



## Trap Reference

This appendix contains:

- [General Traps, page G-1](#)
- [ITP Specific Traps, page G-7](#)
- [IPRAN Specific Traps, page G-11](#)
- [mSEF Specific Traps, page G-16](#)

## 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)
  - Packet Data Serving Node (PDSN)



**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 <i>up</i> or <i>dead</i> .  |
| 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. |
| ceAlarmAsserted            | The agent generates this trap when a physical entity asserts an alarm.  |
| ceAlarmCleared             | The agent generates this trap when a physical entity clears a previously asserted alarm.  |
| cefInconsistencyDetection  | A cefInconsistencyDetection notification is generated when CEF consistency checkers detects an inconsistent prefix in one of the CEF forwarding databases.<br><br>Note that the generation of cefInconsistencyDetection notifications is throttled by the agent, as specified by the 'cefNotifThrottlingInterval' object.   |
| cefPeerFIBStateChange      | A cefPeerFIBStateChange notification is generated if change in cefPeerFIBOperState is detected for the peer entity.   |
| cefPeerStateChange         | A cefPeerStateChange notification is generated if change in cefPeerOperState is detected for the peer entity.   |
| cefResourceFailure         | A cefResourceFailure notification is generated when CEF resource failure on the managed entity is detected. The reason for this failure is indicated by cefResourceFailureReason.   |
| 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.  |

| Trap Name                               | Description   |
|---|---|
| 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.  |
| 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         | <i>A ciscoEnvMonFanStatusChangeNotif is sent if there is change in the state of a device being monitored by ciscoEnvMonFanState.</i>  |
| 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.  |

| Trap Name                             | Description  |
|---------------------------------------|--|
| 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.   |
| 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.  |

| Trap Name                      | Description   |
|--------------------------------|---|
| 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.   |
| entConfigChange                | <p>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.</p> <p>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.</p> <p>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.</p> <p>An NMS should periodically check the value of entLastChangeTime to detect any missed entConfigChange notification-events (for example, because of throttling or transmission loss).</p> |
| entSensorThresholdNotification | The sensor value crossed the threshold listed in entSensorThresholdTable. This notification is generated once each time the sensor value crosses the threshold.   |
| 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.   |

| Trap Name                          | Description   |
|------------------------------------|---|
| reload                             | A reload trap signifies that the sending protocol entity is reinitializing itself such that the agent's configuration or the protocol entity implementation may be altered.   |
| 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 <i>echo</i> or <i>pathEcho</i> . 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 <i>echo</i> or <i>pathEcho</i> , 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 <i>false</i> , 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.   |
| rttMonNotification                 | Indicates the occurrence of a threshold violation, and it indicates the previous violation has subsided for a subsequent operation. When the RttMonRttType is <i>pathEcho</i> , 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 <i>echo</i> or <i>pathEcho</i> , 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 <i>mplsLspPingAppl</i> 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 <i>pathEcho</i> , 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 <i>echo</i> or <i>pathEcho</i> the rttMonHistoryCollectionAddress object will be null.   |

| Trap Name                     | Description  |
|-------------------------------|--|
| 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 <i>pathEcho</i> , 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 <i>echo</i> or <i>pathEcho</i> , the rttMonHistoryCollectionAddress object will be null. |
| rttMonVerifyErrorNotification | Indicates the occurrence of a data corruption in an RTT operation.   |
| tcpConnectionClose            | A tty trap signifies that a TCP connection, previously established with the sending protocol entity for the purposes of a tty session, has been terminated.  |
| 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 <i>freerun</i> 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.   |
| ciscoGrtDestStateChangeRev1 | A ciscoGrtDestStateChangeRev1 trap is generated whenever one or more destination changes states within the cgrtDestNotifWindowTimeRev1 duration. Latest state information at the end of cgrtDestNotifWindowTimeRev1 is provided.<br><br>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. |

| Trap Name                   | Description   |
|-----------------------------|---|
| ciscoGrtDestStateChange     | <p>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.</p> <p>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.</p> <p>This notification deprecates ciscoGrtDestStateChange.</p> |
| ciscoGrtMgmtStateChange     | <p>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.</p> <p>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.</p>  |
| ciscoGrtMgmtStateChangeRev1 | <p>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.</p> <p>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.</p> <p>This notification deprecates ciscoGrtMgmtStateChange.</p>  |
| ciscoGrtNoRouteMSUDiscards  | <p>This notification is generated whenever one or more MSU discards happen due to route data error for a specific signaling 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 signaling point instance during the entire cgrtNoRouteMSUsNotifWindowTime interval Q752/5.5.</p>  |
| ciscoGrtRouteTableLoad      | <p>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.</p>   |



| Trap Name                    | Description  |
|------------------------------|--|
| 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.   |
| ciscoGsccpLocalSsStateChange | The notification generated when a local application subsystem changes to a new state. The subsystem number and the latest subsystem state will be provided in this notification.   |
| ciscoGsccpRmtCongestion      | This notification is generated initially when congestion is experienced in the remote SCCP component for the first time in last interval specified by the cgsccpGttErrorPeriod. The notification is generated after the number of recovery intervals as specified by the cgsccpGttErrorRecoveryCount object has passed without any congestion errors and total number of local congestion observed for different congestion levels at the end of the interval along with the latest known congestion status for that remote signalling point will be provided. |
| ciscoGsccpSOGReceived        | This notification is generated initially when a Subsystem Out-of-Service Grant is sent in response to a Subsystem Out-of-Service Request message. The affected PC and affected SSN are provided with this notification.  |
| ciscoGsccpSegReassUnsup      | This notification is generated initially when a SCCP message is dropped due to a segmentation or reassembly unsupported or failure errors in last interval specified by the cgsccpGttErrorPeriod and the cgsccpInstErrorIndicator will be set to true. The notification will also be generated after the number of recovery intervals as specified by the cgsccpGttErrorRecoveryCount object has passed without any segmentation or reassembly unsupported errors.   |
| ciscoGspCongestionChange     | A ciscoGspCongestionChange trap is generated when a link changes to a new congestion level as specified by the cgspLinkCongestionState object.   |
| 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.  |
| ciscoGspRxCongestionChange   | The notification generated when a link changes to a new congestion level as specified by cgspLinkRxCongestionstate object for Received side congestion.  |

| Trap Name                         | Description   |
|-----------------------------------|---|
| ciscoGspUPUReceived               | The notification is generated when a UPU MSU is received from a remote signaling 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 signaling 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              | <p>This notification is generated once for the interval specified by the cimrMsuRateNotifyInterval object when the cimrMsuTrafficRateState object has the following state transitions:</p> <ul style="list-style-type: none"> <li>• acceptable to warning</li> <li>• acceptable to overloaded</li> <li>• warning to overloaded</li> </ul> <p>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.</p> |
| 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 trap is generated when a destination IP address used by ASP changes state.  |
| 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.   |

