



## CHAPTER 6

# Traffic Measurements

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## Introduction

This chapter describes the traffic measurement information provided by the Cisco BTS 10200 Softswitch, and explains how to manage the generation of this data.

The Cisco BTS 10200 Softswitch provides the following capabilities:

- Collection of all statistics in 5-, 15-, 30-, or 60-minute intervals
- Clearance of counters after each interval without loss of ongoing counts
- Saving 48 hours of statistical data in 5-, 15-, 30-, or 60-minute increments in persistent store
- Display of summary report of past 48-hour period
- On-demand report queries keyed by collection interval
- Issuance of events when appropriate

## Filtering Traffic Measurements

Use one of the following commands to specify the types of measurements to be stored in the system:

```
show measurement-prov type=<type>;
```

```
change measurement-prov type=<type>; enable=<yes or no>; time-interval=<time interval>;
```

Valid values for <type> are:

- ISDN—ISDN signaling protocol related information
- CALLP—Call processing specific information
- MGCP—MGCP signaling protocol related information
- SIM—Service interaction manager related information
- POTS-FS—POTS/Centrex/Tandem Feature Service related information
- AINSVC—AIN Feature Service related information
- SCCP—SCCP protocol related information

- TCAP—TCAP related protocol information
- INAP—INAP related protocol information

**Caution**

The INAP protocol measurements are not used in Release 4.1. They are disabled (enable=no) by default. The TCAP measurements (see [“TCAP Protocol Measurements” section on page 6-41](#)) cover the information formerly available from INAP. Information that could show in the INAP counters can be misleading, and should be ignored.

- SUA—SUA signaling protocol related information
- M3UA—M3UA signaling protocol related information
- SCTP—SCTP signaling protocol related information
- ISUP—ISDN User Part (ISUP) SS7 signaling protocol related information, applicable in a signaling gateway configuration
- AUDIT—Auditing related information
- SIA—Signaling interface adapter related information
- BILLING—Call detail block (CDB) data-related information
- EM—Event messaging billing-related information
- DQOS—Dynamic quality of service related information
- SNMP—SNMP agent protocol related information
- TG-USG—Trunk group usage information
- ANM—Announcement server related information
- H323—H.323 signaling protocol related information

The valid values for **enable** are YES and NO. This string specifies whether or not to perform collection on the specified measurement type. This is an optional token that is preprovisioned with a value of YES at the factory. You must enter either this token or the time-interval token.

The valid values for time-interval are listed below. These values indicate the number of minutes each reporting interval is to span for the given report type. The reporting interval is always synchronized to 0 (zero) minutes after the hour for consistency. This is an optional token that is preprovisioned with a value of 15 at the factory. Changing this value does not take effect until the completion of the current collection interval based on the previous time-interval setting. You must enter either this token or the enable token.

- 5
- 15
- 30
- 60

**Note**

These commands are not case-sensitive. See the *Cisco BTS 10200 Command Line Interface Reference* for additional details on these commands and report types.

# Traffic Measurement Data Transport and Access

The measurement data collected on the Cisco BTS 10200 Softswitch can be accessed via several different mechanisms:

- Command-line interface (CLI), which runs over a Telnet or secure shell (SSH) session
- Comma-separated value (CSV) or Extensible Markup Language (XML) format via FTP or SFTP interface
- SNMP MIB (the supported version of SNMP on the Cisco BTS 10200 Softswitch is v2c)

## Retrieving Traffic Measurement Report Summaries

Use one of the commands listed in this section to retrieve specific types of measurement summaries from the data that is stored in the system. These commands allow you to specify a time interval, a specific type of data, and the source of data. The system supports the following methods for retrieving summaries:

- [Displaying Report Summaries on an Operator's Terminal Screen](#)
- [Generating Reports from Historical Measurement Data](#)
- [Reporting Current Interval Counts](#)

**Note**

Any measurement counters that do not contain data for a given interval are suppressed out of the reports generated by the Cisco BTS 10200 Softswitch. Only counters that were pegged are included in the reports.

**Note**

When executing a **report measurement-<xyz>-summary output=<abc>; output-type=csv (or xml)** command an out of memory error may occur if the data file output is large (over 2 megabits). This error can occur when large amount of data is collected by specifying a full 24 hours or more worth of TMM data to be gathered. If the out of memory error occurs, break the collection period into a shorter time span. For instance, collect 6 hours worth of data instead of collecting 24 hours worth of data and contact Cisco TAC.

## Displaying Report Summaries on an Operator's Terminal Screen

Report summaries can be generated for measurements collected from the designated Cisco BTS 10200 Softswitch platforms between the specified start time and end time. The time interval specified must be prior to the current collection interval.

## Examples of Command Line Queries

The following are examples of command line queries to display report summaries on the operator's terminal screen.

**Note**

See [Table 6-1 on page 6-5](#) for the definitions of the tokens used in these examples.

**Note**

In the following examples, the <time> value can be any time during the 5-, 15-, 30-, and 60-minute interval for which the summary is requested. Each 30-minute collection interval starts on the hour or half-hour.

If busy-hour data is needed, measurement summaries can be taken at 10:00–10:30 a.m. and 10:30–11:00 a.m., Monday through Friday, or at the provider's own busy hour.

```
report measurement-isdn-summary start-time=<start time>; end-time=<end time>;
    call-agent-id=<CA ID>;
```

```
report measurement-callp-summary start-time=<start time>; end-time=<end time>;
    call-agent-id=<CA ID>;
```

```
report measurement-mgcp-summary start-time=<start time>; end-time=<end time>;
    call-agent-id=<CA ID>;
```

```
report measurement-sim-summary start-time=<start time>; end-time=<end time>;
    call-agent-id=<CA ID>;
```

```
report measurement-pots-local-summary start-time=<start time>; end-time=<end time>;
    feature-server-id=<FSPTC ID>;
```

```
report measurement-pots-misc-summary start-time=<start time>; end-time=<end time>;
    feature-server-id=<FSPTC ID>;
```

```
report measurement-pots-sle-summary start-time=<start time>; end-time=<end time>;
    feature-server-id=<FSPTC ID>;
```

```
report measurement-pots-acar-summary start-time=<start time>; end-time=<end time>;
    feature-server-id=<FSPTC ID>;
```

```
report measurement-pots-cos-summary start-time=<start time>; end-time=<end time>;
    feature-server-id=<FSPTC ID>;
```

```
report measurement-pots-cot-summary start-time=<start time>; end-time=<end time>;
    feature-server-id=<FSPTC ID>;
```

```
report measurement-ainsvc-summary start-time=<start time>; end-time=<end time>;
    feature-server-id=<FSAIN ID>;
```

```
report measurement-sccp-summary start-time=<start time>; end-time=<end time>;
    feature-server-id=<FSAIN ID>;
```

```
report measurement-tcap-summary start-time=<start time>; end-time=<end time>;
    feature-server-id=<FSAIN ID>;
```

```
report measurement-inap-summary start-time=<start time>; end-time=<end time>;
    feature-server-id=<FSAIN ID>;
```

```
report measurement-sua-summary start-time=<start time>; end-time=<end time>;
    sgp-id=<SGP ID>;
```

```
report measurement-m3ua-summary start-time=<start time>; end-time=<end time>;
    sgp-id=<SGP ID>;
```

```

report measurement-sctp-summary start-time=<start time>; end-time=<end time>;
    sctp-assoc-id=<SCTP ASSOCIATION ID>;

report measurement-isup-summary start-time=<start time>; end-time=<end time>;
    tgn-id=<TGN ID>;

report measurement-audit-summary start-time=<start time>; end-time=<end time>;
    call-agent-id=<CA ID>;

report measurement-sia-summary start-time=<start time>; end-time=<end time>;
    call-agent-id=<CA ID>;

report measurement-billing-summary start-time=<start time>; end-time=<end time>;
    call-agent-id=<CA ID>;

report measurement-em-summary start-time=<start time>; end-time=<end time>;
    call-agent-id=<CA ID>;

report measurement-dqos-summary start-time=<start time>; end-time=<end time>;
    aggr-id=<AGGR ID>;

report measurement-snmp-summary start-time=<start time>; end-time=<end time>;

report measurement-tg-usage-summary start-time=<start time>; end-time=<end time>;
    call-agent-id=<CA ID>; tgn-id=<TGN ID>;

report measurement-anm-summary start-time=<start time>; end-time=<end time>;
    call-agent-id=<CA ID>;

report measurement-h323-summary start-time=<start time>; end-time=<end time>;
    call-agent-id=<CA ID>;

```

**Table 6-1** Descriptions of Tokens Used in Command Line Queries to Display Report Summaries

Token	Description / Comments
start-time	A timestamp value in the format <b>yyyy-mm-dd hh:mm:ss</b> .  This value indicates the starting interval time to search within the EMS database. This is an optional token; when it is omitted from the command, the system displays the last collected interval.
end-time	A timestamp value in the format <b>yyyy-mm-dd hh:mm:ss</b> .  This value indicates the stopping interval time to search within the EMS database. This is an optional token; when it is omitted from the command, the system displays the last collected interval.
call-agent-id	The ID of the selected CA in the call-agent table.  Example: CA146  This is an optional token that defaults to all CAs.

**Table 6-1** Descriptions of Tokens Used in Command Line Queries to Display Report Summaries

Token	Description / Comments
feature-server-id	<p>This is one of the following IDs:</p> <ul style="list-style-type: none"> <li>ID of the selected POTS/Centrex/Tandem FS (FSPTC) in the feature-server table. Example: FSPTC235</li> <li>ID of the selected Advanced Intelligent Network (AIN) FS (FSAIN) in the feature-server table. Example: FSAIN205</li> </ul> <p>This is an optional token that defaults to all FSs.</p>
sgp-id	<p>The ID of the selected signaling gateway process in the sgp table. Example: sgp222</p> <p>This is an optional token.</p>
sctp-assoc-id	<p>The ID of the selected SCTP association in the sctp-assoc table. Example: sctp-assoc3</p> <p>This is an optional token.</p>
tn-id	<p>The ID of the selected TG as provisioned in the trunk-grp table. Example: chicago01</p> <p>This is an optional token that defaults to all tn-id.</p>
aggr-id	<p>The ID of the selected aggregation device (CMTS in PacketCable networks) in the aggr table, for example AGGR01. This is an optional token.</p>

## Generating Reports from Historical Measurement Data

This section describes how to use command line queries to generate reports from historical measurement data that can be retrieved from the local EMS. Measurement data is placed into CSV or XML files for viewing or for FTP/SFTP transfer. The time interval specified in this command must be prior to the current collection interval.



### Tip

To create a report summary file, you must specify both the output token and the output-type token.



### Note

The tokens used in the following examples are described in [Table 6-2 on page 6-7](#).

The examples below show measurement data that was collected from 10 am until 12 noon on March 27, 2003, and placed into CSV files for viewing or for FTP transfer.



### Note

These examples are for illustration purposes, and are not intended to provide a complete list of the measurement summary types. See the [“Displaying Report Summaries on an Operator’s Terminal Screen” section on page 6-3](#) for a complete list of measurement summary types.

**Examples:**

```
report measurement-sim-summary start-time=2003-03-27 10:00:00; end-time=2003-03-27
12:00:00; call-agent-id=CA146; output=sim-report; output-type=csv;
```

```
report measurement-pots-local-summary start-time=2003-03-27 10:00:00;
end-time=2003-03-27 12:00:00; feature-server-id=FSPTC235; output=pots-local-report;
output-type=csv;
```

```
report measurement-em-summary start-time=2003-03-27 10:00:00; end-time=2003-03-27
12:00:00; call-agent-id=CA146; output=em-report; output-type=csv;
```

```
report measurement-dqos-summary start-time=2003-03-27 10:00:00; end-time=2003-03-27
12:00:00; aggr-id=AGGR01; output=dqos-report; output-type=csv;
```

**Table 6-2** Descriptions of Tokens Used in Command Line Queries to Display Historical Measurement Data

Token	Description / Comments
interval	<p>This token generates a report with:</p> <ul style="list-style-type: none"> <li>CURRENT—the interval currently collecting <ul style="list-style-type: none"> <li>Enter a call-agent-id or feature-server-id.</li> <li>Use CURRENT with non-instance-based counters; if an interval has more than one set of counters, CURRENT is not valid.</li> </ul> </li> </ul> <p>For example, use CURRENT with measurement-callp-summary which has one instance. Do not use CURRENT with measurement-dqos-summary, which has more than one instance; there can be more than one aggr-id reporting per interval.</p> <ul style="list-style-type: none"> <li>ALL—all collected intervals</li> </ul> <p>If you do not enter this token, the BTS returns the last collected interval.</p>
sum	<p>This token lets you set the report to return:</p> <ul style="list-style-type: none"> <li>N—(default) individual interval reports</li> <li>Y—a summary of all interval reports</li> </ul> <p>You cannot use this token with the trunk group category.</p>
output	This token names the file that will contain the report. BTS prepends it with “Tm_” and puts it in <b>/opt/ems/report</b> on the active EMS.
output-type	<p>This token allows you to set the report file format:</p> <ul style="list-style-type: none"> <li>CSV</li> <li>XML</li> </ul>
display	This token sets which data columns appear in a report.

