AudioCodes One Voice Operations Center

EMS, SEM and IP Phones Management

Performance Monitoring and Alarm Guide

Mediant 2600/4000/9000/SW SBC Series

Version 7.0

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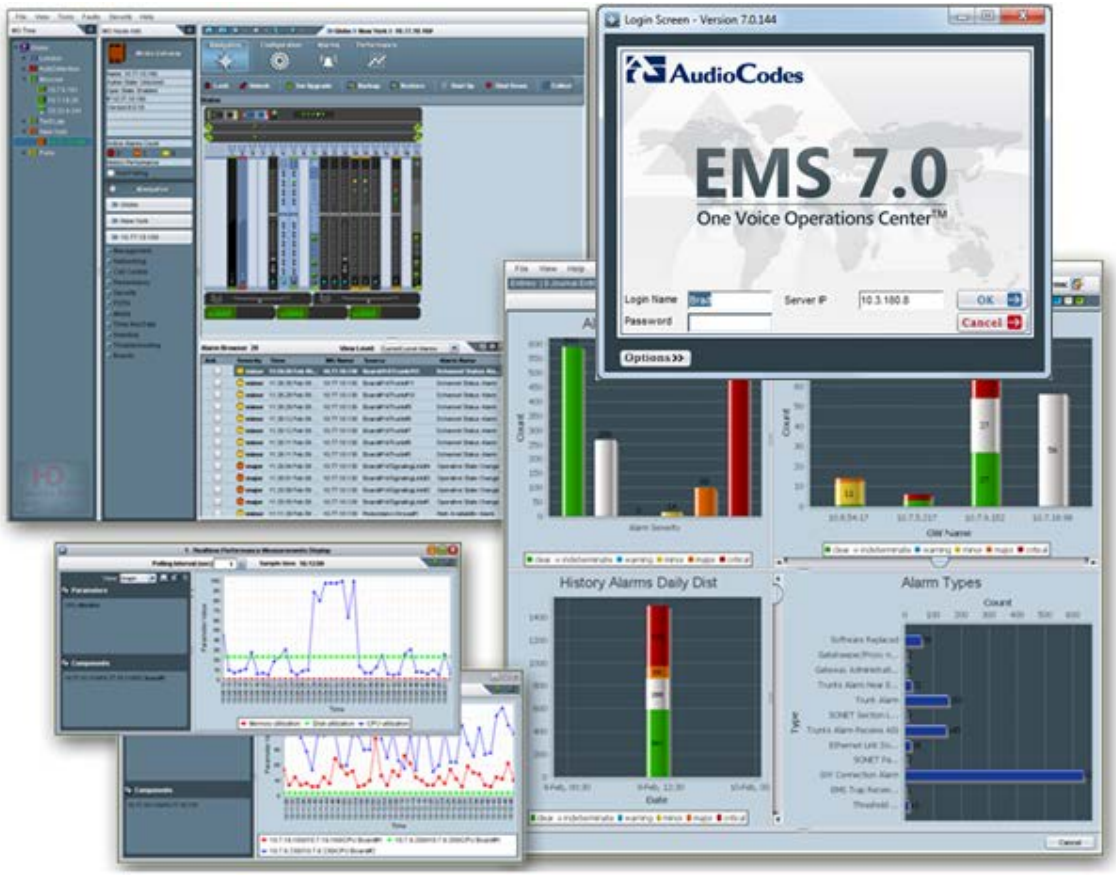

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Notice

This document describes the Performance Monitoring parameters and alarms for the Mediant 2600 E-SBC, Mediant 2600B E-SBC, Mediant 4000 SBC, Mediant 4000B SBC, Mediant 9000 SBC, Mediant VE SBC and Mediant SE SBC products.

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Abbreviations and Terminology

Term	Description
MG	Refers to the Media Gateway
'Frame' and 'Screen'	Sometimes used interchangeably

Related Documentation

Manual Name
Mediant 2600 SBC User's Manual
Mediant 4000 SBC User's Manual
Mediant 9000 SBC User's Manual
Mediant Software SBC User's Manual
Element Management System (EMS) Server Installation, Operation and Maintenance Manual
Element Management System (EMS) Release Notes
Element Management System (EMS) Product Description
Element Management System (EMS) OAMP Integration Guide
Element Management System (EMS) User's Manual
Session Experience Manager (SEM) User's Manual
IP Phone Management Server Administrator's Manual
Element Management System (EMS) Online Help

1 Introduction

This guide incorporates Performance Monitoring parameters and alarms for the Mediant 2600 E-SBC, Mediant 2600B E-SBC, Mediant 4000 SBC, Mediant 4000B SBC, Mediant 9000 SBC, Mediant VE SBC and Mediant SE SBC products.

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2 Performance Monitoring Parameters

Customers are often faced with a complex VoIP network with little or no information on the status and capacities of each component in it. PM helps the system architect design a better network. PM helps operators discover malfunctioning devices before they start causing a problem on the production network.

The system provides two types of performance measurements:

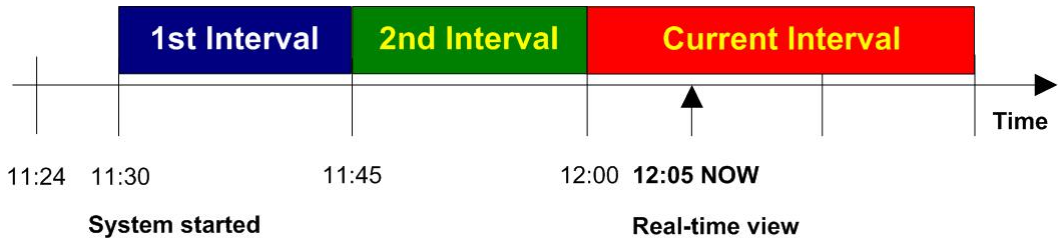
- Gauges: Gauges represent the current state of a PM parameter in the system. Gauges, unlike counters, can decrease in value, and like counters, can increase.
- Counters: Counters always increase in value and are cumulative. Counters, unlike gauges, never decrease in value unless the system is reset. The counters are then zeroed.

Performance measurements are available for the EMS or for a 3rd party performance monitoring system through an SNMP interface. These measurements can be polled at scheduled intervals by an external poller or utility in a media server or another off-device system.

PM measurements can be divided into two main groups:

- Real-Time PM Measurements - supply the current value of the PM entity. When requested, the entity is sampled and the current value is received.
- History PM Measurements - supply statistical data of the PM entity during the last interval period. These measurements include the Average, Minimum and Maximum values of the entity during the last interval. The default interval length is 15 minutes.

Figure 1: History PM Measurements



History Performance is measured in a constant time interval of 15 minutes to which all elements in the network are synchronized. Intervals commence precisely every 15 minutes, for example, 12:00:00, 12:15:00, 12:30:00, 12:45:00, etc. This allows synchronization of several management systems to the same interval time frame. Note that the first interval after start-up is always shorter (in the example above, the first interval only lasts 6 minutes - so that a new interval can start exactly on the 15 minute interval, in this case 11:30:00). During the initial start-up interval i.e. 6 minutes in the example above, polling is not performed.

2.1 Frame: Gateway System Monitoring (Configuration)

2.1.1 Tab: System IP

Frame: Gateway System Monitoring (Configuration), Tab: System IP

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Number of Outgoing KBytes	HIST	Counter	Counts the total number of outgoing Kbytes (1000 bytes) from the interface during the last interval. Mib name: acPMNetUtilKBytesVolumeTx
Number of Incoming KBytes	HIST	Counter	Counts the total number of Kbytes (1000 bytes) received on the interface, including those received in error, during the last interval. Mib name: acPMNetUtilKBytesVolumeRx
Number of Outgoing Pkts	HIST	Counter	Counts the total number of outgoing Packets from the interface during the last interval. Mib name: acPMNetUtilPacketsVolumeTx
Number of Incoming Pkts	HIST	Counter	Counts the total number of Packets received on the interface, including those received in error, during the last interval. Mib name: acPMNetUtilPacketsVolumeRx
Number of Incoming Discarded Pkts	HIST	Counter	Counts the total number of malformed IP Packets received on the interface during the last interval. These are packets which are corrupted or discarded due to errors in their IP headers, including bad checksums, version number mismatch, other format errors, time-to-live exceeded, errors discovered in processing their IP options, etc. Mib name: acPMNetUtilDiscardedPacketsVal

2.1.2 Tab: VoP Call Statistics

Frame: Gateway System Monitoring (Configuration), Tab: VoP Call Statistics

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Num of Active Contexts Avg	HIST	Gauge	Indicates the average number of voice calls connected on the gateway since the last clear. Mib name: acPMActiveContextCountAverage
Num of Active Contexts Min	HIST	Gauge	Indicates the minimum number of voice calls connected on the gateway since the last clear. Mib name: acPMActiveContextCountMin
Num of Active Contexts Max	HIST	Gauge	Indicates the maximum number of voice calls connected on the gateway since the last clear. Mib name: acPMActiveContextCountMax
G711 Active Calls Avg	HIST	Gauge	Indicates the average number of G.711 calls present on the TPM. Mib name: acPMChannelsPerCoderAverageG711

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
G723 Active Calls Avg	HIST	Gauge	Indicates the average number of G.723 calls present on the TPM. This attribute is only displayed if the G.723 Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderAverageG723
G728 Active Calls Avg	HIST	Gauge	Indicates the average number of G.728 calls present on the TPM. This attribute is only displayed if the G.728 Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderAverageG728
G729a Active Calls Avg	HIST	Gauge	Indicates the average number of G.729a calls present on the TPM. This attribute is only displayed if the G.729a Codec is provisioned on the DSP. Mib name: acPMChannelsPerCoderAverageG729a
G729e Active Calls Avg	HIST	Gauge	Indicates the average number of G.729e calls present on the TPM. This attribute is only displayed if the G.729e Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderAverageG729e
AMR Active Calls Avg	HIST	Gauge	Indicates the average number of AMR calls present on the TPM. This attribute is only displayed if the AMR Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderAverageAMR
EVRC Active Calls Avg	HIST	Gauge	Indicates the average number of EVRC calls present on the TPM. This attribute is only displayed if the EVRC Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderAverageEVRC
Rx RTP Packet Loss Max	HIST	Gauge	Indicates the Max Rx RTP Packet loss (reported by RTCP) per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPPacketLossRxMax
Tx RTP Packet Loss Max	HIST	Gauge	Indicates the Max Tx RTP Packet loss (reported by RTCP) per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPPacketLossTxMax
RTP delay Average	HIST	Gauge	Indicates the average RTP packets delay per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketDelayAverage
RTP delay Max	HIST	Gauge	Indicates the maximum RTP packets delay per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketDelayMax
RTP delay Min	HIST	Gauge	Indicates the minimum RTP packets delay per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketDelayMin
RTP jitter Average	HIST	Gauge	Indicates the average RTP packets jitter per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketJitterAverage

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
RTP jitter Min	HIST	Gauge	Indicates the minimum RTP packets jitter per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketJitterMin
RTP jitter Max	HIST	Gauge	Indicates the maximum RTP packets jitter per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketJitterMax
Rx RTP Bytes Max	HIST	Gauge	Indicates the Max Tx RTP Bytes per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPBytesRxMax
Tx RTP Bytes Max	HIST	Gauge	Indicates the Max Rx RTP Bytes per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPBytesTxMax
Rx RTP Packets Max	HIST	Gauge	Indicates the Max Rx RTP Packets per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPPacketsRxMax
Tx RTP Packets Max	HIST	Gauge	Indicates the Max Tx RTP Packets per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPPacketsTxMax
RTCP XR Average Conversational R Factor	HIST	Gauge	Average conversational R factor. Mib name: rtcpXrHistoryAvgRCQ
RTCP XR Maximum Conversational R Factor	HIST	Gauge	Maximum conversational R factor. Mib name: rtcpXrHistoryMaxRCQ
RTCP XR Minimum Conversational R Factor	HIST	Gauge	Minimum conversational R factor. Mib name: rtcpXrHistoryMinRCQ

2.1.3 Tab: SIP IP to Tel

Frame: Gateway System Monitoring (Configuration), Tab: SIP IP to Tel

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
IP to Tel Number of Call Attempts	HIST	Counter	Indicates the number of attempted calls for IP to Tel direction, during last interval. Mib name: acPMSIPAttemptedCallsValIP2Tel
IP to Tel Number of Established Calls	HIST	Counter	Indicates the number of established calls for IP to Tel direction, during last interval. Mib name: acPMSIPEstablishedCallsValIP2Tel
IP to Tel Number of Calls Terminated due to a Busy Line	HIST	Counter	Indicates the number of calls that failed as a result of a busy line for IP to Tel direction, during last interval. Mib name: acPMSIPBusyCallsValIP2Tel

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
IP to Tel Number of Calls Terminated due to No Answer	HIST	Counter	Indicates the number of calls that weren't answered for IP to Tel direction, during last interval. Mib name: acPMSIPNoAnswerCallsValIP2Tel
IP to Tel Number of Calls Terminated due to Forward	HIST	Counter	Indicates the number of calls that were terminated due to a call forward for IP to Tel direction, during last interval. Mib name: acPMSIPForwardedCallsValIP2Tel
IP to Tel Number of Failed Calls due to No Route	HIST	Counter	Indicates the number of calls whose destinations weren't found for IP to Tel direction, during last interval. Mib name: acPMSIPNoRouteCallsValIP2Tel
IP to Tel Number of Failed Calls due to No Matched Capabilities	HIST	Counter	Indicates the number of calls that failed due to mismatched media server capabilities for IP to Tel direction, during last interval. Mib name: acPMSIPNoMatchCallsValIP2Tel
IP to Tel Number of Failed Calls due to No Resources	HIST	Counter	Indicates the number of calls that failed due to unavailable resources or a media server lock for IP to Tel direction, during last interval. Mib name: acPMSIPNoResourcesCallsValIP2Tel
IP to Tel Number of Failed Calls due to Other reasons	HIST	Counter	This counter is incremented as a result of calls that fail due to reasons not covered by the other counters for IP to Tel direction, during last interval. Mib name: acPMSIPFailCallsValIP2Tel
IP to Tel Fax Call Attempts	HIST	Counter	Indicates the number of attempted fax calls for IP to Tel direction, during last interval. Mib name: acPMSIPFaxAttemptedCallsValIP2Tel
IP to Tel Successful Fax Calls	HIST	Counter	Indicates the number of successful fax calls for IP to Tel direction, during last interval. Mib name: acPMSIPFaxSuccessCallsValIP2Tel
IP to Tel Average Call Duration [sec]	HIST	Gauge	Indicates the average call duration of established calls for IP to Tel direction, during last interval. Mib name: acPMSIPCallDurationAverageIP2Tel

2.1.4 Tab: SIP Tel to IP

Frame: Gateway System Monitoring (Configuration), Tab: SIP Tel to IP

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Tel to IP Number of Call Attempts	HIST	Counter	Indicates the number of attempted calls for Tel to IP direction, during last interval. Mib name: acPMSIPAttemptedCallsValTel2IP
Tel to IP Number of Established Calls	HIST	Counter	Indicates the number of established calls for Tel to IP direction, during last interval. Mib name: acPMSIPEstablishedCallsValTel2IP
Tel to IP Number of Calls Terminated due to a Busy Line	HIST	Counter	Indicates the number of calls that failed as a result of a busy line for Tel to IP direction, during last interval. Mib name: acPMSIPBusyCallsValTel2IP