| Trap Name                       | Description  |
|---------------------------------|--|
| 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 be loaded using configuration statements, which allows route tables to be reloaded whenever a node restarts.  |
| cItpRouteStateChange            | <p>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.</p> <p>It might be necessary to suppress the sending of notification when a large number of route change states, due to 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 exceeds the specified value the last notification will indicate that notifications are suppressed for the remainder of the window.</p> |
| 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.  |
| cSctpExtDestAddressStateChange  | A cSctpExtDestAddressStateChange trap is generated when the state transition of cSctpAssocRemAddressStatus has occurred.   |
| ciscoItpXuaAsRmtThStateChange   | The ciscoItpXuaAsRmtThStateChange trap is generated when the Rate Limit Threshold level for a xua changes to a new state. This trap is generated when the rate limit onset threshold is reached. The value of cItpXuaAsRmtThState indicates the new state.   |
| ciscoItpXuaAsRmtHtStateChange   | The ciscoItpXuaAsRmtHtStateChange trap is generated when the Rate Limit hit level for a xua changes to a new state. This trap is generated when the rate limit is hit and packet actually drops due to rate limit. The value of cItpXuaAsRmtHtState indicates the new state.   |
| ciscoGspLinksetRmtThStateChange | The ciscoGspLinksetRmtThStateChange trap is generated when the Rate Limit Threshold level for a linkset changes to a new state. This trap is generated when the rate limit onset threshold is reached. The value of cgspLinksetRmtThState indicates the new state.   |
| ciscoGspLinksetRmtHtStateChange | The ciscoGspLinksetRmtHtStateChange trap is generated when the Rate Limit hit level for a linkset changes to a new state. This trap is generated when the rate limit is hit and packet actually drops due to rate limit. The value of cgspLinksetRmtHtState indicates the new state.   |

## IPRAN Specific Traps

- [OSPF Specific Traps, page G-12](#)
- [RAN-O Specific Traps, page G-13](#)
- [IP-RAN Specific Traps, page G-14](#)
- [PWE3 Specific Traps, page G-15](#)

## OSPF Specific Traps

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

| Trap Name                          | Description  |
|------------------------------------|--|
| ospfInterfaceAuthenticationFailure | An ospfInterfaceAuthenticationFailure trap signifies that a packet has been received on a non-virtual interface from a router whose authentication key or authentication type conflicts with this router's authentication key or authentication type.  |
| ospfInterfaceConfigError           | An ospfInterfaceConfigError trap signifies that a packet has been received on a non-virtual interface from a router whose configuration parameters conflict with this router's configuration parameters. Note that the event optionMismatch should cause a trap only if it prevents an adjacency from forming.   |
| ospfBadPacketReceived              | An ospfInterfaceBadPacketReceived trap signifies that an OSPF packet has been received on a non-virtual interface that cannot be parsed.   |
| ospfInterfaceState                 | An ospfInterfaceState trap signifies that there has been a change in the state of a non-virtual OSPF interface. This trap should be generated when the interface state regresses (e.g., goes from Dr to Down) or progresses to a terminal state (i.e., Point-to-Point, DR Other, Dr, or Backup).   |
| ospfLinkStateDbOverflow            | An ospfLinkStateDbOverflow trap signifies that the number of LSAs in the router's link state database has exceeded ninety percent of ospfExtLsdbLimit.   |
| ospfMaxAgeLsa                      | An ospfMaxAgeLsa trap signifies that one of the LSAs in the router's link state database has aged to MaxAge.   |
| ospfNeighborRestartHelperState     | An ospfNeighborRestartHelperStatus trap signifies that there has been a change in the graceful restart helper state for the neighbor. This trap should be generated when the neighbor restart helper status transitions for a neighbor.  |
| ospfNeighborState                  | An ospfNeighborState trap signifies that there has been a change in the state of a non-virtual OSPF neighbor. This trap should be generated when the neighbor state regresses (e.g., goes from Attempt or Full to 1-Way or Down) or progresses to a terminal state (e.g., 2-Way or Full). When an neighbor transitions from or to Full on non-broadcast multi-access and broadcast networks, the trap should be generated by the designated router. A designated router transitioned to Down will be noted by ospfIfStateChange. |
| ospfNssaTranslatorState            | An ospfNssaTranslatorStatus trap indicates that there has been a change in the router's ability to translate OSPF type-7 LSAs into OSPF type-5 LSAs. This trap should be generated when the translator status transitions from or to any defined status on a per-area basis.   |
| ospfOriginateLsa                   | An ospfOriginateLsa trap signifies that a new LSA has been originated by this router. This trap should not be invoked for simple refreshes of LSAs (which happens every 30 minutes), but instead will only be invoked when an LSA is (re)originated due to a topology change. Additionally, this trap does not include LSAs that are being flushed because they have reached MaxAge.   |
| ospfRestartState                   | An ospfRestartStatus trap signifies that there has been a change in the graceful restart state for the router. This trap should be generated when the router restart status changes.   |

| Trap Name                                 | Description   |
|---|---|
| ospfRetransmit                            | An ospfRetransmit trap signifies that an OSPF packet has been retransmitted on a non-virtual interface. All packets that may be retransmitted are associated with an LSDB entry. The LS type, LS ID, and Router ID are used to identify the LSDB entry.   |
| ospfVirtualInterfaceAuthenticationFailure | An ospfVirtualInterfaceAuthenticationFailure trap signifies that a packet has been received on a virtual interface from a router whose authentication key or authentication type conflicts with this router's authentication key or authentication type.  |
| ospfVirtualInterfaceConfigError           | An ospfVirtualInterfaceConfigError trap signifies that a packet has been received on a virtual interface from a router whose configuration parameters conflict with this router's configuration parameters. Note that the event optionMismatch should cause a trap only if it prevents an adjacency from forming. |
| ospfVirtualBadPacketReceived              | An ospfVirtualInterfaceBadPacketReceived trap signifies that an OSPF packet has been received on a virtual interface that cannot be parsed.   |
| ospfVirtualInterfaceState                 | This ospfVirtualInterfaceState trap should be generated when the interface state regresses (e.g., goes from Point-to-Point to Down) or progresses to a terminal state (i.e., Point-to-Point).   |
| ospfVirtualRetransmit                     | An ospVirtualRetransmit trap signifies that an OSPF packet has been retransmitted on a non-virtual interface. All packets that may be retransmitted are associated with an LSDB entry. The LS type, LS ID, and Router ID are used to identify the LSDB entry.   |
| ospfVirtualNeighborRestartHelperState     | An ospfVirtualNeighborRestartHelperStatus trap signifies that there has been a change in the graceful restart helper state for the virtual neighbor. This trap should be generated when the virtual neighbor restart helper status transitions for a virtual neighbor.  |
| ospfVirtualNeighborState                  | An ospfVirtualNeighborState trap signifies that there has been a change in the state of an OSPF virtual neighbor. This trap should be generated when the neighbor state regresses (e.g., goes from Attempt or Full to 1-Way or Down) or progresses to a terminal state (e.g., Full).                              |