**Note**

Additional token descriptions are listed in the [“Displaying Report Summaries on an Operator’s Terminal Screen”](#) section on page 6-3.

## Reporting Current Interval Counts

The Cisco BTS 10200 Softswitch provides a CLI command to query in-progress partial interval counts of measurement data from the actual source of the data. This mechanism provides the ability to specify the current collection interval and the particular type and source of data.

**Tip**

To display or create a report summary file, the reporting component (for example, call-agent-id or feature-server-id) must be specified and interval=current must also be specified. (SNMP is an exception, because there is no reporting component to specify.)

The following are examples of the command line queries to generate reports on the various types of measurements currently being collected from call agents and feature servers during the current interval.

**Note**

These examples are for illustration purposes only, and are not intended to provide a complete list of the measurement summary types. See the [“Displaying Report Summaries on an Operator’s Terminal Screen” section on page 6-3](#) for a complete list of measurement summary types, and token descriptions.

**Note**

This command is not supported for the tg-usage measurement types.

**Examples:**

```
report measurement-isdn-summary call-agent-id=CA146; output=isdn-partial-report;  
output-type=csv; interval=current;
```

```
report measurement-pots-acar-summary feature-server-id=FSPCT235;  
output=pots-acar-partial-report; output-type=csv; interval=current;
```

```
report measurement-ainsvc-summary call-agent-id=FSAIN205;  
output=ainsvc-partial-report; output-type=csv; interval=current;
```

```
report measurement-snmp-summary output=snmp-partial-report; output-type=csv;  
interval=current;
```

```
report measurement-h323-summary call-agent-id=CA146; output=h323-partial-report;  
output-type=csv; interval=current;
```

## Clearing Current Interval Counts

The Cisco BTS 10200 Softswitch provides a CLI command to clear partial counts of measurement data that are in progress at the actual source of the data. This mechanism provides the ability to specify the particular type and source of data.

**Caution**

This is a destructive command that will erase the partial counts for the current interval permanently. Use this command with caution.

The following examples clear all of the currently accumulating counters in CAs and FSs.



```

clear measurement-isdn-summary call-agent-id=CA146;
clear measurement-callp-summary call-agent-id=CA146;
clear measurement-mgcp-summary call-agent-id=CA146;
clear measurement-sim-summary call-agent-id=CA146;
clear measurement-pots-local-summary feature-server-id= FSPTC235;
clear measurement-pots-misc-summary feature-server-id= FSPTC235;
clear measurement-pots-sle-summary feature-server-id= FSPTC235;
clear measurement-pots-acar-summary feature-server-id= FSPTC235;
clear measurement-pots-cos-summary feature-server-id= FSPTC235;
clear measurement-pots-cot-summary feature-server-id= FSPTC235;
clear measurement-ainsvc-summary feature-server-id=FSAIN205;
clear measurement-sccp-summary feature-server-id=FSAIN205;
clear measurement-sccp-summary feature-server-id=FSAIN205;
clear measurement-inap-summary feature-server-id=FSAIN205;
clear measurement-tcap-summary feature-server-id=FSAIN205;
clear measurement-audit-summary call-agent-id=CA146;
clear measurement-sia-summary call-agent-id=CA146;
clear measurement-billing-summary call-agent-id=CA146;
clear measurement-em-summary call-agent-id=CA146;
clear measurement-snmp-summary
clear measurement-anm-summary call-agent-id=CA146;
clear measurement-h323-summary call-agent-id=CA146;

```

## Format of Traffic Measurement Summaries

A traffic measurement summary lists the counters of the type requested in the report command, followed by the count. An example of a report is shown below.

```

>===== Start Traffic Report =====<

TIMESTAMP                20040206135919
NODENAME                  CA146
CONDITION                 NORMAL

```

ANM_TPM_CKT_UNAVAIL	25
ANM_TPM_CALL_REJECTED	3
ANM_TPM_ADDR_INCOMPLETE	11
ANM_TPM_FAC_REJECTED	0
ANM_TPM_PRE_0_1_ABSENT	8
ANM_TPM_PRE_0_1_PRESENT	21
ANM_TPM_HNPA_ABSENT	30
ANM_TPM_NO_ROUTE_DEST	17
ANM_TPM_UNALLOCATED_NUM	0
ANM_TPM_NUM_CHANGED	3
ANM_TPM_DEST_OUTOFORDER	8
ANM_TPM_TEMP_DISCONNECT	15
ANM_TPM_FEAT_NOT_SUBS	2
ANM_TPM_AUTHCODE_INVALID	23
ANM_TPM_NO_RTE_TRANSITNW	8
ANM_TPM_CAUSE_UNKNOWN	11

>===== End Traffic Report =====<

## Events and Alarms for Traffic Measurement

The system issues events and alarms applicable to traffic measurement functions. These events and alarms are labeled “STATISTICS”, and are described in the *Cisco BTS 10200 Troubleshooting Guide*.

## List of Traffic Measurements (Counters)

The tables in this section list the various types of measurements (counters) that are collected by the Cisco BTS 10200 Softswitch. The measurements are grouped into logical categories for easy identification.

It is useful to monitor the measurements that are most important to your operation. Some of the measurements are particularly useful in alerting you to potential problems in the system. In some cases a rapid buildup of counts might indicate a problem such as congestion, processing failures, and so forth. In the tables below, an asterisk (\*) is used to identify measurements for which a rapid increase in counts indicates a potential problem.

In addition, some potential network problems can be noticed by looking at specific *pairs of measurements that should normally be equal*. The greater the difference between two measurements (when those two measurements *should* be equal), the more likely it is that there could be a problem in the system.

### Example:

SIP\_TOTAL\_INCOMING\_MSG and SIP\_TOTAL\_SUCCESS\_INCOMING\_MSG

In this case, the total number of successful incoming messages should be about equal to the total number of incoming messages. Any difference between the two counts, especially a rapidly growing difference, can indicate a problem.

## Resources and Definitions

The following reference materials are available to assist you in interpreting and using these tables:

- For information on SIP terminology (methods and response codes), refer to Internet Engineering Task Force (IETF) Recommendation RFC2543.
- For information on subscriber features, refer to the “Subscriber Features” section in the *Cisco BTS 10200 Softswitch System Description* document
- For a list of acronyms, see the Glossary in the *Cisco BTS 10200 Softswitch System Description* document.

## ISDN Measurements

Table 6-3 lists the ISDN measurements.

**Table 6-3** ISDN Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
ISDN_SETUP_TX	The number of ISDN SETUP messages sent from the reporting call agent
ISDN_SETUP_RX	The number of ISDN SETUP messages received by the reporting call agent
ISDN_SETUP_ACK_TX	The number of ISDN SETUP ACK messages sent from the reporting call agent
ISDN_SETUP_ACK_RX	The number of ISDN SETUP ACK messages received by the reporting call agent
ISDN_CALL_PROCEED_TX	The number of ISDN CALL PROCEED messages sent from the reporting call agent
ISDN_CALL_PROCEED_RX	The number of ISDN CALL PROCEED messages received by the reporting call agent
ISDN_ALERTING_TX	The number of ISDN ALERTING messages sent from the reporting call agent
ISDN_ALERTING_RX	The number of ISDN ALERTING messages received by the reporting call agent
ISDN_PROGRESS_TX	The number of ISDN PROGRESS messages sent from the reporting call agent
ISDN_PROGRESS_RX	The number of ISDN PROGRESS messages received by the reporting call agent
ISDN_CONNECT_TX	The number of ISDN CONNECT messages sent from the reporting call agent
ISDN_CONNECT_RX	The number of ISDN CONNECT messages received by the reporting call agent
ISDN_CONNECT_ACK_TX	The number of ISDN CONNECT ACK messages sent from the reporting call agent
ISDN_CONNECT_ACK_RX	The number of ISDN CONNECT ACK messages received by the reporting call agent
ISDN_DISCONNECT_TX	The number of ISDN DISCONNECT messages sent from the reporting call agent
ISDN_DISCONNECT_RX	The number of ISDN DISCONNECT messages received by the reporting call agent
ISDN_RELEASE_TX	The number of ISDN RELEASE messages sent from the reporting call agent
ISDN_RELEASE_RX	The number of ISDN RELEASE messages received by the reporting call agent

**Table 6-3** ISDN Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
ISDN_RELEASE_COMPLETE_TX	The number of ISDN RELEASE COMPLETE messages sent from the reporting call agent
ISDN_RELEASE_COMPLETE_RX	The number of ISDN RELEASE COMPLETE messages received by the reporting call agent
ISDN_RESTART_TX	The number of ISDN RESTART messages sent from the reporting call agent
ISDN_RESTART_RX	The number of ISDN RESTART messages received by the reporting call agent
ISDN_RESTART_ACK_TX	The number of ISDN RESTART ACK messages sent from the reporting call agent
ISDN_RESTART_ACK_RX	The number of ISDN RESTART ACK messages received by the reporting call agent
ISDN_INFORMATION_TX	The number of ISDN INFORMATION messages sent from the reporting call agent
ISDN_INFORMATION_RX	The number of ISDN INFORMATION messages received by the reporting call agent
ISDN_NOTIFY_TX	The number of ISDN NOTIFY messages sent from the reporting call agent
ISDN_NOTIFY_RX	The number of ISDN NOTIFY messages received by the reporting call agent
ISDN_STATUS_TX	The number of ISDN STATUS messages sent from the reporting call agent
ISDN_STATUS_RX	The number of ISDN STATUS messages received by the reporting call agent
ISDN_STATUS_ENQUIRY_TX	The number of ISDN STATUS ENQUIRY messages sent from the reporting call agent
ISDN_STATUS_ENQUIRY_RX	The number of ISDN STATUS ENQUIRY messages received by the reporting call agent
ISDN_SRVC_TX	The number of ISDN SERVICE messages sent from the reporting call agent
ISDN_SRVC_RX	The number of ISDN SERVICE messages received by the reporting call agent
ISDN_SRVC_ACK_TX	The number of ISDN SERVICE ACK messages sent from the reporting call agent
ISDN_SRVC_ACK_RX	The number of ISDN SERVICE ACK messages received by the reporting call agent
ISDN_FACILITY_TX	The number of ISDN FACILITY messages sent from the reporting call agent
ISDN_FACILITY_RX	The number of ISDN FACILITY messages received by the reporting call agent

## Call Processing Measurements

Table 6-4 lists the call processing measurements.

