



APPENDIX **D**

Cisco PGW 2200 Softswitch Measurements

Revised: December 3, 2009, OL-0800-12

This appendix describes the ITU and ANSI measurements available from the Cisco PGW 2200 Softswitch.

[Table D-1](#) provides a list of the ITU measurements available from the Cisco PGW 2200 Softswitch software. The logging intervals in this table are all measured in minutes, with the exception of an interval of 24. A logging interval of 24 indicates a 24-hour time period.

[Table D-2](#) provides a list of the ANSI ISDN user part (ISUP) measurements available from the Cisco PGW 2200 Softswitch software.

The Management Information Bases (MIBs) for the measurements can be found in the *Cisco PGW 2200 Softswitch Release 9 Management Information Base Guide*.

Table D-1 Operational Measurements Supported

MML Counter Group:Name	Description	Related Components	Logging Interval
ACC-GROUP	Automatic congestion control (ACC) statistics	SS7 Signaling Service	
ACC: CALL REJ	Number of calls rejected by ACC		15, 60, 24
ACC: CALL RE-RTE	Number of calls rerouted by ACC	Trunk Groups: ISUP IPFAS MGCP NAS	15, 60, 24
ALL-COUNTERS	Lists all of the measurements	n/a	n/a
ASP-GROUP	Auxiliary signal path statistics	Auxiliary Signaling Service	
CALL-GROUP	Calling statistics	Cisco PGW 2200 Softswitch Network Element	
CALL: ACC REJ TOT	Number of calls rejected by automatic congestion control (ACC)		15, 60, 24
CALL: ACC RE-RTE TOT	Number of calls re-routed by ACC		15, 60, 24

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
CALL-GROUP (continued)	Calling statistics	Cisco PGW 2200 Softswitch Network Element	15, 60, 24
CALL: CallBackCallSetup	Added in Release 9.7. This counter increments each time a Call Back Call set up request is received by the Cisco PGW 2200 Softswitch from DPNSS, QSIG, or EISUP (with tunneled QSIG) interfaces.		15, 60, 24
CALL: CallBackFreeNotification	Added in Release 9.7. This counter increments each time a Call Back Line Free Notification is received by the Cisco PGW 2200 Softswitch from DPNSS, QSIG, or Tunneled QSIG interfaces.		15, 60, 24
CALL: CTICBCancel	Added in Release 9.6. This counter increments each time a Call Back request cancellation comes to Cisco PGW 2200 Softswitch from DPNSS or the Cisco CallManager.		15, 60, 24
CALL: CTICBCancel	Added in Release 9.7. This counter increments each time a Call Back Cancellation comes to Cisco PGW 2200 Softswitch from DPNSS, QSIG, or Tunneled QSIG interfaces.		15, 60, 24
CALL: CTICBReq	Added in Release 9.6. This counter increments each time a Call Back request comes to Cisco PGW 2200 Softswitch from DPNSS or the Cisco CallManager.		15, 60, 24
CALL: CTICBReq	Added in Release 9.7. This counter increments each time a Call Back request comes to Cisco PGW 2200 Softswitch from DPNSS, QSIG, or Tunneled QSIG interfaces.		15, 60, 24
CALL: FailCall TOT	Number of failed calls		15, 60, 24
CALL: H323LicRej TOT	Added in Release 9.7. H.323 call is rejected due to run-time license management. This counter is incremented each time an originating or terminating H.323 call leg is rejected by the Cisco PGW 2200 Softswitch due to run-time license management.		15, 60, 1440
CALL: IncT38FaxReq	Number of times a T.38 fax tone is detected on incoming calls		15, 60, 24
CALL: IncT38FaxUsed	Number of times a T.38 fax is successfully completed on incoming calls		15, 60, 24
CALL: InvalidMsgDestination	Added in Release 9.6. This counter is incremented each time an internal message cannot be delivered because the destination call reference does not exist(or no longer exists).		15, 60, 24

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
CALL-GROUP (continued)	Calling statistics	Cisco PGW 2200 Softswitch Network Element	15, 60, 24
CALL: MessageWaitingIndication	Added in Release 9.7. This counter increments each time a Message Waiting Indication is received by the Cisco PGW 2200 Softswitch over DPNSS, QSIG, Tunneled QSIG, or SIP.		15, 60, 24
CALL: OLFailCall TOT	Number of failed calls due to overload		15, 60, 24
CALL: OtgT38FaxReq	Number of times a T.38 fax tone is detected on outgoing calls		15, 60, 24
CALL: OtgT38FaxUsed	Number of times a T.38 fax is successfully completed on outgoing calls		15, 60, 24
CALL: ORFailCall TOT	Number of failed calls due to other reasons		15, 60, 24
CALL: PrepaidAccess	Number of times the Prepaid Calling Card IN service is invoked		15, 60, 24
CALL: PrepaidCompleat	Number of times a Prepaid Calling Card call reaches the connected state		15, 60, 24
CALL: RLFailCall TOT	Number of times a call failed due to the route list being exhausted		15, 60, 24
CALL: RoCompleted	Added in Release 9.6. This counter is incremented each time the RO feature is actioned and concludes successfully.		15, 60, 24
CALL: RoDenialsReceived	Added in Release 9.6. This counter is incremented each time an RO rejection/refusal is received over the DPNSS interface.		15, 60, 24
CALL: RoDenialsSent	Added in Release 9.6. This counter is incremented each time the RO invocation request is refused by the Cisco PGW 2200 Softswitch and sent out over the DPNSS interface.		15, 60, 24
CALL: RoInvokesReceived	Added in Release 9.6. This counter is incremented each time an RO invocation request is received over the DPNSS interface at a point of inter-working.		15, 60, 24
CALL: RoInvokesSent	Added in Release 9.6. This counter is incremented each time an RO invocation request is internally generated and sent out over the DPNSS interface.		15, 60, 24
CALL: RUFailCall TOT	Number of failed calls due to a resource being unavailable		15, 60, 24
CALL: SIPLicRej TOT	Added in Release 9.7. SIP call is rejected due to run-time license management. This ocunter is incremented each time an originating or terminating SIP call leg is rejected by the Cisco PGW 2200 Softswitch due to run-time license management.		15, 60, 1440

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
CALL-GROUP (continued)	Calling statistics	Cisco PGW 2200 Softswitch Network Element	
CALL: SuccRedirected	Number of successful redirected calls initiated by Cisco PGW 2200 Softswitch		15, 60, 24
CALL: SuccCall TOT	Number of successful calls		15, 60, 24
CALL: TDMLicRej TOT	Added in Release 9.7. TDM call is rejected due to run-time license management. This counter is incremented each time an originating or terminating TDM call leg is rejected by the Cisco PGW 2200 Softswitch due to run-time license management.		15, 60, 1440
CALL: TimesTenLicRej TOT	Added in Release 9.8. TimesTen call is rejected due to a TimesTen license violation. This counter is incremented each time that the Cisco PGW 2200 Softswitch rejects a call due to run-time database license management.		15, 60, 1440
CAS-GROUP	CAS traffic statistics	CAS Signaling Service	
CAS: IN CALL ATMPT TOT	Number of incoming call attempts		15, 60, 24
CAS: IN CALL SUCC TOT	Number of successful incoming calls		15, 60, 24
CAS: IN SZR ATMPT TOT	Number of incoming seizure attempts		15, 60, 24
CAS: OUT CALL ATMPT TOT	Number of outgoing call attempts		15, 60, 24
CAS: OUT CALL SUCC TOT	Number of successful outgoing calls		15, 60, 24
CAS: IN SZR SUCC TOT	Number of successful incoming seizures		15, 60, 24
CAS: IN UNEXPECTED MSG	Number of incoming unexpected messages		15, 60, 24
CAS: OUT SZR ATMPT TOT	Number of outgoing seizure attempts		15, 60, 24
CAS: OUT SZR SUCC TOT	Number of successful outgoing seizures		15, 60, 24
C7LNK-GROUP	SS7 link statistics	SS7 Link	
C7LNK: RCV SU ERR	Number of signaling units received		30
C7LNK: XMIT SIO TOT	Number of link realignment (SIF/SIO) messages transmitted		30
C7LNK: RCV SIO TOT	Number of link realignment (SIF/SIO) messages received		30
C7LNK: DUR IS	Number of seconds C7 link in-service		30
C7LNK: DUR UNAVAIL	Number of seconds C7 link unavailable		30
C7LNK: MSU DROP-CONG	Number of messages dropped due to congestion		30
C7SP-GROUP	SS7 Signaling path statistics	SS7 Signaling Service SS7 Subsystem	
C7SP: SP DUR UNAVAIL	Number of seconds SP unavailable		5, 30
C7SP: XMIT MSU DROP/RTE	Number of transmitted messages dropped due to routing failure		30