## 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. |

## IP-RAN Specific Traps

| Trap Name                      | Description   |
|--------------------------------|---|
| ciscoIpMRouteMissingHeartBeats | A ciscoIpMRouteMissingHeartBeat is sent if a multicast router with this feature enabled failed to receive configured number of heartbeat packets from heartbeat sources within a configured time interval.  |
| ciscoMvpnMvrfChange            | A ciscoMvpnMvrfChange notification signifies a change about a MVRF in the device. The change event can be creation of the MVRF, deletion of the MVRF or an update on the default or data MDT configuration of the MVRF. The change event is indicated by ciscoMvpnGenOperStatusChange embedded in the notification. The user can then query ciscoMvpnGenericTable, ciscoMvpnMdtDefaultTable and/or ciscoMvpnMdtDataTable to get the details of the change as necessary.   |
| ciscoPimInterfaceDown          | <p>A ciscoPimInterfaceDown notification signifies the loss of a PIM interface. This notification should be generated whenever an entry is about to be deleted from the PimInterfaceTable.</p> <p>pimInterfaceStatus identifies the interface which was involved in the generation of this notification.</p>   |
| ciscoPimInterfaceUp            | <p>A ciscoPimInterfaceUp notification signifies the restoration of a PIM interface. This notification should be generated whenever pimInterfaceStatus transitions into the 'active' state.</p> <p>pimInterfaceStatus identifies the interface which was involved in the generation of this notification.</p>  |
| ciscoPimInvalidJoinPrune       | <p>A ciscoPimInvalidJoinPrune notification signifies the receipt of an invalid join/prune message.</p> <p>This notification is generated whenever the cpimInvalidJoinPruneMsgsRcvd counter is incremented. cpimLastErrorOrigin, cpimLastErrorGroup, and cpimLastErrorRP should signify the source address, group address and the RP address in the invalid join/prune packet.</p>   |
| ciscoPimInvalidRegister        | <p>A ciscoPimInvalidRegister notification signifies that an invalid Register message was received by this device.</p> <p>This notification is generated whenever the cpimInvalidRegisterMsgsRcvd counter is incremented. cpimLastErrorOrigin, cpimLastErrorGroup, and cpimLastErrorRP should signify the source address, group address and the RP address in the invalid register packet.</p>   |
| ciscoPimRPMappingChange        | <p>A ciscoPimRPMappingChange notification signifies a change in the RP Mapping on the device in question. A change in RP Mapping could be because of addition of new entries to the RP Mapping cache, deletion of existing entries, or a modification to an existing mapping. The type of change is indicated by cpimRPMappingChangeType. pimRPSetHoldTime is used to identify the row in the pimRPSetTable that is responsible for the generation of this notification.</p> <p>In case of modification to existing entries, a notification should be generated once before the modification (with cpimRPMappingChangeType set to modifiedOldMapping) and once after modification (with cpimRPMappingChangeType set to modifiedNewMapping).</p> |

| Trap Name            | Description   |
|----------------------|---|
| crepLinkStatus       | This notification is sent when a REP interface has entered or left REP link operational status. The link is considered operational when 'crepIfOperStatus' is 'twoWay'.<br><br>'crepIfOperStatus' would be 'none' if the crepInterfaceConfigEntry entry has been removed. |
| crepPortRoleChange   | This notification is sent when the role of a Port changes that are indicated by 'crepIfPortRole'.   |
| crepPreemptionStatus | This notification indicates the status of the preemption triggered on REP primary edge.   |
| pimNeighborLoss      | A pimNeighborLoss trap signifies the loss of an adjacency with a neighbor. This trap should be generated when the neighbor timer expires, and the router has no other neighbors on the same interface with a lower IP address than itself.                                |

## PWE3 Specific Traps

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

| Trap Name | Description   |
|-----------|---|
| cpwVcDown | <p>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.</p> <p>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.</p>              |
| cpwVcUp   | <p>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)).</p> <p>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.</p> |

## mSEF Specific Traps

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

- [Generic mSEF Traps, page G-16](#)
- [CSG1 Traps, page G-17](#)
- [CSG2 Traps, page G-18](#)
- [GGSN Traps, page G-20](#)
- [BWG Traps, page G-23](#)
- [HA Traps, page G-23](#)
- [PDNGW Traps, page G-24](#)
- [SGW Traps, page G-27](#)
- [SPGW Traps, page G-29](#)
- [PCRF Traps, page G-32](#)
- [PDSN Traps, page G-32](#)

## 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.         |
| 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    | <p>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.</p> <p>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, signaling to the NMS that the condition has been cleared. Otherwise, the timer is restarted to monitor the next period.</p> <p>When a record is lost and no period timer is active, this notification is issued and the above procedure is repeated.</p> |
| ciscoCsgAgentStateChange        | <p>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 <i>echowait</i> because this would cause an excessive number of notifications.</p>  |
| ciscoCsgQuotaMgrLostRecordEvent | <p>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.</p>   |
| ciscoCsgQuotaMgrStateChange     | <p>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 <i>echowait</i> because this would cause an excessive number of notifications.</p>  |
| ciscoCsgUserDbStateChange       | <p>This notification is issued when csgDatabaseNotifsEnabled is set to true, and the user database changes state.</p>  |