**Table 6-4** Call Processing Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
CALLP_ORIG_ATTMP	The number of originating call attempts of all types on the reporting call agent
CALLP_TERM_ATTMP	The number of terminating call attempts of all types on the reporting call agent
CALLP_ORIG_FAIL	The number of originating call attempts of all types that failed on the reporting call agent
CALLP_TERM_FAIL	The number of terminating call attempts of all types that failed on the reporting call agent

**Table 6-4** Call Processing Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
CALLP_CALL_SUCC	The number of successful originating and terminating call attempts of all types on the reporting call agent
CALLP_CALL_ABAND	The number of originating call attempts of all types that were abandoned on the reporting call agent
CALLP_ISDN_ORIG_ATTMP	The number of originating ISDN call attempts on the reporting call agent
CALLP_ISDN_TERM_ATTMP	The number of ISDN terminating call attempts on the reporting call agent
CALLP_ISDN_ORIG_FAIL	The number of ISDN originating call attempts that failed on the reporting call agent
CALLP_ISDN_TERM_FAIL	The number of ISDN terminating call attempts that failed on the reporting call agent
CALLP_ISDN_CALL_SUCC	The number of successful ISDN originating and terminating call attempts on the reporting call agent
CALLP_ISDN_CALL_ABAND	The number of ISDN originating call attempts that were abandoned on the reporting call agent
CALLP_SS7_ORIG_ATTMP	The number of originating SS7 call attempts on the reporting call agent
CALLP_SS7_TERM_ATTMP	The number of SS7 terminating call attempts on the reporting call agent
CALLP_SS7_ORIG_FAIL	The number of SS7 originating call attempts that failed on the reporting call agent
CALLP_SS7_TERM_FAIL	The number of SS7 terminating call attempts that failed on the reporting call agent
CALLP_SS7_CALL_SUCC	The number of successful SS7 originating and terminating call attempts on the reporting call agent
CALLP_SS7_CALL_ABAND	The number of SS7 originating call attempts that were abandoned on the reporting call agent
CALLP_SIP_ORIG_ATTMP	The number of originating SIP call attempts on the reporting call agent
CALLP_SIP_TERM_ATTMP	The number of SIP terminating call attempts on the reporting call agent
CALLP_SIP_ORIG_FAIL	The number of SIP originating call attempts that failed on the reporting call agent
CALLP_SIP_TERM_FAIL	The number of SIP terminating call attempts that failed on the reporting call agent
CALLP_SIP_CALL_SUCC	The number of successful SIP originating and terminating call attempts on the reporting call agent
CALLP_SIP_CALL_ABAND	The number of SIP originating call attempts that were abandoned on the reporting call agent
CALLP_MGCP_ORIG_ATTMP	The number of originating MGCP call attempts on the reporting call agent
CALLP_MGCP_TERM_ATTMP	The number of MGCP terminating call attempts on the reporting call agent
CALLP_MGCP_ORIG_FAIL	The number of MGCP originating call attempts that failed on the reporting call agent
CALLP_MGCP_TERM_FAIL	The number of MGCP terminating call attempts that failed on the reporting call agent
CALLP_MGCP_CALL_SUCC	The number of successful MGCP originating and terminating call attempts on the reporting call agent
CALLP_MGCP_CALL_ABAND	The number of MGCP originating call attempts that were abandoned on the reporting call agent
CALLP_CAS_ORIG_ATTMP	The number of originating CAS call attempts on the reporting call agent
CALLP_CAS_TERM_ATTMP	The number of CAS terminating call attempts on the reporting call agent

**Table 6-4** Call Processing Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
CALLP_CAS_ORIG_FAIL	The number of CAS originating call attempts that failed on the reporting call agent
CALLP_CAS_TERM_FAIL	The number of CAS terminating call attempts that failed on the reporting call agent
CALLP_CAS_CALL_SUCC	The number of successful CAS originating and terminating call attempts on the reporting call agent
CALLP_CAS_CALL_ABAND	The number of CAS originating call attempts that were abandoned on the reporting call agent
CALLP_ISDN_SS7_CALL	The number of successfully completed calls from an ISDN originator to an SS7 terminator on the reporting call agent
CALLP_ISDN_ISDN_CALL	The number of successfully completed calls from an ISDN originator to an ISDN terminator on the reporting call agent
CALLP_ISDN_SIP_CALL	The number of successfully completed calls from an ISDN originator to an SIP terminator on the reporting call agent
CALLP_ISDN_MGCP_CALL	The number of successfully completed calls from an ISDN originator to an MGCP terminator on the reporting call agent
CALLP_ISDN_CAS_CALL	The number of successfully completed calls from an ISDN originator to an CAS terminator on the reporting call agent
CALLP_SS7_SS7_CALL	The number of successfully completed calls from an SS7 originator to an SS7 terminator on the reporting call agent
CALLP_SS7_ISDN_CALL	The number of successfully completed calls from an SS7 originator to an ISDN terminator on the reporting call agent
CALLP_SS7_SIP_CALL	The number of successfully completed calls from an SS7 originator to an SIP terminator on the reporting call agent
CALLP_SS7_MGCP_CALL	The number of successfully completed calls from an SS7 originator to an MGCP terminator on the reporting call agent
CALLP_SS7_CAS_CALL	The number of successfully completed calls from an SS7 originator to an CAS terminator on the reporting call agent
CALLP_SIP_SS7_CALL	The number of successfully completed calls from a SIP originator to an SS7 terminator on the reporting call agent
CALLP_SIP_ISDN_CALL	The number of successfully completed calls from a SIP originator to an ISDN terminator on the reporting call agent
CALLP_SIP_SIP_CALL	The number of successfully completed calls from a SIP originator to an SIP terminator on the reporting call agent
CALLP_SIP_MGCP_CALL	The number of successfully completed calls from a SIP originator to an MGCP terminator on the reporting call agent
CALLP_SIP_CAS_CALL	The number of successfully completed calls from a SIP originator to an CAS terminator on the reporting call agent
CALLP_MGCP_SS7_CALL	The number of successfully completed calls from an MGCP originator to an SS7 terminator on the reporting call agent
CALLP_MGCP_ISDN_CALL	The number of successfully completed calls from an MGCP originator to an ISDN terminator on the reporting call agent

**Table 6-4** Call Processing Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
CALLP_MGCP_SIP_CALL	The number of successfully completed calls from an MGCP originator to an SIP terminator on the reporting call agent
CALLP_MGCP_MGCP_CALL	The number of successfully completed calls from an MGCP originator to an MGCP terminator on the reporting call agent
CALLP_MGCP_CAS_CALL	The number of successfully completed calls from an MGCP originator to an CAS terminator on the reporting call agent
CALLP_CAS_SS7_CALL	The number of successfully completed calls from an CAS originator to an SS7 terminator on the reporting call agent
CALLP_CAS_ISDN_CALL	The number of successfully completed calls from an CAS originator to an ISDN terminator on the reporting call agent
CALLP_CAS_SIP_CALL	The number of successfully completed calls from an CAS originator to an SIP terminator on the reporting call agent
CALLP_CAS_MGCP_CALL	The number of successfully completed calls from an CAS originator to an MGCP terminator on the reporting call agent
CALLP_CAS_CAS_CALL	The number of successfully completed calls from an CAS originator to an CAS terminator on the reporting call agent
CALLP_INTERLA_ATTMP	The number of Interlata call attempts on the reporting call agent
CALLP_INTERLA_FAIL	The number of Interlata call attempts that failed on the reporting call agent
CALLP_INTERLA_SUCC	The number of Interlata call attempts that completed successfully on the reporting call agent
CALLP_INTERLA_ABAND	The number of Interlata call origination attempts that were abandoned on the reporting call agent
CALLP_INTRALA_ATTMP	The number of Intralata call attempts on the reporting call agent
CALLP_INTRALA_FAIL	The number of Intralata call attempts that failed on the reporting call agent
CALLP_INTRALA_SUCC	The number of Intralata call attempts that completed successfully on the reporting call agent
CALLP_INTRALA_ABAND	The number of Intralata call origination attempts that were abandoned on the reporting call agent
CALLP_INTL_ATTMP	The number of International call attempts on the reporting call agent
CALLP_INTL_FAIL	The number of International call attempts that failed on the reporting call agent
CALLP_INTL_SUCC	The number of International call attempts that completed successfully on the reporting call agent
CALLP_INTL_ABAND	The number of International call origination attempts that were abandoned on the reporting call agent
CALLP_EMGNCY_ATTMP	The number of Emergency call attempts on the reporting call agent
CALLP_EMGNCY_FAIL	The number of Emergency call attempts that failed on the reporting call agent
CALLP_EMGNCY_CALL_SUCC	The number of Emergency call attempts that completed successfully on the reporting call agent
CALLP_EMGNCY_CALL_ABAND	The number of Emergency call origination attempts that were abandoned on the reporting call agent

**Table 6-4** *Call Processing Measurements (continued)*

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
CALLP_LOCAL_ATTMP	The number of Local call attempts on the reporting call agent
CALLP_LOCAL_FAIL	The number of Local call attempts that failed on the reporting call agent
CALLP_LOCAL_SUCC	The number of Local call attempts that completed successfully on the reporting call agent
CALLP_LOCAL_ABAND	The number of Local call origination attempts that were abandoned on the reporting call agent
CALLP_TOLL_FREE_ATTMP	The number of Toll Free call attempts on the reporting call agent
CALLP_TOLL_FREE_FAIL	The number of Toll Free call attempts that failed on the reporting call agent
CALLP_TOLL_FREE_SUCC	The number of Toll Free call attempts that completed successfully on the reporting call agent
CALLP_TOLL_FREE_ABAND	The number of Toll Free call origination attempts that were abandoned on the reporting call agent
CALLP_H323_ORIG_ATTMP	The number of originating H323 call attempts on the reporting call agent
CALLP_H323_TERM_ATTMP	The number of terminating H323 call attempts on the reporting call agent
CALLP_H323_ORIG_FAIL	The number of originating H323 call attempts that failed on the reporting call agent
CALLP_H323_TERM_FAIL	The number of terminating H323 call attempts that failed on the reporting call agent
CALLP_H323_CALL_SUCC	The number of originating and terminating H323 call attempts that completed successfully on the reporting call agent
CALLP_H323_CALL_ABAND	The number of terminating and originating H323 call attempts that were abandoned on the reporting call agent
CALLP_ISDN_H323_CALL	The total number of successfully completed calls from an ISDN originator to an H323 terminator on the reporting call agent
CALLP_SS7_H323_CALL	The total number of successfully completed calls from an SS7 originator to an H323 terminator on the reporting call agent
CALLP_SIP_H323_CALL	The total number of successfully completed calls from a SIP originator to an H323 terminator on the reporting call agent
CALLP_MGCP_H323_CALL	The total number of successfully completed calls from an MGCP originator to an H323 terminator on the reporting call agent
CALLP_CAS_H323_CALL	The total number of successfully completed calls from a CAS originator to an H323 terminator on the reporting call agent
CALLP_H323_SIP_CALL	The total number of successfully completed calls from an H323 originator to a SIP terminator on the reporting call agent
CALLP_H323_ISDN_CALL	The total number of successfully completed calls from an H323 originator to an ISDN terminator on the reporting call agent
CALLP_H323_SS7_CALL	The total number of successfully completed calls from an H323 originator to an SS7 terminator on the reporting call agent
CALLP_H323_MGCP_CALL	The total number of successfully completed calls from an H323 originator to an MGCP terminator on the reporting call agent
CALLP_H323_CAS_CALL	The total number of successfully completed calls from an H323 originator to a CAS terminator on the reporting call agent



**Table 6-4** Call Processing Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
CALLP_H323_H323_CALL	The total number of successfully completed calls from an H323 originator to an H323 terminator on the reporting call agent
CALLP_NAS_AUTH_SUCC	The total number of successful NAS Authentication Requests on the reporting call agent
CALLP_NAS_AUTH_FAIL	The total number of failed NAS Authentication Requests on the reporting call agent
CALLP_NAS_OP_FAIL	The total number of operation failures that occurred on the reporting call agent - typically indicative of a modem failure
CALLP_NAS_ISP_PORT_LIMIT	The total number of NAS calls that failed on the reporting call agent due to the port limit of a modem being exceeded
CALLP_NAS_NO_MODEMS	The total number of NAS calls that failed on the reporting call agent due to the unavailability of a modem
CALLP_NAS_CLG_UNACC	The total number of NAS calls that failed on the reporting call agent due to the calling party number being blocked
CALLP_NAS_CLD_UNACC	The total number of NAS calls that failed on the reporting call agent due to the called party number being blocked
CALLP_NAS_USER_REQUEST	The total number of User Requests - Reason Code 801 - that are received in the DLCX messages on the reporting call agent
CALLP_NAS_LOST_CARRIER	The total number of Lost Carrier - Reason Code 802 - that are received in the DLCX messages on the reporting call agent
CALLP_NAS_LOST_SERVICE	The total number of Lost Service - Reason Code 803 - that are received in the DLCX messages on the reporting call agent
CALLP_NAS_IDLE_TIMEOUT	The total number of Idle Timeout - Reason Code 804 - that are received in the DLCX messages on the reporting call agent
CALLP_NAS_SESSION_TIMEOUT	The total number of Session Timeout - Reason Code 805 - that are received in the DLCX messages on the reporting call agent
CALLP_NAS_ADMIN_RESET	The total number of Admin Reset - Reason Code 806 - that are received in the DLCX messages on the reporting call agent
CALLP_NAS_ADMIN_REBOOT	The total number of Admin Reboot - Reason Code 807 - that are received in the DLCX messages on the reporting call agent
CALLP_NAS_PORT_ERROR	The total number of Port Error- Reason Code 808 - that are received in the DLCX messages on the reporting call agent
CALLP_NAS_NAS_ERROR	The total number of NAS Error- Reason Code 809 - that are received in the DLCX messages on the reporting call agent
CALLP_NAS_NAS_REQUEST	The total number of NAS Request - Reason Code 810 - that are received in the DLCX messages on the reporting call agent
CALLP_NAS_NAS_REBOOT	The total number of NAS Reboot- Reason Code 811 - that are received in the DLCX messages on the reporting call agent
CALLP_NAS_PORT_UNNEEDED	The total number of Port Unneeded - Reason Code 812 - that are received in the DLCX messages on the reporting call agent
CALLP_NAS_PORT_PREEMPTED	The total number of Port Pre-empted - Reason Code 813 - that are received in the DLCX messages on the reporting call agent

