Cisco Call Management Record Field Descriptions

This chapter describes the field descriptions of the Call Management Records (CMRs).

CMR Field Descriptions

The following table contains the fields, range of values, and field descriptions of the CMRs in the order in which they appear in the CMR.

Table 1: CMR Field Descriptions

Field Name	Range of Values	Description
cdrRecordType	0, 1, or 2	Specifies the type of this specific record. The following valid values apply: • 0—Start call detail record (not used) • 1—End call detail record • 2—CMR record Default - For CMRs, this field always specifies 2.

Field Name	Range of Values	Description
globalCallID_callManagerId	Positive Integer	Specifies a unique Unified Communications Manager identity. This field makes up half of the Global Call ID. The Global Call ID comprises the following fields: • globalCallId_callId • globalCallID_callManagerID All records that are associated with a standard call have the same Global Call ID in them. Default - Ensure that this field is populated.
globalCallId_callId	Positive Integer	Specifies a unique call identity value that gets assigned to each call. The system allocates this identifier independently on each call server. Values get chosen sequentially when a call begins. Each call, successful or unsuccessful, receives value assignment. This field makes up half the Global Call ID. The Global Call ID comprises the following two fields: • globalCallId_callId • globalCallID_callManagerID All records that are associated with a standard call have the same Global Call ID in them. Default - Ensure that this field is populated.
nodeId	Positive Integer	Specifies the server or node within the Unified Communications Manager cluster, where this record gets generated. Default - Ensure that this field is populated.

Field Name	Range of Values	Description
directoryNumber	Integer	Specifies the directory number of the device from which these diagnostics are collected. Default - Ensure that this field is populated.
callIdentifier	Positive Integer	Identifies the call leg to which this record pertains. Default - Ensure that this field is populated.
dateTimeStamp	Integer	Represents the approximate time that the device goes on the hook. Unified Communications Manager records the time when the phone responds to a request for diagnostic information. Default - Ensure that this field is populated.
numberPacketsSent	Integer	Designates the total number of Routing Table Protocol (RTP) data packets that the device transmits since starting transmission on this connection. The value remains zero if the connection is set to "receive only" mode. Default - 0
numberOctetsSent	Integer	Specifies the total number of payload octets (that is, not including header or padding) that the device transmits in RTP data packets since starting transmission on this connection. The value remains zero if the connection is set to "receive only" mode. Default - 0

Field Name	Range of Values	Description
numberPacketsReceived	Integer	Specifies the total number of RTP data packets that the device has received since starting reception on this connection. The count includes packets that are received from different sources if this is a multicast call. The value remains zero if the connection is set in "send only" mode. Default - 0
numberOctetsReceived	Integer	Specifies the total number of payload octets (that is, not including header or padding) that the device has received in RTP data packets since starting reception on this connection. The count includes packets that are received from different sources if this is a multicast call. The value remains zero if the connection is set in "send only" mode. Default - 0
numberPacketsLost	Integer	Designates the total number of RTP data packets that have been lost since the beginning of reception. This number designates the number of packets that were expected, less the number of packets that were received, where the number of packets that were received includes any that are late or duplicates. Thus, packets that arrive late do not get counted as lost, and the loss may be negative if duplicate packets exist. The number of packets that are expected designates the extended last sequence number that was received, as defined next, less the initial sequence number that was received. The value remains zero if the connection was set in "send only" mode. For detailed information, see RFC 1889. Default - 0

Field Name	Range of Values	Description
jitter	Integer	Provides an estimate of the statistical variance of the RTP data packet interarrival time that is measured in milliseconds and expressed as an unsigned integer. The interarrival jitter J specifies the mean deviation (smoothed absolute value) of the difference D in the packet spacing at the receiver, compared to the sender for a pair of packets. RFC 1889 contains detailed computation algorithms. The value remains zero if the connection was set in "send only" mode. Default - 0
latency	Integer	Designates value that is an estimate of the network latency, expressed in milliseconds. This value represents the average value of the difference between the NTP timestamp that the RTP Control Protocol (RTCP) messages indicate and the NTP timestamp of the receivers, measured when these messages are received. Unified Communications Manager obtains the average by summing all estimates then dividing by the number of RTCP messages that have been received. For detailed information, see RFC 1889. Default - 0 **Note** CMR records will not show latency for all phone loads. For example, for SIP 9.2.1 and 9.2.2, the latency will not show, as it has not been implemented in these loads.