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
ISUP-GROUP	ISUP Signaling Service Statistics	SS7 Point Code or SS7 Signaling Service	
ISUP: ABN REL TOT	Number of abnormal clear messages received		5, 30
ISUP: AOC TOT	Number of calls that invoked the advice of charge (AOC) feature		5, 30
ISUP: CHAN MATE UNAVAILABLE	Number of Channel Mate Unavailable messages received		5, 30
ISUP: FAIL_H323_ORIG	Number of failed calls originated in an H.323 network		15, 60, 24
ISUP: FAIL_H323_TERM	Number of failed calls terminated in an H.323 network		15, 60, 24
ISUP: RCV ACM TOT	Number of ACM messages received		5, 30
ISUP: RCV ANM TOT	Number of ANM messages received		5, 30
ISUP: RCV BELGACOM1 TOT	Number of BELGACOM1 messages received		5, 30
ISUP: RCV BELGACOM2 TOT	Number of BELGACOM2 messages received		5, 30
ISUP: RCV BLA TOT	Number of BLA messages received		5, 30
ISUP: RCV BLO TOT	Number of BLO messages received		5, 30
ISUP: RCV CCR TOT	Number of CCR messages received		5, 30
ISUP: RCV CFN TOT	Number of CFN messages received		5, 30
ISUP: RCV CGBA TOT	Number of CGBA messages received		5, 30
ISUP: RCV CGB TOT	Number of CGB messages received		5, 30
ISUP: RCV CGUA TOT	Number of CGUA messages received		5, 30
ISUP: RCV CGU TOT	Number of CGU messages received		5, 30
ISUP: RCV CHG TOT	Number of CHG messages received		5, 30
ISUP: RCV CON TOT	Number of CON messages received		5, 30
ISUP: RCV COT TOT	Number of COT messages received		5, 30

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
ISUP-GROUP (continued)	ISUP Signaling Service Statistics	SS7 Point Code or SS7 Signaling Service	
ISUP: RCV CPG TOT	Number of CPG messages received		5, 30
ISUP: RCV CQM TOT	Number of CQM messages received		5, 30
ISUP: RCV CQR TOT	Number of CQR messages received		5, 30
ISUP: RCV CRA TOT	Number of CRA messages received		5, 30
ISUP: RCV CRM TOT	Number of CRM messages received		5, 30
ISUP: RCV CVR TOT	Number of CVR messages received		5, 30
ISUP: RCV CVT TOT	Number of CVT messages received		5, 30
ISUP: RCV EOH TOT	Number of EOH messages received		5, 30
ISUP: RCV EOHA TOT	Number of EOHA messages received		5, 30
ISUP: RCV EXM TOT	Number of EXM messages received		5, 30
ISUP: RCV FAA TOT	Number of FAA messages received		5, 30
ISUP: RCV FAC TOT	Number of FAC messages received		5, 30
ISUP: RCV FAD TOT	Number of FAD messages received		5, 30
ISUP: RCV FAR TOT	Number of FAR messages received		5, 30
ISUP: RCV FOT TOT	Number of FOT messages received		5, 30
ISUP: RCV FRJ TOT	Number of FRJ messages received		5, 30
ISUP: RCV FWT TOT	Number of FWT messages received		5, 30
ISUP: RCV GRA TOT	Number of GRA messages received		5, 30
ISUP: RCV GRS TOT	Number of GRS messages received		5, 30
ISUP: RCV IAM TOT	Number of IAM messages received		5, 30
ISUP: RCV IDR TOT	Number of IDR messages received		5, 30
ISUP: RCV INF TOT	Number of INF messages received		5, 30
ISUP: RCV INR TOT	Number of INR messages received		5, 30
ISUP: RCV IRS TOT	Number of IRS messages received		5, 30
ISUP: RCV LPA TOT	Number of LPA messages received		5, 30
ISUP: RCV LPM TOT	Number of LPM messages received		5, 30
ISUP: RCV MCID TOT	Number of MCID messages received		5, 30
ISUP: RCV MPM TOT	Number of MPM messages received		5, 30
ISUP: RCV MSG TOT	Number of messages received, total		5, 30
ISUP: RCV NRM TOT	Number of NRM messages received		5, 30
ISUP: RCV OPR TOT	Number of OPR messages received		5, 30
ISUP: RCV PAM TOT	Number of PAM messages received		5, 30
ISUP: RCV PRI TOT	Number of PRI messages received		5, 30

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
ISUP-GROUP (continued)	ISUP Signaling Service Statistics	SS7 Point Code or SS7 Signaling Service	
ISUP: RCV REL TOT	Number of REL messages received		5, 30
ISUP: RCV RES TOT	Number of RES messages received		5, 30
ISUP: RCV RLC TOT	Number of RLC messages received		5, 30
ISUP: RCV RSC TOT	Number of RSC messages received		5, 30
ISUP: RCV SAM TOT	Number of SAM messages received		5, 30
ISUP: RCV SGM TOT	Number of SGM messages received		5, 30
ISUP: RCV SUS TOT	Number of SUS messages received		5, 30
ISUP: RCV UBA TOT	Number of UBA messages received		5, 30
ISUP: RCV UBL TOT	Number of UBL messages received		5, 30
ISUP: RCV UCIC TOT	Number of UCIC messages received		5, 30
ISUP: RCV UPA TOT	Number of UPA messages received		5, 30
ISUP: RCV UPT TOT	Number of UPT messages received		5, 30
ISUP: RCV USR TOT	Number of USR messages received		5, 30
ISUP: SUCC_H323_ORIG	Number of successful calls originated in an H.323 network		15, 60, 24
ISUP: SUCC_H323_TERM	Number of successful calls terminated in an H.323 network		15, 60, 24
ISUP: UNEX MSG TOT	Number of unexpected messages received		5, 30
ISUP: UNREC MSG TOT	Number of unrecognized messages received		5, 30
ISUP: XMIT ACM TOT	Number of ACM messages transmitted		5, 30
ISUP: XMIT ANM TOT	Number of ANM messages transmitted		5, 30
ISUP: XMIT BELGACOM1 TOT	Number of BELGACOM1 messages transmitted		5, 30
ISUP: XMIT BELGACOM2 TOT	Number of BELGACOM2 messages transmitted		5, 30
ISUP: XMIT BLA TOT	Number of BLA messages transmitted		5, 30
ISUP: XMIT BLO TOT	Number of BLO messages transmitted		5, 30
ISUP: XMIT CCR TOT	Number of CCR messages transmitted		5, 30
ISUP: XMIT CFN TOT	Number of CFN messages transmitted		5, 30
ISUP: XMIT CGBA TOT	Number of CGBA messages transmitted		5, 30
ISUP: XMIT CGB TOT	Number of CGB messages transmitted		5, 30
ISUP: XMIT CGUA TOT	Number of CGUA messages transmitted		5, 30
ISUP: XMIT CGU TOT	Number of CGU messages transmitted		5, 30

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
ISUP-GROUP (continued)	ISUP Signaling Service Statistics (continued)	SS7 Point Code or SS7 Signaling Service	
ISUP: XMIT CHG TOT	Number of CHG messages transmitted		5, 30
ISUP: XMIT CON TOT	Number of CON messages transmitted		5, 30
ISUP: XMIT COT TOT	Number of COT messages transmitted		5, 30
ISUP: XMIT CPG TOT	Number of CPG messages transmitted		5, 30
ISUP: XMIT CQM TOT	Number of CQM messages transmitted		5, 30
ISUP: XMIT CQR TOT	Number of CQR messages transmitted		5, 30
ISUP: XMIT CRA TOT	Number of CRA messages transmitted		5, 30
ISUP: XMIT CRM TOT	Number of CRM messages transmitted		5, 30
ISUP: XMIT CVR TOT	Number of CVR messages transmitted		5, 30
ISUP: XMIT CVT TOT	Number of CVT messages transmitted		5, 30
ISUP: XMIT EOHA TOT	Number of EOHA messages transmitted		5, 30
ISUP: XMIT EOH TOT	Number of EOH messages transmitted		5, 30
ISUP: XMIT EXM TOT	Number of EXM messages transmitted		5, 30
ISUP: XMIT FAA TOT	Number of FAA messages transmitted		5, 30
ISUP: XMIT FAC TOT	Number of FAC messages transmitted		5, 30
ISUP: XMIT FAD TOT	Number of FAD messages transmitted		5, 30
ISUP: XMIT FAR TOT	Number of FAR messages transmitted		5, 30
ISUP: XMIT FOT TOT	Number of FOT messages transmitted		5, 30
ISUP: XMIT FRJ TOT	Number of FRJ messages transmitted		5, 30
ISUP: XMIT FWT TOT	Number of FWT messages transmitted		5, 30
ISUP: XMIT GRA TOT	Number of GRA messages transmitted		5, 30
ISUP: XMIT GRS TOT	Number of GRS messages transmitted		5, 30
ISUP: XMIT IAM TOT	Number of IAM messages transmitted		5, 30
ISUP: XMIT IDR TOT	Number of IDR messages transmitted		5, 30
ISUP: XMIT INF TOT	Number of INF messages transmitted		5, 30
ISUP: XMIT INR TOT	Number of INR messages transmitted		5, 30
ISUP: XMIT LPA TOT	Number of LPA messages transmitted		5, 30
ISUP: XMIT LPM TOT	Number of LPM messages transmitted		5, 30
ISUP: XMIT IRS TOT	Number of IRS messages transmitted		5, 30
ISUP: XMIT MCID TOT	Number of MCID messages transmitted		5, 30