**Table 6-4** *Call Processing Measurements (continued)*

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
CALLP_NAS_PORT_SUSPENDED	The total number of Port Suspended - Reason Code 814 - that are received in the DLCX messages on the reporting call agent
CALLP_NAS_SERVICE_UNAVAIL	The total number of Service Unavailable - Reason Code 815 - that are received in the DLCX messages on the reporting call agent
CALLP_NAS_CALLBACK	The total number of NAS Callback - Reason Code 816 - that are received in the DLCX messages on the reporting call agent
CALLP_NAS_USER_ERROR	The total number of User Error - Reason Code 817 - that are received in the DLCX messages on the reporting call agent
CALLP_NAS_HOST_REQUEST	The total number of Host Request - Reason Code 818 - that are received in the DLCX messages on the reporting call agent
CALLP_IVR_NETWORK_REQ	The total number of requests for network based IVR service on the reporting call agent
CALLP_IVR_NATIVE_REQ	The total number of requests for native IVR service on the reporting call agent
CALLP_IVR_RESOURCE_FAIL	The total number of IVR sessions that could not be established on the reporting call agent
CALLP_TOTAL_TDISC_ORIG_AT_TMP	The total number of origination attempts by subscribers that are marked as temporarily disconnected, detected by the reporting call agent.
CALLP_NLB_TEST_SUCC	The total number of successful Network Loop Back Tests completed by the reporting call agent.
CALLP_NLB_TEST_FAIL	The total number of unsuccessful Network Loop Back Tests completed by the reporting call agent. This counter includes both call setup failures and resource failures. These are test calls abnormally released by the call agent due to reasons such as resource priorities.
CALLP_NCT_TEST_SUCC	The total number of successful Network Continuity Tests completed by the reporting call agent.
CALLP_NCT_TEST_FAIL	The total number of unsuccessful Network Continuity Tests completed by the reporting call agent. This counter includes both call setup failures and resource failures. These are test calls abnormally released by the call agent due to reasons such as resource priorities.
CALLP_LB_TEST_SUCC	The total number of successful TDM Loop Back 108 Tests completed by the reporting call agent.
CALLP_TEST_ROUTE_SUCC	The total number of successful TDM Loop Back 108 Tests with DN dialed out in outgoing message completed by the reporting call agent.
CALLP_T38_FAX_MEDIA_SETUP_SUCC	This counter is incremented when the T.38 media connection is established successfully between the endpoints for T.38 fax transmission.
CALLP_T38_FAX_MEDIA_SETUP_FAIL	This counter is incremented when a T.38 media connection is not established successfully between the endpoints for T.38 fax transmission.
CALLP_TOT_TDISC_CALLS_ORIG_ATTEMPTS	This counter is incremented when a temporarily-disconnected subscriber goes off-hook and receives dial-tone.




## MGCP Adapter Measurements

Table 6-5 lists measurements for the MGCP Adapter.

**Table 6-5**      *MGCP Adapter Measurements*

Measurement	Description (* = rapid count could mean a potential problem in the system)
MGCP_DECODE_ERROR	The number of MGCP messages received that failed decoding on the reporting call agent
MGCP_ENCODE_ERROR	The number of MGCP messages to be sent that failed encoding on the reporting call agent
MGCP_UNREACHABLE	The number of MGCP messages sent from the reporting call agent that failed due to the target gateway being unreachable
MGCP_SEND_FAILED	The number of MGCP messages sent from the reporting call agent that failed while being sent to the target gateway
MGCP_CRCX_ACK_RX	The number of MGCP CRCX acknowledgement messages received by the reporting call agent
MGCP_CRCX_NACK_RX	The number of MGCP CRCX non-acknowledgement messages received by the reporting call agent
MGCP_CRCX_TX	The number of MGCP CRCX messages sent by the reporting call agent
MGCP_MDCX_ACK_RX	The number of MGCP MDCX acknowledgement messages received by the reporting call agent
MGCP_MDCX_NACK_RX	The number of MGCP MDCX non-acknowledgement messages received by the reporting call agent
MGCP_MDCX_TX	The number of MGCP MDCX messages sent by the reporting call agent
MGCP_DLCX_RX	The number of MGCP DLCX messages received from gateways by the reporting call agent
MGCP_DLCX_TX	The number of MGCP DLCX messages sent by the reporting call agent
MGCP_DLCX_ACK_RX	The number of MGCP DLCX acknowledgement messages received by the reporting call agent
MGCP_DLCX_NACK_RX	The number of MGCP DLCX non-acknowledgement messages received by the reporting call agent
MGCP_RQNT_ACK_RX	The number of MGCP RQNT acknowledgement messages received by the reporting call agent
MGCP_RQNT_NACK_RX	The number of MGCP RQNT non-acknowledgement messages received by the reporting call agent
MGCP_RQNT_TX	The number of MGCP RQNT messages sent by the reporting call agent
MGCP_AUEP_ACK_RX	The number of MGCP AUEP acknowledgement messages received by the reporting call agent
MGCP_AUEP_NACK_RX	The number of MGCP AUEP non-acknowledgement messages received by the reporting call agent
MGCP_AUEP_TX	The number of MGCP AUEP messages sent by the reporting call agent
MGCP_NTIFY_RX	The number of MGCP NOTIFY messages received from gateways by the reporting call agent

**Table 6-5** *MGCP Adapter Measurements (continued)*

Measurement	Description (* = rapid count could mean a potential problem in the system)
MGCP_RSIP_RX	The number of MGCP RSIP messages received from gateways by the reporting call agent
MGCP_RSIP_ACK_TX	The number of MGCP RSIP acknowledgement messages sent by the reporting call agent
MGCP_AUCX_TX	The number of AUCX (Audit Connection) messages that were sent by the reporting call agent.
	 <b>Note</b> This counter is enabled in a future release.
MGCP_AUCX_ACK_RX	The number of AUCX ACK (Audit Connection Acknowledgement) messages that were received by the reporting call agent.
	 <b>Note</b> This counter is enabled in a future release.
MGCP_AUCX_NACK_RX	The number of AUCX NACK (Audit Connection NotAcknowledgement) messages that were received by the reporting call agent.
	 <b>Note</b> This counter is enabled in a future release.

## Session Initiation Protocol Measurements

Table 6-6 lists measurements for the Session Initiation Protocol (SIP). These counters are common to several reporting types including: SIM, AIN-SVC, POTS-MISC, and SIA.

**Table 6-6** *Session Initiation Protocol (SIP) Measurements*

Measurement	Description (* = rapid count could mean a potential problem in the system)
SIS_TOTAL_INCOM_MSG	The number of SIP messages the reporting call agent or feature server attempted to receive
SIS_TOTAL_SUCC_INCOM_MSG	The number of SIP messages the reporting call agent or feature server successfully received
SIS_TOTAL_OUTG_MSG_ATTMP	The number of SIP messages the reporting call agent or feature server attempted to send
SIS_TOTAL_SUCC_OUTG_MSG	The number of SIP messages the reporting call agent or feature server successfully sent
SIS_REQ_RETRAN_RX	The number of SIP request retransmission messages the reporting call agent or feature server received
SIS_REQ_RETRAN_TX	The number of SIP request retransmission messages the reporting call agent or feature server sent
SIS_RSP_RETRAN_RX	The number of SIP response retransmission messages the reporting call agent or feature server received

**Table 6-6** Session Initiation Protocol (SIP) Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
SIS_RSP_RETRAN_TX	The number of SIP response retransmission messages the reporting call agent or feature server sent
SIS_T1_TIMER_EXPIRED	The number of SIP T1 Timer expirations that occurred on the reporting call agent or feature server received over the collection interval
SIS_T2_TIMER_REACHED	The number of SIP T2 Timer expirations that occurred on the reporting call agent or feature server received over the collection interval
SIS_INVITE_RX	The number of SIP INVITE messages the reporting call agent or feature server received
SIS_INVITE_TX	The number of SIP INVITE messages the reporting call agent or feature server sent
SIS_CANCEL_RX	The number of SIP CANCEL messages the reporting call agent or feature server received
SIS_CANCEL_TX	The number of SIP CANCEL messages the reporting call agent or feature server sent
SIS_BYE_RX	The number of SIP BYE messages the reporting call agent or feature server received
SIS_BYE_TX	The number of SIP BYE messages the reporting call agent or feature server sent
SIS_ACK_RX	The number of SIP ACK messages the reporting call agent or feature server received
SIS_ACK_TX	The number of SIP ACK messages the reporting call agent or feature server sent
SIS_OPTIONS_RX	The number of SIP OPTIONS messages the reporting call agent or feature server received
SIS_OPTIONS_TX	The number of SIP OPTIONS messages the reporting call agent or feature server sent
SIS_REGISTER_RX	The number of SIP REGISTER messages the reporting call agent or feature server received
SIS_REGISTER_TX	The number of SIP REGISTER messages the reporting call agent or feature server sent
SIS_INFO_RX	The number of SIP INFO messages the reporting call agent or feature server received
SIS_INFO_TX	The number of SIP INFO messages the reporting call agent or feature server sent
SIS_NOTIFY_RX	The number of SIP NOTIFY messages the reporting call agent or feature server received
SIS_NOTIFY_TX	The number of SIP NOTIFY messages the reporting call agent or feature server sent
SIS_100_RX	The number of 100 class (TRYING) messages the reporting call agent or feature server received
SIS_100_TX	The number of 100 class (TRYING) messages the reporting call agent or feature server sent
SIS_18x_RX	The number of 18x class (INFORMATIONAL) messages the reporting call agent or feature server received
SIS_18x_TX	The number of 18x class (INFORMATIONAL) messages the reporting call agent or feature server sent

**Table 6-6** Session Initiation Protocol (SIP) Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
SIS_200_RX	The number of 200 class (SUCCESS) messages the reporting call agent or feature server received
SIS_200_TX	The number of 200 class (SUCCESS) messages the reporting call agent or feature server sent
SIS_3xx_RX	The number of 3xx class (REDIRECTION) messages the reporting call agent or feature server received
SIS_3xx_TX	The number of 3xx class (REDIRECTION) messages the reporting call agent or feature server sent
SIS_4xx_RX	The number of 4xx class (REQUEST FAILURES) messages the reporting call agent or feature server received
SIS_4xx_TX	The number of 4xx class (REQUEST FAILURES) messages the reporting call agent or feature server sent
SIS_5xx_RX	The number of 5xx class (SERVER FAILURES) messages the reporting call agent or feature server received
SIS_5xx_TX	The number of 5xx class (SERVER FAILURES) messages the reporting call agent or feature server sent
SIS_6xx_RX	The number of 6xx class (GLOBAL FAILURES) messages the reporting call agent or feature server received
SIS_6xx_TX	The number of 6xx class (GLOBAL FAILURES) messages the reporting call agent or feature server sent
SIS_7xx_RX	The number of 7xx class (RESERVED) messages the reporting call agent or feature server received
SIS_7xx_TX	The number of 7xx class (RESERVED) messages the reporting call agent or feature server sent
SIS_PROV_RSP_RETRAN_RX	The number of SIP provisioning response retransmission messages the reporting call agent or feature server received
SIS_PROV_RSP_RETRAN_TX	The number of SIP provisioning response retransmission messages the reporting call agent or feature server sent
SIS_PRACK_RX	The number of SIP PRACK messages the reporting call agent or feature server received
SIS_PRACK_TX	The number of SIP PRACK messages the reporting call agent or feature server sent
SIS_SUBSCRIBE_RX	The number of SIP SUBSCRIBE messages the reporting call agent or feature server received
SIS_SUBSCRIBE_TX	The number of SIP SUBSCRIBE messages the reporting call agent or feature server sent
SIS_REFERER_RX	The number of SIP REFER messages the reporting call agent or feature server received
SIS_REFERER_TX	The number of SIP REFER messages the reporting call agent or feature server sent
SIS_REFERER_W_REPLACES_RX	The number of SIP REFER with REPLACES messages the reporting call agent or feature server received

**Table 6-6** Session Initiation Protocol (SIP) Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
SIS_INVITE_REPLACES_TX	The number of SIP INVITE REPLACES messages the reporting call agent or feature server sent
SIS_INVITE_REPLACES_RX	The number of SIP INVITE REPLACES messages the reporting call agent or feature server received
SIS_REL100_RX	The number of REL100 class (TRYING) messages the reporting call agent or feature server received
SIS_REL100_TX	The number of REL100 class (TRYING) messages the reporting call agent or feature server sent
SIS_UNSUPPORTED_RX	The number of unsupported SIP messages the reporting call agent or feature server received
SIS_UPDATE_RX	The number of SIP UPDATE messages the reporting call agent or feature server received
SIS_UPDATE_TX	The number of SIP UPDATE messages the reporting call agent or feature server sent

## Service Interaction Manager Measurements

Table 6-7 lists measurements for the Service Interaction Manager Measurements (SIM).