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Tel to IP Number of Calls Terminated due to No Answer	HIST	Counter	Indicates the number of calls that weren't answered for Tel to IP direction, during last interval. Mib name: acPMSIPNoAnswerCallsValTel2IP
Tel to IP Number of Calls Terminated due to Forward	HIST	Counter	Indicates the number of calls that were terminated due to a call forward for Tel to IP direction, during last interval. Mib name: acPMSIPForwardedCallsValTel2IP
Tel to IP Number of Failed Calls due to No Route	HIST	Counter	Indicates the number of calls whose destinations weren't found for Tel to IP direction, during last interval. Mib name: acPMSIPNoRouteCallsValTel2IP
Tel to IP Number of Failed Calls due to No Matched Capabilities	HIST	Counter	Indicates the number of calls that failed due to mismatched media server capabilities for Tel to IP direction, during last interval. Mib name: acPMSIPNoMatchCallsValTel2IP
Tel to IP Number of Failed Calls due to No Resources	HIST	Counter	Indicates the number of calls that failed due to unavailable resources or a media server lock for Tel to IP direction, during last interval. Mib name: acPMSIPNoResourcesCallsValTel2IP
Tel to IP Number of Failed Calls due to Other reasons	HIST	Counter	This counter is incremented as a result of calls that fail due to reasons not covered by the other counters for Tel to IP direction, during last interval. Mib name: acPMSIPFailCallsValTel2IP
Tel to IP Fax Call Attempts	HIST	Counter	Indicates the number of attempted fax calls for Tel to IP direction, during last interval. Mib name: acPMSIPFaxAttemptedCallsValTel2IP
Tel to IP Successful Fax Calls	HIST	Counter	Indicates the number of successful fax calls for Tel to IP direction, during last interval. Mib name: acPMSIPFaxSuccessCallsValTel2IP
Tel to IP Average Call Duration [sec]	HIST	Gauge	Indicates the average call duration of established calls for Tel to IP direction, during last interval. Mib name: acPMSIPCallDurationAverageTel2IP

2.1.5 Tab: SRD Statistics

Frame: Gateway System Monitoring (Configuration), Tab: SRD Statistics

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
SIP SRD Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPSRDDialogsVal
SIP SRD Invite Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPSRDInviteDialogsVal
SIP SRD Subscribe Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPSRDSubscribeDialogsVal
SIP SRD Other Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPSRDOtherDialogsVal

2.1.6 Tab: IP Group Statistics

Frame: Gateway System Monitoring (Configuration), Tab: IP Group Statistics

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
SIP IP Group Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupDialogsVal
SIP IP Group Invite Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupInviteDialogsVal
SIP IP Group Subscribe Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupSubscribeDialogsVal
SIP IP Group Other Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupOtherDialogsVal
SIP IP Group In Invite Dialogs	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupInInviteDialogsVal
SIP IP Group I nSubscribe Dialogs	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupInSubscribeDialogsVal
SIP IP Group Out Invite Dialogs	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupOutInviteDialogsVal
SIP IP Group Out Subscribe Dialogs	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupOutSubscribeDialogsVal
SIP IP Group Invite Dialogs IP Average	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPIPGroupInviteDialogsAverage
SIP IP Group Invite Dialogs IP Max	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPIPGroupInviteDialogsMax
SIP IP Group Invite Dialogs IP Min	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPIPGroupInviteDialogsMin

2.1.7 Tab: Trunk Group Statistics

Frame: Gateway System Monitoring (Configuration), Tab: Trunk Group Statistics

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Trunk Group Utilization (%)	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupPercentageUtilizationVal
Trunk Group Utilization (channels)	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupUtilizationVal
Tel to IP Trunk Group Established Calls Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPTel2IPTrunkGroupEstablishedCallsVal
IP to Tel Trunk Group Established Calls Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIP2TelTrunkGroupEstablishedCallsVal

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
No Resources Calls	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupNoResourcesCallsVal
Average Call Duration (sec)	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupCallDurationAverage
Total Call Duration (sec)	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupCallDurationTotal
Trunk Group All Trunks Busy (sec)	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPTrunkGroupAllTrunksBusyVal
All Trunks Busy (%)	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupAllTrunksBusyPercentageVal

2.2 Frame: Gateway System Monitoring (History)

2.2.1 Tab: System IP

Frame: Gateway System Monitoring (History), Tab: System IP

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Number of Outgoing KBytes	HIST	Counter	Counts the total number of outgoing Kbytes (1000 bytes) from the interface during the last interval. Mib name: acPMNetUtilKBytesVolumeTx
Number of Incoming KBytes	HIST	Counter	Counts the total number of Kbytes (1000 bytes) received on the interface, including those received in error, during the last interval. Mib name: acPMNetUtilKBytesVolumeRx
Number of Outgoing Pkts	HIST	Counter	Counts the total number of outgoing Packets from the interface during the last interval. Mib name: acPMNetUtilPacketsVolumeTx
Number of Incoming Pkts	HIST	Counter	Counts the total number of Packets received on the interface, including those received in error, during the last interval. Mib name: acPMNetUtilPacketsVolumeRx
Number of Incoming Discarded Pkts	HIST	Counter	Counts the total number of malformed IP Packets received on the interface during the last interval. These are packets which are corrupted or discarded due to errors in their IP headers, including bad checksums, version number mismatch, other format errors, time-to-live exceeded, errors discovered in processing their IP options, etc. Mib name: acPMNetUtilDiscardedPacketsVal

2.2.2 Tab: VoP Call Statistics

Frame: Gateway System Monitoring (History), Tab: VoP Call Statistics

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Num of Active Contexts Avg	HIST	Gauge	Indicates the average number of voice calls connected on the gateway since the last clear. Mib name: acPMActiveContextCountAverage
Num of Active Contexts Min	HIST	Gauge	Indicates the minimum number of voice calls connected on the gateway since the last clear. Mib name: acPMActiveContextCountMin
Num of Active Contexts Max	HIST	Gauge	Indicates the maximum number of voice calls connected on the gateway since the last clear. Mib name: acPMActiveContextCountMax
G711 Active Calls Avg	HIST	Gauge	Indicates the average number of G.711 calls present on the TPM. Mib name: acPMChannelsPerCoderAverageG711
G723 Active Calls Avg	HIST	Gauge	Indicates the average number of G.723 calls present on the TPM. This attribute is only displayed if the G.723 Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderAverageG723
G728 Active Calls Avg	HIST	Gauge	Indicates the average number of G.728 calls present on the TPM. This attribute is only displayed if the G.728 Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderAverageG728
G729a Active Calls Avg	HIST	Gauge	Indicates the average number of G.729a calls present on the TPM. This attribute is only displayed if the G.729a Codec is provisioned on the DSP. Mib name: acPMChannelsPerCoderAverageG729a
G729e Active Calls Avg	HIST	Gauge	Indicates the average number of G.729e calls present on the TPM. This attribute is only displayed if the G.729e Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderAverageG729e
AMR Active Calls Avg	HIST	Gauge	Indicates the average number of AMR calls present on the TPM. This attribute is only displayed if the AMR Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderAverageAMR
EVRC Active Calls Avg	HIST	Gauge	Indicates the average number of EVRC calls present on the TPM. This attribute is only displayed if the EVRC Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderAverageEVRC
Rx RTP Packet Loss Max	HIST	Gauge	Indicates the Max Rx RTP Packet loss (reported by RTCP) per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPPacketLossRxMax
Tx RTP Packet Loss Max	HIST	Gauge	Indicates the Max Tx RTP Packet loss (reported by RTCP) per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPPacketLossTxMax

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
RTP delay Average	HIST	Gauge	Indicates the average RTP packets delay per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketDelayAverage
RTP delay Max	HIST	Gauge	Indicates the maximum RTP packets delay per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketDelayMax
RTP delay Min	HIST	Gauge	Indicates the minimum RTP packets delay per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketDelayMin
RTP jitter Average	HIST	Gauge	Indicates the average RTP packets jitter per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketJitterAverage
RTP jitter Min	HIST	Gauge	Indicates the minimum RTP packets jitter per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketJitterMin
RTP jitter Max	HIST	Gauge	Indicates the maximum RTP packets jitter per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketJitterMax
Rx RTP Bytes Max	HIST	Gauge	Indicates the Max Tx RTP Bytes per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPBytesRxMax
Tx RTP Bytes Max	HIST	Gauge	Indicates the Max Rx RTP Bytes per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPBytesTxMax
Rx RTP Packets Max	HIST	Gauge	Indicates the Max Rx RTP Packets per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPPacketsRxMax
Tx RTP Packets Max	HIST	Gauge	Indicates the Max Tx RTP Packets per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPPacketsTxMax
RTCP XR Average Conversational R Factor	HIST	Gauge	Average conversational R factor. Mib name: rtcpXrHistoryAvgRCQ
RTCP XR Maximum Conversational R Factor	HIST	Gauge	Maximum conversational R factor. Mib name: rtcpXrHistoryMaxRCQ
RTCP XR Minimum Conversational R Factor	HIST	Gauge	Minimum conversational R factor. Mib name: rtcpXrHistoryMinRCQ

2.2.3 Tab: SIP IP to Tel

Frame: Gateway System Monitoring (History), Tab: SIP IP to Tel

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
IP to Tel Number of Call Attempts	HIST	Counter	Indicates the number of attempted calls for IP to Tel direction, during last interval. Mib name: acPMSIPAttemptedCallsValIP2Tel
IP to Tel Number of Established Calls	HIST	Counter	Indicates the number of established calls for IP to Tel direction, during last interval. Mib name: acPMSIPEstablishedCallsValIP2Tel
IP to Tel Number of Calls Terminated due to a Busy Line	HIST	Counter	Indicates the number of calls that failed as a result of a busy line for IP to Tel direction, during last interval. Mib name: acPMSIPBusyCallsValIP2Tel
IP to Tel Number of Calls Terminated due to No Answer	HIST	Counter	Indicates the number of calls that weren't answered for IP to Tel direction, during last interval. Mib name: acPMSIPNoAnswerCallsValIP2Tel
IP to Tel Number of Calls Terminated due to Forward	HIST	Counter	Indicates the number of calls that were terminated due to a call forward for IP to Tel direction, during last interval. Mib name: acPMSIPForwardedCallsValIP2Tel
IP to Tel Number of Failed Calls due to No Route	HIST	Counter	Indicates the number of calls whose destinations weren't found for IP to Tel direction, during last interval. Mib name: acPMSIPNoRouteCallsValIP2Tel
IP to Tel Number of Failed Calls due to No Matched Capabilities	HIST	Counter	Indicates the number of calls that failed due to mismatched media server capabilities for IP to Tel direction, during last interval. Mib name: acPMSIPNoMatchCallsValIP2Tel
IP to Tel Number of Failed Calls due to No Resources	HIST	Counter	Indicates the number of calls that failed due to unavailable resources or a media server lock for IP to Tel direction, during last interval. Mib name: acPMSIPNoResourcesCallsValIP2Tel
IP to Tel Number of Failed Calls due to Other reasons	HIST	Counter	This counter is incremented as a result of calls that fail due to reasons not covered by the other counters for IP to Tel direction, during last interval. Mib name: acPMSIPFailCallsValIP2Tel
IP to Tel Fax Call Attempts	HIST	Counter	Indicates the number of attempted fax calls for IP to Tel direction, during last interval. Mib name: acPMSIPFaxAttemptedCallsValIP2Tel
IP to Tel Successful Fax Calls	HIST	Counter	Indicates the number of successful fax calls for IP to Tel direction, during last interval. Mib name: acPMSIPFaxSuccessCallsValIP2Tel
IP to Tel Average Call Duration [sec]	HIST	Gauge	Indicates the average call duration of established calls for IP to Tel direction, during last interval. Mib name: acPMSIPCallDurationAverageIP2Tel

2.2.4 Tab: SIP Tel to IP

Frame: Gateway System Monitoring (History), Tab: SIP Tel to IP

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Tel to IP Number of Call Attempts	HIST	Counter	Indicates the number of attempted calls for Tel to IP direction, during last interval. Mib name: acPMSIPAttemptedCallsValTel2IP
Tel to IP Number of Established Calls	HIST	Counter	Indicates the number of established calls for Tel to IP direction, during last interval. Mib name: acPMSIPEstablishedCallsValTel2IP
Tel to IP Number of Calls Terminated due to a Busy Line	HIST	Counter	Indicates the number of calls that failed as a result of a busy line for Tel to IP direction, during last interval. Mib name: acPMSIPBusyCallsValTel2IP
Tel to IP Number of Calls Terminated due to No Answer	HIST	Counter	Indicates the number of calls that weren't answered for Tel to IP direction, during last interval. Mib name: acPMSIPNoAnswerCallsValTel2IP
Tel to IP Number of Calls Terminated due to Forward	HIST	Counter	Indicates the number of calls that were terminated due to a call forward for Tel to IP direction, during last interval. Mib name: acPMSIPForwardedCallsValTel2IP
Tel to IP Number of Failed Calls due to No Route	HIST	Counter	Indicates the number of calls whose destinations weren't found for Tel to IP direction, during last interval. Mib name: acPMSIPNoRouteCallsValTel2IP
Tel to IP Number of Failed Calls due to No Matched Capabilities	HIST	Counter	Indicates the number of calls that failed due to mismatched media server capabilities for Tel to IP direction, during last interval. Mib name: acPMSIPNoMatchCallsValTel2IP
Tel to IP Number of Failed Calls due to No Resources	HIST	Counter	Indicates the number of calls that failed due to unavailable resources or a media server lock for Tel to IP direction, during last interval. Mib name: acPMSIPNoResourcesCallsValTel2IP
Tel to IP Number of Failed Calls due to Other reasons	HIST	Counter	This counter is incremented as a result of calls that fail due to reasons not covered by the other counters for Tel to IP direction, during last interval. Mib name: acPMSIPFailCallsValTel2IP
Tel to IP Fax Call Attempts	HIST	Counter	Indicates the number of attempted fax calls for Tel to IP direction, during last interval. Mib name: acPMSIPFaxAttemptedCallsValTel2IP
Tel to IP Successful Fax Calls	HIST	Counter	Indicates the number of successful fax calls for Tel to IP direction, during last interval. Mib name: acPMSIPFaxSuccessCallsValTel2IP
Tel to IP Average Call Duration [sec]	HIST	Gauge	Indicates the average call duration of established calls for Tel to IP direction, during last interval. Mib name: acPMSIPCallDurationAverageTel2IP

2.3 Frame: Gateway System Monitoring (Real-Time)

2.3.1 Tab: System IP

Frame: Gateway System Monitoring (Real-Time), Tab: System IP

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Number of Outgoing KBytes	RT	Gauge	This attribute counts the Current total number of outgoing Kbytes (1000 bytes) from the interface, so far from the beginning of the current collection interval as indicated by time Interval. Mib name: acPMNetUtilKBytesTotalTx
Number of Incoming KBytes	RT	Gauge	This attribute counts the total number of Kbytes (1000 bytes) received on the interface, including those received in error, so far from the beginning of the current collection interval as indicated by time Interval. Mib name: acPMNetUtilKBytesTotalRx
Number of Outgoing Pkts	RT	Gauge	This attribute counts the Current total number of outgoing Packets from the interface, so far from the beginning of the current collection interval as indicated by time Interval. Mib name: acPMNetUtilPacketsTotalTx
Number of Incoming Pkts	RT	Gauge	This attribute counts the Current total number of Packets received on the interface, including those received in error, so far from the beginning of the current collection interval as indicated by time Interval. Mib name: acPMNetUtilPacketsTotalRx
Number of Incoming Discarded Pkts	RT	Gauge	This attribute counts the Current total number of malformed IP Packets received on the interface from the beginning of the current collection interval. These are packets which are corrupted or discarded due to errors in their IP headers, including bad checksums, version number mismatch, other format errors, time-to-live exceeded, errors discovered in processing their IP options, etc. Mib name: acPMNetUtilDiscardedPacketsTotal

2.3.2 Tab: VoP Call Statistics

Frame: Gateway System Monitoring (Real-Time), Tab: VoP Call Statistics

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Num of Active Contexts	RT	Gauge	Indicates the current number of voice calls connected on the box since last clear. Mib name: acPMActiveContextCountVal
G711 Active Calls	RT	Gauge	This attribute indicates the current number of G711 calls present on the TPM. Mib name: acPMChannelsPerCoderValG711
G723 Active Calls	RT	Gauge	This attribute indicates the current number of G723 calls present on the TPM.This attribute is only displayed if the G723 Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderValG723
G728 Active Calls	RT	Gauge	This attribute indicates the current number of G728 calls present on the TPM.This attribute is only displayed if the G728 Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderValG728
G729a Active Calls	RT	Gauge	This attribute indicates the current number of G729a calls present on the TPM.This attribute is only displayed if the G729a Codec is provisioned on the DSP. Mib name: acPMChannelsPerCoderValG729a
G729e Active Calls	RT	Gauge	This attribute indicates the current number of G729e calls present on the TPM.This attribute is only displayed if the G729e Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderValG729e
AMR Active Calls	RT	Gauge	This attribute indicates the current number of AMR calls present on the TPM.This attribute is only displayed if the AMR Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderValAMR
EVRC Active Calls	RT	Gauge	This attribute indicates the current number of EVRC calls present on the TPM.This attribute is only displayed if the EVRC Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderValEVRC
Rx Packet Loss current	RT	Gauge	The total number of RTP packet loss reported by RTCP since last reset. Mib name: acPMModuleRTPPacketLossRxTotal
Tx Packets Loss current	RT	Gauge	The total number of RTP packet loss reported by RTCP since last reset. Mib name: acPMModuleRTPPacketLossTxTotal
Rx Packets Current	RT	Gauge	The total number of packets recieved since last reset. Mib name: acPMModuleRTPPacketsRxTotal

