentAddrThldHi.
cilpPercentAddrUsedLoNotif	A notification indicating that the percentage of used addresses of an IP local pool went below the threshold value indicated by cIpLocalPoolPercentAddrThldLo.
ciscoIpLocalPoolInUseAddr Notif	A notification indicating that number of used addresses of an IP local pool exceeded the threshold value indicated by cIpLocalPoolStatInUseAddrThldHi.
cPsdClientDiskFullNotif	A notification of this type is generated when the PSD (Persistent Storage Device) server's disk become full. If the disk of writable PSD server becomes full, the client shall not be able to write any CDR into the server. It shall then behave as a retrieve only PSD server.
cPsdClientDownNotif	A notification of this type is generated when the PSD server goes DOWN. If the PSD client was in write/retrieving state, then that operation shall be be stopped.
cPsdClientUpNotif	A notification of this type is generated when the PSD server comes UP. A GTP' (GTP enhanced for charging) path will be created fulfilling all the specific requirements of the PSD interface.

BWG Traps

The MWTM supports these BWG traps, listed in alphabetical order:

Trap Name	Description
ciscoAgwMaxBaseStation ExceededAbateNotif	A notification of this type is generated when the number of base stations goes below the percent of the maximum number of base stations as specified by the object cagwMaxBaseStationExceededNotifThreshold.
ciscoAgwMaxBaseStation ExceededOnsetNotif	A notification of this type is generated when the number of base stations exceeded the percent of the maximum number of base stations as specified by the object cagwMaxBaseStationExceededNotifThreshold.
ciscoAgwMaxSubscribers ExceededAbateNotif	A notification of this type is generated when the number of subscribers goes below the percent of the maximum number of base stations as specified by the object cagwMaxSubscribersExceededNotifThreshold.
ciscoAgwMaxSubscribers ExceededOnsetNotif	A notification of this type is generated when the number of subscribers exceeded the percent of the maximum number of base stations as specified by the object cagwMaxSubscribersExceededNotifThreshold.
ciscoAgwServiceDown Notif	A notification of this type is generated when the BWG is not in service.
ciscoAgwServiceUpNotif	A notification of this type is generated when the BWG is in service.

HA Traps

The MWTM supports these HA traps, listed in alphabetical order:

Trap Name	Description
cilpPercentAddrUsedHi Notif	A notification indicating that the percentage of used addresses of an IP local pool is equal to or exceeds the threshold value indicated by cIpLocalPoolPercentAddrThldHi.
cilpPercentAddrUsedLo Notif	A notification indicating that the percentage of used addresses of an IP local pool went below the threshold value indicated by cIpLocalPoolPercentAddrThldLo.
ciscoIpLocalPoolInUseAddrNotif	A notification indicating that number of used addresses of an IP local pool exceeded the threshold value indicated by cIpLocalPoolStatInUseAddrThldHi.
cmiHaMaxBindingsNotif	The HA total registrations reached maximum bindings. This notification is sent when the registration request from MN is rejected by the HA.
cmiHaMnRegReqFailed	The Mobile Node (MN) registration request failed notification. This notification is sent when the registration request from MN is rejected by the HA.
crRadiusServerRetransHiNotif	This notification indicates that the current number of server retransmissions are greater than or equal to crRadiusServerRetransThldHi. Once sent, this notification will be disarmed until the number of retransmissions falls below the value configured through crRadiusServerRetransThldNorm.
crRadiusServerRetransNormNotif	This notification indicates that the current number of server retransmissions are less than or equal to crRadiusServerRetransThldNorm. Once sent, this notification will be disarmed until the number of retransmissions exceed the value configured through crRadiusServerRetransThldHi.

Trap Name	Description
crRadiusServerRTTHiNotif	This notification indicates that the current server round-trip time is greater than or equal to crRadiusServerRTTThldHi. Once sent, this notification is disarmed until the round-trip time falls below the value configured through crRadiusServerRTTThldNorm.
crRadiusServerRTTNormNotif	This notification indicates that the current server round-trip time is less than or equal to crRadiusServerRTTThldNorm. Once sent, this notification is disarmed until the round-trip time exceeds the value configured through crRadiusServerRTTThldHi.
cslbcSlbDfpCongestionAbate	The server generates this notification when value of cslbcInstanceDfpValue object rises above the threshold indicated by the cslbcDfpCongestionAbateThreshold object.
cslbcSlbDfpCongestionOnset	The server generates this notification when value of cslbcInstanceDfpValue object drops below the threshold indicated by the cslbcDfpCongestionOnsetThreshold object.
mipAuthFailure	Indicates that the Mobile IP entity has an authentication failure when it validates the mobile Registration Request or Reply.