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
ISUP-GROUP (continued)	ISUP Signaling Service Statistics (continued)	SS7 Point Code or SS7 Signaling Service	
ISUP: XMIT MPM TOT	Number of MPM messages transmitted		5, 30
ISUP: XMIT MSG TOT	Number of messages transmitted, total		5, 30
ISUP: XMIT NRM TOT	Number of NRM messages transmitted		5, 30
ISUP: XMIT OPR TOT	Number of OPR messages transmitted		5, 30
ISUP: XMIT PAM TOT	Number of PAM messages transmitted		5, 30
ISUP: XMIT PRI TOT	Number of PRI messages transmitted		5, 30
ISUP: XMIT REL TOT	Number of REL messages transmitted		5, 30
ISUP: XMIT RES TOT	Number of RES messages transmitted		5, 30
ISUP: XMIT RLC TOT	Number of RLC messages transmitted		5, 30
ISUP: XMIT RSC TOT	Number of RSC messages transmitted		5, 30
ISUP: XMIT SAM TOT	Number of SAM messages transmitted		5, 30
ISUP: XMIT SGM TOT	Number of SGM messages transmitted		5, 30
ISUP: XMIT SUS TOT	Number of SUS messages transmitted		5, 30
ISUP: XMIT UBA TOT	Number of UBA messages transmitted		5, 30
ISUP: XMIT UBL TOT	Number of UBL messages transmitted		5, 30
ISUP: XMIT UCIC TOT	Number of UCIC messages transmitted		5, 30
ISUP: XMIT UPA TOT	Number of UPA messages sent		5, 30
ISUP: XMIT UPT TOT	Number of UPT messages sent		5, 30
ISUP: XMIT USR TOT	Number of USR messages transmitted		5, 30
IUA GROUP	IUA message statistics	Association	
IUA: ASPActAckRx	Added in Release 9.6. Number of ASP Active Acknowledgement messages received by the Cisco PGW 2200 Softswitch from the media gateway on this SCTP association.		15, 60, 24
IUA: ASPActTx	Added in Release 9.6. Number of ASP Active messages sent from the Cisco PGW 2200 Softswitch to the media gateway on this SCTP association. These messages indicate that the Cisco PGW 2200 Softswitch is active.		15, 60, 24

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
IUA GROUP (continued)	IUA message statistics	Association	
IUA: ASPDnAckRx	Added in Release 9.6. Number of ASP Up Acknowledgement messages received by the Cisco PGW 2200 Softswitch from the media gateway on this SCTP association.		15, 60, 24
IUA: ASPDnTx	Added in Release 9.6. Number of ASP Down messages sent from the Cisco PGW 2200 Softswitch to the media gateway on this SCTP association. These messages indicate that the Cisco PGW 2200 Softswitch is <i>not</i> ready to receive traffic or maintenance messages.		15, 60, 24
IUA: ASPInactTx	Added in Release 9.6. Number of ASP Inactive messages sent from the Cisco PGW 2200 Softswitch to the media gateway on this SCTP association. These messages indicate that the Cisco PGW 2200 Softswitch is inactive.		15, 60, 24
IUA: ASPInactAckRx	Added in Release 9.6. Number of ASP Inactive Acknowledgement messages received by the Cisco PGW 2200 Softswitch from the media gateway on this SCTP association.		15, 60, 24
IUA: ASPUpAckRx	Added in Release 9.6. Number of ASP Up Acknowledgement messages received by the Cisco PGW 2200 Softswitch from the media gateway on this SCTP association.		15, 60, 24
IUA: ASPUpTx	Added in Release 9.6. Number of application server process (ASP) Up messages sent from the Cisco PGW 2200 Softswitch to the media gateway on this SCTP association. These messages indicate that the Cisco PGW 2200 Softswitch is ready to receive traffic or maintenance messages.		15, 60, 24

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
IUA: DataRqt	Added in Release 9.6. Number of Data messages sent from the Cisco PGW 2200 Softswitch to the media gateway on this SCTP association. Each messages is transmitted through the use of the Q.921 acknowledged information transfer service.		15, 60, 24
IUA: DataInd	Added in Release 9.6. Number of Data messages received by the Cisco PGW 2200 Softswitch from the media gateway on this SCTP association. Each message is received through the use of the Q.921 acknowledged information transfer service.		15, 60, 24
IUA: ErrorRx	Added in Release 9.6. Number of Error messages received by the Cisco PGW 2200 Softswitch from the media gateway on this SCTP association.		15, 60, 24
IUA GROUP (continued)	IUA message statistics	Association	
IUA: EstRqt	Added in Release 9.6. Number of requests that an SCTP association be established.		15, 60, 24
IUA: EstConf	Added in Release 9.6. Number of confirmations that IUA has established an SCTP association with the media gateway.		15, 60, 24
IUA: EstInd	Added in Release 9.6. Number of times that the media gateway has informed Link Management that the Cisco PGW 2200 Softswitch has established an SCTP association.		15, 60, 24
IUA: NotifyRx	Added in Release 9.6. Number of Notify messages received by the Cisco PGW 2200 Softswitch from the media gateway on this SCTP association. These messages provide autonomous indications of IUA events on the media gateway.		15, 60, 24
IUA: RelConf	Added in Release 9.6. Number of confirmations that IUA has released an SCTP association with the media gateway.		15, 60, 24
IUA: RelInd	Added in Release 9.6. Number of times that the media gateway has informed Link Management that the Cisco PGW 2200 Softswitch has released an SCTP association.		15, 60, 24
IUA: RelRqt	Added in Release 9.6. Number of requests for the release of an SCTP association with a media gateway.		15, 60, 24

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
IUA: UnitDataInd	Added in Release 9.6. Number of Data messages received by the Cisco PGW 2200 Softswitch from the media gateway on this SCTP association. Each message is received through the user of the Q.21 unacknowledged information transfer service.		15, 60, 24
IUA: UnitDataRqt	Added in Release 9.6. Number of Data messages sent from the Cisco PGW 2200 Softswitch to the media gateway on this SCTP association. Each message is transmitted through the use of the Q.21 unacknowledged information transfer service.		15, 60, 24
LABEL GROUP	Label message statistics	Label	
LABEL: LabelRej TOT	Added in Release 9.6. The number of calls (that is, occurrences) rejected against this call limiting location label		15, 60, 24
LABEL: LabelSucc TOT	Added in Release 9.6. The number of successful calls (that is, occurrences) against this call limiting location label		15, 60, 24
M3UA GROUP	M3UA message statistics	Association	
M3UA: DaudTx	Number of DAUD messages transmitted		15, 60, 24
M3UA: DavaRx	Number of DAVA messages received		15, 60, 24
M3UA: DrstRx	Number of DRST messages received		15, 60, 24
M3UA: DunaRx	Number of DUNA messages received		15, 60, 24
M3UA: DupuRx	Number of DUPU messages transmitted		15, 60, 24
M3UA: ErrorTx	Number of error messages transmitted.		15, 60, 24
M3UA: ErrorRx	Number of error messages received		15, 60, 24
M3UA: NotifyTx	Number of notify messages transmitted		15, 60, 24
M3UA: NotifyRx	Number of notify messages received		15, 60, 24
M3UA: SconRx	Number of SCON messages received		15, 60, 24

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
M3UA GROUP (continued)	M3UA message statistics	Association	
M3UA: AspActAckRx	Number of ASP ACTIVE ACK messages received		15, 60, 24
M3UA: ASPActTx	Number of ASP ACTIVE messages transmitted		15, 60, 24
M3UA: ASPDnAckRx	Number of ASP DOWN acknowledge messages received		15, 60, 24
M3UA: ASPDnTx	Number of ASP DOWN messages transmitted		15, 60, 24
M3UA: AspInactAckRx	Number of ASP INACTIVE ACK messages received		15, 60, 24
M3UA: ASPInactTx	Number of ASP INACTIVE messages transmitted		15, 60, 24
M3UA: ASPUpAckRx	Number of ASP UP acknowledgements received		15, 60, 24
M3UA: ASPUpTx	Number of ASP UP messages transmitted		15, 60, 24
M3UA: AssocFail	Number of SCTP association failures		15, 60, 24
M3UA: AssocTxFail	Number of transmit SCTP failures		15, 60, 24
M3UA GROUP (continued)	M3UA message statistics	Association	
M3UA: DataBytesRx	Number of M3UA data bytes received		15, 60, 24
M3UA: DataBytesTx	Number of M3UA data bytes transmitted		15, 60, 24
M3UA: DataXferRx	Number of DATA transfer messages received		15, 60, 24
M3UA: DataXferTx	Number of DATA transfer messages transmitted		15, 60, 24
M3UA: InvSctpSig	Number of invalid SCTP signals received by M3UA		15, 60, 24
M3UA: RouteCntxErr	Number of messages received with an invalid (unconfigured) Routing Context.		15, 60, 24
M3UA: RxMsgClassErr	Number of received messages with an unexpected or unsupported Message Class		15, 60, 24
M3UA: RxMsgLenErr	Number of messages received with length error		15, 60, 24
M3UA: RxMsgTypeErr	Number of messages received with an unexpected or unsupported Message Type		15, 60, 24
M3UA: RxNoMemErr	Number of messages that were dumped because memory ran out (buffer overflow).		15, 60, 24
M3UA: RxNtwkAppErr	Number of messages received with an invalid (unconfigured) Network Appearance.		15, 60, 24