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Rx Packets Current	RT	Gauge	The total number of RTP packets transmited since last reset. Mib name: acPMModuleRTPPacketsTxTotal

2.3.3 Tab: SIP IP to Tel

Frame: Gateway System Monitoring (Real-Time), Tab: SIP IP to Tel

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
IP to Tel Number of Call Attempts	RT	Counter	Indicates the number of attempted calls for IP to Tel direction, during last interval. Mib name: acPMSIPAttemptedCallsValIP2Tel
IP to Tel Number of Established Calls	RT	Counter	Indicates the number of established calls for IP to Tel direction, during last interval. Mib name: acPMSIPEstablishedCallsValIP2Tel
IP to Tel Number of Calls Terminated due to a Busy Line	RT	Counter	Indicates the number of calls that failed as a result of a busy line for IP to Tel direction, during last interval. Mib name: acPMSIPBusyCallsValIP2Tel
IP to Tel Number of Calls Terminated due to No Answer	RT	Counter	Indicates the number of calls that weren't answered for IP to Tel direction, during last interval. Mib name: acPMSIPNoAnswerCallsValIP2Tel
IP to Tel Number of Calls Terminated due to Forward	RT	Counter	Indicates the number of calls that were terminated due to a call forward for IP to Tel direction, during last interval. Mib name: acPMSIPForwardedCallsValIP2Tel
IP to Tel Number of Failed Calls due to No Route	RT	Counter	Indicates the number of calls whose destinations weren't found for IP to Tel direction, during last interval. Mib name: acPMSIPNoRouteCallsValIP2Tel
IP to Tel Number of Failed Calls due to No Matched Capabilities	RT	Counter	Indicates the number of calls that failed due to mismatched media server capabilities for IP to Tel direction, during last interval. Mib name: acPMSIPNoMatchCallsValIP2Tel
IP to Tel Number of Failed Calls due to No Resources	RT	Counter	Indicates the number of calls that failed due to unavailable resources or a media server lock for IP to Tel direction, during last interval. Mib name: acPMSIPNoResourcesCallsValIP2Tel
IP to Tel Number of Failed Calls due to Other reasons	RT	Counter	This counter is incremented as a result of calls that fail due to reasons not covered by the other counters for IP to Tel direction, during last interval. Mib name: acPMSIPFailCallsValIP2Tel
IP to Tel Fax Call Attempts	RT	Counter	Indicates the number of attempted fax calls for IP to Tel direction, during last interval. Mib name: acPMSIPFaxAttemptedCallsValIP2Tel
IP to Tel Successful Fax Calls	RT	Counter	Indicates the number of successful fax calls for IP to Tel direction, during last interval. Mib name: acPMSIPFaxSuccessCallsValIP2Tel

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
IP to Tel Average Call Duration [sec]	RT	Gauge	Indicates the average call duration of established calls for IP to Tel direction, during last interval. Mib name: acPMSIPCallDurationAverageIP2Tel

2.3.4 Tab: SIP Tel to IP

Frame: Gateway System Monitoring (Real-Time), Tab: SIP Tel to IP

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Tel to IP Number of Call Attempts	RT	Counter	Indicates the number of attempted calls for Tel to IP direction, during last interval. Mib name: acPMSIPAttemptedCallsValTel2IP
Tel to IP Number of Established Calls	RT	Counter	Indicates the number of established calls for Tel to IP direction, during last interval. Mib name: acPMSIPEstablishedCallsValTel2IP
Tel to IP Number of Calls Terminated due to a Busy Line	RT	Counter	Indicates the number of calls that failed as a result of a busy line for Tel to IP direction, during last interval. Mib name: acPMSIPBusyCallsValTel2IP
Tel to IP Number of Calls Terminated due to No Answer	RT	Counter	Indicates the number of calls that weren't answered for Tel to IP direction, during last interval. Mib name: acPMSIPNoAnswerCallsValTel2IP
Tel to IP Number of Calls Terminated due to Forward	RT	Counter	Indicates the number of calls that were terminated due to a call forward for Tel to IP direction, during last interval. Mib name: acPMSIPForwardedCallsValTel2IP
Tel to IP Number of Failed Calls due to No Route	RT	Counter	Indicates the number of calls whose destinations weren't found for Tel to IP direction, during last interval. Mib name: acPMSIPNoRouteCallsValTel2IP
Tel to IP Number of Failed Calls due to No Matched Capabilities	RT	Counter	Indicates the number of calls that failed due to mismatched media server capabilities for Tel to IP direction, during last interval. Mib name: acPMSIPNoMatchCallsValTel2IP
Tel to IP Number of Failed Calls due to No Resources	RT	Counter	Indicates the number of calls that failed due to unavailable resources or a media server lock for Tel to IP direction, during last interval. Mib name: acPMSIPNoResourcesCallsValTel2IP
Tel to IP Number of Failed Calls due to Other reasons	RT	Counter	This counter is incremented as a result of calls that fail due to reasons not covered by the other counters for Tel to IP direction, during last interval. Mib name: acPMSIPFailCallsValTel2IP
Tel to IP Fax Call Attempts	RT	Counter	Indicates the number of attempted fax calls for Tel to IP direction, during last interval. Mib name: acPMSIPFaxAttemptedCallsValTel2IP

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Tel to IP Successful Fax Calls	RT	Counter	Indicates the number of successful fax calls for Tel to IP direction, during last interval. Mib name: acPMSIPFaxSuccessCallsValTel2IP
Tel to IP Average Call Duration [sec]	RT	Gauge	Indicates the average call duration of established calls for Tel to IP direction, during last interval. Mib name: acPMSIPCallDurationAverageTel2IP

2.4 Frame: IP Group Monitoring (History)

2.4.1 Tab: IP Group Statistics

Frame: IP Group Monitoring (History), Tab: IP Group Statistics

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
SIP IP Group Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupDialogsVal
SIP IP Group Invite Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupInviteDialogsVal
SIP IP Group Subscribe Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupSubscribeDialogsVal
SIP IP Group Other Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupOtherDialogsVal
SIP IP Group In Invite Dialogs	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupInInviteDialogsVal
SIP IP Group I nSubscribe Dialogs	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupInSubscribeDialogsVal
SIP IP Group Out Invite Dialogs	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupOutInviteDialogsVal
SIP IP Group Out Subscribe Dialogs	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupOutSubscribeDialogsVal
SIP IP Group Invite Dialogs IP Average	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPIPGroupInviteDialogsAverage
SIP IP Group Invite Dialogs IP Max	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPIPGroupInviteDialogsMax
SIP IP Group Invite Dialogs IP Min	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPIPGroupInviteDialogsMin

2.5 Frame: IP Group Monitoring (Real-Time)

2.5.1 Tab: IP Group Statistics

Frame: IP Group Monitoring (Real-Time), Tab: IP Group Statistics

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
SIP IP Group Dialogs Val	RT	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupDialogsVal
SIP IP Group Invite Dialogs Val	RT	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupInviteDialogsVal
SIP IP Group Subscribe Dialogs Val	RT	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupSubscribeDialogsVal
SIP IP Group Other Dialogs Val	RT	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupOtherDialogsVal
SIP IP Group In Invite Dialogs	RT	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupInInviteDialogsVal
SIP IP Group I nSubscribe Dialogs	RT	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupInSubscribeDialogsVal
SIP IP Group Out Invite Dialogs	RT	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupOutInviteDialogsVal
SIP IP Group Out Subscribe Dialogs	RT	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupOutSubscribeDialogsVal

2.6 Frame: SRD Monitoring (History)

2.6.1 Tab: SRD Statistics

Frame: SRD Monitoring (History), Tab: SRD Statistics

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
SIP SRD Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPSRDDialogsVal
SIP SRD Invite Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPSRDInviteDialogsVal
SIP SRD Subscribe Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPSRDSubscribeDialogsVal
SIP SRD Other Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPSRDOtherDialogsVal

2.7 Frame: SRD Monitoring (Real-Time)

2.7.1 Tab: SRD Statistics

Frame: SRD Monitoring (Real-Time), Tab: SRD Statistics

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
SIP SRD Dialogs Val	RT	Counter	Value of gauge or counter. Mib name: acPMSIPSRDDialogsVal
SIP SRD Invite Dialogs Val	RT	Counter	Value of gauge or counter. Mib name: acPMSIPSRDInviteDialogsVal
SIP SRD Subscribe Dialogs Val	RT	Counter	Value of gauge or counter. Mib name: acPMSIPSRDSubscribeDialogsVal
SIP SRD Other Dialogs Val	RT	Counter	Value of gauge or counter. Mib name: acPMSIPSRDOtherDialogsVal

2.8 Frame: System Monitoring SIP (Configuration)

2.8.1 Tab: System IP

Frame: System Monitoring SIP (Configuration), Tab: System IP

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Number of Outgoing KBytes	HIST	Counter	Counts the total number of outgoing Kbytes (1000 bytes) from the interface during the last interval. Mib name: acPMNetUtilKBytesVolumeTx
Number of Incoming KBytes	HIST	Counter	Counts the total number of Kbytes (1000 bytes) received on the interface, including those received in error, during the last interval. Mib name: acPMNetUtilKBytesVolumeRx
Number of Outgoing Pkts	HIST	Counter	Counts the total number of outgoing Packets from the interface during the last interval. Mib name: acPMNetUtilPacketsVolumeTx
Number of Incoming Pkts	HIST	Counter	Counts the total number of Packets received on the interface, including those received in error, during the last interval. Mib name: acPMNetUtilPacketsVolumeRx
Number of Incoming Discarded Pkts	HIST	Counter	Counts the total number of malformed IP Packets received on the interface during the last interval. These are packets which are corrupted or discarded due to errors in their IP headers, including bad checksums, version number mismatch, other format errors, time-to-live exceeded, errors discovered in processing their IP options, etc. Mib name: acPMNetUtilDiscardedPacketsVal

2.8.2 Tab: VoP Call Statistics

Frame: System Monitoring SIP (Configuration), Tab: VoP Call Statistics

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Num of Active Contexts Avg	HIST	Gauge	Indicates the average number of voice calls connected on the gateway since the last clear. Mib name: acPMActiveContextCountAverage
Num of Active Contexts Min	HIST	Gauge	Indicates the minimum number of voice calls connected on the gateway since the last clear. Mib name: acPMActiveContextCountMin
Num of Active Contexts Max	HIST	Gauge	Indicates the maximum number of voice calls connected on the gateway since the last clear. Mib name: acPMActiveContextCountMax
G711 Active Calls Avg	HIST	Gauge	Indicates the average number of G.711 calls present on the TPM. Mib name: acPMChannelsPerCoderAverageG711
G723 Active Calls Avg	HIST	Gauge	Indicates the average number of G.723 calls present on the TPM. This attribute is only displayed if the G.723 Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderAverageG723
G728 Active Calls Avg	HIST	Gauge	Indicates the average number of G.728 calls present on the TPM. This attribute is only displayed if the G.728 Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderAverageG728
G729a Active Calls Avg	HIST	Gauge	Indicates the average number of G.729a calls present on the TPM. This attribute is only displayed if the G.729a Codec is provisioned on the DSP. Mib name: acPMChannelsPerCoderAverageG729a
G729e Active Calls Avg	HIST	Gauge	Indicates the average number of G.729e calls present on the TPM. This attribute is only displayed if the G.729e Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderAverageG729e
AMR Active Calls Avg	HIST	Gauge	Indicates the average number of AMR calls present on the TPM. This attribute is only displayed if the AMR Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderAverageAMR
EVRC Active Calls Avg	HIST	Gauge	Indicates the average number of EVRC calls present on the TPM. This attribute is only displayed if the EVRC Codec is provisioned on the DSP template. Mib name: acPMChannelsPerCoderAverageEVRC
Rx RTP Packet Loss Max	HIST	Gauge	Indicates the Max Rx RTP Packet loss (reported by RTCP) per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPPacketLossRxMax
Tx RTP Packet Loss Max	HIST	Gauge	Indicates the Max Tx RTP Packet loss (reported by RTCP) per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPPacketLossTxMax

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
RTP delay Average	HIST	Gauge	Indicates the average RTP packets delay per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketDelayAverage
RTP delay Max	HIST	Gauge	Indicates the maximum RTP packets delay per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketDelayMax
RTP delay Min	HIST	Gauge	Indicates the minimum RTP packets delay per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketDelayMin
RTP jitter Average	HIST	Gauge	Indicates the average RTP packets jitter per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketJitterAverage
RTP jitter Min	HIST	Gauge	Indicates the minimum RTP packets jitter per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketJitterMin
RTP jitter Max	HIST	Gauge	Indicates the maximum RTP packets jitter per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModulePacketJitterMax
Rx RTP Bytes Max	HIST	Gauge	Indicates the Max Tx RTP Bytes per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPBytesRxMax
Tx RTP Bytes Max	HIST	Gauge	Indicates the Max Rx RTP Bytes per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPBytesTxMax
Rx RTP Packets Max	HIST	Gauge	Indicates the Max Rx RTP Packets per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPPacketsRxMax
Tx RTP Packets Max	HIST	Gauge	Indicates the Max Tx RTP Packets per TPM, up to this point in time during the collection interval, as indicated by the time Interval. Mib name: acPMModuleRTPPacketsTxMax
RTCP XR Average Conversational R Factor	HIST	Gauge	Average conversational R factor. Mib name: rtcpXrHistoryAvgRCQ
RTCP XR Maximum Conversational R Factor	HIST	Gauge	Maximum conversational R factor. Mib name: rtcpXrHistoryMaxRCQ
RTCP XR Minimum Conversational R Factor	HIST	Gauge	Minimum conversational R factor. Mib name: rtcpXrHistoryMinRCQ

2.8.3 Tab: SIP IP to Tel

Frame: System Monitoring SIP (Configuration), Tab: SIP IP to Tel

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
IP to Tel Number of Call Attempts	HIST	Counter	Indicates the number of attempted calls for IP to Tel direction, during last interval. Mib name: acPMSIPAttemptedCallsValIP2Tel
IP to Tel Number of Established Calls	HIST	Counter	Indicates the number of established calls for IP to Tel direction, during last interval. Mib name: acPMSIPEstablishedCallsValIP2Tel
IP to Tel Number of Calls Terminated due to a Busy Line	HIST	Counter	Indicates the number of calls that failed as a result of a busy line for IP to Tel direction, during last interval. Mib name: acPMSIPBusyCallsValIP2Tel
IP to Tel Number of Calls Terminated due to No Answer	HIST	Counter	Indicates the number of calls that weren't answered for IP to Tel direction, during last interval. Mib name: acPMSIPNoAnswerCallsValIP2Tel
IP to Tel Number of Calls Terminated due to Forward	HIST	Counter	Indicates the number of calls that were terminated due to a call forward for IP to Tel direction, during last interval. Mib name: acPMSIPForwardedCallsValIP2Tel
IP to Tel Number of Failed Calls due to No Route	HIST	Counter	Indicates the number of calls whose destinations weren't found for IP to Tel direction, during last interval. Mib name: acPMSIPNoRouteCallsValIP2Tel
IP to Tel Number of Failed Calls due to No Matched Capabilities	HIST	Counter	Indicates the number of calls that failed due to mismatched media server capabilities for IP to Tel direction, during last interval. Mib name: acPMSIPNoMatchCallsValIP2Tel
IP to Tel Number of Failed Calls due to No Resources	HIST	Counter	Indicates the number of calls that failed due to unavailable resources or a media server lock for IP to Tel direction, during last interval. Mib name: acPMSIPNoResourcesCallsValIP2Tel
IP to Tel Number of Failed Calls due to Other reasons	HIST	Counter	This counter is incremented as a result of calls that fail due to reasons not covered by the other counters for IP to Tel direction, during last interval. Mib name: acPMSIPFailCallsValIP2Tel
IP to Tel Fax Call Attempts	HIST	Counter	Indicates the number of attempted fax calls for IP to Tel direction, during last interval. Mib name: acPMSIPFaxAttemptedCallsValIP2Tel
IP to Tel Successful Fax Calls	HIST	Counter	Indicates the number of successful fax calls for IP to Tel direction, during last interval. Mib name: acPMSIPFaxSuccessCallsValIP2Tel
IP to Tel Average Call Duration [sec]	HIST	Gauge	Indicates the average call duration of established calls for IP to Tel direction, during last interval. Mib name: acPMSIPCallDurationAverageIP2Tel