**Table 6-7** Service Interaction Manager Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
SIM_BCM_MSG	The number of messages received by call processing from a feature server in the reporting call agent
SIM_RELATIONS	The number of TDP-Rs received from call processing by SIM in the reporting call agent
SIM_TDP_N	The number of Trigger Detection Point messages received from call processing in the reporting call agent that do not require a response from the target feature server
SIM_TDP_R	The number of Trigger Detection Point messages received from call processing in the reporting call agent that do require a response from the target feature server
SIM_EDP_N	The number of Event Detection Point messages received from call processing in the reporting call agent that do not require a response from the target feature server
SIM_EDP_R	The number of Event Detection Point messages received from call processing in the reporting call agent that do require a response from the target feature server
SIM_INSTRUCT	The number of INSTRUCT messages sent to feature servers by the reporting call agent
SIM_INSTRUCT_RSP	The number of INSTRUCT messages received from feature servers by the reporting call agent
SIM_TERMINATE_RX	The number of TERMINATE messages received from feature servers by the reporting call agent

**Table 6-7** Service Interaction Manager Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
SIM_TERMINATE_TX	The number of TERMINATE messages sent to feature servers by the reporting call agent
SIM_FS_MSG_TX	The number of FCP messages sent to feature servers by the reporting call agent
SIM_FS_MSG_RX	The number of FCP messages received from feature servers by the reporting call agent
SIM_FS_PING_MSG_TX	The number of PING messages sent to feature servers by the reporting call agent
SIM_FS_PING_NO_RSP_FAULTY	The number of times no response was received from the target feature server when sent a PING message by the reporting call agent
SIM_FS_RESTART_MSG_TX	The number of RESTART messages sent to feature servers by the reporting call agent
SIM_FS_ASYNC_MSG_TX	The number of ASYNC messages sent to feature servers by the reporting call agent
SIM_AUDIT_CCB_FREED	The total number of SIM relationships terminated with SSF due to the SIM memory audit on the reporting call agent
SIM_AUDIT_SIP_CCB_FREED	The total number of SIM to SIP relationships released with the feature server do to the SIM memory audit on the reporting call agent

## POTS Local Feature Server Measurements

Table 6-8 lists local POTS measurements.

**Table 6-8** Local POTS Local Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
POTS_CFU_ACT_ATTMP	The number of Call Forward Unconditional activation attempts on the reporting feature server
POTS_CFU_DEACT_ATTMP	The number of Call Forward Unconditional deactivation attempts on the reporting feature server
POTS_CFU_ACT_REFUSED	The number of Call Forward Unconditional activation attempts refused on the reporting feature server
POTS_CFU_ACT_ANSWERED	The number of Call Forward Unconditional activation attempts answered by the called party on the reporting feature server
POTS_CFU_ACT_SECOND	The number of Call Forward Unconditional second activation attempts on the reporting feature server
POTS_CFU_FORWARD_FAIL	The number of Call Forward Unconditional service instances that failed on the reporting feature server
POTS_CFU_FORWARD_SUCC	The number of Call Forward Unconditional service instances that succeeded on the reporting feature server
POTS_CFB_ACT_ATTMP	The number of Call Forward Busy activation attempts on the reporting feature server
POTS_CFB_DEACT_ATTMP	The number of Call Forward Busy deactivation attempts on the reporting feature server
POTS_CFB_ACT_REFUSED	The number of Call Forward Busy activation attempts refused on the reporting feature server



**Table 6-8**      **Local POTS Local Measurements (continued)**

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
POTS_CFB_FORWARD_FAIL	The number of Call Forward Busy service instances that failed on the reporting feature server
POTS_CFB_FORWARD_SUCC	The number of Call Forward Busy service instances that succeeded on the reporting feature server
POTS_CFNA_ACT_ATTMP	The number of Call Forward No Answer activation attempts on the reporting feature server
POTS_CFNA_DEACT_ATTMP	The number of Call Forward No Answer deactivation attempts on the reporting feature server
POTS_CFNA_ACT_REFUSED	The number of Call Forward No Answer activation attempts refused on the reporting feature server
POTS_CFNA_FORWARD_FAIL	The number of Call Forward No Answer service instances that failed on the reporting feature server
POTS_CFNA_FORWARD_SUCC	The number of Call Forward No Answer service instances that succeeded on the reporting feature server
POTS_CFC_ACT_SUCC	The number of successful Call Forward Combination activation attempts on the reporting feature server
POTS_CFC_ACT_FAIL	The number of unsuccessful Call Forward Combination activation attempts on the reporting feature server
POTS_CFC_ACT_ATTMP	The number of total Call Forward Combination activation attempts on the reporting feature server
POTS_CFC_DN_CHG_ACT_SUCC	The number of successful Call Forward Combination directory number change activation attempts on the reporting feature server
POTS_CFC_DN_CHG_ACT_FAIL	The number of unsuccessful Call Forward Combination directory number change activation attempts on the reporting feature server
POTS_CFC_DN_CHG_ACT_ATTMP	The number of total Call Forward Combination directory number change activation attempts on the reporting feature server
POTS_CFC_DEACT_SUCC	The number of successful Call Forward Combination deactivation attempts on the reporting feature server
POTS_CFC_DEACT_FAIL	The number of unsuccessful Call Forward Combination deactivation attempts on the reporting feature server
POTS_CFC_DEACT_ATTMP	The number of total Call Forward Combination deactivation attempts on the reporting feature server
POTS_CFC_INTERROG_SUCC	The number of successful Call Forward Combination interrogation attempts on the reporting feature server
POTS_CFC_INTERROG_FAIL	The number of unsuccessful Call Forward Combination interrogation attempts on the reporting feature server
POTS_CFC_INTERROG_ATTMP	The number of total Call Forward Combination interrogation attempts on the reporting feature server
POTS_CFC_FORWARD_SUCC	The number of successful Call Forward Combination forwarding attempts on the reporting feature server

**Table 6-8**      **Local POTS Local Measurements (continued)**

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
POTS_CFC_FORWARD_FAIL	The number of unsuccessful Call Forward Combination forwarding attempts on the reporting feature server
POTS_CFC_FORWARD_ATTMP	The number of total Call Forward Combination forwarding attempts on the reporting feature server
POTS_NSA_INVOKE_SUCC	The number of No Solicitation Announcement successful invocations detected on the reporting feature server
POTS_NSA_INVOKE_FAIL	The number of No Solicitation Announcement unsuccessful invocations detected on the reporting feature server
POTS_NSA_INVOKE_ABANDON	The number of No Solicitation Announcement invocations detected on the reporting feature server that were abandoned after the NSA announcement started but before the terminating endpoint began ringing
POTS_CW_ATTMP	The number of Call Waiting service instance attempts on the reporting feature server
POTS_CW_ANSWERED	The number of Call Waiting service instance attempts answered by the called party on the reporting feature server
POTS_CW_NOT_ANSWERED	The number of Call Waiting service instance attempts not answered by the called party on the reporting feature server
POTS_CW_REJECT_NO_RSRC	The number of Call Waiting service instance attempts that were rejected due to a lack of available resources on the reporting feature server
POTS_CW_REJECT_INTERACT	The number of Call Waiting service instance attempts that were rejected due to feature interactions on the reporting feature server
POTS_CCW_ATTMP	The number of Cancel Call Waiting attempts on the reporting feature server
POTS_CCW_REJECT_NO_RSRC	The number of Cancel Call Waiting attempts that were rejected due to a lack of available resources on the reporting feature server
POTS_CCW_REJECT_BY_CCW	The number of Cancel Call Waiting attempts that were rejected due to Call Waiting not already being active on the reporting feature server
POTS_CCW_LENGTH	The total time in subscriber-seconds that Cancel Call WAITING was active on the reporting feature server
POTS_CHD_ATTMP	The number of Call Hold service instance attempts on the reporting feature server
POTS_CHD_ANSWER	The number of Call Hold service instance attempts resulting in reconnection on the reporting feature server
POTS_CHD_NOT_ANSWER	The number of Call Hold service instance attempts that were not reconnected on the reporting feature server
POTS_CHD_REJECT_NO_RSRC	The number of Call Hold service instance attempts that were rejected due to a lack of available resources on the reporting feature server
POTS_CHD_REJECT_INTERACT	The number of Call Hold service instance attempts that were rejected due to feature interactions on the reporting feature server
POTS_MDC_ATTMP	The number of Mid Call Trigger attempts made by subscribers on the reporting feature server
POTS_MDC_REJECT_NO_RSRC	The number of Mid Call Trigger attempts made by subscribers that were rejected due to a lack of available resources on the reporting feature server

**Table 6-8** Local POTS Local Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
POTS_MDC_REJECT_INTERACT	The number of Mid Call Trigger attempts made by subscribers that were rejected due to feature interactions on the reporting feature server
POTS_MDC_REJECT_OTHERS	The number of Mid Call Trigger attempts made by subscribers that were rejected due to unknown reasons on the reporting feature server
POTS_CT_ATTMP	The number of Call Transfer service instance attempts on the reporting feature server
POTS_CT_ANSWER	The number of Call Transfer service instance attempts answered by the called party on the reporting feature server
POTS_CT_TRANSFER	The number of Call Transfer service instance attempts resulting in a successfully transferred call on the reporting feature server
POTS_CT_CONF	The number of Call Transfer service instance attempts resulting in a successfully setup conference call on the reporting feature server
POTS_CT_FAIL	The number of Call Transfer service instance attempts that failed on the reporting feature server
POTS_TWC_ATTMP	The number of Three Way Call service instance attempts on the reporting feature server
POTS_TWC_ANSWERED	The number of Three Way Call service instance attempts answered by the called party on the reporting feature server
POTS_TWC_CONF	The number of Three Way Call service instance attempts resulting in a successfully setup conference call on the reporting feature server
POTS_TWC_FAIL	The number of Three Way Call service instance attempts that failed on the reporting feature server
POTS_DRCW_ATTMP	The number of Distinctive Ring Call Waiting service instance attempts on the reporting feature server
POTS_DRCW_REJECT_NO_RSRC	The number of Distinctive Ring Call Waiting attempts that were rejected due to a lack of available resources on the reporting feature server
POTS_DRCW_SUCC	The number of Distinctive Ring Call Waiting attempts that were successful on the reporting feature server
POTS_RACF_ATTMP	The number of Remote Activation Call Forward attempts on the reporting feature server
POTS_RACF_REFUSE	The number of Remote Activation Call Forward service instances refused by the reporting feature server
POTS_RACF_REJECT_NO_RSRC	The number of Remote Activation Call Forward service instances refused due to a lack of available resources on the reporting feature server
POTS_RACF_CFU_ACT	The number of Remote Activation Call Forward activation attempts that were successful on the reporting feature server
POTS_RACF_CFU_DEACT	The number of Remote Activation Call Forward deactivation attempts that were successful on the reporting feature server
POTS_RACF_CFU_UNCHANGED	The number of Remote Activation Call Forward service instances that were successful but resulted in no change to the forwarding-to number on the reporting feature server
POTS_RACF_PIN_ATTMP	The number of Remote Activation Call Forward PIN input attempts on the reporting feature server
POTS_RACF_PIN_REFUSE	The number of Remote Activation Call Forward PIN input attempts that were refused on the reporting feature server

**Table 6-8**      **Local POTS Local Measurements (continued)**

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
POTS_RACF_PIN_REJECT_NO_RSRC	The number of Remote Activation Call Forward PIN input attempts that were refused due to a lack of resources on the reporting feature server
POTS_RACF_PIN_CHANGE	The number of Remote Activation Call Forward PIN input attempts that resulted in a change to the previous PIN for that subscriber on the reporting feature server
POTS_RACF_PIN_UNCHANGE	The number of Remote Activation Call Forward PIN input attempts that resulted in no change to the previous PIN for that subscriber on the reporting feature server
POTS_CPRK_SUCC_ATTMP	The number of Call Park Attempts that were successful during the collection interval
POTS_CPRK_FAIL_ATTMP	The number of Call Park Attempts that failed during the collection interval
POTS_CPRK_SUCC_RET_ATTMP	The number of Call Park Retrieval Attempts that were successful during the collection interval
POTS_CPRK_FAIL_RET_ATTMP	The number of Call Park Retrieval Attempts that failed during the collection interval
POTS_CPRK_FORWARD	The number of Call Park Attempts to forward a call during the collection interval
POTS_CPRK_CLEAR	The number of Call Park Attempts to clear during the collection interval
POTS_SC_1_DIGIT_ATTMP	The number of Speed Call 1 digit attempts during the collection interval
POTS_SC_2_DIGIT_ATTMP	The number of Speed Call 2 digit attempts during the collection interval
POTS_SC_SUCC_CCSC	The number of CCSC successful attempts during the collection interval
POTS_DND_ACT_SUCC	The number of Do Not Disturb activation attempts during the collection interval
POTS_DND_ACT_FAIL	The number of Do Not Disturb deactivation attempts during the collection interval
POTS_DND_DEACT_SUCC	The number of Do Not Disturb activation attempts that failed due to a lack of resources during the collection interval
POTS_DND_DEACT_FAIL	The number of Do Not Disturb deactivation attempts during the collection interval
POTS_DND_REJECT	The number of Do Not Disturb activation attempts that were successful during the collection interval
POTS_RC_SUCC	The number of Return Call attempts that were successful during the collection interval
POTS_CWD_ATTMP	The number of Call Waiting Deluxe service instance attempts on the reporting feature server
POTS_CWD_ANSWER	The number of Call Waiting Deluxe service instance attempts answered by the called party on the reporting feature server
POTS_CWD_ACT_SUCC	The number of Call Waiting Deluxe successful service activation attempts on the reporting feature server
POTS_CWD_ACT_FAIL	The number of Call Waiting Deluxe unsuccessful service activation attempts on the reporting feature server
POTS_CWD_DEACT_SUCC	The number of Call Waiting Deluxe successful service deactivation attempts on the reporting feature server
POTS_CWD_DEACT_FAIL	The number of Call Waiting Deluxe unsuccessful service deactivation attempts on the reporting feature server
POTS_CWD_INTERROG_SUCC	The number of Call Waiting Deluxe successful service interrogation attempts on the reporting feature server