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
M3UA: RxProtErr	Number of messages received with protocol errors, for any protocol anomaly (that is, reception of a parameter that is syntactically correct but unexpected in the current state).		15, 60, 24
M3UA: RxParmFieldErr	Number of messages received with a parameter having a wrong length field		15, 60, 24
M3UA: RxParmValErr	Number of messages received with parameter value errors		15, 60, 24
M3UA: RxStrmIdErr	Number of messages received with stream ID error, when a message is received on an unexpected SCTP stream (for example, a Management message was received on a stream other than "0")		15, 60, 24
M3UA: RxUnexpParmErr	Number of messages received that contain one or more invalid parameters		15, 60, 24
M3UA: RxUnexpMsgErr	Number of unexpected messages received - a defined and recognized message is received that is not expected in the current state		15, 60, 24
M3UA: RxVersionErr	Number of messages received with an invalid version		15, 60, 24
NUP-GROUP	National User Part Statistics	SS7 Signaling Service	
NUP: RCV MSG TOT	Number of messages received, total		5, 30
NUP: UNEX MSG TOT	Number of unexpected messages received		5, 30
NUP: XMIT MSG TOT	Number of messages transmitted, total		5, 30
OVL-GROUP	Overload Statistics	Cisco PGW 2200 Softswitch Network Element	
OVL: LVL1 Duration	Number of minutes in level 1 overload condition		15, 60, 24
OVL: LVL2 Duration	Number of minutes in level 2 overload condition		15, 60, 24
OVL: LVL3 Duration	Number of minutes in level 3 overload condition		15, 60, 24
OVL: LVL0 Duration	Number of minutes in level 0 overload condition		15, 60, 24
OVL: LVL0-LVL1 TOT	Number of transitions from level 0 to level 1 overload condition		15, 60, 24
OVL: LVL0-LVL2 TOT	Number of transitions from level 0 to level 2 overload condition		15, 60, 24
OVL: LVL0-LVL3 TOT	Number of transitions from level 0 to level 3 overload condition		15, 60, 24
PRI-GROUP	ISDN PRI Link statistics	IPFAS Signaling Service	
PRI: CHAN MATE UNAVAILABLE	Number of times ISDN PRI link channel mate unavailable		15, 60, 24

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
SC-GROUP	Signaling link statistics	SS7 Link	
SC: RCV BAD CRC	Number of bad CRCs received		15, 60, 24
SC: RCV BAD TOT	Total number of bad frames received		15, 60, 24
SC: RCV FRMR	Number of bad FRMRs received		15, 60, 24
SC: RCV FRM TOT	Total number of frames received		15, 60, 24
SC: RCV RESET	Number of RESETs received		15, 60, 24
SC: XMIT FRM TOT	Total number of frames transmitted		15, 60, 24
SCCP-GROUP	Signaling Connection Control Part statistics	Cisco PGW 2200 Softswitch Network Element	
SCCP: ROUTING FAILURE	Total number of routing failures		5, 30
SCCP: TOTAL MSG	Total number of messages handled		5, 30
SCCP: UDT RCV	Number of unit data messages received		5, 30
SCCP: UDTS RCV	Number of unit data service messages received		5, 30
SCCP: UDTS XMIT	Number of unit data service messages transmitted		5, 30
SCCP: UDT XMIT	Number of unit data messages transmitted		5, 30
SCTP-GROUP	SCTP traffic statistics	Association	
SCTP: AssocFailures	Added in Release 9.6. Number of association failures.		15, 60, 24
SCTP: CtrlRx	Added in Release 9.6. Number of control chunks received.		15, 60, 24
SCTP: CtrlTx	Added in Release 9.6. Number of control chunks sent.		15, 60, 24
SCTP: DataSegTx	Added in Release 9.6. Number of SCTP data segments sent.		15, 60, 24
SCTP: DataSegRx	Added in Release 9.6. Number of SCTP data segments received.		15, 60, 24
SCTP: DestFailures	Added in Release 9.6. Number of destination failures.		15, 60, 24
SCTP: InvalidChksum	Added in Release 9.6. Number of checksum error packets received.		15, 60, 24

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
SCTP: OOTB	Added in Release 9.6. Number of out of the blue packets received.		15, 60, 24
SCTP: OrdDataRx	Added in Release 9.6. Number of ordered data chunks received.		15, 60, 24
SCTP: OrdDataTx	Added in Release 9.6. Number of ordered data chunks sent.		15, 60, 24
SCTP: PeerRestarted	Added in Release 9.6. Number of peer restarts.		15, 60, 24
SCTP: UnordDataRx	Added in Release 9.6. Number of unordered data chunks received.		15, 60, 24
SCTP: UnordDataTx	Added in Release 9.6. Number of unordered data chunks sent.		15, 60, 24
SIP-GROUP	SIP traffic statistics	Cisco PGW 2200 Softswitch Network Element	
SIP: RCV 100 TOT	Number of TRYING messages received		30
SIP: RCV 180 TOT	Number of RINGING messages received		30
SIP: RCV 181 TOT	Number of CALL IS BEING FORWARDED messages received		30
SIP: RCV 182 TOT	Number of QUEUED messages received		30
SIP: RCV 183 TOT	Number of SESSION PROGRESS messages received		30
SIP: RCV 200 TOT	Number of OK messages received		30
SIP-GROUP (continued)	SIP traffic statistics	Cisco PGW 2200 Softswitch Network Element	
SIP: RCV 300 TOT	Number of MULTIPLE CHOICES messages received		30
SIP: RCV 301 TOT	Number of MOVED PERMANENTLY messages received		30
SIP: RCV 302 TOT	Number of MOVED TEMPORARILY messages received		30
SIP: RCV 305 TOT	Number of USE PROXY messages received		30
SIP: RCV 380 TOT	Number of ALTERNATIVE SERVICE messages received		30
SIP: RCV 400 TOT	Number of BAD REQUEST messages received		30
SIP: RCV 401 TOT	Number of UNAUTHORIZED messages received		30
SIP: RCV 402 TOT	Number of PAYMENT REQUIRED messages received		30
SIP: RCV 403 TOT	Number of FORBIDDEN messages received		30
SIP: RCV 404 TOT	Number of NOT FOUND messages received		30
SIP: RCV 405 TOT	Number of METHOD NOT ALLOWED messages received		30

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
SIP: RCV 406 TOT	Number of NOT ACCEPTABLE messages received		30
SIP: RCV 407 TOT	Number of PROXY AUTHENTICATION REQUIRED messages received		30
SIP: RCV 408 TOT	Number of REQUEST TIMEOUT messages received		30
SIP: RCV 409 TOT	Number of CONFLICT messages received		30
SIP: RCV 410 TOT	Number of GONE messages received		30
SIP: RCV 411 TOT	Number of LENGTH REQUIRED messages received		30
SIP: RCV 413 TOT	Number of REQUEST ENTITY TOO LARGE messages received		30
SIP: RCV 414 TOT	Number of REQUEST-URI TOO LONG messages received		30
SIP-GROUP (continued)	SIP traffic statistics (continued)	Cisco PGW 2200 Softswitch Network Element	
SIP: RCV 415 TOT	Number of UNSUPPORTED MEDIA TYPE messages received		30
SIP: RCV 420 TOT	Number of BAD EXTENSION messages received		30
SIP: RCV 480 TOT	Number of TEMPORARILY NOT AVAILABLE messages received		30
SIP: RCV 481 TOT	Number of CALL LEG/ TRANSACTION DOES NOT EXIST messages received		30
SIP: RCV 482 TOT	Number of LOOP DETECTED messages received		30
SIP: RCV 483 TOT	Number of TOO MANY HOPS messages received		30
SIP: RCV 484 TOT	Number of ADDRESS INCOMPLETE messages received		30
SIP: RCV 485 TOT	Number of AMBIGUOUS messages received		30
SIP: RCV 486 TOT	Number of BUSY HERE messages received		30
SIP: RCV 487 TOT	Number of REQUEST CANCELLED messages received		30
SIP: RCV 500 TOT	Number of INTERNAL SERVER ERROR messages transmitted		30
SIP: RCV 501 TOT	Number of NOT IMPLEMENTED messages received		30
SIP: RCV 502 TOT	Number of BAD GATEWAY messages received		30