2.8.4 Tab: SIP Tel to IP

Frame: System Monitoring SIP (Configuration), Tab: SIP Tel to IP

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Tel to IP Number of Call Attempts	HIST	Counter	Indicates the number of attempted calls for Tel to IP direction, during last interval. Mib name: acPMSIPAttemptedCallsValTel2IP
Tel to IP Number of Established Calls	HIST	Counter	Indicates the number of established calls for Tel to IP direction, during last interval. Mib name: acPMSIPEstablishedCallsValTel2IP
Tel to IP Number of Calls Terminated due to a Busy Line	HIST	Counter	Indicates the number of calls that failed as a result of a busy line for Tel to IP direction, during last interval. Mib name: acPMSIPBusyCallsValTel2IP
Tel to IP Number of Calls Terminated due to No Answer	HIST	Counter	Indicates the number of calls that weren't answered for Tel to IP direction, during last interval. Mib name: acPMSIPNoAnswerCallsValTel2IP
Tel to IP Number of Calls Terminated due to Forward	HIST	Counter	Indicates the number of calls that were terminated due to a call forward for Tel to IP direction, during last interval. Mib name: acPMSIPForwardedCallsValTel2IP
Tel to IP Number of Failed Calls due to No Route	HIST	Counter	Indicates the number of calls whose destinations weren't found for Tel to IP direction, during last interval. Mib name: acPMSIPNoRouteCallsValTel2IP
Tel to IP Number of Failed Calls due to No Matched Capabilities	HIST	Counter	Indicates the number of calls that failed due to mismatched media server capabilities for Tel to IP direction, during last interval. Mib name: acPMSIPNoMatchCallsValTel2IP
Tel to IP Number of Failed Calls due to No Resources	HIST	Counter	Indicates the number of calls that failed due to unavailable resources or a media server lock for Tel to IP direction, during last interval. Mib name: acPMSIPNoResourcesCallsValTel2IP
Tel to IP Number of Failed Calls due to Other reasons	HIST	Counter	This counter is incremented as a result of calls that fail due to reasons not covered by the other counters for Tel to IP direction, during last interval. Mib name: acPMSIPFailCallsValTel2IP
Tel to IP Fax Call Attempts	HIST	Counter	Indicates the number of attempted fax calls for Tel to IP direction, during last interval. Mib name: acPMSIPFaxAttemptedCallsValTel2IP
Tel to IP Successful Fax Calls	HIST	Counter	Indicates the number of successful fax calls for Tel to IP direction, during last interval. Mib name: acPMSIPFaxSuccessCallsValTel2IP
Tel to IP Average Call Duration [sec]	HIST	Gauge	Indicates the average call duration of established calls for Tel to IP direction, during last interval. Mib name: acPMSIPCallDurationAverageTel2IP

2.8.5 Tab: SRD Statistics

Frame: System Monitoring SIP (Configuration), Tab: SRD Statistics

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
SIP SRD Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPSRDDialogsVal
SIP SRD Invite Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPSRDInviteDialogsVal
SIP SRD Subscribe Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPSRDSubscribeDialogsVal
SIP SRD Other Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPSRDOtherDialogsVal

2.8.6 Tab: IP Group Statistics

Frame: System Monitoring SIP (Configuration), Tab: IP Group Statistics

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
SIP IP Group Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupDialogsVal
SIP IP Group Invite Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupInviteDialogsVal
SIP IP Group Subscribe Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupSubscribeDialogsVal
SIP IP Group Other Dialogs Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupOtherDialogsVal
SIP IP Group In Invite Dialogs	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupInInviteDialogsVal
SIP IP Group I nSubscribe Dialogs	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupInSubscribeDialogsVal
SIP IP Group Out Invite Dialogs	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupOutInviteDialogsVal
SIP IP Group Out Subscribe Dialogs	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIPGroupOutSubscribeDialogsVal
SIP IP Group Invite Dialogs IP Average	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPIPGroupInviteDialogsAverage
SIP IP Group Invite Dialogs IP Max	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPIPGroupInviteDialogsMax
SIP IP Group Invite Dialogs IP Min	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPIPGroupInviteDialogsMin

2.8.7 Tab: Trunk Group Statistics

Frame: System Monitoring SIP (Configuration), Tab: Trunk Group Statistics

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Trunk Group Utilization (%)	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupPercentageUtilizationVal
Trunk Group Utilization (channels)	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupUtilizationVal
Tel to IP Trunk Group Established Calls Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPTel2IPTrunkGroupEstablishedCallsVal
IP to Tel Trunk Group Established Calls Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIP2TelTrunkGroupEstablishedCallsVal
No Resources Calls	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupNoResourcesCallsVal
Average Call Duration (sec)	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupCallDurationAverage
Total Call Duration (sec)	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupCallDurationTotal
Trunk Group All Trunks Busy (sec)	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPTrunkGroupAllTrunksBusyVal
All Trunks Busy (%)	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupAllTrunksBusyPercentageVal

2.9 Frame: Trunk Group Monitoring (History)

2.9.1 Tab: Trunk Group Statistics

Frame: Trunk Group Monitoring (History), Tab: Trunk Group Statistics

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Trunk Group Utilization (%)	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupPercentageUtilizationVal
Trunk Group Utilization (channels)	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupUtilizationVal
Tel to IP Trunk Group Established Calls Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPTel2IPTrunkGroupEstablishedCallsVal
IP to Tel Trunk Group Established Calls Val	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPIP2TelTrunkGroupEstablishedCallsVal

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
No Resources Calls	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupNoResourcesCallsVal
Average Call Duration (sec)	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupCallDurationAverage
Total Call Duration (sec)	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupCallDurationTotal
Trunk Group All Trunks Busy (sec)	HIST	Counter	Value of gauge or counter. Mib name: acPMSIPTrunkGroupAllTrunksBusyVal
All Trunks Busy (%)	HIST	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupAllTrunksBusyPercentageVal

2.10 Frame: Trunk Group Monitoring (Real-Time)

2.10.1 Tab: Trunk Group Statistics

Frame: Trunk Group Monitoring (Real-Time), Tab: Trunk Group Statistics

EMS Parameter Name	RT / Hist	Gauge / Counter	Parameter Description
Trunk Group Utilization (%)	RT	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupPercentageUtilizationVal
Trunk Group Utilization (channels)	RT	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupUtilizationVal
Tel to IP Trunk Group Established Calls Val	RT	Counter	Value of gauge or counter. Mib name: acPMSIPTel2IPTrunkGroupEstablishedCallsVal
IP to Tel Trunk Group Established Calls Val	RT	Counter	Value of gauge or counter. Mib name: acPMSIPIP2TelTrunkGroupEstablishedCallsVal
No Resources Calls	RT	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupNoResourcesCallsVal
Average Call Duration (sec)	RT	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupCallDurationAverage
Total Call Duration (sec)	RT	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupCallDurationTotal
Trunk Group All Trunks Busy (sec)	RT	Counter	Value of gauge or counter. Mib name: acPMSIPTrunkGroupAllTrunksBusyVal
All Trunks Busy (%)	RT	Gauge	Value of gauge or counter. Mib name: acPMSIPTrunkGroupAllTrunksBusyPercentageVal

3 Alarms

Supported alarms / events can fall into one of these three categories:

- Standard traps: traps originated by the media gateway / server - all the standard traps are treated are events.
- Proprietary alarms / events: traps originated by the media gateway / server and defined in the gateway proprietary MIB.
- EMS alarms / events: traps originated by the EMS application and defined in the EMS proprietary MIB.

To find out which traps are defined as Events refer to 'Alarm Name' or 'Alarm Title' fields in the table. All the events are marked with [Event] prefix. This is how events are marked in the EMS Alarms Browser and Alarms History windows.

Each alarm / event described in this section includes the following information:

Information Included in Each Alarm

Alarm Name	The alarm name, as it appears in the EMS Alarm Browser.
Alarm Source	Possible values of sources if applicable to a specific alarm. This value is displayed from the variable-binding tgTrapGlobalsSource. For the complete list of Managed Objects, refer to the Mediant 5000 / 8000 Programmers' User Manual.
Severity	Possible values of severities. This value is displayed from the variable-binding tgTrapGlobalsSeverity.
Alarm Type	Alarm type according to ITU X.733 definition. This value is displayed from the variable-binding tgTrapGlobalsType.
Alarm Probable Cause	Alarm probable cause according to ITU X.733 definition. This value is displayed from the variable-binding tgTrapGlobalsProbableCause.
Description	Textual description of specific problem. This value is displayed from the variable-binding tgTrapGlobalsTextualDescription. The document includes a few examples of the possible values of this field.
Additional Info	Additional information fields provided by MG application, depending on the specific scenario. These values are displayed from tgTrapGlobalsAdditionalInfo1, tgTrapGlobalsAdditionalInfo2 and tgTrapGlobalsAdditionalInfo3. The document includes a few examples of the possible values of this field.
SNMP Trap Name	NOTIFICATION-TYPE Name as it appears in the MIB.
SNMP Trap OID	NOTIFICATION-TYPE OID as it appears in the MIB.
Corrective Action	Possible corrective action when applicable.

3.1 Standard Traps

3.1.1 Cold Start

Cold Start

Description	SNMPv2-MIB: A coldStart trap signifies that the SNMP entity, supporting a notification originator application, is reinitializing itself and that its configuration may have been altered.
SNMP Alarm	coldStart
SNMP OID	1.3.6.1.6.3.1.1.5.1
Alarm Title	[Event] Cold Start
Alarm Type	Communication Alarm
Alarm Source	
Probable Cause	Other
Severity	Clear
Additional Info1,2,3	
Corrective Action	

3.1.2 Link Down

Link Down

Description	SNMPv2-MIB: A linkDown trap signifies that the SNMP entity, acting in an agent role, has detected that the ifOperStatus object for one of its communication links is about to enter the down state from some other state (but not from the notPresent state). This other state is indicated by the included value of ifOperStatus.
SNMP Alarm	[Event] linkDown
SNMP OID	1.3.6.1.6.3.1.1.5.3
Alarm Title	Link Down
Alarm Type	Communication Alarm
Alarm Source	
Probable Cause	Other
Severity	Major
Additional Info1,2,3	
Corrective Action	

3.1.3 Link Up

Link Up

Description	SNMPv2-MIB: A linkUp trap signifies that the SNMP entity, acting in an agent role, has detected that the ifOperStatus object for one of its communication links left the down state and transitioned into some other state (but not into the notPresent state). This other state is indicated by the included value of ifOperStatus.
SNMP Alarm	[Event] linkUp
SNMP OID	1.3.6.1.6.3.1.1.5.4
Alarm Title	Link Up
Alarm Type	Communication Alarm
Alarm Source	
Probable Cause	Other
Severity	Clear
Additional Info1,2,3	
Corrective Action	

3.1.4 Entity Configuration Change

Entity Configuration Change

Description	Entity-MIB: An entConfigChange notification is generated when the value of entLastChangeTime changes.
SNMP Alarm	[Event] entConfigChange
SNMP OID	1.3.6.1.2.1.47.2.0.1
Alarm Title	Entity Configuration Change
Alarm Type	Equipment Alarm
Alarm Source	
Probable Cause	Other
Severity	Info
Additional Info1,2,3	
Corrective Action	

3.1.5 Authentication Failure

Authentication Failure

Description	SNMPv2-MIB: An authenticationFailure trap signifies that the SNMP entity has received a protocol message that is no properly authenticated. While all implementations of SNMP entities MAY be capable of generating this trap, the snmpEnableAuthenTraps object indicates whether this trap will be generated.
SNMP Alarm	[Event] authenticationFailure
SNMP OID	1.3.6.1.6.3.1.1.5.5
Alarm Title	Authentication Failure
Alarm Type	Communication Alarm
Alarm Source	
Probable Cause	Other
Severity	Major
Additional Info1,2,3	
Corrective Action	

3.2 EMS Alarms

3.2.1 EMS Trap Receiver Binding Error

EMS Trap Receiver Binding Error

Textual Description	This alarm is generated during server startup if an error occurs indicating that the SNMP trap receiver port is already taken.
SNMP OID	acEMSSnmpCannotBindError- 1.3.6.1.4.1.5003.9.20.3.2.0.1
AlarmTitle	[Event] EMS Trap Receiver Binding Error
ItuAlarmType	Environmental Alarm
AlarmSource	EMS Server
Probable Cause	Application Subsystem Failure
Severity	Critical
Additional Info	-
Corrective Action	Run netstats command to verify which application uses the alarms reception port (by default UDP post 162). ▪ EMS application: If it's busy, check which application uses this port. If it's not freed by the EMS application, restart the EMS Server application according to the equipment installation manual. ▪ Other network management application: change the EMS application and all managed gateways' default alarm reception ports.
Media Gateways	All the gateways managed by the EMS

3.2.2 GW Connection Alarm

GW Connection Alarm

Textual Description	Originated by the EMS when an SNMP Timeout occurs for the first time in the Media Gateway
SNMP OID	acEMSNodeConnectionLostAlarm - 1.3.6.1.4.1.5003.9.20.3.2.0.3
AlarmTitle	GW Connection Alarm
ItuAlarmType	Communications Alarm
AlarmSource	Media Gateway
Probable Cause	Communications Subsystem Failure
Severity	Critical
Additional Info	-
Corrective Action	Communication problem: Try to ping the gateway to check if there is network communication. ▪ Default gateway alive: Open the network screen. Check the default gateway IP address and ping it. ▪ SNMP Community Strings: Verify that the community string defined in the EMS for the gateway matchs the actual gateway community strings. To check the community string, right-click on the gateway, select the 'Details' menu. Default community strings: read = public, write = private. ▪ Hardware Problem: Check that the gateway is alive according to the LEDs. Verify that network and power cables are in place and plugged in.
Media Gateways	All the gateways managed by the EMS

3.2.3 GW Mismatch Alarm

GW Mismatch Alarm

Textual Description	Activated when the EMS detects a hardware, software, predefine or configuration mismatch. • Software Mismatch: Activated when the EMS detects a software version mismatch between the actual and the previous definition of the Media Gateway (for example, Version 4.0.353 instead of the previously defined 4.0.278). This is also the case when the new version is not defined in the Software Manager. • Hardware Mismatch: Activated when the EMS detects a hardware mismatch between the actual and the previous definition of a Media Gateway. • Configuration Mismatch: Activated when the EMS detects a configuration mismatch between the actual parameter values provisioned and previous parameter values provisioned.
SNMP OID	acEMSNoMismatchNodeAlarm - 1.3.6.1.4.1.5003.9.20.3.2.0.9
AlarmTitle	GW Mismatch Alarm
ItuAlarmType	Equipment Alarm
AlarmSource	Media Gateway/Software Media Gateway/Hardware Media Gateway/Configuration
Probable Cause	Other
Severity	Clear
Additional Info	-
Corrective Action	• Software Mismatch: ✓ Define the detected version in the EMS Software Manager ✓ Perform a Software Upgrade on the gateway with one of the supported versions. • Hardware Mismatch: ✓ Perform remove / add a gateway from the EMS tree in order to resync EMS and the gateway status ✓ Verify in the Software Manager that an appropriate version exists for the hardware type displayed in the error message • Configuration Mismatch: ✓ Run Configuration Verification command in order to compare EMS configuration and actual MG configuration: -MG configuration is incorrect: use configuration download to update MG with correct configuration saved in the EMS database. -MG is correct, EMS is not updated: use configuration upload to save a correct MG configuration in the EMS database. • Check the Actions Journal for recent updates of the gateway.
Media Gateways	All the gateways managed by the EMS.