Field Name	Range of Values	Description
pkid	Text String	Identifies a text string that the database uses internally to uniquely identify each row. This text string provides no meaning to the call itself. Default - The system always populates this field with a unique ID.
directoryNumberPartition	Text String	Identifies the partition of the directory number. Default - Empty string "". This field may remain empty if no partition exists.
globalCallId_ClusterId	Text String	Designates a unique ID that identifies a single Unified Communications Manager, or a cluster of Unified Communications Managers. The system generates this field during installation, but Unified Communications Manager does not use it: globalCallId_ClusterId + globalCallId_callManagerId + globalCallId_callId. Default - Ensure that this field is populated.
deviceName	Text String	Identifies the name of the device. Default - Empty string "". This field may remain empty if no device name exists.

Field Name	Range of Values	Description
varVQMetrics	Text String	Contains a variable number of voice quality metrics. This field comprises a string of voice quality metrics that are separated by a semicolon. The format of the string follows: fieldName=value;fieldName=value.precision This example shows voice quality data, but the names may differ. "MLQK=4.5000;MLQKav=4.5000; MLQKmn=4.5000;MLQKmx=4.5000;MLQKvr=0.95; CCR=0.0000;ICR=0.0000;ICRmx=0.0000; CS=0;SCS=0" **Note** See topics that are related to K-factor data stored in Unified Communications Manager CMRs for a complete list of K-Factor data.
duration	Integer	Specifies the duration value of audio session that is expressed in seconds. This is reported only for SIP phones.
videoContentType	Text String	Identifies the type of video stream. It can be "main", "speaker" or "slides". For an audio-only call, no video metrics are populated.
videoDuration	Integer	Specifies the duration value of the first video session, expressed in seconds.
numberVideoPacketsSent	Integer	Specifies the total number of RTP data packets that are transmitted by the device since starting transmission on this connection.
numberVideoOctetsSent	Integer	Specifies the total number of payload octets (that is, not including header or padding) transmitted in RTP data packets by the device since starting transmission on this connection.

Field Name	Range of Values	Description
numberVideoPacketsReceived	Integer	Specifies the total number of RTP data packets received by the device since starting reception on this connection.
numberVideoOctetsReceived	Integer	Specifies the total number of payload octets (that is, not including header or padding) received in RTP data packets by the device since starting reception on this connection.
numberVideoPacketsLost	Integer	Specifies the total number of RTP data packets that have been lost since the beginning of reception on this connection.
videoAverageJitter	Integer	Provides an estimate of the statistical variance of the RTP data packet interarrival time for this connection that is measured in milliseconds and expressed as an unsigned integer. For detailed information, see RFC 3550 for details.
videoRoundTripTime	Integer	This is a measure of average round trip time between the two endpoints for this connection. It is expressed in milliseconds. For detailed information, see RFC 3550 and RFC 3611 for detail
videoOneWayDelay	Text String	This is a measure of the average one-way delay (OWD) between the endpoints for this connection. This is only available if endpoints are time synchronized (same NTP source) and is measured in milli-seconds; otherwise "NA"

Field Name	Range of Values	Description
videoTransmissionMetrics	Text String	Contains a variable number of Cisco defined metrics that are related to RTP transmission on this connection. These metrics are delimited by a semicolon. The format of this string is: CiscoTxVM="TxCodec=xxx;TxBw=xxx;TxBwMax=xxx;TxReso=xxx;TxFrameRate=xxx" TxCodec identifies the type of video codec used for the transmitted video stream. TxBw identifies the actual bandwidth that is used for the transmitted video stream. TxBwMax identifies the maximum negotiated bandwidth for the transmitted video stream. TxReso identifies the resolution of the transmitted video stream (for example, 640x480). TxFrameRate identifies the average frame rate that is measured in frames per second for the transmitted video stream.