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
SIP: RCV 503 TOT	Number of SERVICE UNAVAILABLE messages received		30
SIP: RCV 504 TOT	Number of GATEWAY TIMEOUT messages received		30
SIP: RCV 505 TOT	Number of SIP VERSION NOT SUPPORTED messages received		30
SIP: RCV 600 TOT	Number of BUSY EVERYWHERE messages received		30
SIP: RCV 603 TOT	Number of DECLINE messages received		30
SIP: RCV 604 TOT	Number of DOES NOT EXIST ANYWHERE messages received		30
SIP: RCV 606 TOT	Number of NOT ACCEPTABLE messages received		30
SIP: RCV ACK TOT	Number of ACKnowledgement messages received		30
SIP-GROUP (continued)	SIP traffic statistics (continued)	Cisco PGW 2200 Softswitch Network Element	
SIP: RCV BYE TOT	Number of BYE messages received		30
SIP: RCV CAN TOT	Number of CANCEL messages received		30
SIP: RCV INVALID MSG TOT	Number of invalid messages received		30
SIP: RCV INV TOT	Number of INVITE messages received		30
SIP: RCV MSG TOT	Number of messages received		30
SIP: RCV OPT TOT	Number of OPTION messages received		30
SIP: RCV PRACK TOT	Number of PRACK messages received		30
SIP: RCV REG TOT	Number of REGISTER messages received		30
SIP: RETX BYE TOT	Number of BYE messages retransmitted		30
SIP: RETX CAN TOT	Number of CANCEL messages retransmitted		30
SIP: RETX INV TOT	Number of INVITE messages retransmitted		30
SIP: RETX MSG TOT	Number of retransmitted messages		30
SIP: RETX PRACK TOT	Number of PRACK messages retransmitted		30
SIP: RETX REG TOT	Number of REGISTER messages retransmitted		30
SIP: RETX RESP TOT	Number of RESPONSE messages retransmitted		30
SIP: SIP2SIP CALLS ATTEMPT	Number of SIP to SIP calls attempted		30
SIP: SIP2SIP CALLS COMPL	Number of SIP to SIP calls completed		30

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
SIP: XMIT 100 TOT	Number of TRYING messages transmitted		30
SIP: XMIT 180 TOT	Number of RINGING messages transmitted		30
SIP: XMIT 181 TOT	Number of CALL IS BEING FORWARDED messages transmitted		30
SIP: XMIT 182 TOT	Number of QUEUED messages transmitted		30
SIP: XMIT 183 TOT	Number of SESSION PROGRESS messages transmitted		30
SIP: XMIT 200 TOT	Number of OK messages transmitted		30
SIP: XMIT 300 TOT	Number of MULTIPLE CHOICES messages transmitted		30
SIP: XMIT 301 TOT	Number of MOVED PERMANENTLY messages transmitted		30
SIP: XMIT 302 TOT	Number of MOVED TEMPORARILY messages transmitted		30
SIP: XMIT 305 TOT	Number of USE PROXY messages transmitted		30
SIP: XMIT 380 TOT	Number of ALTERNATIVE SERVICE messages transmitted		30
SIP-GROUP (continued)	SIP traffic statistics (continued)	Cisco PGW 2200 Softswitch Network Element	
SIP: XMIT 400 TOT	Number of BAD REQUEST messages transmitted		30
SIP: XMIT 401 TOT	Number of UNAUTHORIZED messages transmitted		30
SIP: XMIT 402 TOT	Number of PAYMENT REQUIRED messages transmitted		30
SIP: XMIT 403 TOT	Number of FORBIDDEN messages transmitted		30
SIP: XMIT 404 TOT	Number of NOT FOUND messages transmitted		30
SIP: XMIT 405 TOT	Number of METHOD NOT ALLOWED messages transmitted		30
SIP: XMIT 406 TOT	Number of NOT ACCEPTABLE messages transmitted		30
SIP: XMIT 407 TOT	Number of PROXY AUTHENTICATION REQUIRED messages transmitted		30
SIP: XMIT 408 TOT	Number of REQUEST TIMEOUT messages transmitted		30

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
SIP: XMIT 409 TOT	Number of CONFLICT messages transmitted		30
SIP: XMIT 410 TOT	Number of GONE messages transmitted		30
SIP: XMIT 411 TOT	Number of LENGTH REQUIRED messages transmitted		30
SIP: XMIT 413 TOT	Number of REQUEST ENTITY TOO LARGE messages transmitted		30
SIP: XMIT 414 TOT	Number of REQUEST-URI TOO LONG messages transmitted		30
SIP: XMIT 415 TOT	Number of UNSUPPORTED MEDIA TYPE messages transmitted		30
SIP: XMIT 420 TOT	Number of BAD EXTENSION messages transmitted		30
SIP: XMIT 480 TOT	Number of TEMPORARILY NOT AVAILABLE messages transmitted		30
SIP: XMIT 481 TOT	Number of CALL LEG/ TRANSACTION DOES NOT EXIST messages transmitted		30
SIP: XMIT 482 TOT	Number of LOOP DETECTED messages transmitted		30
SIP: XMIT 483 TOT	Number of TOO MANY HOPS messages transmitted		30
SIP: XMIT 484 TOT	Number of ADDRESS INCOMPLETE messages transmitted		30
SIP-GROUP (continued)	SIP traffic statistics (continued)	Cisco PGW 2200 Softswitch Network Element	
SIP: XMIT 485 TOT	Number of AMBIGUOUS messages transmitted		30
SIP: XMIT 486 TOT	Number of BUSY HERE messages transmitted		30
SIP: XMIT 487 TOT	Number of REQUEST CANCELLED messages transmitted		30
SIP: XMIT 500 TOT	Number of INTERNAL SERVER ERROR messages transmitted		30
SIP: XMIT 501 TOT	Number of NOT IMPLEMENTED messages transmitted		30
SIP: XMIT 502 TOT	Number of BAD GATEWAY messages transmitted		30

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
SIP: XMIT 503 TOT	Number of SERVICE UNAVAILABLE messages transmitted		30
SIP: XMIT 504 TOT	Number of GATEWAY TIMEOUT messages transmitted		30
SIP: XMIT 505 TOT	Number of SIP VERSION NOT SUPPORTED messages transmitted		30
SIP: XMIT 600 TOT	Number of BUSY EVERYWHERE messages transmitted		30
SIP: XMIT 603 TOT	Number of DECLINE messages transmitted		30
SIP: XMIT 604 TOT	Number of DOES NOT EXIST ANYWHERE messages transmitted		30
SIP: XMIT 606 TOT	Number of NOT ACCEPTABLE messages transmitted		30
SIP: XMIT ACK TOT	Number of ACKnowledgement messages transmitted		30
SIP: XMIT BYE TOT	Number of BYE messages transmitted		30
SIP: XMIT CAN TOT	Number of CANCEL messages transmitted		30
SIP: XMIT INV TOT	Number of INVITE messages transmitted		30
SIP: XMIT MSG TOT	Number of messages transmitted		30
SIP: XMIT OPT TOT	Number of OPTION messages transmitted		30
SIP: XMIT PRACK TOT	Number of PRACK messages transmitted		30
SIP: XMIT REG TOT	Number of REGISTER messages transmitted		30

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
SIPSP-GROUP	SIP sigpath statistics	SIP Sigpath	
SIPSP: BAD URL TOT	Number of unresolved URLs		30
SIPSP: DNS CACHE NEW TOT	Number of new entries in the DNS cache		30
SIPSP: DNS CACHE PURGE TOT	Number of entries purged from the DNS cache		30
SIPSP: DNS CACHE REFRESHED TOT	Number of entries refreshed in the DNS cache		30
SIPSP: DNS QUERY TOT	Number of DNS queries		30
SIPSP: DNS TIMEOUT TOT	Number of DNS timeouts		30
SIPSP: ICMP ERR TOT	Number of ICMP errors		30
SIPSP: RCV FAIL TOT	Number of UDP received failed		30
SIPSP: RCV MSG TOT	Number of messages received		30
SIPSP: RCV TCP MSG TOT	Added in Release 9.8. The total number of messages received though TCP.		30
SIPSP: RCV UDP MSG TOT	Added in Release 9.8. The total number of messages received through UDP.		30
SIPSP: XMIT FAIL TOT	Number of UDP transmitted failed		30
SIPSP: XMIT MSG TOT	Number of messages transmitted		30
SIPSP: XMIT TCP MSG TOT	Added in Release 9.8. The total number of messages sent through TCP.		30
SIPSP: XMIT UDP MSG TOT	Added in Release 9.8. The total number of messages sent using UDP.		30
SP-GROUP	Signaling service statistics	Signaling Services:	
SP: Blacklist Call Ctr	Number of blacklist calls counter	SS7, EISUP,	15, 60, 24
SP: CBReqExpired	Added in Release 9.6. This counter is incremented each time a Call Back request from the Cisco CallManager expires from its time to live value.	IPFAS, MGCP	15, 60, 24
SP: cInit in	Number of call init messages received		15, 60, 24
SP: cInit out	Number of call init messages sent		15, 60, 24
SP: COT Failure	Number of COT failures		15, 60, 24
SP: IPIN REJ TOT	Added in Release 9.7. Total number of rejected calls due to IPIN screening	SIP path/EISUP path	15, 60, 24
SP: PDU in	Number of messages received		15, 60, 24
SP: PDU out	Number of messages sent		15, 60, 24
Note	The SP: Blacklist Call Ctr and SP: COT Failure measurements are not currently supported.		