3.2.4 EMS Server Started

EMS Server Started

Textual Description	Originated each time the server is started or restarted (warm boot/reboot) by the EMS Watchdog Process
SNMP OID	acEMSServerStartup- 1.3.6.1.4.1.5003.9.20.3.2.0.11
AlarmTitle	[Event] EMS Server Started
ItuAlarmType	Communications Alarm
AlarmSource	EMS Server
Probable Cause	Other
Severity	Major
Additional Info	-
Corrective Action	-
Media Gateways	All the gateways managed by the EMS.

3.2.5 Disk Space Alarm

Disk Space Alarm

Textual Description	Originated when the EMS Server hard disk capacity is almost full.
SNMP OID	acEMSNotEnoughDiskSpaceAlarm - 1.3.6.1.4.1.5003.9.20.3.2.0.12
AlarmTitle	Disk Space Alarm
ItuAlarmType	Environment Alarm
AlarmSource	EMS Server
Probable Cause	-
Severity	Critical - disk usage > 80 % Major - disk usage > 70 %
Additional Info	-
Corrective Action	▪ Clean all unnecessary files ▪ Expand the hard disk
Media Gateways	All the gateways managed by the EMS.

3.2.6 Software Replaced

Software Replaced

Textual Description	Originates when the EMS discovers a software version replace between board versions, for example, from V4.6.009.004 to V4.6.152.003 (when both versions are managed by the EMS). Software Replace old version : <old version> new version <new version>
SNMP OID	acEMSSoftwareReplaceAlarm- 1.3.6.1.4.1.5003.9.20.3.2.0.14
AlarmTitle	[Event] Software Replaced
ItuAlarmType	Communications Alarm
AlarmSource	EMS Server
Probable Cause	Other
Severity	Info
Additional Info	If you initiated a performance measurements polling process before you initiated the software replacement process, the polling process is stopped.
Corrective Action	No action should be taken; this is an information alarm.
Media Gateways	All the gateways managed by the EMS.

3.2.7 Hardware Replaced

Hardware Replaced

Textual Description	Originated when the EMS discovers a different gateway (according to the MAC address) to what was initially defined, while the Hardware Type remains the same. Hardware Replace is discovered by the MAC address and performed during Board Started trap.
SNMP OID	acEMSHardwareReplaceAlarm - 1.3.6.1.4.1.5003.9.20.3.2.0.15
AlarmTitle	[Event] Hardware Replaced
ItuAlarmType	Equipment Alarm
AlarmSource	Media Gateway
Probable Cause	Other
Severity	Major
Additional Info	-
Corrective Action	-
Media Gateways	MediaPacks, Mediant 1000, Mediant 2000, Mediant 3000

3.2.8 HTTP/HTTPS Access Disabled

HTTP/HTTPS Access Disabled

Textual Description	Originated when HTTP access is disabled by EMS hardening but the EMS manages media gateways that require HTTP access for software upgrade. Originated on server startup.
SNMP OID	acEMSHTTPDisabled - 1.3.6.1.4.1.5003.9.20.3.2.0.16
AlarmTitle	[Event] HTTP/HTTPS Access Disabled
ItuAlarmType	Environmental Alarm
AlarmSource	EMS Server
Probable Cause	Application Subsystem Failure
Severity	Major
Additional Info	-
Corrective Action	Separate the gateways between two EMS Servers (secured & unsecured)
Media Gateways	Gateways using the HTTP server for the software upgrade procedure: MediaPacks, Mediant 1000, Mediant 2000, Mediant 3000

3.2.9 PM File Generated

PM File Generated

Textual Description	Originated when a PM file is generated in the EMS server, and it can be retrieved by a higher level management system.
SNMP OID	acEMSPmFileGenerate - 1.3.6.1.4.1.5003.9.20.3.2.0.18
AlarmTitle	[Event] PM File Generated
ItuAlarmType	Other
AlarmSource	EMS Server
Probable Cause	Other
Severity	Info
Additional Info	The performance summary data from<start polling interval time> to<timeStempFileTo> of media gateway<nodeIPAdd> was saved in PM file <fileName>.
Corrective Action	-
Media Gateways	All Gateways

3.2.10 PM Polling Error

PM Polling Error

Textual Description	Originated when a PM History stops collecting performance summary data from MG. Possible reasons are: NTP synchronization lost, Connection Loss, SW Mismatch, etc..
SNMP OID	acEMSPmHistoryAlarm - 1.3.6.1.4.1.5003.9.20.3.2.0.19
AlarmTitle	[Event] PM Polling Error
ItuAlarmType	Other
AlarmSource	EMS Server
Probable Cause	Other
Severity	Minor
Additional Info	
Corrective Action	Verify in the 'Textual Description' (see above) the reason why the PM history stopped. ▪ When the reason is 'NTP synchronization lost', verify that the gateway and the EMS Server machine are synchronized to the same NTP server and have accurate time definitions. ▪ When the reason is 'Software Mismatch', you can stop the PM history collection until the new version is added to the Software Manager. ▪ When the reason is 'Connection Loss' between the EMS Server and the gateway, polling continues automatically when the connection is re-established; the purpose of the alarm in this case is to inform users of missing samples. Note: The alarm continues to activate every 15 minutes unless you fix the problem or manually stop PM polling of the Gateway.
Media Gateways	All Gateways

3.2.11 Cold Start Missed

Cold Start Missed

Textual Description	Originated when Carrier Grade Alarm System recognizes coldStart trap has been missed.
SNMP OID	acEMSNodeColdStartMissedEvent - 1.3.6.1.4.1.5003.9.20.3.2.0.20
AlarmTitle	[Event] Cold Start Missed
ItuAlarmType	Other
AlarmSource	
Probable Cause	Receive failure
Severity	Clear
Additional Info	
Corrective Action	
Media Gateways	All the managed Gateways

3.2.12 Security Alarm

Security Alarm

Textual Description	Activated when one of more Radius servers are not reachable. When none of the radius servers can be reached, a Critical Severity alarm is generated.
SNMP OID	acEMSSecurityAlarm - 1.3.6.1.4.1.5003.9.20.3.2.0.23
AlarmTitle	Security Alarm
ItuAlarmType	Processing Error Alarm
AlarmSource	EMS Server / Radius <#>
Probable Cause	Other
Severity	Minor, Major, Critical
Additional Info	
Corrective Action	
Media Gateways	

3.2.13 Security Event

Security Event

Textual Description	This event is generated when a specific user is blocked after reaching the maximum number of login attempts, or when the EMS failed to sync EMS and Mediant 5000 / 8000 users.
SNMP OID	acEMSSecurityEvent - 1.3.6.1.4.1.5003.9.20.3.2.0.24
AlarmTitle	[Event] Security Event
ItuAlarmType	Other
AlarmSource	EMS Server / User Name, EMS Sever / User Sync
Probable Cause	Other
Severity	Indeterminate
Additional Info	
Corrective Action	
Media Gateways	

3.2.14 Topology Update Event

Topology Update Event

Textual Description	This event is issued by the EMS when a Gateway or Region is added/removed/updated in the EMS application and includes the following information: Action: Add / Remove / Update GW or Region Region Name GW Name GW IP Note: For opening an EMS client in the MG context, the gateway IP address should be provided.
SNMP OID	acEMSTopologyUpdateEvent - 1.3.6.1.4.1.5003.9.20.3.2.0.25
Alarm Title	[Event] Topology Update
Alarm Source	EMS Server
Severity	Indeterminate
Alarm Type	Other
Probable Cause	Other

Additional Info	Additional Info 1 field will include following details: Region: X1 'X2' [GW: Y1 'Y2' 'Y3' 'Y4'] X1 = Region ID (unique identifier in the EMS data base used for region identification) X2 = Region name as it defined by EMS operator Y1 = GW ID (unique identifier in the EMS data base used for GW identification) Y2 = GW Name as it defined by EMS operator Y3 = GW IP as it defined by EMS operator Y4 = GW Type as it identified by EMS during the first connection to the GW. If first connection was not successful during the add operation, it will trigger an 'Add GW' event with Unknown GW type, and 'Update GW' event once the initial connection to the GW has been successfull. The following GWs will be supported: MP,M1K, M2K, M3K, M5K, M8K Region details will always be part of the alarm, while GW info will be displayed when event is GW related. All the fields related to the GW will always be displayed to allow easy parsing. Examples: (Description=Add Region) Region: 7 'Test Lab' (Description=Update Region) Region: 7 'My Updated Region' (Description=Add GW) Region: 7 'My Updated Region', GW: 22 'MG14' '1.2.3.4' 'Unknown', PM Polling: disabled (Description=Update GW) Region: 7 'My Updated Region', GW: 22 'My MG 15' '4.5.6.7' 'M3K' (Description=Update GW) Region: 7 'My Updated Region', GW: 22 'My MG 15' '4.5.6.7', PM Polling: enabled (Description=Remove GW) Region: 7 'My Updated Region', GW: 22 'My MG 15' '4.5.6.7' 'M3K', Polling: enabled (Description=Remove Region) Region: 7 'My Updated Region'
Corrective Action	
Media Gateways	

3.2.15 Topology File Event

Topology File Event

Textual Description	This event is issued by the EMS when the Topology File is updated on the EMS Server machine.The Topology file is automatically updated upon the addition /removal of a Media Gateway or upon updates to the Media Gateway properties. For more information, refer to the *OAMP Integration Guide*.
SNMP OID	acEMSTopologyFileEvent- 1.3.6.1.4.1.5003.9.20.3.2.0.26
Alarm Title	[Event] Topology File
Alarm Source	
Severity	Indeterminate
Alarm Type	Other
Probable Cause	Other
Additional Info	File Name: MGsTopologyList.csv
Corrective Action	
Media Gateways	

3.2.16 Synchronizing Alarms Event

Synchronizing Alarms Event

Textual Description	This event is issued when the EMS is not able to retrieve the entire missing alarms list from the History table. Information regarding the number of retrieved alarms, and number of alarms EMS failed to retrieve is provided in the Additional Info field.
SNMP OID	acEMSSyncAlarmEvent - 1.3.6.1.4.1.5003.9.20.3.2.0.27
Alarm Title	[Event] Synchronizing Alarms
Alarm Source	EMS Server
Severity	Indeterminate
Alarm Type	Other
Probable Cause	Other
Additional Info	Retrieved x missed alarms, failed to retrieve y alarms.
Corrective Action	
Media Gateways	

3.2.17 Synchronizing Active Alarms Event

Synchronizing Active Alarms Event

Textual Description	This event is issued when the EMS is not able to perform synchronization with the History alarms table, and instead performs synchronization with the Active Alarms Table.
SNMP OID	acEMSSyncActiveAlarmEvent - 1.3.6.1.4.1.5003.9.20.3.2.0.28
Alarm Title	[Event] Synchronizing Active Alarms
Alarm Source	
Severity	Indeterminate
Alarm Type	Other
Probable Cause	Other
Additional Info	
Corrective Action	
Media Gateways	

3.2.18 License Key Alarm

License Key Alarm

Textual Description	This alarm is raised when one of the following occurs: ▪ EMS Application License is expired. ▪ EMS Application License will be expired within one month. ▪ Gateway management is not covered by the current EMS Application License (the maximum number of EMS licenses for managing this gateway has been exceeded).
SNMP OID	acEMSLicenseKeyAlarm - 1.3.6.1.4.1.5003.9.20.3.2.0.29
Alarm Title	EMS License Key Alarm
Alarm Source	
Severity	Major/Critical
Alarm Type	Other
Probable Cause	keyExpired
Additional Info	
Corrective Action	
Media Gateways	

3.2.19 Alarm Supression Alarm

Description	This alarm is sent when the EMS suppresses alarms (of the same alarm type and alarm source), once the number of such alarms reaches a configured threshold level in a configured interval (configured in the EMS in the Alarms Settings screen). When this alarm is sent, such alarms are not added to the EMS database and are not forwarded to configured destinations.
SNMP Alarm	AlarmSuppressionAlarm
SNMP OID	1.3.6.1.4.1.5003.9.20.3.2.0.42
Default Severity	Indeterminate
Alarm Type	Other
Probable Cause	Threshold crossed.
Alarm Text	Alarm Suppression activated
Status Changes	The alarm is cleared when in the subsequent interval, the number of such alarms falls below the configured threshold. Once the alarm is cleared, then these alarms are once more added to the EMS database and forwarded to configured destinations.
Additional Info	
Corrective Action	Investigate the recurrence of such alarms.

3.2.20 EMS Keep Alive Alarm

Description	This alarm indicates that an SNMP Keep-alive trap has been sent from EMS to a third-party destination such as a Syslog server to indicate EMS liveness (configured in the EMS Alarms Settings window).
SNMP Alarm	EMSKeepAliveAlarm
SNMP OID	1.3.6.1.4.1.5003.9.20.3.2.0.45
Default Severity	Indeterminate
Alarm Type	Other
Probable Cause	Other
Alarm Text	EMS Server Keep-Alive
Status Changes	
Additional Info	
Corrective Action	

3.2.21 Pre-provisioning Alarm

Description	This alarm is generated when the operation for pre-provisioning the device upon initial connection to the EMS fails.
SNMP OID	1.3.6.1.4.1.5003.9.20.3.2.0.46
AlarmTitle	Pre-Provisioning
AlarmType	operational/Violation
AlarmSource	EMS server
Probable Cause	The template file could not be applied to the device because there was a mismatch between the template file and the device's existing ini file or there was a mismatch between the device type and the firmware file applied to the device.
Severity	Critical
Additional Info	-
Corrective Action	• When this alarm is raised, you cannot reload configuration or firmware files to the device as it has already been connected to the EMS. Instead download these files to the device using the Software Manager and then use the 'Software Upgrade' action. OR • Remove the device from the EMS and then reconnect it i.e. repeat the pre-provisioning process.
Media Gateways	All gateways managed by EMS.

3.1 SEM Alarms

3.1.1 SEM – Failed Calls Alarm

SEM – Failed Calls Alarm

Description	This alarm is raised when the failed calls threshold is crossed and is cleared when the failed calls ratio returns below the threshold value. The description field includes the info: Failed X1% of calls, X2 of X3 calls.
SNMP Alarm	acSEMRuleFailedCallsAlarm
SNMP OID	1.3.6.1.4.1.5003.9.20.3.2.0.30
Alarm Title	SEM - Failed Calls Alarm
Alarm Source	SEM/<Device Name> or SEM/<Link Name> (According to provisioned scope)
alarm type	Quality of service alarm.
Probable Cause	The minimum or maximum threshold is crossed.
Severity	According to provisioned thresholds: critical, major or clear
Additional Info	Critical or Major severity threshold is Y%: • Critical Threshold: **5**% of calls (default) • Major Threshold: **3**% of calls (default
Corrective Action	Investigate the source (device or link) of the failed calls.

3.1.2 SEM – Voice Quality Alarm

SEM – Voice Quality Alarm

Description	This alarm is raised when the poor quality calls threshold is crossed and is cleared when the poor quality calls ratio returns below the threshold value. The description field includes the info: Poor Quality X1% of calls, X2 of X3 calls.
SNMP Alarm	acSEMRulePoorQualityCallsAlarm
SNMP OID	1.3.6.1.4.1.5003.9.20.3.2.0.31
Alarm Title	SEM – Voice Quality Alarm
Alarm Source	SEM/<Device Name> or SEM/<Link Name> (According to provisioned scope)
Alarm Type	Quality of service alarm.
Probable Cause	The minimum or maximum threshold is crossed.
Severity	According to provisioned thresholds: critical, major or clear
Additional Info	Critical or Major severity threshold is Y%: • Critical Threshold: **10**% of calls (default). • Major Threshold: **8**% of calls (default);
Corrective Action	Investigate the source (device or link) of the poor quality calls.

3.1.3 SEM – Average Call Duration Alarm

SEM – Average Call Duration Alarm

Description	This alarm is raised when the average call duration time threshold is crossed and is cleared when the average call duration time ratio returns below the threshold value. The description field includes the info: Average Call Duration is X sec.
SNMP Alarm	acSEMRuleAvrgCallDurationAlarm
SNMP OID	1.3.6.1.4.1.5003.9.20.3.2.0.32
Alarm Title	SEM – Average Call Duration Alarm
Alarm Source	SEM/<Device Name> or SEM/<Link Name> (According to provisioned scope)
Alarm Type	Quality of service alarm.
Probable Cause	The minimum or maximum threshold is crossed.
Severity	According to provisioned thresholds: critical, major or clear
Additional Info	Critical or Major severity threshold is Y sec.
Corrective Action	Investigate the source (device or link) reporting the excessive average call duration.