## CSG2 Traps

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

| Trap Name                                   | Description   |
|---|---|
| ciscoContentServicesBMALostRecordEvent      | <p>This notification is issued when <code>ccsBMALostRecords</code> is set to true, and accounting records, which should be sent to the billing mediation agent, must be discarded.</p> <p>Initially, <code>ccsBMALostRecords</code> is set to 0. When a record is discarded, <code>ccsBMALostRecords</code> 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 <code>ccsBMALostRecords</code> each time a record is lost. When the period timer expires, the agent compares the current value of <code>ccsBMALostRecords</code> with the previous (saved) value. If the values are equal this notification is issued again, signaling to the NMS that the condition has been cleared. Otherwise, the timer is restarted to monitor the next period.</p> <p>When a record is lost and no period timer is active, this notification is issued and the above procedure is repeated.</p> |
| ciscoContentServicesBMALostRecordEvent      | <p>This notification is issued when <code>ccsBMALostRecords</code> is set to true, and the billing mediation agent changes state. There is one exception: No notification is issued for state changes involving <i>echowait</i> because this would cause an excessive number of notifications.</p>  |
| ciscoContentServicesQuotaMgrLostRecordEvent | <p>This notification is issued when <code>ccsQuotaMgrLostRecords</code> 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 <code>ccsQuotaMgrLostRecordEvent</code>.</p>  |
| ciscoContentServicesQuotaMgrStateChange     | <p>This notification is issued when <code>ccsQuotaMgrStateChangeNotifEnabled</code> is set to true, and the quota manager changes state. There is one exception: No notification is issued for state changes involving <i>echowait</i> because this would cause an excessive number of notifications.</p>   |
| ciscoContentServicesUserDbStateChange       | <p>This notification is issued when <code>ccsUserDbStateChangeNotifEnabled</code> is set to true, and the user database changes state.</p>  |
| ciscoContentServicesUserThresholdExceeded   | <p>This notification is issued when <code>ccsUserThresholdExceededNotifEnabled</code> is set to 'true', and when actual users limit exceeds threshold which is set by <code>ccsgsUserThreshold</code>.</p>  |
| ciscoDiaBaseProtPeerConnectionDownNotif     | <p>An <code>ciscoDiaBaseProtPeerConnectionDownNotif</code> notification is sent when both the following conditions are true:</p> <ul style="list-style-type: none"> <li>The value of <code>ciscoDiaBaseProtEnablePeerConnectionDownNotif</code> is true(1)</li> <li><code>cdpbPeerStatsState</code> changes to closed(1). It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>   |
| ciscoDiaBaseProtPeerConnectionUpNotif       | <p>A <code>ciscoDiaBaseProtPeerConnectionUpNotif</code> notification is sent when both the following conditions are true:</p> <ul style="list-style-type: none"> <li>The value of <code>ciscoDiaBaseProtEnablePeerConnectionUpNotif</code> is true(1)</li> <li>The value of <code>cdpbPeerStatsState</code> changes to either rOpen(6) or iOpen(7). It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>   |

| Trap Name                                    | Description   |
|--|---|
| ciscoDiaBaseProtPermanentFailureNotif        | <p>A ciscoDiaBaseProtPermanentFailureNotif notification is sent when both the following conditions are true:</p> <ul style="list-style-type: none"> <li>The value of ciscoDiaBaseProtEnablePermanentFailureNotif is true(1)</li> <li>The value of cdbpPeerStatsPermanentFailures changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>   |
| ciscoDiaBaseProtProtocolErrorNotif           | <p>A ciscoDiaBaseProtProtocolErrorNotif notification is sent when both the following conditions are true:</p> <ul style="list-style-type: none"> <li>The value of ciscoDiaBaseProtEnableProtocolErrorNotif is true(1)</li> <li>The value of cdbpPeerStatsProtocolErrors changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>  |
| ciscoDiaBaseProtTransientFailureNotif        | <p>An ciscoDiaBaseProtTransientFailureNotif notification is sent when both the following conditions are true:</p> <ul style="list-style-type: none"> <li>The value of ciscoDiaBaseProtEnableTransientFailureNotif is true(1)</li> <li>The value of cdbpPeerStatsTransientFailures changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>  |
| ciscoMobilePolicyChargingControlPreloadError | <p>This notification is issued when cmpccPreloadErrorNotifEnabled is set to true, and an error occurs in preloading as indicated by the value of cmpccppsErrorState:</p> <ul style="list-style-type: none"> <li>Indicates PCRF has sent an incomplete Policy object.</li> <li>Indicates a mandatory AVP in the preloading message is missing.</li> <li>Indicates PCEF is not able to install/modify/remove a policy preloading object.</li> <li>Indicates PCRF sent the preloading objects in wrong order.</li> <li>Indicates PCRF tried to preload an object, which is already statically configured in PCEF. 255 indicates no error has occurred so far.</li> </ul> |
| cIscsiInstSessionFailure                     | <p>Sent when an active session is failed by either the initiator or the target.</p> <p>The implementation of this trap should not send more than three notifications of this type in any 10 second time span.</p>   |
| cIscsiIntrLoginFailure                       | <p>Sent when a login is failed by a initiator.</p> <p>The implementation of this trap should not send more than three notifications of this type in any 10 second time span.</p>  |
| cIscsiTgtLoginFailure                        | <p>Sent when a login is failed by a target.</p> <p>The implementation of this trap should not send more than three notifications of this type in any 10 second time span.</p>   |
| cmpccPreloadRollbackFailed                   | <p>This notification is generated when rollback of an object fails, which indicates that object could be out of sync. The cmpccppsRollbackFailedReason present in the varbind list, indicates the reason that triggers the sending for 'cmpccPreloadRollbackFailed' notification. The entPhysicalName identifies the entity that implements the PCEF functionality of the Gx interface.</p>   |
| cPsdClientDiskFullNotif                      | <p>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.</p>   |

| Trap Name           | Description  |
|---------------------|--|
| cPsdClientDownNotif | A notification of this type is generated when the PSD server goes DOWN.<br>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.<br>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.  |
| cGgsnMemThresholdClearedNotif    | A notification of this type is generated when GGSN retains the memory and falls below threshold value specified by cGgsnMemoryThreshold.  |
| cGgsnMemThresholdReachedNotif    | 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.   |
| cGgsnPacketDataProtocolNotif     | 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.  |
| cGgsnSADccaAuthRejectedNotif     | 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.   |
| cGgsnSADccaCreditLimReachedNotif | 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.   |
| cGgsnSADccaEndUsrServDeniedNotif | 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. |

| Trap Name                               | Description   |
|---|---|
| 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.   |
| cGgsnSADccaUserUnknownNotif             | 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.   |
| cgprsAccPtInServiceNotif                | A notification of this type is generated when APN is placed in <i>in-service</i> mode which is specified by cgprsAccPtOperationMode.  |
| cgprsAccPtMaintenanceNotif              | 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.  |
| cgprsCgGatewaySwitchoverNotif           | 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.<br><br>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.  |
| cgprsCgMaintenanceModeNotif             | 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.  |
| ciscoDiaBaseProtPeerConnectionDownNotif | A ciscoDiaBaseProtPeerConnectionDownNotif notification is sent when both the following conditions are true:<br><br>The value of ciscoDiaBaseProtEnablePeerConnectionDownNotif is true(1)<br><br>cdbpPeerStatsState changes to closed(1). It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.   |