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
STATE-GROUP	User Defined Statistics	Cisco PGW 2200 Softswitch Network Element	15, 60, 24
STATE: CDB ReCord Xmit	Number of CDBs transmitted		15, 60, 24
STATE: User Count1	User defined count 1		15, 60, 24
STATE: User Count2	User defined count 2		15, 60, 24
STATE: User Count3	User defined count 3		15, 60, 24
STATE: User Count4	User defined count 4		15, 60, 24
STATE: User Count5	User defined count 5		15, 60, 24
STATE: User Count6	User defined count 6		15, 60, 24
STATE: User Count7	User defined count 7		15, 60, 24
STATE: User Count8	User defined count 8		15, 60, 24
STATE: User Count 9	User defined count 9		15, 60, 24
STATE: User Count10	User defined count 10		15, 60, 24
STATE: User Count11	User defined count 11		15, 60, 24
STATE: User Count12	User defined count 12		15, 60, 24
STATE: User Count13	User defined count 13		15, 60, 24
STATE: User Count14	User defined count 14		15, 60, 24
STATE: User Count15	User defined count 15		15, 60, 24
STATE: User Count16	User defined count 16		15, 60, 24
STATE: User Count17	User defined count 17		15, 60, 24
STATE: User Count18	User defined count 18		15, 60, 24
STATE: User Count19	User defined count 19		15, 60, 24
STATE: User Count20	User defined count 20		15, 60, 24
STATE: User Count21	User defined count 21		15, 60, 24
STATE: User Count22	User defined count 22		15, 60, 24
STATE: User Count23	User defined count 23		15, 60, 24
STATE: User Count24	User defined count 24		15, 60, 24
STATE: User Count25	User defined count 25		15, 60, 24

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
SUA GROUP	SUA message statistics	Association	
SUA: AspActAckRx	Number of ASP ACTIVE ACK messages received		15, 60, 24
SUA: ASPActTx	Number of ASP ACTIVE messages transmitted		15, 60, 24
SUA: ASPDnAckRx	Number of ASP DOWN acknowledge messages received		15, 60, 24
SUA: ASPDnTx	Number of ASP DOWN messages transmitted		15, 60, 24
SUA: AspInactAckRx	Number of ASP INACTIVE ACK messages received		15, 60, 24
SUA: ASPInactTx	Number of ASP INACTIVE messages transmitted		15, 60, 24
SUA: ASPUpTx	Number of ASP UP messages transmitted		15, 60, 24
SUA: ASPUpAckRx	Number of ASP UP acknowledgements received		15, 60, 24
SUA: AssocFail	Number of SCTP association failures		15, 60, 24
SUA: AssocTxFail	Number of transmit SCTP failures		15, 60, 24
SUA: ClدتTx	Number of Connectionless Data Transfers sent		15, 60, 24
SUA: ClدRx	Number of Connectionless Data Responses received		15, 60, 24
SUA: DataBytesTx	Number of SUA data bytes transmitted		15, 60, 24
SUA: DataBytesRx	Number of SUA data bytes received		15, 60, 24
SUA: DaudTx	Number of DAUD messages transmitted		15, 60, 24
SUA: DavaRx	Number of DAVA messages received		15, 60, 24
SUA: DrstRx	Number of DRST messages received		15, 60, 24
SUA: DunaRx	Number of DUNA messages received		15, 60, 24
SUA: DupuRx	Number of DUPU messages transmitted		15, 60, 24
SUA: ErrorRx	Number of error messages received		15, 60, 24
SUA: ErrorTx	Number of error messages transmitted		15, 60, 24
SUA: InvSctpSig	Number of invalid SCTP signals received by SUA		15, 60, 24
SUA: NotifyRx	Number of notify messages received		15, 60, 24
SUA: NotifyTx	Number of notify messages transmitted		15, 60, 24

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
SUA GROUP (continued)	SUA message statistics	Association	
SUA: RouteCntxErr	Number of messages received with an invalid (unconfigured) Routing Context.		15, 60, 24
SUA: RxMsgClassErr	Number of received messages with an unexpected or unsupported Message Class.		15, 60, 24
SUA: RxMsgLenErr	Number of messages received with length error		15, 60, 24
SUA: RxMsgTypeErr	Number of messages received with an unexpected or unsupported Message Type		15, 60, 24
SUA: RxNoMemErr	Number of messages that were dumped because memory ran out (buffer overflow).		15, 60, 24
SUA: RxNtwkAppErr	Number of messages received with an invalid (unconfigured) Network Appearance.		15, 60, 24
SUA: RxParmValErr	Number of messages received with parameter value errors		15, 60, 24
SUA: RxParmFieldErr	Number of messages received with a parameter having a wrong length field		15, 60, 24
SUA: RxProtErr	Number of messages received with protocol errors, for any protocol anomaly (that is, reception of a parameter that is syntactically correct but unexpected in the current state).		15, 60, 24
SUA: RxStrmIdErr	Number of messages received with stream ID error, when a message is received on an unexpected SCTP stream (that is, a Management message was received on a stream other than "0")		15, 60, 24
SUA: RxUnexpMsgErr	Number of unexpected messages received, a defined and recognized message is received that is not expected in the current state		15, 60, 24
SUA: RxUnexpParmErr	Number of messages received that contain one or more invalid parameters		15, 60, 24
SUA: RxVersionErr	Number of messages received with an invalid version.		15, 60, 24
SUA: SconRx	Number of SCON messages received		15, 60, 24

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
TCAP-GROUP	Transaction Capabilities Application Part statistics	Cisco PGW 2200 Softswitch Network Element	
TCAP: ABT RCV	Number of Abort messages received		5, 30
TCAP: ABT XMIT	Number of Abort messages transmitted		5, 30
TCAP: BEGIN RCV	Number of Begin messages received. This measurement is valid only for ETSI and ITU TCAP.		5, 30
TCAP: BEGIN XMIT	Number of Begin messages transmitted. This measurement is valid only for ETSI and ITU TCAP.		5, 30
TCAP: CONTINUE RCV	Number of Continue messages received. This measurement is valid only for ETSI and ITU TCAP.		5, 30
TCAP: CONTINUE XMIT	Number of Continue messages transmitted. This measurement is valid only for ETSI and ITU TCAP.		5, 30
TCAP: CONV RCV	Number of Conversation messages received. This measurement is valid only for ANSI TCAP.		5, 30
TCAP: CONV XMIT	Number of Conversation messages transmitted. This measurement is valid only for ANSI TCAP.		5, 30
TCAP: END RCV	Number of End messages received. This measurement is valid only for ETSI and ITU TCAP.		5, 30
TCAP: END XMIT	Number of End messages transmitted. This measurement is valid only for ETSI and ITU TCAP.		5, 30
TCAP: MSG DROP	Number of messages dropped		5, 30
TCAP: MSG RCV	Total number of messages received		5, 30
TCAP: MSG UNREC	Number of unrecognized messages received		5, 30
TCAP: MSG XMIT	Total number of messages transmitted		5, 30
TCAP: QWP RCV	Number of Query with permission messages received		5, 30
TCAP: QWP XMIT	Number of Query with permission messages transmitted		5, 30
TCAP: RSP RCV	Number of Response messages received		5, 30
TCAP: RSP XMIT	Number of Response messages transmitted		5, 30
TCAP: UNI RCV	Number of Unidirectional messages received		5, 30
TCAP: UNI XMIT	Number of Unidirectional messages transmitted		5, 30

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
TUP-GROUP	Telephone User Part statistics	SS7 Signaling Service	
TUP: ABN REL TOT	Number of abnormal clear messages received		5, 30
TUP: CHAN MATE UNAVAILABLE	Number of Channel Mate Unavailable messages received		5, 30
TUP: RCV ACB TOT	Number of ACB messages received		5, 30
TUP: RCV ACC TOT	Number of ACC messages received		5, 30
TUP: RCV ACF TOT	Number of ACF messages received		5, 30
TUP: RCV ACM TOT	Number of ACM messages received		5, 30
TUP: RCV ADI TOT	Number of ADI messages transmitted		5, 30
TUP: RCV ANC TOT	Number of ANC messages received		5, 30
TUP: RCV ANN TOT	Number of ANN messages received		5, 30
TUP: RCV ANU TOT	Number of ANU messages received		5, 30
TUP: RCV AUU TOT	Number of AUU messages received		5, 30
TUP: RCV BLA TOT	Number of BLA messages received		5, 30
TUP: RCV BLO TOT	Number of BLO messages received		5, 30
TUP: RCV CBK TOT	Number of CBK messages received		5, 30
TUP: RCV CBU TOT	Number of CBU messages received		5, 30
TUP: RCV CCF TOT	Number of CCF messages received		5, 30
TUP: RCV CCL TOT	Number of CCL messages received		5, 30
TUP: RCV CCR TOT	Number of CCR messages received		5, 30
TUP: RCV CFL TOT	Number of CFL messages received		5, 30
TUP: RCV CGC TOT	Number of CGC messages received		5, 30
TUP: RCV CHA TOT	Number of CHA messages received		5, 30
TUP: RCV CHG TOT	Number of CHG messages received		5, 30
TUP: RCV CHP TOT	Number of CHP messages received		5, 30
TUP: RCV CHT TOT	Number of CHT messages received		5, 30
TUP: RCV CLF TOT	Number of CLF messages received		5, 30
TUP: RCV CLU TOT	Number of CLU messages received		5, 30
TUP: RCV COT TOT	Number of COT messages received		5, 30
TUP: RCV DPN TOT	Number of DPN messages received		5, 30
TUP: RCV EUM TOT	Number of EUM messages received		5, 30
TUP: RCV FOT TOT	Number of FOT messages received		5, 30
TUP: RCV GRA TOT	Number of GRA messages received		5, 30
TUP: RCV GRQ TOT	Number of GRQ messages received		5, 30