**Table 6-8**      **Local POTS Local Measurements (continued)**

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
POTS_CWD_INTERROG_FAIL	The number of Call Waiting Deluxe unsuccessful service interrogation attempts on the reporting feature server
POTS_TWCD_ATTMP	The number of Three Way Calling Deluxe service instance attempts on the reporting feature server. Incremented when a subscriber in a stable two-way call presses flash button followed by DN of a third party
POTS_TWCD_CONF	The number of Three Way Calling Deluxe service instance conferencing attempts on the reporting feature server. Incremented when a subscriber attempts to bridge all three parties (flash button followed by digit 3)
POTS_OCB_LOCAL_BLOCK	The number of local calls that were blocked on the reporting feature server via Outward Call Barring
POTS_OCB_NATL_BLOCK	The number of national calls that were blocked on the reporting feature server via Outward Call Barring
POTS_OCB_INTL_BLOCK	The number of international calls that were blocked on the reporting feature server via Outward Call Barring
POTS_OCB_INVOCATION	The number of Outward Call Barring invocation attempts on the reporting feature server
POTS_OCB_ACT_SUCC	The number of Outward Call Barring successful activation attempts on the reporting feature server
POTS_OCB_DEACT_SUCC	The number of Outward Call Barring successful deactivation attempts on the reporting feature server
POTS_OCB_INTERROG_SUCC	The number of Outward Call Barring successful interrogation attempts on the reporting feature server
POTS_OCB_INVALID_PASSWORD	The number of Outward Call Barring attempts that were unsuccessful due to invalid password entry by the user on the reporting feature server
POTS_CFU_INTERROG_ATTMP	The number of Call Forward Unconditional interrogation attempts on the reporting feature server
POTS_CFB_INTERROG_ATTMP	The number of Call Forward Busy interrogation attempts on the reporting feature server
POTS_CFNA_INTERROG_ATTMP	The number of Call Forward No Answer interrogation attempts on the reporting feature server
POTS_CNDB_ATTMP	The number of Calling Number Delivery Blocking attempts made on the reporting feature server
POTS_CNAB_ATTMP	The number of Calling Name Delivery Blocking attempts made on the reporting feature server
POTS_CIDS_ATTMP	The number of Calling Identity Delivery attempts made on the reporting feature server
POTS_CIDSS_ATTMP	The number of Calling Identity Delivery Suppression attempts made on the reporting feature server
POTS_REFERER_ATTMP	The number of REFER attempts made on the reporting feature server
POTS_REFERER_FAIL	The number of REFER failed attempts made on the reporting feature server
POTS_REFERER_SUCC	The number of REFER successful attempts made on the reporting feature server
POTS_TOTAL_CNAM_QUERY	The number of CNAM translation queries attempted on the reporting feature server

**Table 6-8** *Local POTS Local Measurements (continued)*

Measurement	Description (* = rapid count could mean a potential problem in the system)
POTS_EXT_CNAM_QUERY	The number of CNAM translation queries that resulted in an external query to a network database attempted on the reporting feature server
POTS_EXT_CNAM_QUERY_SUCC	The number of CNAM translation queries that resulted in a successful external query to a network database attempted on the reporting feature server
POTS_EXT_CNAM_FAIL_APP	The number of CNAM translation queries that resulted in a failed external query to a network database due to an application failure from the reporting feature server
POTS_EXT_CNAM_FAIL_NETW	The number of CNAM translation queries that resulted in a failed external query to a network communication failure from the reporting feature server

## POTS Miscellaneous Feature Server Measurements

Table 6-9 lists the miscellaneous POTS measurements.

**Table 6-9** *Miscellaneous POTS Measurements*

Measurement	Description (* = rapid count could mean a potential problem in the system)
POTS_HOTLINE_ATTMP	The number of Hotline service instance attempts on the reporting feature server
POTS_WARMLINE_ATTMP	The number of Warmline service instance attempts on the reporting feature server
POTS_BLV_ATTMP	The number of Busy Line Verification service instance attempts on the reporting feature server
POTS_OP_INTERRUPT_ATTMP	The number of Operator Interrupt service instance attempts on the reporting feature server
POTS_CTX_SFG_OVERFLOW	The number of Centrex SFG counters that overflowed during the collection interval on the reporting feature server
POTS_HOTV_ATTMP	The number of successful Hotline Variable instance attempts on the reporting feature server
POTS_HOTV_ACT_SUCC	The number of successful Hotline Variable activation attempts on the reporting feature server
POTS_HOTV_DEACT_SUCC	The number of successful Hotline Variable deactivation attempts on the reporting feature server
POTS_HOTV_INTERROG_SUCC	The number of successful Hotline Variable interrogation attempts on the reporting feature server
POTS_PS_SUCC	The number of Privacy Screening Invocations detected on the reporting feature server. This is indicative of the external application server having answered the call and sent a 200 OK to the BTS.
POTS_PS_FAIL	The number of Privacy Screening Invocations failures detected on the reporting feature server. This is indicative of the external application server not answering the call or the trunk between the app server and the BTS is out of service.

**Table 6-9**      *Miscellaneous POTS Measurements (continued)*

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
POTS_PS_MANAGE_SUCC	The number of successful Managed Privacy Screening Activations/Deactivations detected on the reporting feature server. This is indicative of the external application server having answered the call and sent a 200 OK to the BTS for PS Manage feature invocations.
POTS_PS_MANAGE_FAIL	The number of unsuccessful Managed Privacy Screening Activations/Deactivations detected on the reporting feature server. This is indicative of the external application server not answering the call or the trunk between the app server and the BTS is out of service for PS Manage feature invocations.
POTS_VM_ACT_SUCC	The number of successful Voice Mail Redirect Activations detected on the reporting feature server
POTS_VM_ACT_FAIL	The number of unsuccessful Voice Mail Redirect Activations detected on the reporting feature server
POTS_VM_DEACT_SUCC	The number of successful Voice Mail Redirect Deactivations detected on the reporting feature server
POTS_VM_DEACT_FAIL	The number of unsuccessful Voice Mail Redirect Deactivations detected on the reporting feature server
POTS_VM_ACCESS	The number of Voice Mail Redirect Accesses detected on the reporting feature server
POTS_VM_ATTMP	The number of Voice Mail Redirect Invocations detected on the reporting feature server
POTS_LCD_AUTH_ATTMP	The number of authorization attempts made for Limited Call Duration feature invocations on the reporting feature server
POTS_LCD_AUTH_SUCC	The number of successful authorization attempts made for Limited Call Duration feature invocations on the reporting feature server
POTS_LCD_AUTH_FAIL	The number of unsuccessful authorization attempts made for Limited Call Duration feature invocations on the reporting feature server
POTS_LCD_REAUTH_FAIL	The number of unsuccessful re-authorization attempts made for Limited Call Duration feature invocations on the reporting feature server
POTS_LCD_FORCED_DISC	The number of forced call disconnections made for Limited Call Duration calls on the reporting feature server

## POTS Class of Service Feature Server Measurements

Table 6-10 lists the POTS class of service (COS) measurements.

**Table 6-10** POTS Class of Service Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
POTS_COS_ANI_ATTMP_SUCC	The number of Automatic Number Identification directory number lookups that were successfully attempted on the reporting feature server.  An ANI attempt is successful when the ANI DN is available on the reporting FS, and ANI status is allowed as per provisioning. In the case of casual calls, ALL ANI attempts are successful if the Casual Code is valid and allowed on reporting feature server.
POTS_COS_ANI_BLOCKED_CALL	The number of calls that were blocked based on Automatic Number Identification directory number lookups on the reporting feature server. In the case of Casual calls, ANI does also get blocked if Casual Codes are invalid.
POTS_COS_NANP_BLOCKED_BW	The number of NANP based calls that were blocked due to a match on a black list or an exclusion from a white list on the reporting feature server
POTS_COS_INTL_BLOCKED_BW	The number of International based calls that were blocked due to a match on a black list or an exclusion from a white list on the reporting feature server
POTS_COS_900_BLOCKED	The number of calls denied due to subscriber based 900 restrictions on the reporting feature server
POTS_COS_976_BLOCKED	The number of calls denied due to subscriber based 976 restrictions on the reporting feature server
POTS_COS_NANP_RESTRICT	The number of calls denied due to subscriber based NANP restrictions on the reporting feature server
POTS_COS_INTL_RESTRICT	Not currently used.
POTS_COS_CASUAL_RESTRICT	The number of calls denied due to subscriber based casual dialing restrictions on the reporting feature server
POTS_COS_DA_BLOCKED	The number of calls denied due to subscriber based directory assistance restrictions on the reporting feature server
POTS_COS_NANP_OP_BLOCKED	The number of calls denied due to subscriber based NANP operator restrictions on the reporting feature server
POTS_COS_INTL_OP_BLOCKED	The number of calls denied due to subscriber based international operator restrictions on the reporting feature server
POTS_COS_AUTH_CODE_SUCC	The number of successful authentication code validations on the reporting feature server
POTS_COS_AUTH_CODE_FAIL	The number of unsuccessful authentication code validations on the reporting feature server
POTS_COS_ACCT_CODE_SUCC	The number of successful account code validations on the reporting feature server. Account codes do not get validated - any dialed account code entered by the user is considered valid - including an empty account code.
POTS_COS_ACCT_CODE_FAIL	Not currently used.



**Table 6-10** POTS Class of Service Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
POTS_COS_TOLLFREE_BLOCKED	The number of calls that were screened based on class of service restrictions on making toll free calls.
POTS_TDISC_CALLS_OUTG_BLOCKED	The number of calls blocked because the subscriber is temporarily disconnected. This applies to POTS, Centrex, MLHG, and PBX based subscribers.
POTS_COS_TOT_AUTH_IVR_SESSION	The total number of Class of Service Authorization Code IVR sessions established on the reporting feature server
POTS_COS_TOT_ACCT_IVR_SESSION	The total number of Class of Service Account Code IVR sessions established on the reporting feature server
POTS_COS_TOT_IVR_FAIL	The total number of Class of Service IVR sessions that failed to established due to an IVR related failure on the reporting feature server

## POTS Screen List Editing Feature Server Measurements

Table 6-11 lists the POTS screen list editing (SLE) measurements.

**Table 6-11** POTS Screen List Editing Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
POTS_SCR_ATTMP	The number of Selective Call Rejection service instance attempts on the reporting feature server
POTS_SCA_ATTMP	The number of Selective Call Acceptance service instance attempts on the reporting feature server
POTS_SCR_REJECT_NO_RSRC	The number of Selective Call Rejection attempts made by subscribers that were rejected due to a lack of available resources on the reporting feature server
POTS_SCA_REJECT_NO_RSRC	The number of Selective Call Acceptance attempts made by subscribers that were rejected due to a lack of available resources on the reporting feature server
POTS_SCR_SUCC	The number of Selective Call Rejection service instance attempts resulting in successful rejections of the call on the reporting feature server
POTS_SCA_SUCC	The number of Selective Call Acceptance service instance attempts resulting in successful acceptance of the call on the reporting feature server
POTS_SCF_ATTMP	The number of Selective Call Forwarding service instance attempts on the reporting feature server
POTS_SCF_REJECT_NO_RSRC	The number of Selective Call Forwarding attempts that were rejected due to a lack of available resources on the reporting feature server
POTS_SCF_SUCC	The number of Selective Call Forwarding attempts that were successful on the reporting feature server

## POTS Customer Originated Trace Feature Server Measurements

Table 6-12 lists the POTS customer originated trace (COT) measurements.