3.1.4 SEM – License Key Alarm

SEM – License Key Alarm

Description	This alarm is sent when the SEM application License Key file is invalid. Gateway management is not covered by the current SEM Application License.
SNMP Alarm	acSEMLicenseKeyAlarm
SNMP OID	1.3.6.1.4.1.5003.9.20.3.2.0.33
Alarm Title	SEM License key alarm.
Alarm Source	SEM server
Alarm Type	Other
Probable Cause	Key Expired
Severity	Critical
Corrective Action	Contact your AudioCodes representitve to obtain a correct license key.

3.1.5 SEM – System Load Alarm

SEM – System Load Alarm

Description	This alarm is sent when the SEM system capacity is high and the system consequently becomes loaded. Three levels are supported: • Minor - > Events are not stored for green calls. Trend Info will not be displayed. • Major -> Events are not stored. Trend Info will not be displayed. • Critical -> Green calls are not stored.
SNMP Alarm	acSEMCallDroppedAlarm
SNMP OID	1.3.6.1.4.1.5003.9.20.3.2.0.34
Alarm Title	SEM – System Load Alarm
Alarm Source	SEM Server
Alarm Type	Quality of service alarm.
Probable Cause	AlarmProbableCauseType.THRESHOLDCROSSED
Severity	MINOR/ MAJOR/ CRITICAL
Additional Info	• Medium load level is reached - {0}%, {1} calls of {2}. / • High load level is reached - {0}%, {1} calls of {2}. / • Approaching maximal system capacity - {0}%, {1} calls of {2}.
Corrective Action	Reduce the system load.

3.1.6 SEM – Call Details Storage Level has Changed

SEM – Call Details Storage Level has Changed

Description	This alarm is sent when the operator changes the Call Details Storage Level from one level to another.
SNMP Alarm	acSEMClientLoadFlagAlarm
SNMP OID	1.3.6.1.4.1.5003.9.20.3.2.0.35
Alarm Title	SEM – Call Details Storage Level has been changed.
Alarm Source	SEM Server
Alarm Type	Quality of service alarm
Probable Cause	Threshold crossed.
Severity	Indeterminate
Additional Info	
Corrective Action	

3.1.7 SEM – Time Synchronization Alarm

SEM – Time Synchronization Alarm

Description	This alarm is sent when Device and Server are not synchronized: Server Time: {0}, Device Time: {1}.
SNMP Alarm	acSEMTimeSynchronizationAlarm
SNMP OID	1.3.6.1.4.1.5003.9.20.3.2.0.36
Alarm Title	SEM – Time Synchronization Alarm
Alarm Source	SEM/<Device Name> or SEM/<Link Name> (According to provisioned scope)
Alarm Type	Timedomainviolational
Probable Cause	Timing Problem
Severity	Critical
Additional Info	One of the following reasons will appear: • Check your NTP configuration on the device. • NTP servers are not configured on the device. • Ensure that the SEM server and device time is properly synchronized. • Verify that the NTP configuration is correct; verify your network conditions (Firewalls, Ports, etc ..) and make sure that the NTP sync of the SEM server and/or the devices is performed correctly. • Refer to the EMS client / Help menu / EMS Server Configuration frame to verify the network configuration.
Corrective Action	See above.

3.1.8 SEM AD Lync Connection Alarm

Description	This alarm is sent when there is no connectivity with the Lync SQL Server database.
SNMP Alarm	acMSLyncConnectionAlarm
SNMP OID	1.3.6.1.4.1.5003.9.20.3.2.0.37
Alarm Title	SEM AD Lync Connection Alarm
Alarm Source	Lync SQL Server
Alarm Type	Communications alarm
Probable Cause	Communications sub-system failure
Severity	Critical
Additional Info	
Corrective Action	Check the Lync SQL server for problems.

3.1.9 SEM MS Lync AD Server Alarm

Description	This alarm is sent when there is no connectivity with the Active Directory LDAP server.
SNMP Alarm	acSEMMSLyncADServerAlarm
SNMP OID	1.3.6.1.4.1.5003.9.20.3.2.0.38
Alarm Title	SEM MS Lync AD Server Alarm
Alarm Source	Active Directory LDAP server
Alarm Type	Communications alarm
Probable Cause	Communications sub-system failure
Severity	Critical
Additional Info	SEM - AD Lync connection alarm
Corrective Action	Check the MS Lync AD server for problems.

3.1.10 SEM Rule Bandwidth Alarm

Description	This alarm is sent when the media bandwidth for the node or link falls below or exceeds the threshold values configured in the SEM Quality Alerts window.
SNMP Alarm	acSEMRuleBandwidthAlarm
SNMP OID	1.3.6.1.4.1.5003.9.20.3.2.0.43
Alarm Title	SEM Rule Bandwidth Alarm
Default Severity	According to provisioned thresholds: critical, major or clear.
Alarm Type	Quality of service alarm
Probable Cause	Threshold crossed
Alarm Text	Maximum Bandwidth of X Kb/sec
Status Changes	
Additional Info	
Corrective Action	Check the node's or link's maximum bandwidth capacity matches the required capacity.

3.1.11 SEM Rule Max Concurrent Calls Alarm

Description	This alarm is sent when the maximum concurrent calls for the node or link falls below or exceeds the threshold values configured in SEM Quality Alerts window.
SNMP Alarm	acSEMRuleMaxConcurrentCallsAlarm
SNMP OID	1.3.6.1.4.1.5003.9.20.3.2.0.44
Default Severity	According to provisioned thresholds: critical, major or clear
Alarm Type	Quality of service alarm
Probable Cause	Threshold crossed.
Alarm Text	Max Concurrent Calls of X
Status Changes	
Additional Info	
Corrective Action	Check that the node's or link's maximum number of concurrent calls matches the required capacity.

3.2 IP Phone Alarms

3.2.1 Registration Failure Alarm

IP Phone Registration Failure Alarm

Description	This alarm is raised when a SIP registration (with a PBX) for the IP Phone fails.
SNMP Alarm	IPPhoneRegisterFailure
OID	1.3.6.1.4.1.5003.9.20.3.2.0.39
Alarm Title	Registration Failure
Alarm Source	IP Phone
Alarm Type	communicationsAlarm(1)
Probable Cause	communicationsProtocolError(5)
Severity	Critical
Corrective Action	The problem is typically not related to the phone, but to the server. The user/phone may not be defined, or may be incorrectly defined, or may previously have been defined but the username (for example) may have been changed, causing the registration to fail. Make sure the username and password credentials are identical in the server and phone, and weren't changed; server-phone credentials must be synchronized. Make sure the server is responsive.

3.2.2 Lync Survivable Mode Start Alarm

IP Phone Survivable Mode Start Alarm

Description	This alarm is raised when the IP Phone enters Survivable mode state with limited services in the Microsoft Lync environment.
SNMP Alarm	IPPhoneSurvivableModeStart
OID	1.3.6.1.4.1.5003.9.20.3.2.0.40
Alarm Title	Survivable Mode Start
Alarm Source	IP Phone
Alarm Type	Other(0)
Probable Cause	other (0)
Severity	Major
Corrective Action	The problem is typically not related to the phone, but to the server or network. Make sure all servers in the enterprise's network are up. If one is down, limited service will result.

3.2.3 Lync Login Failure Alarm

IP Phone Lync Login Failure Alarm

Description	This alarm is raised when the IP Phone fails to connect to Microsoft Lync Server during sign in.
SNMP Alarm	IPPhoneLyncLoginFailure
OID	1.3.6.1.4.1.5003.9.20.3.2.0.41
Alarm Title	Lync Login Failure
Alarm Source	IP Phone
Alarm Type	communicationsAlarm(1)
Probable Cause	communicationsProtocolError(5)
Severity	Critical
Additional Info	TlsConnectionFailure NtpServerError
Corrective Action	This alarm may typically occur if the user is not registered - or is registered incorrectly - in the Lync Server. Make sure that username, password and PIN code are correctly configured and valid in the Lync Server. Try resetting them. Try redefining the user.

3.3 Device Alarms

3.3.1 Board Fatal Error

Board Fatal Error

Description	Sent whenever a fatal device error occurs.		
SNMP Alarm	acBoardFatalError		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.1		
Alarm Title	Board Fatal Error		
Alarm Type	equipmentAlarm		
Probable Cause	underlyingResourceUnavailable (56)		
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Critical (default)	Any fatal error	Board Fatal Error: A run-time specific string describing the fatal error	1. Capture the alarm information and the Syslog clause, if active. 2. Contact AudioCodes' Support Center at support@audiocodes.com which will want to collect additional data from the device and perform a reset.
Stays 'Critical' until reboot. A 'Clear' trap is not sent.	After fatal error	-	

3.3.2 Configuration Error

Configuration Error

Description	Sent when the device's settings are invalid. The trap contains a message stating/detailing/explaining the invalid setting.		
SNMP Alarm	acBoardConfigurationError		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.2		
Alarm Title	[Event] Configuration Error		
AlarmType	equipmentAlarm		
Probable Cause	underlyingResourceUnavailable (56)		
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Critical(default)	A configuration error was detected	Board Config Error: A run-time specific string describing the configuration error	1. Check the run-time specific string to determine the nature of the configuration error. 2. Fix the configuration error using the appropriate tool: Web interface, EMS, or *ini* file. 3. Save the configuration and if necessary reset the device.
Stays 'Critical' until reboot. A 'Clear' trap is not sent.	After configuration error	-	

3.3.3 Temperature Alarm

This alarm is relevant for the Mediant 2600 and Mediant 4000 devices.

Temperature Alarm

Description	Sent when the device exceeds its temperature limits.		
SNMP Alarm	acBoardTemperatureAlarm		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.3		
Alarm Title	Temperature Alarm		
Alarm Type	equipmentAlarm		
Alarm Source	System#0		
Probable Cause	The air filter is saturated. One of the fans work slower than expected. temperatureUnacceptable (50)		
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Critical	Internal temperature is too high for normal operation	Board temperature too high	Check that the ambient environment around the chassis was not changed (room temperature, air-conditioner, and location of the chassis on the site). If the ambient environment is the same, make sure that all unoccupied module slots are covered with blank panels. Check the chassis ventilation outlet and make sure that they are not obstructed for air flow. Check if you also received a Fan Tray alarm, which indicates that one or more fans in the Fan Tray are faulty (major). If this is the case, send the faulty Fan Tray to AudioCodes as RMA. Send an RMA request to AudioCodes for the Fan Tray.
Cleared	Temperature returns to normal operating values	-	-

3.3.4 Initialization Ended

Initialization Ended

Description	This alarm is sent when the device is initialized and ready to run.
SNMP Alarm	acBoardEvBoardStarted
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.4
Alarm Title	[Event] Initialization Ended
Alarm Type	Equipment Alarm
Alarm Source	
Probable Cause	Other
Severity	Major
Additional Info1,2,3	NULL

3.3.5 Board Resetting Following Software Reset

Board Resetting Following Software Reset

Description	This alarm indicates that the device has started the reset process - following a software reset.
SNMP Alarm	acBoardEvResettingBoard
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.5
Alarm Title	Board Resetting Following Software Reset
Alarm Type	Other
Alarm Source	
Probable Cause	Other
Severity	Critical
Additional Info1,2,3	'AdditionalInfo1', 'AdditionalInfo2', 'AdditionalInfo3',
Corrective Action	A network administrator has taken action to reset the device. No corrective action is needed.

3.3.6 Feature Key Related Error

Feature Key Related Error

Description	Sent to relay Feature Key errors etc.
SNMP Alarm	acFeatureKeyError
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.6
Alarm Title	Feature Key Related Error
Severity	Critical
Alarm Type	processingErrorAlarm
Probable Cause	configurationOrCustomizationError (7)
Alarm Text	Feature key error
Note	Support for this alarm is pending.

3.3.7 Gateway Administrative State Changed

Gateway Administrative State Changed

Description	This alarm indicates that the administrative state of the gateway has been changed to a new state. Note that all state changes are instigated by the parameter acgwAdminState. ▪ Time limit set in the parameter acgwAdminStateLockControl - 'GateWay shutting down. Max time to LOCK %d sec' ▪ No time limit in the parameter acgwAdminStateLockControl - 'GateWay is shutting down. No time limit.' ▪ When reaching lock state - 'GateWay is locked' • When the gateway is SET to unlocked - 'GateWay is unlocked (fully active again)'		
SNMP Alarm	acgwAdminStateChange		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.7		
Alarm Title	Administrative State Change		
Alarm Type	processingErrorAlarm		
Probable Cause	outOfService (71)		
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Major (default)	Admin state changed to shutting down	Network element admin state change alarm: Gateway is shutting down. No time limit.	No corrective action is required. A network administrator took an action to gracefully lock the device.

Major	Admin state changed to locked	Locked	No corrective action is required. A network administrator took an action to lock the device, or a graceful lock timeout occured.
Cleared	Admin state changed to unlocked	-	No corrective action is required. A network administrator has taken an action to unlock the device.

3.3.8 No Free Channels Available

No Free Channels Available

Description	This alarm indicates that almost no free resources for the call are available. Activated only if the parameter EnableRai is set. The threshold is determined according to parameters RAIHIGHTHRESHOLD and RAILOWTHRESHOLD.		
SNMP Alarm	acBoardCallResourcesAlarm		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.8		
Alarm Title	No Free Channels Available		
AlarmType	processingErrorAlarm		
Alarm Source	'GWAPP'		
Probable Cause	softwareError (46)		
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Major(default)	Percentage of busy channels exceeds the predefined RAI high threshold	Call resources alarm	Expand system capacity by adding more channels (trunks) -OR- Reduce traffic
Cleared	Percentage of busy channels falls below the predefined RAI low threshold	-	Note that to enable this alarm, the Remote Alarm Indication (RAI) mechanism must be activated (EnableRAI = **1**).

3.3.9 Gatekeeper/Proxy not Found or Registration Failed

Proxy not Found or Registration Failed

Description	The alarm is sent in the following scenarios: ▪ Physical FXO port is up or down (Out-of-Service or OOS). The FXO line can be down due to, for example, port disconnected or insufficient current and voltage. (Syslog message event is ANALOG_IF_LINE_DISCONNECTED.) ▪ Physical BRI or PRI (E1/T1) port is up or down (OOS). ▪ Proxy is not found or registration fails. In such a case, the device's routing table may be used for routing instead of the Proxy. ▪ Connection to the Proxy is up or down. ▪ Failure in TDM-over-IP call - transparent E1/T1 without signalling. ▪ Connection to the Proxy Set associated with the trunk/line is up/down. ▪ Failure in server registration for the trunk/line. ▪ Failure in a Serving IP Group for the trunk. ▪ Failure in a Proxy Set.		
SNMP Alarm	acBoardControllerFailureAlarm		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.9		
Alarm Source	'GWAPP'		
Alarm Title	Proxy not Found or Registration Failed		
Alarm Type	processingErrorAlarm		
Probable Cause	softwareError (46)		
Alarm Severity	**Condition**	**Text**	**Additional Information**
Major(default)	FXO physical port is down	"BusyOut Line *n* Link failure" Where *n* represents the FXO port number (0 for the first port).	▪ Verify that the FXO line is securely cabled to the device's FXO port.
	BRI or PRI physical port is down	"BusyOut Trunk *n* Link failure" Where *n* represents the BRI or PRI port number (0 for the first port).	Verify that the digital trunk is securely cabled to the device's digital port.
	Proxy has not been found or registration failure	"Proxy not found. Use internal routing" -OR- "Proxy lost. Looking for another Proxy"	▪ Check the network layer ▪ Make sure that the proxy IP and port are configured correctly.
	Connection to Proxy is down	"BusyOut Trunk/Line *n* Connectivity Proxy failure"	-

	Connection to the Proxy Set associated with the trunk or line is down	"BusyOut Trunk/Line *n* Proxy Set Failure" Where *n* represents the BRI/ PRI trunk or FXO line.	-
	Failure in a Proxy Set	"Proxy Set ID *n*" Where *n* represents the Proxy Set ID.	-
	Failure in TDM-over-IP call	"BusyOut Trunk *n* TDM over IP failure (Active calls x Min y)" Where *n* represents the BRI/ PRI trunk.	-
	Failure in server registration for the trunk/line	"BusyOut Trunk/Line *n* Registration Failure" Where *n* represents the BRI/ PRI trunk or FXO line.	-
	Failure in a Serving IP Group for the trunk	"BusyOut Trunk *n* Serving IP Group Failure" Where *n* represents the BRI or PRI trunk ID.	-
Cleared	Proxy is found. The 'Cleared' message includes the IP address of this Proxy.	-	-

3.3.10 Ethernet Link Down Alarm

Ethernet Link Down Alarm

Description	This alarm indicates that the Ethernet link is down or remote Ethernet link is down and the board has no communication to any other host. • No link at all. • Link is up again. • Primary link is down only - 'Primary Link is lost. Switching to Secondary Link'		
SNMP Alarm	acBoardEthernetLinkAlarm		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.10		
Alarm Title	Ethernet Link Down Alarm		
Alarm Source	All except Mediant 3000: Board#<n>/EthernetLink#0 (where n is the slot number) Mediant 3000: Chassis#0/Module#<n>/EthernetLink#0 (where n is the blade's slot number) This trap relates to the Ethernet Link Module (the #0 numbering doesn't apply to the physical Ethernet link).		
Alarm Type	equipmentAlarm		
Probable Cause	underlyingResourceUnavailable (56)		
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Major	Fault on single interface	Ethernet link alarm: Redundant link is down	1. Ensure that both Ethernet cables are plugged into the back of the system. 2. Observe the system's Ethernet link lights to determine which interface is failing. 3. Reconnect the cable or fix the network problem
Critical(default)	Fault on both interfaces	No Ethernet link	
Cleared	Both interfaces are operational	-	Note that the alarm behaves differently when coming from the redundant or the active modules of a High Availability (HA) system. The alarm from the redundant is raised when there is an operational HA configuration in the system. There is no critical severity for the redundant module losing both its Ethernet links as that is conveyed in the no HA alarm that follows such a case.