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
TUP-GROUP (continued)	Telephone User Part statistics (continued)	SS7 Signaling Service	
TUP: RCV GRS TOT	Number of GRS messages received		5, 30
TUP: RCV GSE TOT	Number of GSE messages received		5, 30
TUP: RCV GSM TOT	Number of GSM messages received		5, 30
TUP: RCV HBA TOT	Number of HBA messages received		5, 30
TUP: RCV HGB TOT	Number of HGB messages received		5, 30
TUP: RCV HGU TOT	Number of HGU messages received		5, 30
TUP: RCV HUA TOT	Number of HUA messages received		5, 30
TUP: RCV IAF TOT	Number of IAF messages received		5, 30
TUP: RCV IAI TOT	Number of IAI messages received		5, 30
TUP: RCV IAM TOT	Number of IAM messages received		5, 30
TUP: RCV ICF TOT	Number of ICF messages received		5, 30
TUP: RCV LOS TOT	Number of LOS messages received		5, 30
TUP: RCV MAL TOT	Number of MAL messages received		5, 30
TUP: RCV MBA TOT	Number of MBA messages received		5, 30
TUP: RCV MGB TOT	Number of MGB messages received		5, 30
TUP: RCV MGU TOT	Number of MGU messages received		5, 30
TUP: RCV MPM TOT	Number of MPM messages received		5, 30
TUP: RCV MPR TOT	Number of MPR messages received		5, 30
TUP: RCV MSG TOT	Number of messages received, total		5, 30
TUP: RCV MUA TOT	Number of MUA messages received		5, 30
TUP: RCV NNC TOT	Number of NNC messages received		5, 30
TUP: RCV OPR TOT	Number of OPR messages received		5, 30
TUP: RCV RAN TOT	Number of RAN messages received		5, 30
TUP: RCV RLG TOT	Number of RLG messages received		5, 30
TUP: RCV RSC TOT	Number of RSC messages received		5, 30
TUP: RCV SAM TOT	Number of SAM messages received		5, 30
TUP: RCV SAO TOT	Number of SAO messages received		5, 30
TUP: RCV SBA TOT	Number of SBA messages received		5, 30
TUP: RCV SEC TOT	Number of SEC messages received		5, 30
TUP: RCV SGB TOT	Number of SGB messages received		5, 30

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
TUP-GROUP (continued)	Telephone User Part statistics (continued)	SS7 Signaling Service	
TUP: RCV SGU TOT	Number of SGU messages received		5, 30
TUP: RCV SLB TOT	Number of SLB messages received		5, 30
TUP: RCV SNA TOT	Number of SNA messages received		5, 30
TUP: RCV SSB TOT	Number of SSB messages received		5, 30
TUP: RCV SST TOT	Number of SST messages received		5, 30
TUP: RCV STB TOT	Number of STB messages received		5, 30
TUP: RCV SUA TOT	Number of SUA messages received		5, 30
TUP: RCV UBA TOT	Number of UBA messages received		5, 30
TUP: RCV UBL TOT	Number of UBL messages received		5, 30
TUP: RCV UNN TOT	Number of UNN messages received		5, 30
TUP: UNEX MSG TOT	Number of unexpected messages received		5, 30
TUP: UNREC MSG TOT	Number of unrecognized messages received		5, 30
TUP: XMIT ACB TOT	Number of ACB messages transmitted		5, 30
TUP: XMIT ACC TOT	Number of ACC messages transmitted		5, 30
TUP: XMIT ACF TOT	Number of ACF messages transmitted		5, 30
TUP: XMIT ACM TOT	Number of ACM messages transmitted		5, 30
TUP: XMIT ADI TOT	Number of ADI messages transmitted		5, 30
TUP: XMIT ANC TOT	Number of ANC messages transmitted		5, 30
TUP: XMIT ANN TOT	Number of ANN messages transmitted		5, 30
TUP: XMIT ANU TOT	Number of ANU messages transmitted		5, 30
TUP: XMIT AUU TOT	Number of AUU messages transmitted		5, 30
TUP: XMIT BLA TOT	Number of BLA messages transmitted		5, 30
TUP: XMIT BLO TOT	Number of BLO messages transmitted		5, 30
TUP: XMIT CBK TOT	Number of CBK messages transmitted		5, 30
TUP: XMIT CBU TOT	Number of CBU messages transmitted		5, 30
TUP: XMIT CCF TOT	Number of CCF messages transmitted		5, 30
TUP: XMIT CCL TOT	Number of CCL messages transmitted		5, 30
TUP: XMIT CCR TOT	Number of CCR messages transmitted		5, 30

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
TUP-GROUP (continued)	Telephone User Part statistics (continued)	SS7 Signaling Service	
TUP: XMIT CFL TOT	Number of CFL messages transmitted		5, 30
TUP: XMIT CGC TOT	Number of CGC messages transmitted		5, 30
TUP: XMIT CHA TOT	Number of CHA messages transmitted		5, 30
TUP: XMIT CHG TOT	Number of CHG messages transmitted		5, 30
TUP: XMIT CHP TOT	Number of CHP messages transmitted		5, 30
TUP: XMIT CHT TOT	Number of CHT messages transmitted		5, 30
TUP: XMIT CLF TOT	Number of CLF messages transmitted		5, 30
TUP: XMIT CLU TOT	Number of CLU messages transmitted		5, 30
TUP: XMIT COT TOT	Number of COT messages transmitted		5, 30
TUP: XMIT DPN TOT	Number of DPN messages transmitted		5, 30
TUP: XMIT EUM TOT	Number of EUM messages transmitted		5, 30
TUP: XMIT FOT TOT	Number of FOT messages transmitted		5, 30
TUP: XMIT GRA TOT	Number of GRA messages transmitted		5, 30
TUP: XMIT GRQ TOT	Number of GRQ messages transmitted		5, 30
TUP: XMIT GRS TOT	Number of GRS messages transmitted		5, 30
TUP: XMIT GSE TOT	Number of GSE messages transmitted		5, 30
TUP: XMIT GSM TOT	Number of GSM messages transmitted		5, 30
TUP: XMIT HBA TOT	Number of HBA messages transmitted		5, 30
TUP: XMIT HGB TOT	Number of HGB messages transmitted		5, 30
TUP: XMIT HGU TOT	Number of HGU messages transmitted		5, 30
TUP: XMIT HUA TOT	Number of HUA messages transmitted		5, 30
TUP: XMIT IAF TOT	Number of IAF messages transmitted		5, 30
TUP: XMIT IAI TOT	Number of IAI messages transmitted		5, 30
TUP: XMIT IAM TOT	Number of IAM messages transmitted		5, 30
TUP: XMIT ICF TOT	Number of ICF messages transmitted		5, 30
TUP: XMIT LOS TOT	Number of LOS messages transmitted		5, 30
TUP: XMIT MAL TOT	Number of MAL messages transmitted		5, 30
TUP: XMIT MBA TOT	Number of MBA messages transmitted		5, 30
TUP: XMIT MGB TOT	Number of MGB messages transmitted		5, 30
TUP: XMIT MGU TOT	Number of MGU messages transmitted		5, 30
TUP: XMIT MPM TOT	Number of MPM messages transmitted		5, 30
TUP: XMIT MPR TOT	Number of MPR messages transmitted		5, 30
TUP: XMIT MSG TOT	Number of messages transmitted, total		5, 30

Table D-1 Operational Measurements Supported (continued)

MML Counter Group:Name	Description	Related Components	Logging Interval
TUP-GROUP (continued)	Telephone User Part statistics (continued)	SS7 Signaling Service	
TUP: XMIT MUA TOT	Number of MUA messages transmitted		5, 30
TUP: XMIT NNC TOT	Number of NNC messages transmitted		5, 30
TUP: XMIT OPR TOT	Number of OPR messages transmitted		5, 30
TUP: XMIT RAN TOT	Number of RAN messages transmitted		5, 30
TUP: XMIT RLG TOT	Number of RLG messages transmitted		5, 30
TUP: XMIT RSC TOT	Number of RSC messages transmitted		5, 30
TUP: XMIT SAM TOT	Number of SAM messages transmitted		5, 30
TUP: XMIT SAO TOT	Number of SAO messages transmitted		5, 30
TUP: XMIT SBA TOT	Number of SBA messages transmitted		5, 30
TUP: XMIT SEC TOT	Number of SEC messages transmitted		5, 30
TUP: XMIT SGB TOT	Number of SGB messages transmitted		5, 30
TUP: XMIT SGU TOT	Number of SGU messages transmitted		5, 30
TUP: XMIT SLB TOT	Number of SLB messages transmitted		5, 30
TUP: XMIT SNA TOT	Number of SNA messages transmitted		5, 30
TUP: XMIT SSB TOT	Number of SSB messages transmitted		5, 30
TUP: XMIT SST TOT	Number of SST messages transmitted		5, 30
TUP: XMIT STB TOT	Number of STB messages transmitted		5, 30
TUP: XMIT SUA TOT	Number of SUA messages transmitted		5, 30
TUP: XMIT UBA TOT	Number of UBA messages transmitted		5, 30
TUP: XMIT UBL TOT	Number of UBL messages transmitted		5, 30
TUP: XMIT UNN TOT	Number of UNN messages transmitted		5, 30

ANSI ISUP Measurements

Table D-2 provides a list of the ANSI ISUP measurements available from the Cisco PGW 2200 Softswitch.