| Trap Name                             | Description  |
|---------------------------------------|--|
| ciscoDiaBaseProtPeerConnectionUpNotif | <p>A ciscoDiaBaseProtPeerConnectionUpNotif notification is sent when both the following conditions are true:</p> <ul style="list-style-type: none"> <li>The value of ciscoDiaBaseProtEnablePeerConnectionUpNotif is true(1)</li> <li>The value of cdbpPeerStatsState changes to either rOpen(6) or iOpen(7). It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul> |
| ciscoDiaBaseProtPermanentFailureNotif | <p>A ciscoDiaBaseProtPermanentFailureNotif notification is sent when both the following conditions are true:</p> <ul style="list-style-type: none"> <li>The value of ciscoDiaBaseProtEnablePermanentFailureNotif is true(1)</li> <li>The value of cdbpPeerStatsPermanentFailures changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>                    |
| ciscoDiaBaseProtProtocolErrorNotif    | <p>A ciscoDiaBaseProtProtocolErrorNotif notification is sent when both the following conditions are true:</p> <ul style="list-style-type: none"> <li>The value of ciscoDiaBaseProtEnableProtocolErrorNotif is true(1)</li> <li>The value of cdbpPeerStatsProtocolErrors changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>                             |
| ciscoDiaBaseProtTransientFailureNotif | <p>A ciscoDiaBaseProtTransientFailureNotif notification is sent when both the following conditions are true:</p> <ul style="list-style-type: none"> <li>The value of ciscoDiaBaseProtEnableTransientFailureNotif is true(1)</li> <li>The value of cdbpPeerStatsTransientFailures changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>                    |
| ciscoIpLocalPoolInUseAddrNotif        | A notification indicating that number of used addresses of an IP local pool exceeded the threshold value indicated by cIpLocalPoolStatInUseAddrThldHi.   |
| cIscsiInstSessionFailure              | <p>Sent when an active session is failed by either the initiator or the target.</p> <p>The implementation of this trap should not send more than three notifications of this type in any 10 second time span.</p>  |
| cIscsiIntrLoginFailure                | <p>Sent when a login is failed by a initiator.</p> <p>The implementation of this trap should not send more than three notifications of this type in any 10 second time span.</p>   |
| cIscsiTgtLoginFailure                 | <p>Sent when a login is failed by a target.</p> <p>The implementation of this trap should not send more than three notifications of this type in any 10 second time span.</p>  |
| cPsdClientDiskFullNotif               | <p>A notification of this type is generated when the PSD (Persistent Storage Device) server's disk become full.</p> <p>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.</p>   |
| cPsdClientDownNotif                   | <p>A notification of this type is generated when the PSD server goes DOWN.</p> <p>If the PSD client was in write/retrieving state, then that operation shall be stopped.</p>   |
| cPsdClientUpNotif                     | <p>A notification of this type is generated when the PSD server comes UP.</p> <p>A GTP' (GTP enhanced for charging) path will be created fulfilling all the specific requirements of the PSD interface.</p>  |

## BWG Traps

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

| Trap Name                                | Description  |
|--|--|
| ciscoAgwMaxBaseStationExceededAbateNotif | 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. |
| ciscoAgwMaxBaseStationExceededOnsetNotif | 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.   |
| ciscoAgwMaxSubscribersExceededAbateNotif | 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.   |
| ciscoAgwMaxSubscribersExceededOnsetNotif | 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.     |
| ciscoAgwServiceDownNotif                 | 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.        |
| csIbcSIbDfpCongestionAbate | The server generates this notification when value of csIbcInstanceDfpValue object rises above the threshold indicated by the csIbcDfpCongestionAbateThreshold object.   |
| csIbcSIbDfpCongestionOnset | The server generates this notification when value of csIbcInstanceDfpValue object drops below the threshold indicated by the csIbcDfpCongestionOnsetThreshold object.   |
| mipAuthFailure             | Indicates that the Mobile IP entity has an authentication failure when it validates the mobile Registration Request or Reply.   |

## PDNGW Traps

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

| Trap Name                        | Description  |
|----------------------------------|--|
| cGgsnAccessPointNameNotif        | This notification indicates the occurrence of a APN 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.   |
| cGgsnMemThresholdClearedNotif    | A notification of this type is generated when GGSN retains the memory and falls below threshold value specified by cGgsnMemoryThreshold.   |
| cGgsnMemThresholdReachedNotif    | A notification of this type is generated when GGSN reaches the memory threshold value specified by cGgsnMemoryThreshold.   |
| cGgsnPacketDataProtocolNotif     | This notification indicates the occurrence of a User related alarm.  |
| cGgsnSACsgStateDownNotif         | This notification is generated when CSG state goes down.   |
| cGgsnSACsgStateUpNotif           | This notification is generated when CSG state goes up.   |
| cGgsnSADccaAuthRejectedNotif     | This notification is generated when credit-control server failed in authorization of end user. The PDP context is deleted and category is blacklisted.   |
| cGgsnSADccaCreditLimReachedNotif | 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.  |
| cGgsnSADccaEndUsrServDeniedNotif | This notification is generated when the credit-control server denies the service request due to service restrictions. On reception of this notif 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 or an AVP value that is not recognized or supported in the rating.   |



| Trap Name                       | Description  |
|---------------------------------|--|
| cGgsnSADccaUserUnknownNotif     | 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 (Initial) or CCA (Update).                                       |
| cGtpPathFailedNotification      | This notification is sent when one of this GSN's peers failed to respond to the GTP 'Echo Request' message for the waiting interval.   |
| cIscsiInstSessionFailure        | Sent when an active session is failed by either the initiator or the target.<br><br>The implementation of this trap should not send more than three notifications of this type in any 10 second time span.   |
| cIscsiIntrLoginFailure          | Sent when a login is failed by a initiator.<br><br>The implementation of this trap should not send more than three notifications of this type in any 10 second time span.  |
| cIscsiTgtLoginFailure           | Sent when a login is failed by a target.<br><br>The implementation of this trap should not send more than three notifications of this type in any 10 second time span.   |
| cegCongestionClearedNotif       | The gateway sends this notification, when the gateway congestion level goes below cegLowCongestionThreshold value. This gives an indication that the gateway has recovered from congestion and it can accept all calls.  |
| cegCongestionHighThresholdNotif | The gateway sends this notification when the gateway congestion level goes above cegHighCongestionThreshold value. This gives an indication that the gateway is running at high congestion and at this state it would reject all new calls.  |
| cegCongestionLowThresholdNotif  | The gateway sends this notification when the gateway congestion level goes above cegLowCongestionThreshold value. This gives an indication that the gateway has returned back from the high congestion mark to the low congestion mark and at this state it can accept only the high priority calls and those with a lower priority would be rejected. |
| cegqR8CacMaxPdpExceededNotif    | This notification is sent when the number of pdps on the gateway has reached the user-configured maximum (or threshold).   |
| cegqR8CacUpgBRateBearerRejNotif | This notification is sent when bearers are Rejected/Downgraded by CAC due to requesting for higher bit rate than user-configured maximum for a certain QCI class.  |
| cegqR8QciBWMaxReachedNotif      | This notification is sent when the bandwidth allocated for a certain QCI class has been fully utilized and no further bearer can be admitted for this QCI class. The notification is sent when the bandwidth pool utilization reaches the value in the object cegqR8BWPoolQciAbsVal.   |
| cgprsAccPtCfgNotif              | A notification of this type is generated when an entry is generated in thecgprsAccPtCfgNotifHistTable and cgprsAccPtCfgNotifEnable is set to true.   |
| cgprsAccPtInServiceNotif        | A notification of this type is generated when APN is placed in in-service mode which is specified by cgprsAccPtOperationMode.  |
| cgprsAccPtMaintenanceNotif      | 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.  |