**Table 6-12** POTS Customer Originated Trace Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
POTS_COT_ACCESS	The number of times the Caller Originated Trace star code was dialed by the subscriber (feature accesses and activations)
POTS_COT_DENY	The number of times the Caller Originated Trace data was unsuccessfully accessed on the reporting feature server
POTS_COT_ACT	Same as POTS_COT_ACCESS in this release. When 2-level COT (the digit “1” dialed) is available - this counter would include both those and the current 1-level activations tracked in POTS_COT_ACCESS.
POTS_COT_ABAND	The number of Caller Originated Trace service activation abandonments that occurred on the reporting feature server
POTS_COT_DN_UNAVAIL	The number of Caller Originated Trace service activation that failed due to the calling party directory number not be available on the reporting feature server
POTS_COT_TRACE_CONFIRM	The number of Caller Originated Trace service instances that were successfully completed on the reporting feature server
POTS_COT_TRACE_OUTPUT	The number of Caller Originated Trace service instances that were successfully completed and the data was stored persistently on the reporting feature server

## POTS Automatic Callback, Recall, and Call Return Feature Server Measurements

Table 6-13 lists the POTS automatic callback, recall, and call return (ACAR) measurements.

**Table 6-13** POTS Automatic Callback, Recall, and Call Return Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
POTS_AC_ACT_ATTMP	The number of Automatic Callback service activation attempts on the reporting feature server
POTS_AC_OVERFLOW	The number of Automatic Callback service activation attempts resulting in an overflow on the reporting feature server
POTS_AC_IMMEDIATE_PROC	The number of Automatic Callback service activation attempts that resulted in immediate connection on the reporting feature server
POTS_AC_DELAYED_PROC	The number of Automatic Callback service activation attempts that resulted in delayed connection on the reporting feature server

**Table 6-13** POTS Automatic Callback, Recall, and Call Return Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
POTS_AC_DEACT_BY_SYSTEM	The number of Automatic Callback service activation attempts that were deactivated by the system on the reporting feature server
POTS_AC_DEACT_ATTMP	The number of Automatic Callback service activation attempts that were deactivated by the requesting subscriber on the reporting feature server
POTS_AC_INTERLATA_ATTMP	The number of Automatic Callback service activation attempts performed on an interlata basis on the reporting feature server
POTS_AR_ACT_ATTMP	The number of Automatic Recall service activation attempts on the reporting feature server
POTS_AR_OVERFLOW	The number of Automatic Recall service activation attempts resulting in an overflow on the reporting feature server
POTS_AR_IMMEDIATE_PROC	The number of Automatic Recall service activation attempts that resulted in immediate connection on the reporting feature server
POTS_AR_DELAYED_PROC	The number of Automatic Recall service activation attempts that resulted in delayed connection on the reporting feature server
POTS_AR_DEACT_BY_SYSTEM	The number of Automatic Recall service activation attempts that were deactivated by the system on the reporting feature server
POTS_AR_DEACT_ATTMP	The number of Automatic Recall service activation attempts that were deactivated by the requesting subscriber on the reporting feature server
POTS_AR_INTERLATA_ATTMP	The number of Automatic Recall service activation attempts performed on an interlata basis on the reporting feature server
POTS_ACART_QUEUED_REQ	The number of Automatic Callback and Automatic Recall service requests that were queued on the reporting feature server
POTS_ACART_TERM_SCAN_REQ	The number of Automatic Callback and Automatic Recall service requests that were queued for terminators on the reporting feature server
POTS_ACART_ORIG_SCAN_REQ	The number of Automatic Callback and Automatic Recall service requests that were queued for originators on the reporting feature server
POTS_ACART_REJECT_NO_RSRC	The number of Automatic Callback and Automatic Recall service requests that were rejected due to a lack of resources on the reporting feature server
POTS_ACR_ACT_ATTMP	The number of Anonymous Call Rejection activation attempts during the collection interval
POTS_AR_2LEVEL_ACC_CODE_ATT MP	The number of Automatic Callback service activation attempts on the reporting feature server
POTS_AR_2LEVEL_ACT_CODE_ATT MP	The number of times the activation code (*69) is dialed for the two level Automatic Recall activation procedure on the reporting feature server
POTS_ACR_DEACT_ATTMP	The number of Anonymous Call Rejection deactivation attempts during the collection interval
POTS_ACR_ACT_REJECT_NO_RSRC	The number of Anonymous Call Rejection activation attempts that failed due to a lack of resources during the collection interval


**Table 6-13** POTS Automatic Callback, Recall, and Call Return Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
POTS_ACR_DEACT_REJECT_NO_RSRC	The number of Anonymous Call Rejection deactivation attempts during the collection interval
POTS_ACR_SUCC	The number of Anonymous Call Rejection attempts that were successful during the collection interval

## POTS Limited Call Duration (Prepaid/Postpaid) with RADIUS Interface to AAA Measurements

Table 6-14 lists the POTS Limited Call Duration measurements.

**Table 6-14** POTS Limited Call Duration (Prepaid/Postpaid) with RADIUS Interface to AAA

Measurement	Description (* = rapid count could mean a potential problem in the system)
POTS_LCD_AUTH_ATTMP	The number of authorization attempts made for Limited Call Duration feature invocations on the reporting feature server.
	 <b>Note</b> For three-leg calls, each call is authorized separately.
POTS_LCD_AUTH_SUCC	The number of successful authorization attempts made for Limited Call Duration feature invocations on the reporting feature server.
POTS_LCD_AUTH_FAIL	The number of unsuccessful authorization attempts made for Limited Call Duration feature invocations on the reporting feature server.
POTS_LCD_REAUTH_FAIL	The number of unsuccessful reauthorization attempts made for Limited Call Duration feature invocations on the reporting feature server.
POTS_LCD_FORCED_DISC	The number of forced call disconnections made for Limited Call Duration calls on the reporting feature server.

**Table 6-15** POTS Call Forwarding Combination Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
POTS_CFC_ACT_SUCC	CFC Activation Successful
POTS_CFC_ACT_ATTMP	CFC Activation Attempt
POTS_CFC_ACT_FAIL	CFC Activation Failure
POTS_CFC_DN_CHG_ACT_SUCC	CFC DN change Activation Successful
POTS_CFC_DN_CHG_ACT_ATTMP	CFC DN Change Activation Attempt
POTS_CFC_DN_CHG_ACT_FAIL	CFC DN change Activation Failure

**Table 6-15** POTS Call Forwarding Combination Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
POTS_CFC_DEACT_SUCC:	CFC Deactivation Successful
POTS_CFC_DEACT_ATTMP	CFC Deactivation Attempt
POTS_CFC_DEACT_FAIL	CFC Deactivation Failure
POTS_CFC_INTERROG_SUCC	CFC Interrogation Success
POTS_CFC_INTERROG_ATTMP	CFC Interrogation Attempt
POTS_CFC_INTERROG_FAIL	CFC Interrogation Failure
POTS_CFC_FORWARD_SUCC	CFC Invocation Successful
POTS_CFC_FORWARD_FAIL	CFC Invocation Failure

## AIN Services Feature Server Measurements

Table 6-16 lists the AIN services (AIN SVC) measurements.

**Table 6-16** AIN Services Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
AIN SVC_TOTAL_QUERY	The total number of queries attempted on the reporting feature server.
AIN SVC_8XX_QUERY	The number of 8XX translation queries attempted on the reporting feature server.
AIN SVC_EXT_8XX_QUERY	The number of 8XX translation queries that resulted in an external query to a network database attempted on the reporting feature server.
AIN SVC_EXT_8XX_QUERY_SUCC	The number of 8XX translation queries that resulted in a successful external query to a network database attempted on the reporting feature server.
AIN SVC_EXT_8XX_FAIL_APP	The number of 8XX translation queries that resulted in a failed external query to a network database due to an application failure from the reporting feature server.
AIN SVC_EXT_8XX_FAIL_NETW	The number of 8XX translation queries that resulted in a failed external query to a network database due to a network communication failure from the reporting feature server.
AIN SVC_LOC_8XX_QUERY	The number of 8XX translation queries attempted to be processed locally on the reporting feature server.
AIN SVC_LOC_8XX_QUERY_SUCC	The number of 8XX translation queries successfully processed locally on the reporting feature server.
AIN SVC_LOC_8XX_ANI_BLOCK	The number of 8XX translation queries that were blocked due to ANI screening processed locally on the reporting feature server.
AIN SVC_LOC_8XX_II_BLOCK	The number of 8XX translation queries that were blocked due to II screening processed locally on the reporting feature server.

**Table 6-16** AIN Services Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
AINSVC_LOC_8XX_DNIS_SUCC	The number of 8XX DNIS translation queries successfully processed locally on the reporting feature server.
AINSVC_LOC_8XX_ROUTING_SUCC	The number of 8XX routing translation queries successfully processed locally on the reporting feature server.
AINSVC_LOC_8XX_REROUTE	The number of 8XX translation queries successfully processed locally on the reporting feature server that resulted in re-routing.
AINSVC_LOC_8XX_FAIL_APP	The number of 8XX translation queries that resulted in a failure due to an application error on the reporting feature server.
AINSVC_TOTAL_LNP_QUERY	The number of LNP translation queries attempted on the reporting feature server.
AINSCV_LOC_LNP_QUERY	Total number of times an attempt was made to look up a DN in local LNP database.
AINSCV_LOC_LNP_QUERY_SUCC	Total number of successful queries to the local LNP database.
AINSCV_LOC_LNP_FAIL_APP	Total number of failures in querying the local LNP database.
AINSCV_LOC_LNP_QUERY_RN_FOUND	Total number of successful queries to the local LNP database that returned an RN corresponding to the DN.
AINSVC_EXT_LNP_QUERY	The number of LNP translation queries that resulted in an external query to a network database attempted on the reporting feature server.
AINSVC_EXT_LNP_QUERY_SUCC	The number of LNP translation queries that resulted in a successful external query to a network database attempted on the reporting feature server.
AINSVC_EXT_LNP_FAIL_APP	The number of LNP translation queries that resulted in a failed external query to a network database due to an application failure from the reporting feature server.
AINSVC_EXT_LNP_FAIL_NETW	The number of LNP translation queries that resulted in a failed external query to a network database due to a network communication failure from the reporting feature server.
AINSVC_EXT_8XX_QUERY_FAIL	The number of 8XX queries that failed due to an SCP timeout when attempted by the reporting feature server.
AINSVC_EXT_LNP_QUERY_LRN	The number of LNP queries that resulted in a successful response from the SCP with an LRN when attempted by the reporting feature server.
AINSVC_EXT_LNP_QUERY_FAIL	The number of LNP queries that failed due to an SCP timeout when attempted by the reporting feature server.
AINSVC_LOC_LNP_QUERY	The total number of times an attempt was made to look up a DN in the local LNP database by the reporting feature server.
AINSVC_LOC_LNP_QUERY_SUCC	The total number of successful attempts to look up a DN in the local LNP database by the reporting feature server.
AINSVC_LOC_LNP_FAIL_APP	The total number of failed attempts to look up a DN in the local LNP database by the reporting feature server.

**Table 6-16** AIN Services Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
AINSVC_LOC_LNP_QUERY_RN_FOUND	The total number of successful attempts to look up a DN in the local LNP database by the reporting feature server that returned a corresponding RN.
AINSVC_LOC_LNP_QUERY_NO_RN	The total number of successful attempts to look up a DN in the local LNP database by the reporting feature server that did not return a corresponding RN.

## SCCP Protocol Measurements

Table 6-17 lists the SCCP protocol measurements.