Table D-2 **ANSI ISUP Measurements**

ANSI Measurement Name	MML Counter Group:Name	Description
CountAbnormalReleases	ISUP: ABN REL TOT	count of release messages not normal clearing
CountMatedChanUnavailable	ISUP: CHAN MATE UNAVAILABLE	count of when B mate not there
CountReceivedACM	ISUP: RCV ACM TOT	count of every ACM sent
CountReceivedANM	ISUP: RCV ANM TOT	count of every ANM sent
CountReceivedBLA	ISUP: RCV BLA TOT	count of every BLA message sent
CountReceivedBLO	ISUP: RCV BLO TOT	count of every BLO message sent
CountReceivedCCR	ISUP: RCV CCR TOT	count of every CCR message sent
CountReceivedCFN	ISUP: RCV CFN TOT	count of every CFN message sent
CountReceivedCGB	ISUP: RCV CGB TOT	count of every CGB message sent
CountReceivedCGBA	ISUP: RCV CGBA TOT	count of every CGBA message sent
CountReceivedCGU	ISUP: RCV CGU TOT	count of every CGU message sent
CountReceivedCGUA	ISUP: RCV CGUA TOT	count of every CGUA sent
CountReceivedCOT	ISUP: RCV COT TOT	count of every COT message sent
CountReceivedCPG	ISUP: RCV CPG TOT	count of every CPG message sent
CountReceivedCQM	ISUP: RCV CQM TOT	count of every CQM sent
CountReceivedCQR	ISUP: RCV CQR TOT	count of every CQR message sent
CountReceivedCRA	ISUP: RCV CRA TOT	count of every CRA message sent
CountReceivedCRM	ISUP: RCV CRM TOT	count of every CRM message sent
CountReceivedCVR	ISUP: RCV CVR TOT	count of every CVR message sent

Table D-2 ANSI ISUP Measurements

ANSI Measurement Name	MML Counter Group:Name	Description
CountReceivedCVT	ISUP: RCV CVT TOT	count of every CVT message sent
CountReceivedEXM	ISUP: RCV EXM TOT	count of every EXM sent
CountReceivedFAC	ISUP: RCV FAC TOT	count of every FAC message sent
CountReceivedFOT	ISUP: RCV FOT TOT	count of every FOT message sent
CountReceivedGRA	ISUP: RCV GRA TOT	count of every GRA message sent
CountReceivedGRS	ISUP: RCV GRS TOT	count of every GRS message sent
CountReceivedIAM	ISUP: RCV IAM TOT	count of every IAM sent
CountReceivedINF	ISUP: RCV INF TOT	count of every INF sent
CountReceivedINR	ISUP: RCV INR TOT	count of every INR sent
CountReceivedLPA	ISUP: RCV LPA TOT	count of every LPA message sent
CountReceivedMessages	ISUP: RCV MSG TOT	count of every message received
CountReceivedPAM	ISUP: RCV PAM TOT	count of every PAM sent
CountReceivedREL	ISUP: RCV REL TOT	count of every REL message sent
CountReceivedRES	ISUP: RCV RES TOT	count of every RES message sent
CountReceivedRLC	ISUP: RCV RLC TOT	count of every RLC message sent
CountReceivedRSC	ISUP: RCV RSC TOT	count of every RSC message sent
CountReceivedSUS	ISUP: RCV SUS TOT	count of every SUS message sent
CountReceivedUBA	ISUP: RCV UBA TOT	count of every UBA message received
CountReceivedUBL	ISUP: RCV UBL TOT	count of every UBL message sent
CountReceivedUCIC	ISUP: RCV UCIC TOT	count of every UCIC message received
CountReceivedUSR	ISUP: RCV USR TOT	count of every USR message received
CountSentACM	ISUP: XMIT ACM TOT	count of every Address Complete Message (ACM) received

Table D-2 ANSI ISUP Measurements

ANSI Measurement Name	MML Counter Group:Name	Description
CountSentANM	ISUP: XMIT ANM TOT	count of every Answer Message (ANM) received
CountSentBLA	ISUP: XMIT BLA TOT	count of every Blocking Acknowledgement (BLA) message received
CountSentBLO	ISUP: XMIT BLO TOT	count of every Blocking (BLO) message received
CountSentCCR	ISUP: XMIT CCR TOT	count of every Current Cell Rate (CCR) message received
CountSentCFN	ISUP: XMIT CFN TOT	count of every Confusion (CFN) message received
CountSentCGB	ISUP: XMIT CGB TOT	count of every Circuit Group Blocking (CGB) message received
CountSentCGBA	ISUP: XMIT CGBA TOT	count of every Circuit Group Blocking Acknowledgement (CGBA) message received
CountSentCGU	ISUP: XMIT CGU TOT	count of every Circuit Group Unblocking (CGU) message received
CountSentCGUA	ISUP: XMIT CGUA TOT	count of every Circuit Group Unblocking Acknowledgement (CGUA) message received
CountSentCOT	ISUP: XMIT COT TOT	count of every Continuity Check (COT) message received
CountSentCPG	ISUP: XMIT CPG TOT	count of every Call Progress (CPG) message received
CountSentCQM	ISUP: XMIT CQM TOT	count of every Circuit Group Query Message (CQM) received
CountSentCQR	ISUP: XMIT CQR TOT	count of every Circuit Group Query Response (CQR) message received
CountSentCRA	ISUP: XMIT CRA TOT	count of every Circuit Reservation Acknowledgement (CRA) message received

Table D-2 ANSI ISUP Measurements

ANSI Measurement Name	MML Counter Group:Name	Description
CountSentCRM	ISUP: XMIT CRM TOT	count of every Cell Rate Margin (CRM) message received
CountSentCVR	ISUP: XMIT CVR TOT	count of every Circuit Validation Response (CVR) message received
CountSentCVT	ISUP: XMIT CVT TOT	count of every Circuit Validation Test (CVT) message received
CountSentEXM	ISUP: XMIT EXM TOT	count of every Exit Message (EXM) received
CountSentFAC	ISUP: XMIT FAC TOT	count of every Facility (FAC) message received
CountSentFOT	ISUP: XMIT FOT TOT	count of every Forward Transfer (FOT) message received
CountSentGRA	ISUP: XMIT GRA TOT	count of every Circuit Group Reset Acknowledgment (GRA) message received
CountSentGRS	ISUP: XMIT GRS TOT	count of every Circuit Group Reset (GRS) message received
CountSentIAM	ISUP: XMIT IAM TOT	count of every Initial Address Message (IAM) received
CountSentINF	ISUP: XMIT INF TOT	count of every INF received
CountSentINR	ISUP: XMIT INR TOT	count of every INR received
CountSentLPA	ISUP: XMIT LPA TOT	count of every Loop Back Acknowledgement (LPA) message received
CountSentMessages	ISUP: XMIT MSG TOT	count of every message sent
CountSentPAM	ISUP: XMIT PAM TOT	count of every Pass Along Message (PAM) received
CountSentREL	ISUP: XMIT REL TOT	count of every Release (REL) message received
CountSentRES	ISUP: XMIT RES TOT	count of every Resume (RES) message received

Table D-2 ANSI ISUP Measurements

ANSI Measurement Name	MML Counter Group:Name	Description
CountSentRLC	ISUP: XMIT RLC TOT	count of every Release Complete (RLC) received
CountSentRSC	ISUP: XMIT RSC TOT	count of every Reset Circuit (RSC) message received
CountSentSUS	ISUP: XMIT SUS TOT	count of every Suspend (SUS) message received
CountSentUBA	ISUP: XMIT UBA TOT	count of every Unblocking Acknowledgement (UBA) message received
CountSentUBL	ISUP: XMIT UBL TOT	count of every Unblocking (UBL) message received
CountSentUCIC	ISUP: XMIT UCIC TOT	count of every Unequipped Carrier Identification Code (UCIC) message sent
CountSentUSR	ISUP: XMIT USR TOT	count of every User-to-User Information (USR) message sent
CountUnexpectedMsg	ISUP: UNEX MSG TOT	count of unexpected messages
CountUnrecognizedMsg	ISUP: UNREC MSG TOT	count of unrecognized messages