| Trap Name                               | Description  |
|---|--|
| cgprsCgAlarmNotif                       | A cgprsCgAlarmNotif signifies that a GPRS related alarm is detected in the managed system. This alarm is sent after an entry has been added to cgprsCgAlarmHistTable.  |
| cgprsCgGatewaySwitchoverNotif           | 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.   |
| cgprsCgMaintenanceModeNotif             | A notification of this type is generated when the GGSN charging function is in maintenance mode. This can be identified by cgprsCgServiceMode object.  |
| 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.   |
| ciscoDiaBaseProtPeerConnectionDownNotif | A ciscoDiaBaseProtPeerConnectionDownNotif notification is sent when both the following conditions are true: <ul style="list-style-type: none"> <li>The value of ciscoDiaBaseProtEnablePeerConnectionDownNotif is true(1)</li> <li>cdbpPeerStatsState changes to closed(1). It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>   |
| ciscoDiaBaseProtPeerConnectionUpNotif   | A ciscoDiaBaseProtPeerConnectionUpNotif notification is sent when both the following conditions are true: <ul style="list-style-type: none"> <li>The value of ciscoDiaBaseProtEnablePeerConnectionUpNotif is true(1)</li> <li>The value of cdbpPeerStatsState changes to either rOpen(6) or iOpen(7). It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>                |
| ciscoDiaBaseProtPermanentFailureNotif   | A ciscoDiaBaseProtPermanentFailureNotif notification is sent when both the following conditions are true: <ul style="list-style-type: none"> <li>The value of ciscoDiaBaseProtEnablePermanentFailureNotif is true(1)</li> <li>The value of cdbpPeerStatsPermanentFailures changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>                                   |
| ciscoDiaBaseProtProtocolErrorNotif      | A ciscoDiaBaseProtProtocolErrorNotif notification is sent when both the following conditions are true: <ul style="list-style-type: none"> <li>The value of ciscoDiaBaseProtEnableProtocolErrorNotif is true(1)</li> <li>The value of cdbpPeerStatsProtocolErrors changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>  |
| ciscoDiaBaseProtTransientFailureNotif   | A ciscoDiaBaseProtTransientFailureNotif notification is sent when both the following conditions are true: <ul style="list-style-type: none"> <li>The value of ciscoDiaBaseProtEnableTransientFailureNotif is true(1)</li> <li>The value of cdbpPeerStatsTransientFailures changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>                                   |
| ciscoIpLocalPoolInUseAddrNotif          | A notification indicating that number of used addresses of an IP local pool exceeded the threshold value indicated by cIpLocalPoolStatInUseAddrThldHi.   |

## SGW Traps

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

| Trap Name                        | Description  |
|----------------------------------|--|
| cGgsnAccessPointNameNotif        | This notification indicates the occurrence of a APN 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.   |
| cGgsnMemThresholdClearedNotif    | A notification of this type is generated when GGSN retains the memory and falls below threshold value specified by cGgsnMemoryThreshold.   |
| cGgsnMemThresholdReachedNotif    | A notification of this type is generated when GGSN reaches the memory threshold value specified by cGgsnMemoryThreshold.   |
| cGgsnPacketDataProtocolNotif     | This notification indicates the occurrence of a User related alarm.  |
| cGgsnSACsgStateDownNotif         | This notification is generated when CSG state goes down.   |
| cGgsnSACsgStateUpNotif           | This notification is generated when CSG state goes up.   |
| cGgsnSADccaAuthRejectedNotif     | This notification is generated when credit-control server failed in authorization of end user. The PDP context is deleted and category is blacklisted.   |
| cGgsnSADccaCreditLimReachedNotif | 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.  |
| cGgsnSADccaEndUsrServDeniedNotif | This notification is generated when the credit-control server denies the service request due to service restrictions. On reception of this notif 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 or an AVP value that is not recognized or supported in the rating.   |
| cGgsnSADccaUserUnknownNotif      | 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 (Initial) or CCA (Update).               |
| cGtpPathFailedNotification       | This notification is sent when one of this GSN's peers failed to respond to the GTP 'Echo Request' message for the waiting interval.   |
| cIscsiInstSessionFailure         | Sent when an active session is failed by either the initiator or the target.<br><br>The implementation of this trap should not send more than three notifications of this type in any 10 second time span.   |
| cIscsiIntrLoginFailure           | Sent when a login is failed by a initiator.<br><br>The implementation of this trap should not send more than three notifications of this type in any 10 second time span.  |

| Trap Name                       | Description  |
|---------------------------------|--|
| cIscsiTgtLoginFailure           | Sent when a login is failed by a target.<br><br>The implementation of this trap should not send more than three notifications of this type in any 10 second time span.   |
| cegCongestionClearedNotif       | The gateway sends this notification, when the gateway congestion level goes below cegLowCongestionThreshold value. This gives an indication that the gateway has recovered from congestion and it can accept all calls.  |
| cegCongestionHighThresholdNotif | The gateway sends this notification when the gateway congestion level goes above cegHighCongestionThreshold value. This gives an indication that the gateway is running at high congestion and at this state it would reject all new calls.  |
| cegCongestionLowThresholdNotif  | The gateway sends this notification when the gateway congestion level goes above cegLowCongestionThreshold value. This gives an indication that the gateway has returned back from the high congestion mark to the low congestion mark and at this state it can accept only the high priority calls and those with a lower priority would be rejected.   |
| cegqR8CacMaxPdpExceededNotif    | This notification is sent when the number of pdps on the gateway has reached the user-configured maximum (or threshold).   |
| cegqR8CacUpgBRateBearerRejNotif | This notification is sent when bearers are Rejected/Downgraded by CAC due to requesting for higher bit rate than user-configured maximum for a certain QCI class.  |
| cegqR8QciBWMaxReachedNotif      | This notification is sent when the bandwidth allocated for a certain QCI class has been fully utilized and no further bearer can be admitted for this QCI class. The notification is sent when the bandwidth pool utilization reaches the value in the object cegqR8BWPoolQciAbsVal.   |
| cgprsAccPtCfgNotif              | A notification of this type is generated when an entry is generated in thecgprsAccPtCfgNotifHistTable and cgprsAccPtCfgNotifEnable is set to true.   |
| cgprsAccPtInServiceNotif        | A notification of this type is generated when APN is placed in in-service mode which is specified by cgprsAccPtOperationMode.  |
| cgprsAccPtMaintenanceNotif      | 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 related alarm is detected in the managed system. This alarm is sent after an entry has been added to cgprsCgAlarmHistTable.  |
| cgprsCgGatewaySwitchoverNotif   | 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.   |
| cgprsCgMaintenanceModeNotif     | A notification of this type is generated when the GGSN charging function is in maintenance mode. This can be identified by cgprsCgServiceMode object.  |