Field Name	Range of Values	Description
videoReceptionMetrics	TextString	Contains a variable number of Cisco defined metrics that are related to RTP reception on this connection. These metrics are delimited by a semicolon. The format of this string is:
		CiscoRxVM="CS=xxx; SCS=xxx;DSCP=xxx; DSCPunad=xxx; RxFramesLost=xxx;RxCodec=xxx; RxBw=xxx;RxBwMax=xxx; RxReso=xxx;RxFrameRate=xxx"
		CS identifies the concealed seconds metrics for the received video stream.
		SCS identifies the severely concealed seconds for the received video stream.
		DSCP is useful in verifying the DSCP value of the received video stream marked by endpoint.
		DSCPunad is useful in verifying the DSCP value of the received video stream marked by endpoint.
		RxCodec identifies the type of video codec used for received video stream.
		RxBw identifies the actual bandwidth used for the received video stream.
		RxBwMax identifies the maximum negotiated bandwidth for the received video stream.
		RxReso identifies the resolution of the received video stream (for example, 640x480).
		RxFrameRate identifies the average frame rate measured in frames per second for the received video stream.

Field Name	Range of Values	Description
videoContentType_channel2	Text String	Identifies the type of second video stream if it exists. If it does not exist, the remaining metrics for the second video stream will not be populated.
videoDuration_channel2	Integer	Specifies the duration of the second video session, expressed in seconds.
numberVideoPacketsSent_channel2	Integer	Specifies the total number of RTP data packets that are transmitted by the device since starting transmission on this connection.
numberVideoOctetsSent_channel2	Integer	Specifies the total number of payload octets (that is, not including header or padding) transmitted in RTP data packets by the device since starting transmission on this connection.
numberVideoPacketsReceived_channel2	Integer	Specifies the total number of RTP data packets received by the device since starting reception on this connection.
numberVideoOctetsReceived_channel2	Integer	Specifies the total number of payload octets (that is, not including header or padding) received in RTP data packets by the device since starting reception on this connection.
numberVideoPacketsLost_channel2	Integer	The total number of RTP data packets that have been lost since the beginning of reception on this connection.
videoAverageJitter_channel2	Integer	Provides an estimate of the statistical variance of the RTP data packet interarrival time for this connection that is measured in milliseconds and expressed as an unsigned integer. For more information, see RFC 3550.

Field Name	Range of Values	Description
videoRoundTripTime_channel2	Integer	This is a measure of average round trip time between the two endpoints for this connection. It is expressed in milliseconds. For more information, see RFC 3550 and RFC 3611 for details.
videoOneWayDelay_channel2	Integer	This is a measure of the average one-way delay (OWD) between the endpoints for this connection. This is only available if endpoints are time synchronized (same NTP source) and is measured in milli-seconds; otherwise "NA".
videoReceptionMetrics_channel2	Text String	Contains a variable number of Cisco defined metrics that are related to RTP transmission on this connection. These metrics are delimited by a semicolon. The format of this string is: CiscoTxVM="TxCodec=xxx; TxBw=xxx ;TxBwMax=xxx; TxReso=xxx;TxFrameRate=xxx" TxCodec identifies the type of video codec used for the transmitted video stream. TxBw identifies the actual bandwidth used for the transmitted video stream. TxBwMax identifies the maximum negotiated bandwidth for the transmitted video stream. TxReso identifies the resolution of the transmitted video stream (for example, 640x480). TxFrameRate identifies the average frame rate measured in frames per second for the transmitted video stream.

Field Name	Range of Values	Description
videoTransmissionMetrics_channel2	Text String	Contains a variable number of Cisco defined metrics that are related to RTP reception on this connection. These metrics are delimited by a semicolon. The format of this string is:
		CiscoRxVM="CS=xxx; SCS=xxx;DSCP=xxx; DSCPunad=xxx; RxFramesLost=xxx;RxCodec=xxx; RxBw=xxx;RxBwMax=xxx; RxReso=xxx;RxFrameRate=xxx"
		CS identifies the concealed seconds metrics for the received video stream.
		SCS identifies the severely concealed seconds for the received video stream.
		DSCP is useful in verifying the DSCP value of the received video stream that is marked by endpoint.
		DSCPunad is useful in verifying the DSCP value of the received video stream marked by endpoint.
		RxCodec identifies the type of video codec used for the received video stream.
		RxBw identifies the actual bandwidth that is used for the received video stream.
		RxBwMax identifies the maximum negotiated bandwidth for the received video stream.
		RxReso identifies the resolution of the received video stream (for example, 640x480).
		RxFrameRate identifies the average frame rate that is measured in frames per second for the received video stream.

Related Topics

Call management records

Cisco call detail records field descriptions

Cisco call management records K-factor data

Documentation related to CDR

Example Cisco call management records