3.3.11 System Component Overloaded

System Component Overloaded

Description	This alarm is raised when there is an overload in one or more of the system's components.		
SNMP Alarm	acBoardOverloadAlarm		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.11		
Severity	Major		
Alarm Type	processingErrorAlarm		
Alarm Source	'GWAPP'		
Probable Cause	softwareError (46)		
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Major(default)	An overload condition exists in one or more of the system components	"System CPU overload condition - IdleUtilization percentage=%d" Where *%d* is the percentage of available CPU resources remaining	**1.** Make sure that the syslog level is 0 (or not high). **2.** Make sure that DebugRecording is not running. **3.** If the system is configured correctly, reduce traffic.
Cleared	The overload condition passed	"System CPU overload condition - IdleUtilization percentage=%"	**-**

3.3.12 Active Alarms Table Overflow

Active Alarms Table Overflow

Description	This alarm is raised when there are too many alarms to fit into the active alarm table. The status stays major until reboot as it denotes a possible loss of information until the next reboot. If an alarm was raised when the table was full, it is possible that the alarm is active, but does not appear in the active alarm table.
SNMP Alarm	acActiveAlarmTableOverflow
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.12
Alarm Title	[Event] Active Alarm Table Overflow
Alarm Type	Processing Error Alarm
Alarm Source	MG
Probable Cause	resourceAtOrNearingCapacity (43)
Severity	Major
Additional Info1,2,3	-
Corrective Action	Some alarm information may have been lost, but the ability of the device to perform its basic operations has not been impacted. A reboot is the only way to completely clear a problem with the active alarm table. Contact your first-level group.

3.3.13 Operational State Change

Operational State Change

Description	This alarm is raised if the operational state of the node is disabled. The alarm is cleared when the operational state of the node is enabled.		
SNMP Alarm	acOperationalStateChange		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.15		
Alarm Title	Operational State Change		
Alarm Source			
Alarm Type	processingErrorAlarm		
Probable Cause	outOfService (71)		
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Major(default)	Operational state changed to disabled	Network element operational state change alarm. Operational state is disabled.	▪ The alarm is cleared when the operational state of the node goes to enabled. ▪ In IP systems, check for initialization errors - in IP systems the operational state of the node is disabled if the device fails to properly initialize. ▪ Look for other alarms and Syslogs that might provide additional information about the error.
Cleared	Operational state changed to enabled	-	-

3.3.14 Keep Alive Trap

Keep Alive Trap

Description	Part of the NAT traversal mechanism. If the STUN application in the device detects a NAT, this trap is sent on a regular time laps - 9/10 of the acSysSTUNBindingLifeTime object. The AdditionalInfo1 varbind has the MAC address of the device.
SNMP Alarm	acKeepAlive
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.16
Alarm Title	[Event] Keep Alive Trap
Alarm Source	
Alarm Type	other (0)
Probable Cause	other (0)
Default Severity	Indeterminate
Event Text	Keep alive trap
Status Changes	
Condition	The STUN client is enabled and identified as a NAT device or doesn't locate the STUN server. The *ini* file contains the following line 'SendKeepAliveTrap=1'
Trap Status	Trap is sent
Note	Keep-alive is sent every 9/10 of the time defined in the parameter NatBindingDefaultTimeout.

3.3.15 NAT Traversal Alarm

NAT Traversal Alarm

Description	This alarm is sent when the NAT is placed in front of a device and is identified as a symmetric NAT. It is cleared when a non-symmetric NAT or no NAT replace the symmetric one.
SNMP Alarm	acNATTraversalAlarm
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.17
Alarm Title	NAT Traversal Alarm
Alarm Type	other (0)
Alarm Source	MG
Probable Cause	other (0)
Severity	Indeterminate
Additional Info1,2,3	-
Status Changes	The STUN client in the device is enabled and has either identified a NAT or is not finding the STUN server. Keep-alive is sent out every 9/10 of the time defined in the 'NatBindingDefaultTimeout' parameter.
Corrective Action	See http://tools.ietf.org/html/rfc5389

3.3.16 Threshold of Performance Monitored Object Exceeded

Threshold of Performance Monitored Object Exceeded

Description	Sent every time the threshold of a Performance Monitored object (counter or gauge) ('Minimum', 'Average', 'Maximum', 'Distribution below/above/between thresholds', and 'Low and high thresholds') is crossed. The severity field is 'Indeterminate' when the crossing is above the threshold and 'Cleared' when it goes back under the threshold. The 'Source' varbind in the trap indicates the object for which the threshold is being crossed.
SNMP Alarm	acPerformanceMonitoringThresholdCrossing
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.27
Alarm Title	Threshold of Performance Monitored Object Exceeded
Alarm Type	Other
Alarm Source	MO Path
Probable Cause	Other
Severity	Indeterminate (this is a notification; it's not automatically cleared)
Additional Info1,2,3	-
Corrective Action	-

3.3.17 HTTP Download Result

HTTP Download Result

Description	This is a log message (not alarm) indicating both sucessful and failed HTTP Download result.
SNMP Alarm	acHTTPDownloadResult
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.28
Alarm Title	[Event] HTTP Download Result
Alarm Source	
Alarm Type	processingErrorAlarm (3) for failures and other (0) for success
Probable Cause	Other
Severity	Indeterminate
Additional Info	There are other possible textual messages describing NFS failures or success, FTP failure or success.
Corrective Action	-

3.3.18 Fan Tray Alarm

This alarm applies to the Mediant 2600 and Mediant 4000 gateways.

Fan Tray Alarm

Description	This alarm is activated in one of the following cases: ▪ Fan-Tray is missing ▪ One or more fans in the fan-tray is faulty. ▪ Fan tray is in place and fans are functioning.		
SNMP Alarm	acFanTrayAlarm		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.29		
Alarm Title	Fan Tray Alarm		
Alarm Source	Chassis#0/FanTray#0		
Alarm Text	Fan-Tray Alarm <text>		
Alarm Type	equipmentAlarm		
Probable Cause	▪ One or more fans on the Fan Tray module stopped working. ▪ One or more fans on the Fan Tray module works slower than expected (heatingVentCoolingSystemProblem)		
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Critical	Fan-Tray is missing.	Fan-Tray is missing	1. Check if the Fan Tray module is inserted in the chassis. 2. If the Fan Tray module was removed from the chassis, re-insert it. 3. If the Fan Tray module has

			already been inserted in the chassis and the alarm is active, send a Return Merchandise Authorization (RMA) request to AudioCodes. **Warning:** When removing the Fan Tray module while the power is on (or after it has recently been switched off), the blades may still be rotating at high speeds. Therefore, to avoid bodily harm, make sure that you don't touch the fan blades.
Major	When one or more fans in the Fan Tray are faulty.	Fan-Tray is faulty	Fan Tray module is faulty. Send a Return Merchandise Authorization (RMA) request to AudioCodes.
Cleared	Fan Tray module is in place and fans are working.	-	-

3.3.19 Power Supply Alarm

This alarm applies to the Mediant 2600 and Mediant 4000 gateways.

Power Supply Alarm

Description	This alarm is activated in one of the following cases: ▪ The HA (High Availability) feature is active and one of the power supply units is faulty or missing. ▪ PS unit is inserted in its location and functioning.		
SNMP Alarm	acPowerSupplyAlarm		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.30		
Alarm Title	Power Supply Alarm		
Alarm Source	Chassis#0/PowerSupply#<m>, where *m* is the power supply's slot number		
Alarm Type	equipmentAlarm		
Probable Cause	powerProblem		
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Major (default)	The HA (High Availability) feature is active (applicable only to Mediant 3000) and one of the power supply units is faulty or missing.	Power-Supply Alarm. Power-Supply is missing.	1. Check if the unit is inserted in the chassis. 2. If it was removed from the chassis, re-insert it. 3. If it's inserted in the chassis and the alarm is active, send a Return Merchandise Authorization (RMA) request to AudioCodes.
Cleared	PS unit is placed and working.	-	-

3.3.20 HA System Fault Alarm

HA System Fault Alarm

Description	This alarm originates when: ▪ HA feature is active but the system is NOT working in HA mode. Reason is specified (for example: SW WD exception error, HW WD exception error, SAT device is missing, SAT device error, DSP error, BIT tests error, etc). ▪ HA feature is active and the redundant module is in start up mode but hasn't connected yet ▪ HA system is active		
SNMP Alarm	acHASystemFaultAlarm		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.33		
Alarm Title	HA System Fault Alarm		
Alarm Source	System#0/Module#<m>, where *m* is the blade module's slot number		
AlarmType	qualityOfServiceAlarm		
Probable Cause	outOfService		
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Critical (default)	HA feature is active but the system is not working in HA mode	Fatal exception error	High Availability (HA) was lost due to *switchover* and should return automatically after a few minutes. Corrective action is not required.
		TCPIP exception error	HA was lost due to *switchover* and should return automatically after a few minutes. Corrective action is not required.
		Network processor exception error (applicable only to Mediant 3000)	HA was lost due to *switchover* and should return automatically after a few minutes. Corrective action is not required.
		SW WD exception error	HA was lost due to *switchover* and should return automatically after a few minutes. Corrective action is not required.
		HW WD exception error	HA was lost due to *switchover* and should return automatically after a few minutes. Corrective action is not required.
		SAT device is missing (applicable only to Mediant 3000)	HA was lost due to *switchover* and should return automatically after a few minutes. Corrective action is not required.

		SAT device error (applicable only to Mediant 3000)	HA was lost due to *switchover* and should return automatically after a few minutes. Corrective action is not required.
		DSP error (applicable only to Mediant 3000 and Mediant 4000)	HA was lost due to *switchover* and should return automatically after a few minutes. Corrective action is not required.
		BIT tests error	HA was lost due to *switchover* and should return automatically after a few minutes. Corrective action is not required.
		PSTN stack error (applicable only to Mediant 3000)	HA was lost due to *switchover* and should return automatically after a few minutes. Corrective action is not required.
		Keep Alive error	HA was lost due to *switchover* and should return automatically after a few minutes. Corrective action is not required.
		Software upgrade	HA was lost due to *switchover* and should return automatically after a few minutes. Corrective action is not required.
		Manual switch over	HA was lost due to *switchover* and should return automatically after a few minutes. Corrective action is not required.
		Manual reset	HA was lost due to a *system reset* and should return automatically after few minutes. Corrective action is not required.
		Board removal (applicable only to Mediant 3000)	Return the removed board to the system.
		TER misplaced (applicable only to Mediant 3000)	Place the TER card according to the *User's Manual*
		HW fault. TER in slot 2 or 3 is missing (applicable only to Mediant 3000)	Place the TER card according to the *User's Manual*
		HW fault. TER has old version or is not functional (applicable only to Mediant 3000)	Replace the TER card.

		HW fault. invalid TER Type (applicable only to Mediant 3000)	Replace the TER card.
		HW fault. invalid TER active/redundant state (applicable only to Mediant 3000)	Replace the TER card.
		HW fault. Error reading GbE state (applicable only to Mediant 3000)	Replace the TER card.
		Redundant module is missing (applicable only to Mediant 3000)	3. Insert the redundant module into the system. 4. If the error continues, reset / replace the module.
		Redundant is not connecting (applicable only to Mediant 3000)	Reset / replace the redundant module.
		Redundant is not reconnecting after deliberate restart	Reset / replace the redundant module.
		No Ethernet Link in redundant module	Connect Ethernet links to the redundant module
		SA module faulty or missing (applicable only to Mediant 3000)	Make sure the Shelf Alarm module is inserted correctly.
		Eth link error	HA was lost due to switchover, Connect the Eth link back.
		Higher HA priority (Not applicable to Mediant 3000)	HA was lost due to switchover to unit with higher HA priority and should return automatically after a few minutes. Corrective action is not required.
		Network watchdog error	HA was lost due to switchover, fix the network connectivity from failed unit.
Minor	HA feature is active and the redundant module is in startup mode and hasn't connected yet	Waiting for redundant to connect (applicable only to Mediant 3000)	Corrective action is not required.
Cleared	HA system is active	-	-

3.3.21 HA System Configuration Mismatch Alarm

HA System Configuration Mismatch Alarm

Description	HA feature is active. The active module was unable to transfer the License Key to the redundant module.		
SNMP Alarm	acHASystemConfigMismatchAlarm		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.34		
Alarm Source	System#0/Module#<m>, where *m* is the blade module's slot number		
Alarm Type	processingErrorAlarm		
Probable Cause	configurationOrCustomizationError		
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Major (default)	HA feature is active:	Configuration mismatch in the system:	The actions for the conditions are described below.
	License Keys of Active and Redundant modules are different.	Active and Redundant modules have different feature keys.	Update the Feature Keys of the Active and Redundant modules.
	The Active module was unable to pass on to the Redundant module the License Key.	Fail to update the redundant with feature key.	Replace the Feature Key of the Redundant module – it may be invalid.
	License key of the Redundant module is invalid.	Feature key did not update in redundant module.	Replace the Feature Key of the Redundant module – it may be invalid.
Cleared	Successful License Key update	The feature key was successfully updated in the redundant module	-

3.3.22 HA System Switch Over Alarm

HA System Switch Over Alarm

Description	Sent when a switchover from the active to the redundant module has occurred.		
SNMP Alarm	acHASystemSwitchOverAlarm		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.35		
Default Severity	Critical		
Alarm Source	System#0/Module#<m>, where *m* is the blade module's slot number		
Event Type	qualityOfServiceAlarm		
Probable Cause	outOfService		
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Critical (default)	A switchover from the active to the redundant unit has occurred	Switch-over: See the acHASystemFaultAlarm table above	See Section 3.3.21 above for details.
Cleared	10 seconds have passed since the switchover	-	-

3.3.23 Hitless Software Upgrade Alarm

This alarm is relevant for the Mediant 2600 HA, Mediant 4000 HA, Mediant SE SBC HA, and Mediant VE SBC HA devices.

acHitlessUpdateStatus

Description	A Notification trap that is sent out at the beginning and the end of a Hitless SW update. Failure during the process will also instigate the trap.		
SNMP Alarm	acHitlessUpdateStatus		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.48		
Alarm Title	Hitless Update event		
Alarm Source	Automatic Update		
Alarm Type	Other		
Probable Cause	Other		
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Indeterminate	A notification trap sent at the *beginning* and *end* of a hitless software update. Failure *during* the software update also activates the trap.	Hitless Update Event	The corrective action for each condition is described below.
	Hitless: Start software upgrade.		Corrective action is not required.
	Hitless fail: Invalid cmp file file - missing Version parameter.		Replace the cmp file with a valid one.
	Hitless fail: The software version stream name is too long.		Replace the cmp file with a valid one.
	Hitless fail: Invalid cmp file - missing UPG parameter.		Replace the cmp file with a valid one.
	Hitless fail: Hitless software upgrade is not supported.		Replace the cmp file with a valid one that supports hitless upgrade of the software from the current version to the new one.
	Hitless: Software upgrade ended successfully.		Corrective action is not required.