| Trap Name                               | Description   |
|---|---|
| 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.  |
| ciscoDiaBaseProtPeerConnectionDownNotif | A ciscoDiaBaseProtPeerConnectionDownNotif notification is sent when both the following conditions are true: <ul style="list-style-type: none"> <li>The value of ciscoDiaBaseProtEnablePeerConnectionDownNotif is true(1)</li> <li>cdbpPeerStatsState changes to closed(1). It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>                            |
| ciscoDiaBaseProtPeerConnectionUpNotif   | A ciscoDiaBaseProtPeerConnectionUpNotif notification is sent when both the following conditions are true: <ul style="list-style-type: none"> <li>The value of ciscoDiaBaseProtEnablePeerConnectionUpNotif is true(1)</li> <li>The value of cdbpPeerStatsState changes to either rOpen(6) or iOpen(7). It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul> |
| ciscoDiaBaseProtPermanentFailureNotif   | A ciscoDiaBaseProtPermanentFailureNotif notification is sent when both the following conditions are true: <ul style="list-style-type: none"> <li>The value of ciscoDiaBaseProtEnablePermanentFailureNotif is true(1)</li> <li>The value of cdbpPeerStatsPermanentFailures changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>                    |
| ciscoDiaBaseProtProtocolErrorNotif      | A ciscoDiaBaseProtProtocolErrorNotif notification is sent when both the following conditions are true: <ul style="list-style-type: none"> <li>The value of ciscoDiaBaseProtEnableProtocolErrorNotif is true(1)</li> <li>The value of cdbpPeerStatsProtocolErrors changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>                             |
| ciscoDiaBaseProtTransientFailureNotif   | A ciscoDiaBaseProtTransientFailureNotif notification is sent when both the following conditions are true: <ul style="list-style-type: none"> <li>The value of ciscoDiaBaseProtEnableTransientFailureNotif is true(1)</li> <li>The value of cdbpPeerStatsTransientFailures changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>                    |
| ciscoIpLocalPoolInUseAddrNotif          | A notification indicating that number of used addresses of an IP local pool exceeded the threshold value indicated by cIpLocalPoolStatInUseAddrThldHi.  |

## SPGW Traps

| Trap Name                     | Description  |
|-------------------------------|--|
| cGgsnSACsgR100StateDownNotif  | This notification is generated when CSG state goes down.   |
| cGgsnSACsgR100StateUpNotif    | This notification is generated when CSG state goes up.   |
| cgprsCgGatewayGroupAlarmNotif | This notification signifies that a GPRS related alarm is detected in the managed system.<br><br>This alarm is sent after an entry has been added to cgprsCgGatewayGroupAlarmHistTable. |

| Trap Name                               | Description  |
|---|--|
| cgprsCgGatewayGroupInServiceModeNotif   | This notification is generated when the charging group state transitions to in-service mode, identified by the object cgprsCgGroupServiceMode.   |
| cgprsCgGatewayGroupMaintenanceModeNotif | This notification is generated when the charging group state transitions to maintenance mode, identified by the object cgprsCgGroupServiceMode.  |
| cgprsCgGatewayGroupSwitchoverNotif      | This notification is generated when the charging gateway is switched, the new charging gateway is identified by cgprsCgGatewayGroupStatusActiveCgAddr and the old charging gateway is identified by cgprsCgGatewayGroupStatusOldCgAddr.  |
| cGgsnExtSubsTraceFailNotif              | This notification is triggered on failure of a subscriber trace activation.  |
| 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.   |
| cGgsnSADccaEndUsrServDeniedNotif        | This notification is generated when the credit-control server denies the service request due to service restrictions. On reception of this notif 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.                         |
| cGtpPathFailedNotification              | This notification is sent when one of this GSN's peers failed to respond to the GTP 'Echo Request' message for the waiting interval.   |
| cIscsiInstSessionFailure                | Sent when an active session is failed by either the initiator or the target.<br>The implementation of this trap should not send more than three notifications of this type in any 10 second time span.   |
| cIscsiIntrLoginFailure                  | Sent when a login is failed by a initiator.<br>The implementation of this trap should not send more than three notifications of this type in any 10 second time span.  |
| cIscsiTgtLoginFailure                   | Sent when a login is failed by a target.<br>The implementation of this trap should not send more than three notifications of this type in any 10 second time span.   |
| cegCongestionClearedNotif               | The gateway sends this notification, when the gateway congestion level goes below cegLowCongestionThreshold value. This gives an indication that the gateway has recovered from congestion and it can accept all calls.  |
| cegCongestionHighThresholdNotif         | The gateway sends this notification when the gateway congestion level goes above cegHighCongestionThreshold value. This gives an indication that the gateway is running at high congestion and at this state it would reject all new calls.  |
| cegCongestionLowThresholdNotif          | The gateway sends this notification when the gateway congestion level goes above cegLowCongestionThreshold value. This gives an indication that the gateway has returned back from the high congestion mark to the low congestion mark and at this state it can accept only the high priority calls and those with a lower priority would be rejected. |
| cegqR8CacMaxPdpExceededNotif            | This notification is sent when the number of pdps on the gateway has reached the user-configured maximum (or threshold).   |
| cegqR8CacUpgBRateBearerRejNotif         | This notification is sent when bearers are Rejected/Downgraded by CAC due to requesting for higher bit rate than user-configured maximum for a certain QCI class.  |

