



APPENDIX C

MIBs Used and SNMP Traps Generated

MIBS Used

Service Monitor uses the CISCO-SYSLOG-MIB to generate SNMP traps.

SNMP Traps Generated

Cisco Unified Service Monitor (Service Monitor) generates the following traps:

- MOS violation
- Cisco 1040 unreachable

Trap details are provided as name-value pairs in clogHistMsgText field of the clogMessageGenerated notification. [Table C-1](#) lists details of the MOS violation SNMP trap.

Table C-1 MOS Violation SNMP Trap

TAG	Description	Value
TT	Trap type	1: Data from sensor 3: Data from Cisco Unified Communications Manager (Unified Communications Manager) cluster
01	Cisco 1040 sensor MAC address (when TT = 1) or Unified Communications Manager cluster ID (when TT = 3)	Text string.
02	Time stamp	<YYYYMMDDhhmm>
03	Threshold value	Sample value: 3.5.
A	Flag indicating actual or sampled data	0: Actual 1: Sampled (not used)
B	Source device IP address. The source device can be: <ul style="list-style-type: none">• An IP phone or a voice gateway (when TT = 1 and TT = 3).• A remote Unified Communications Manager (when TT = 3 and the call is an intercluster call).	IPv4 address, for example: 172.20.4.18

Table C-1 *MOS Violation SNMP Trap (continued)*

TAG	Description	Value
C	Recipient device IP address. The recipient device can be: <ul style="list-style-type: none"> • An IP phone or a voice gateway (when TT = 1 and TT = 3). • A remote Unified Communications Manager (when TT = 3 and the call is an intercluster call). 	IPv4 address, for example: 172.20.5.12
D	Codec of call data record (see also CDC in this table).	One of these: 2: G711Alaw 64k 3: G711Alaw 56k 4: G711Ulaw 64k 5: G711Ulaw 56k 6: G722 64k 7: G722 56k 8: G722 48k 10: G728 11: G729 12: G729AnnexA 15: G729AnnexB 16: G729AnnexAwAnnexB
E	MOS score calculated by the sensor (when TT = 1) or CVTQ (when TT = 3).	Sample value: 3.4
F	Primary cause of call degradation.	When TT = 1: <ul style="list-style-type: none"> • J: Jitter • P: Packet Loss When TT = 3, N/A
G	Actual packet loss in the previous minute.	Sample value: 0.0.
H	Actual jitter in milliseconds in the previous minute.	Sample value: 0 Value is NA when TT = 3

Table C-1 MOS Violation SNMP Trap (continued)

TAG	Description	Value
CDC	Codec of call data record.	One of these: <ul style="list-style-type: none"> • G711Alaw64k • G711Alaw56k • G711Ulaw64k • G711Ulaw56k • G722 64k • G722 56k • G722 48k • G728 • G729 • G729AnnexA • G729AnnexB • G729AnnexAwAnnexB
CCR	Cumulative Concealment Ratio—Cumulative ratio of concealment time over speech time observed after starting a call.	Sample value: 0.0 Value is NA when TT = 1
ICR	Interval Concealment Ratio—Interval-based average concealment rate; the ratio of concealment time over speech time for the last three seconds of active speech.	Sample value: 0.0 Value is NA when TT = 1
ICRmx	Interval Concealment Ratio Max—Maximum concealment ratio observed during the call.	Sample value: 0.0 Value is NA when TT = 1
CS	Concealment Seconds—Number of seconds during which some concealment is observed during a call.	Sample value: 0 Value is NA when TT = 1
SCS	Severely Concealed Seconds—Number of seconds during which a significant amount of concealment is observed. If, on average, the observed concealment is greater than fifty milliseconds or approximately five percent, speech is probably not very audible.	Sample value: 0 Value is NA when TT = 1
MLQK	MOS Listening Quality or CVTQ Score—The Cisco Voice Transmission Quality (CVTQ) algorithm provides an objective estimate of the mean opinion score (MOS) for listening quality (LQK), rating it from 5 (excellent) to 1 (bad). This score is based on audible concealment events due to frame loss in the preceding 8-second interval of the voice stream. Note The CVTQ score can vary based on the type of codec that the Cisco Unified IP Phone uses.	Sample value: 4.5 Value is NA when TT = 1

Table C-1 MOS Violation SNMP Trap (continued)

TAG	Description	Value
MLQKmn	MOS Listening Quality CVTQ Min—Minimum score observed since the beginning of a call; represents the worst-sounding eight-second interval.	Sample value: 4.1 Value is NA when TT = 1
MLQKmx	MOS Listening Quality CVTQ Max—Maximum score observed since the beginning of a call; represents the best sounding eight-second interval.	Sample value: 4.5 Value is NA when TT = 1
MLQKvr	Version of the CVTQ calculation.	Sample value: .95 Value is NA when TT = 1
DRTN	Duration of the call in seconds.	Sample value: 120 Value is NA when TT = 1
NST	Number of suppressed traps from start time to end time when TT = 1. For more information, see the entry for Send traps every <i>n</i> minutes in Setting Up the Sensor Default Configuration, page 4-4 .	Sample value: 9 Value is 0 when TT = 3
ST	Start time. When TT = 1, time when the first trap was sent out for the endpoint. When TT = 3, 10 minutes before the call disconnect time; used by Operations Manager to launch reports.	UTC time
ET	End time. When TT = 1, time when the most recent trap was sent out. When TT = 3, call disconnect time; used by Operations Manager to launch reports.	UTC time

Table C-2 lists details of the Cisco 1040 unreachable SNMP trap.

Table C-2 Cisco 1040 Unreachable SNMP Trap

TAG	Description	Value
TT	Trap type	2
01	Cisco 1040 ID	Cisco 1040 MAC address
02	Time stamp	<YYYYMMDDhhmm>