3.3.24 IPv6

Description	This alarm indicates when an IPv6 address already exists or an IPv6 configuration failure has occurred. The description generated is "IP interface alarm. IPv6 Configuration failed, IPv6 will be disabled".		
SNMP Alarm	acIPv6ErrorAlarm		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.53		
Alarm Title	IPv6		
Default Severity	Critical		
Alarm Source	System#0/Interfaces#<n>.		
Alarm Type	operationalViolation		
Probable Cause	communicationsProtocolError		
Additional Info	Status stays critical until reboot. A clear trap is not sent.		
Corrective Action	▪ Find a new IPV6 address and reboot.		
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Critical (default)	Bad IPv6 address (already exists)	IP interface alarm: IPv6 configuration failed, IPv6 will be disabled.	▪ Find a new IPV6 address. ▪ Reboot the device.
Stays 'Critical' until reboot. A 'Clear' trap is not sent.	After the alarm is raised.	-	-

3.3.25 SAS Emergency Mode Alarm

This alarm applies to SIP Gateways.

GW SAS Emergency Mode Alarm

Description	This alarm is sent by the Stand-Alone Survivability (SAS) application when switching from “Normal" mode to “Emergency" mode. This alarm is cleared once the SAS returns to “Normal" mode.
SNMP Alarm	acGWSASEmergencyModeAlarm
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.59
Alarm Title	GW SAS Emergency Mode Alarm
Alarm Source	
Alarm Type	Other
Probable Cause	Other
Severity	
Additional Info	
Corrective Action	Check network communication with the Proxy

3.3.26 Software Upgrade Alarm

Software Upgrade Alarm

Description	This alarm is generated when the Software upgrade failure occurs.		
SNMP Alarm	acSWUpgradeAlarm		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.70		
Alarm Title	Software Upgrade alarm		
Alarms Source	System#0		
Alarm Type	processingErrorAlarm		
Probable Cause	softwareProgramError		
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Major (default)	Raised upon software upgrade errors	SW upgrade error: Firmware burning failed. Startup system from Bootp/tftp.	Start up the system from BootP/TFTP.

3.3.27 NTP Server Status Alarm

NTP Server Status Alarm

Description	This alarm is raised when the connection to the NTP server is lost. It is cleared when the connection is reestablished. Unset time (as a result of no connection to NTP server) may result in functionality degradation and failure in device.		
SNMP Alarm	acNTPServerStatusAlarm		
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.71		
Alarm Title	NTP Server Status Alarm		
Alarm Source			
Alarm Type	communicationsAlarm		
Probable Cause	communicationsSubsystemFailure		
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Major(default)	No initial communication to Network Time Protocol (NTP) server.	NTP server alarm. No connection to NTP server.	Repair NTP communication (the NTP server is down or its IP address is configured incorrectly in the device).
Minor	No communication to NTP server after the time was already set once.	-	-

3.3.28 LDAP Lost Connection

LDAP Lost Connection

Description	This alarm is raised when there is no connection to the LDAP server.
SNMP Alarm	acLDAPLostConnection
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.75
Alarm Title	LDAP Lost Connection
Alarm Source	
Alarm Type	communicationsAlarm
Probable Cause	communicationsSubsystemFailure If a connection is idle for more than the maximum configured time in seconds that the client can be idle before the LDAP server closes the connection, the LDAP server returns an LDAP disconnect notification and this alarm is raised.
Severity	Minor / Clear
Additional Info	
Corrective Action	

3.3.29 SSH Connection Status [Event]

[Event] SSH Connection Status

Description	This trap indicates the result of a recent SSH connection attempt.
SNMP Alarm	**acSSHConnectionStatus**
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.77
Alarm Title	[Event] SSH Connection Status
Alarm Source	
Alarm Type	environmentalAlarm
Probable Cause	unauthorizedAccessAttempt/other
Severity	indeterminate
Additional Info	
Corrective Action	

3.3.30 OCSP Server Status Alarm

OCSP Server Status Alarm

Description	This alarm is raised when the OCSP connection is not available.
SNMP Alarm	**acOCSPServerStatusAlarm**
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.78
Alarm Title	OCSP server alarm.
Alarm Source	
Alarm Type	communicationsAlarm
Probable Cause	communicationsSubsystemFailure
Severity	Major / Clear
Additional Information	
Corrective Action	

3.3.31 Media Process Overload Alarm

Media Process Overload Alarm

Description	This alarm is raised when the media process overloads and is cleared when the load returns to normal.
SNMP Alarm	**acMediaProcessOverloadAlarm**
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.81
Alarm Title	Media Process Overload Alarm
Alarm Source	Board#x or System#x
Alarm Type	processingErrorAlarm
Probable Cause	resourceAtOrNearingCapacity
Severity	Major / Clear
Additional Info	
Corrective Action	

3.3.32 Ethernet Group Alarm

Ethernet Group Alarm

Description	This alarm is raised when the in an Ethernet port-pair group (1+1) has no Ethernet port with its link up and is cleared when at least one port has established a link.
SNMP Alarm	acEthernetGroupAlarm
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.86
Alarm Title	Ethernet Group alarm.
Alarm Source	Board#%d/EthernetGroup#%d
Alarm Type	equipmentAlarm
Probable Cause	underlyingResourceUnavailable
Severity	major
Additional Info	
Corrective Action	

3.3.33 Media Realm BW Threshold Alarm

Media Realm BW Threshold Alarm

Description	This alarm is raised when a BW threshold is crossed and is cleared when the BW threshold returns to normal range.
SNMP Alarm	acMediaRealmBWThresholdAlarm
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.87
Alarm Title	Media Realm BW Threshold Alarm.
Alarm Source	Board#%d/MediaRealm#%d
Alarm Type	processingErrorAlarm
Probable Cause	resourceAtOrNearingCapacity
Severity	major
Additional Info	
Corrective Action	

3.3.34 Certificate Expiry Notification

Certificate Expiry Notification

Description		This alarm is sent before the expiration of the installed credentials, which cannot be renewed automatically (the credentials should be updated manually).	
SNMP Alarm		acCertificateExpiryNotification	
SNMP OID		1.3.6.1.4.1.5003.9.10.1.21.2.0.92	
Alarm Title		Certificate Expiry Notification	
Alarm Source		tls#<num>	
Alarm Text		Device's TLS certificate of security context #%d will expire in %d days	
Alarm Type		environmentalAlarm	
Probable Cause		The certificate key expired (keyExpired)	
Alarm Severity	**Condition**	**<text>**	**Corrective Action**
Intermediate	The certificate key is about to expire.	Either: ▪ The device certificate has expired %d days ago ▪ The device certificate will expire in %d days ▪ The device certificate will expire in less than 1 day %d – number of days %d – TLS Context to which certificate belongs	Load a new certificate to the device before the expiration of the installed certificate (which cannot be renewed automatically). To replace certificates, refer to the *User's Manual*.

3.3.35 Web User Access Disabled

WEB User Access Disabled

Description	This alarm is sent when the Web user has been disabled due to inactivity.
SNMP Alarm	acWEBUserAccessDisabled
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.93
Alarm Title	
Alarm Source	
Alarm Type	other
Probable Cause	The Web user was disabled due to inactivity (denialOfService).
Severity	indeterminate
Additional Info	
Corrective Action	Contact your Web security administrator. Only the Web security administrator can unblock a user whose access to the Web interface was denied (for example, because the user made 3 unsuccessful attempts at access). The Web security administrator must: ▪ In the Web interface, access the Accounts page (**Configuration** > **System** > **Management** > **Web User Accounts**). ▪ Identify in the list of users table that user whose access has been denied. Change the status of that user from **Blocked** to **Valid** or **New**.

3.3.36 Proxy Connection Lost

Proxy Connection Lost

Description	This alarm is sent when all connections in a specific Proxy Set are down. The trap is cleared when one of the Proxy Set connections is up.
SNMP Alarm	acProxyConnectionLost
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.94
Alarm Title	Proxy Connection Lost
Alarm Source	System#0
Alarm Text	Proxy Set Alarm <text>
Alarm Type	communicationsAlarm
Probable Cause	• Network issue (connection fail due to network/routing failure). • Proxy issue (proxy is down). • AudioCodes device issue.

Alarm Severity	Condition	<text>	Corrective Action
Major	When connection to the Proxy Set is lost and this Proxy Set is configured with fallback to routing table.	Proxy Set %d: Proxy not found. Use internal routing	1. Ping the proxy server. If there is no ping, contact your proxy provider. The probable reason is the proxy is down. 2. Ping between the proxy and AudioCodes device. If there is no ping, the problem could be a network/router issue. 3. If you have more than one device connected to this same proxy, check if there are more AudioCodes devices with the same Alarm. If this is the case, this could confirm that this is not AudioCodes device issue. 4. Check that routing using the device's (internal) routing table is functioning correctly. 5. Contact AudioCodes support center (support@audiocodes.com) and send a syslog and network capture for this issue.

Major	When Proxy Set includes more than one proxy IP with redundancy and connection to one of them is lost.	Proxy Set %d: Proxy lost. looking for another proxy	1. Ping the proxy server. If there is no ping, contact your proxy provider. The probable reason is the proxy is down. 2. Ping between the proxy and AudioCodes device. If there is no ping, the problem could be a network/router issue. 3. If you have more than one device connected to this same proxy, check if there are more AudioCodes devices with the same Alarm. If this is the case, this could confirm that this is not AudioCodes device issue. 4. Check if routing via the redundant proxy is operating correctly. If it is, then this could mean that it's not a network issue. 5. Contact AudioCodes support center (support@audiocodes.com) and send a syslog and network capture for this issue.
Cleared	When connection to proxy is available again	Proxy found. ip:<IP address>:<port #> Proxy Set ID %d	-

3.3.37 Redundant Board Alarm

Redundant Board Alarm

Description	Active board sends notification when an alarm or notification is raised in the redundant board.
SNMP Alarm	acRedundantBoardAlarm
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.97
Alarm Title	Redundant Board Alarm
Alarm Source	
Alarm Type	Notification
Probable Cause	
Severity	
Additional Info	
Corrective Action	

3.3.38 HA Network Watchdog Status Alarm

HA Network Watchdog Status Alarm

Description	This alarm indicates that the device's HA Network Reachability (network watchdog) feature is configured, but is not functioning correctly due to, for example, the Ethernet Group being down from where the ping is sent to the network entity. The device's HA Network Reachability feature is used to configure a network IP address to test reachability using pings. When the tested peer stops replying to the Active unit, a switchover is made to the Redundant unit. For configuring the HA Network Reachability feature, refer to the *User's Manual*.	
SNMP Alarm	acHANetworkWatchdogStatusAlarm	
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.98	
Alarm Title	HA Network Watchdog Status Alarm	
Alarm Source	System#0/Module#<m>, where *m* is the blade module's slot number	
Alarm Type	alarmTrap	
Probable Cause	outOfService	
Default Severity	Major	
Trap Text	**Condition**	**Corrective Action**
Failed sending ping	Some network configuration error	-
Network watchdog is disabled while HA priority is in use	When HA Priority is in use, the network watchdog module is disabled	-
Network watchdog is disabled while Redundant units has less Eth groups available	One or more of the Redundant unit's Ethernet Groups are down	-
Disabling network watchdog due to network interface error in Redundant unit	One or more of the Redundant unit's Ethernet Groups are down	-

3.3.39 IDS Policy Alarm

IDS Policy Alarm

Description	The alarm is raised whenever a threshold is crossed in the IDS system. The alarm is associated with the MO pair IDSMatch & IDSRule.
SNMP Alarm	acIDSPolicyAlarm
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.99
Alarm Title	IDS Policy Alarm
Default Severity	
Alarm Type	Other
Probable Cause	
Alarm Text	Policy NUM (NAME) minor/major/critical threshold (NUM) of REASON cross in global/ip/ip+port scope (triggered by IP)
Status Changes	
Corrective Action	1. Identify additional traps (acIDSThresholdCrossNotification) that were sent alongside this Intrusion Detection System (IDS) alarm. 2. Locate the remote hosts (IP addresses) that are specified in the traps. 3. Examine the behavior of those hosts (with regard to the reason specified in the alarm), and attempt to fix incorrect operation. 4. If necessary, change the configured thresholds in the IDS Rule table under the IDS Policy table.

3.3.40 IDS Threshold Cross Notification

IDS Threshold Cross Notification

Description	This notiofication is sent for each scope (IP or IP+Port) crossing a threshold of an active alarm.
SNMP Alarm	acIDSThresholdCrossNotification
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.100
Default Severity	
AlarmType	Other
Probable Cause	
Alarm Text	Threshold cross for scope value IP. Severity=minor/major/critical. Current value=NUM
Status Changes	
Corrective Action	1. Identify the remote host (IP address / port) on the network which the Intrusion Detection System (IDS) has indicated is malicious. Note that the IDS determines a host to be malicious if it has reached or exceeded a user-defined threshold of malicious attacks (counter). 2. Block the malicious activity.

3.3.41 IDS Blacklist Notification

IDS Blacklist Notification

Description	This alarm notifies when an IP address has been added or removed from a blacklist.
SNMP Alarm	acIDSBlacklistNotification
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.101
Default Severity	
Alarm Type	securityServiceOrMechanismViolation
Probable Cause	thresholdCrossed
Alarm Text	Added IP * to blacklist Removed IP * from blacklist
Status Changes	
Corrective Action	Identify the malicious remote host (IP address / port) that the Intrusion Detection System (IDS) has automatically blacklisted or removed from the blacklist. Note that a host is determined to be malicious if it has reached or exceeded a user-defined threshold of malicious attacks (counter). The malicious source is automatically blacklisted for a user-defined period, after which it is removed from the blacklist.

3.3.42 Proxy Connectivity

Proxy Connectivity

Description	Sent when a connection to a specific proxy in a specific Proxy Set is down. The trap is cleared when the proxy connections is up.
SNMP Alarm	acProxyConnectivity
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.102
Alarm Source	System#0
Alarm Text	Proxy Set Alarm <text>
Alarm Type	communicationsAlarm
Probable Cause	▪ Network issue (connection fail due to network/routing failure). ▪ Proxy issue (proxy is down). ▪ AudioCodes device issue.

Alarm Severity	Condition	<text>	Corrective Action
Indeterminate	When connection to the proxy server is lost.	Proxy Server <IP address>:<port> is now OUT OF SERVICE	1. Ping the proxy server. If there is no ping, contact your proxy provider. The probable reason is the proxy is down. 2. Ping between the proxy and AudioCodes device. If there is no ping, the problem could be a network/router issue. 3. If you have more than one device connected to this same proxy, check if there are more AudioCodes devices with the same trap event. If this is the case, this could confirm that this is not AudioCodes device issue. 4. Contact AudioCodes support center (support@audiocodes.com) and send a syslog and network capture for this issue.
Cleared	When connection to the proxy is available again	Proxy Server <IP address>:<port> is now IN SERVICE	-

3.3.43 Web User Activity Log Trap

acActivityLog

Description	Sent upon log (Syslog) generated by device indicating a Web user action (configured by ActivityListToLog). The SNMP trap notification functionality is enabled by the EnableActivityTrap parameter (refer to the *User's Manual*).
SNMP Alarm	acActivityLog
SNMP OID	1.3.6.1.4.1.5003.9.10.1.21.2.0.105
Default Severity	Indeterminate
Event Type	other (0)
Probable Cause	other (0)
Trap Text	[description of activity].User:<username>. Session: <session type>[IP address of client (user)]. For example: “Auxiliary file loading was changed from ‘0’ to ‘1’, User:Admin. Session: WEB [172.17.125.12]
Note	Activity log event is applicable to the following OAMP interfaces: SNMP, Web, CLI and REST. For SNMP activity, the username refers to the SNMP community string.

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EMS for AudioCodes Media Gateways and Servers

EMS Element Management System

Performance Monitoring and Alarm Guide

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