| Trap Name                               | Description   |
|---|---|
| cegqR8QciBWMaxReachedNotif              | This notification is sent when the bandwidth allocated for a certain QCI class has been fully utilized and no further bearer can be admitted for this QCI class. The notification is sent when the bandwidth pool utilization reaches the value in the object cegqR8BWPoolQciAbsVal.  |
| cgprsAccPtCfgNotif                      | A notification of this type is generated when an entry is generated in thecgprsAccPtCfgNotifHistTable and cgprsAccPtCfgNotifEnable is set to true.  |
| cgprsAccPtInServiceNotif                | A notification of this type is generated when APN is placed in in-service mode which is specified by cgprsAccPtOperationMode.   |
| cgprsAccPtMaintenanceNotif              | A notification of this type is generated when APN is placed in maintenance mode which is specified by cgprsAccPtOperationMode.  |
| cgprsCgAlarmNotif                       | A cgprsCgAlarmNotif signifies that a GPRS related alarm is detected in the managed system. This alarm is sent after an entry has been added to cgprsCgAlarmHistTable.   |
| cgprsCgMaintenanceModeNotif             | A notification of this type is generated when the GGSN charging function is in maintenance mode. This can be identified by cgprsCgServiceMode object.   |
| ciscoDiaBaseProtPeerConnectionDownNotif | A ciscoDiaBaseProtPeerConnectionDownNotif notification is sent when both the following conditions are true: <ul style="list-style-type: none"> <li>• The value of ciscoDiaBaseProtEnablePeerConnectionDownNotif is true(1)</li> <li>• cdbpPeerStatsState changes to closed(1). It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>                            |
| ciscoDiaBaseProtPeerConnectionUpNotif   | A ciscoDiaBaseProtPeerConnectionUpNotif notification is sent when both the following conditions are true: <ul style="list-style-type: none"> <li>• The value of ciscoDiaBaseProtEnablePeerConnectionUpNotif is true(1)</li> <li>• The value of cdbpPeerStatsState changes to either rOpen(6) or iOpen(7). It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul> |
| ciscoDiaBaseProtPermanentFailureNotif   | A ciscoDiaBaseProtPermanentFailureNotif notification is sent when both the following conditions are true: <ul style="list-style-type: none"> <li>• The value of ciscoDiaBaseProtEnablePermanentFailureNotif is true(1)</li> <li>• The value of cdbpPeerStatsPermanentFailures changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>                    |
| ciscoDiaBaseProtProtocolErrorNotif      | A ciscoDiaBaseProtProtocolErrorNotif notification is sent when both the following conditions are true: <ul style="list-style-type: none"> <li>• The value of ciscoDiaBaseProtEnableProtocolErrorNotif is true(1)</li> <li>• The value of cdbpPeerStatsProtocolErrors changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>                             |
| ciscoDiaBaseProtTransientFailureNotif   | A ciscoDiaBaseProtTransientFailureNotif notification is sent when both the following conditions are true: <ul style="list-style-type: none"> <li>• The value of ciscoDiaBaseProtEnableTransientFailureNotif is true(1)</li> <li>• The value of cdbpPeerStatsTransientFailures changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.</li> </ul>                    |

## PCRF Traps

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

| Trap Name                    | Description  |
|------------------------------|--|
| alarmNotification            | This is a notification of an alarm generated within the FusionWorks system.        |
| applicationStateNotification | This notification is issued when an application changes state.                     |
| clearNotification            | This is a clear notification for an alarm generated within the FusionWorks system. |
| componentStateNotification   | This notification is issued when a component changes state.                        |
| groupStateNotification       | This notification is issued when a component group changes state.                  |
| objectStateNotification      | This notification is issued when an object changes state.                          |

## PDSN Traps

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

| Trap Name                       | Description  |
|---------------------------------|--|
| cCdmaAhdLcEngineDownNotif       | This notification indicates an AHDLC engine is 'down' due to some fault through the desired state of the engine is 'up'.   |
| cCdmaClusterCtrlStatusChange    | Cluster member PDSN detects controller PDSN status change.   |
| cCdmaClusterCtrlStatusChange2   | Cluster member PDSN detects controller PDSN status change.   |
| cCdmaClusterMemberStatusChange  | Cluster controller detects member PDSN status change.  |
| cCdmaClusterMemberStatusChange2 | Cluster controller detects member PDSN status change.  |
| cCdmaClusterSessionHighReached  | This notification indicates a cluster session high threshold has been reached by PDSN cluster controller.  |
| cCdmaClusterSessionLowReached   | This notification indicates a cluster session low threshold has been reached by PDSN cluster controller.<br>Service affected level: Major/Warning  |
| cCdmaPcfMaxAllowedNotif         | This notification indicates PDSN has reached the maximum number of allowed PCF. In this state request from new PCF will be rejected.<br>Service affected level: critical   |
| cCdmaPdsnStatusChange           | This notification indicates status change of PDSN.   |
| cCdmaSessionFormatErrorNotif    | This notification indicates PDSN received invalid arguments from PCF leading to session termination. The agent should not generate more than 1 trap of this type per second to minimize the level of management traffic on the network |
| cCdmaSessionHighReached         | This notification indicates a session high threshold has been reached.   |
| cCdmaSessionLowReached          | This notification indicates a session low threshold has been reached.  |
| cCdmaSessionLowReached2         | This notification indicates a session low threshold has been reached.  |
| cCdmaSessionMaxAllowedNotif     | This notification indicates PDSN has reached the maximum number of sessions the system can handle. In this state new session request will be rejected.<br>Service affected level: critical   |



| Trap Name                        | Description  |
|----------------------------------|--|
| cCdmaSessionRegReqFailedNotif    | <p>This notification indicates a Registration Request received has failed which may be due to one of the following reasons:</p> <ul style="list-style-type: none"> <li>• Insufficient resource</li> <li>• Administrative prohibition</li> <li>• MN authentication failure</li> <li>• Registration id mismatch</li> <li>• Bad request</li> <li>• Unknown HA address</li> <li>• T bit not set or unsupported VID</li> </ul> <p>The agent should not generate more than 1 trap of same type per second to minimize the level of management traffic on the network.</p> <p>Service affected level: minor</p> |
| ciscoCdmaExtLoadHighReachedNotif | <p>A notification of this type is generated by PDSN to indicated that PDSN has exceeds the maximum load configured.</p> <p>Maximum load on PDSN is based on the any one of following parameters bandwidth, cputhreshold, procmemthreshold and iomemthreshold.</p> <p>The notification reason object indicates the parameter that has exceeds the configured load.</p>  |
| ciscoCdmaExtLoadLowReachedNotif  | <p>his notification indicates PDSN has reached the ninety percent of the configured load after generating the ccpCdmaExtLoadHighReachedNotif notification. In this state new session request will be accepted.</p>   |
| cvpdnNotifSession                | <p>Conveys an event regarding the L2X session with the indicated session ID and Xconnect VCID.</p>   |