**Table 6-17** SCCP Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
SCCP_NO_TRANS_ADDR_FAIL	The total number of routing errors due to no translation for address of such nature on the reporting feature server
SCCP_NO_TRANS_SPEC_ADDR_FAIL	The total number of routing errors due to no translation for this specific address on the reporting feature server
SCCP_NETWORK_FAIL	The total number of routing errors due to a network failure from the point code being unavailable on the reporting feature server
SCCP_NETWORK_CONGEST_FAIL	The total number of routing errors due to network congestion on the reporting feature server
SCCP_SUBSYS_FAIL	The total number of routing errors due to a subsystem failure on the reporting feature server
SCCP_SUBSYS_CONGEST_FAIL	The total number of routing errors due to subsystem congestion on the reporting feature server
SCCP_UNEQUIP_USER_FAIL	The total number of routing errors due to an unequipped user on the reporting feature server
SCCP_HOP_COUNTER_FAIL	The total number of routing errors due to a hop counter violation on the reporting feature server
SCCP_SYNTAX_ERR	The total number of syntax errors on the reporting feature server
SCCP_UNKNOWN_FAIL	The total number of routing errors due to an unknown reason on the reporting feature server
SCCP_TOTAL_UDATA_TX	The total number of unit data sent on the reporting feature server
SCCP_TOTAL_UDATA_SVC_TX	The total number of unit data service sent on the reporting feature server
SCCP_TOTAL_UDATA_RX	The total number of unit data received on the reporting feature server
SCCP_TOTAL_UDATA_SVC_RX	The total number of unit data service received on the reporting feature server
SCCP_TOTAL_EXT_UDATA_TX	The total number of extended unit data sent on the reporting feature server
SCCP_TOTAL_EXT_UDATA_SVC_TX	The total number of extended unit data service sent on the reporting feature server

Table 6-17 SCCP Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
SCCP_TOTAL_EXT_UDATA_RX	The total number of extended unit data received on the reporting feature server
SCCP_TOTAL_EXT_UDATA_SVC_RX	The total number of extended unit data service received on the reporting feature server
SCCP_TOTAL_LONG_UDATA_TX	The total number of long unit data sent on the reporting feature server
SCCP_TOTAL_LONG_UDATA_SVC_TX	The total number of long unit data service sent on the reporting feature server
SCCP_TOTAL_LONG_UDATA_RX	The total number of long unit data received on the reporting feature server
SCCP_TOTAL_LONG_UDATA_SVC_RX	The total number of long unit data service received on the reporting feature server
SCCP_TOTAL_MSG	The total number of messages handled on the reporting feature server
SCCP_TOTAL_LOCAL_MSG	The total number of messages intended for local subsystems on the reporting feature server
SCCP_TOTAL_GLOBAL_ADDR_TRAN	The total number of messages requiring global address translation on the reporting feature server
SCCP_TOTAL_CLASS_0_TX	The total number of class 0 messages sent on the reporting feature server
SCCP_TOTAL_CLASS_1_TX	The total number of class 1 messages sent on the reporting feature server
SCCP_TOTAL_CLASS_0_RX	The total number of class 0 messages received on the reporting feature server
SCCP_TOTAL_CLASS_1_RX	The total number of class 1 messages received on the reporting feature server
SCCP_SUBSYS_OOS_REQ_GRANT	The total number of subsystem out-of-service requests granted on the reporting feature server
SCCP_SUBSYS_OOS_REQ_DENY	The total number of subsystem out-of-service requests denied on the reporting feature server
SCCP_MSG_TX_BACKUP_SUBSYS	The total number of messages sent to a backup subsystem on the reporting feature server
SCCP_USAP_TOTAL_CLASS_0_TX	The total number of class 0 messages sent on the reporting feature server
SCCP_USAP_TOTAL_CLASS_1_TX	The total number of class 1 messages sent on the reporting feature server
SCCP_USAP_TOTAL_CLASS_0_RX	The total number of class 0 messages received on the reporting feature server
SCCP_USAP_TOTAL_CLASS_1_RX	The total number of class 1 messages received on the reporting feature server
SCCP_NSAP_ALLOW_MSG_RX	The total number of subsystem allowed messages received on the reporting feature server
SCCP_NSAP_OOS_GRANT_RX	The total number of subsystem out-of-service grant messages received on the reporting feature server
SCCP_NSAP_OOS_REQ_RX	The total number of subsystem out-of-service request messages received on the reporting feature server
SCCP_NSAP_PROHIBIT_RX	The total number of subsystem prohibited messages received on the reporting feature server
SCCP_NSAP_STAT_TEST_RX	The total number of subsystem status test messages received on the reporting feature server
SCCP_NSAP_CONGEST_RX	The total number of subsystem congested messages received on the reporting feature server



**Table 6-17**      *SCCP Measurements (continued)*

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
SCCP_NSAP_ALLOW_MSG_TX	The total number of subsystem allowed messages sent on the reporting feature server
SCCP_NSAP_OOS_GRANT_TX	The total number of subsystem out-of-service grant messages sent on the reporting feature server
SCCP_NSAP_OOS_REQ_TX	The total number of subsystem out-of-service request messages sent on the reporting feature server
SCCP_NSAP_PROHIBIT_TX	The total number of subsystem prohibited messages sent on the reporting feature server
SCCP_NSAP_STAT_TEST_TX	The total number of subsystem status test messages sent on the reporting feature server
SCCP_NSAP_CONGEST_TX	The total number of subsystem congested messages sent on the reporting feature server

## TCAP Protocol Measurements

Table 6-16 lists the TCAP protocol measurements.

**Table 6-18**      *TCAP Measurements*

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
TCAP_TOTAL_MSG_RX	The total number of messages received by the reporting feature server
TCAP_TOTAL_MSG_TX	The total number of messages sent by the reporting feature server
TCAP_TOTAL_UNI_MSG_RX	The total number of unidirectional messages received by the reporting feature server
TCAP_TOTAL_UNI_MSG_TX	The total number of unidirectional messages sent by the reporting feature server
TCAP_ABORT_MSG_RX	The total number of abort messages received on the reporting feature server
TCAP_ABORT_MSG_TX	The total number of abort messages sent by the reporting feature server
TCAP_BEGIN_MSG_RX	The total number of begin messages received on the reporting feature server
TCAP_BEGIN_MSG_TX	The total number of begin messages sent by the reporting feature server
TCAP_CONT_MSG_RX	The total number of continue messages received on the reporting feature server
TCAP_CONT_MSG_TX	The total number of continue messages sent by the reporting feature server
TCAP_END_MSG_RX	The total number of end messages received on the reporting feature server
TCAP_END_MSG_TX	The total number of end messages sent by the reporting feature server
TCAP_PERMISS_QUERY_RX	The total number of query with permission messages received on the reporting feature server
TCAP_PERMISS_QUERY_TX	The total number of query with permission messages sent by the reporting feature server

**Table 6-18**      **TCAP Measurements (continued)**

Measurement	Description (* = rapid count could mean a potential problem in the system)
TCAP_NO_PERMISS_QUERY_RX	The total number of query without permission messages received on the reporting feature server
TCAP_NO_PERMISS_QUERY_TX	The total number of query without permission messages sent by the reporting feature server
TCAP_PERMISS_CONVERS_RX	The total number of conversation with permission messages received on the reporting feature server
TCAP_PERMISS_CONVERS_TX	The total number of conversation with permission messages sent by the reporting feature server
TCAP_NO_PERMISS_CONVERS_RX	The total number of conversation without permission messages received on the reporting feature server
TCAP_NO_PERMISS_CONVERS_TX	The total number of conversation without permission messages sent by the reporting feature server
TCAP_RSP_RX	The total number of response messages received on the reporting feature server
TCAP_RSP_TX	The total number of response messages sent by the reporting feature server
TCAP_TOTAL_COMP_RX	The total number of components received on the reporting feature server
TCAP_TOTAL_COMP_TX	The total number of components sent by the reporting feature server
TCAP_INVOKE_COMP_RX	The total number of invoke components received on the reporting feature server
TCAP_INVOKE_COMP_TX	The total number of invoke components sent by the reporting feature server
TCAP_RETURN_RESULT_COMP_RX	The total number of return-result components received on the reporting feature server
TCAP_RETURN_RESULT_COMP_TX	The total number of return-result components sent by the reporting feature server
TCAP_RETURN_ERR_COMP_RX	The total number of return-error components received on the reporting feature server
TCAP_RETURN_ERR_COMP_TX	The total number of return-error components sent by the reporting feature server
TCAP_REJECT_COMP_RX	The total number of reject components received on the reporting feature server
TCAP_REJECT_COMP_TX	The total number of reject components sent by the reporting feature server
TCAP_ACT_TRANSACTIONS	The total number of active transactions on the reporting feature server
TCAP_ACT_INVOCATIONS	The total number of active invocations on the reporting feature server
TCAP_TRANSACTION_IDS_INUSE	The total number of transaction ids in use on the reporting feature server
TCAP_TOTAL_DROPPED_MSG_RX	The total number of received messages dropped on the reporting feature server
TCAP_UNRECOG_MSG_TYPE_RX	The total number of unrecognized messages types received on the reporting feature server
TCAP_UNRECOG_MSG_TYPE_TX	The total number of unrecognized messages types sent by the reporting feature server
TCAP_INCORRECT_TRANS_PORT_RX	The total number of incorrect transaction portions received on the reporting feature server
TCAP_INCORRECT_TRANS_PORT_TX	The total number of incorrect transaction portions sent by the reporting feature server

**Table 6-18**      **TCAP Measurements (continued)**

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
TCAP_BAD_STRUCT_TRANS_PORT_RX	The total number of badly structured transaction portions received on the reporting feature server
TCAP_BAD_STRUCT_TRANS_PORT_TX	The total number of badly structured transaction portions sent by the reporting feature server
TCAP_UNRECOG_TRANS_ID_RX	The total number of unrecognized transaction ids received on the reporting feature server
TCAP_UNRECOG_TRANS_ID_TX	The total number of unrecognized transaction ids sent by the reporting feature server
TCAP_RSCR_LIMIT_RX	The total number of resource limitations received on the reporting feature server
TCAP_RSCR_LIMIT_TX	The total number of resource limitations sent by the reporting feature server
TCAP_TRANS_PORT_PERM_REL_RX	The total number of transaction portion permission to release problems received on the reporting feature server
TCAP_TRANS_PORT_PERM_REL_TX	The total number of transaction portion permission to release problems sent by the reporting feature server
TCAP_UNRECOG_DIALOG_PORT_ID_RX	The total number of unrecognized dialog portion ids received on the reporting feature server
TCAP_UNRECOG_DIALOG_PORT_ID_TX	The total number of unrecognized dialog portion ids sent by the reporting feature server
TCAP_BAD_STRUCT_DIALOG_PORT_RX	The total number of badly structured dialog portions received on the reporting feature server
TCAP_BAD_STRUCT_DIALOG_PORT_TX	The total number of badly structured dialog portions sent by the reporting feature server
TCAP_MISSING_DIALOG_PORT_RX	The total number of missing dialog portions received on the reporting feature server
TCAP_MISSING_DIALOG_PORT_TX	The total number of missing dialog portions sent by the reporting feature server
TCAP_INCONSIST_DIALOG_PORT_RX	The total number of inconsistent dialog portions received on the reporting feature server
TCAP_INCONSIST_DIALOG_PORT_TX	The total number of inconsistent dialog portions sent by the reporting feature server
TCAP_UNRECOG_COMP_RX	The total number of unrecognized components received on the reporting feature server
TCAP_UNRECOG_COMP_TX	The total number of unrecognized components sent by the reporting feature server
TCAP_INCORRECT_COMP_PORT_RX	The total number of incorrect component portions received on the reporting feature server
TCAP_INCORRECT_COMP_PORT_TX	The total number of incorrect component portions sent by the reporting feature server
TCAP_BAD_STRUCT_COMP_PORT_RX	The total number of badly structured component portions received on the reporting feature server
TCAP_BAD_STRUCT_COMP_PORT_TX	The total number of badly structured component portions sent by the reporting feature server

**Table 6-18**      **TCAP Measurements (continued)**

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
TCAP_DUP_INVOKE_ID_RX	The total number of duplicate invoke ids received on the reporting feature server
TCAP_DUP_INVOKE_ID_TX	The total number of duplicate invoke ids sent by the reporting feature server
TCAP_UNRECOG_OPCODE_RX	The total number of unrecognized opcodes received on the reporting feature server
TCAP_UNRECOG_OPCODE_TX	The total number of unrecognized opcodes sent by the reporting feature server
TCAP_INCORRECT_PARAM_RX	The total number of incorrect parameters received on the reporting feature server
TCAP_INCORRECT_PARAM_TX	The total number of incorrect parameters sent by the reporting feature server
TCAP_UNRECOG_LINK_ID_RX	The total number of unrecognized link ids received on the reporting feature server
TCAP_UNRECOG_LINK_ID_TX	The total number of unrecognized link ids sent by the reporting feature server
TCAP_INIT_REL_RX	The total number of initiating releases received on the reporting feature server
TCAP_INIT_REL_TX	The total number of initiating releases sent by the reporting feature server
TCAP_UNEXPECT_LINK_RSP_RX	The total number of unexpected link responses received on the reporting feature server
TCAP_UNEXPECT_LINK_RSP_TX	The total number of unexpected link responses sent by the reporting feature server
TCAP_UNEXPECT_LINK_OPER_RX	The total number of unexpected link operations received on the reporting feature server
TCAP_UNEXPECT_LINK_OPER_TX	The total number of unexpected link operations sent by the reporting feature server
TCAP_UNRECOG_RE_INVOKE_ID_RX	The total number of unrecognized invoke ids on return-error received on the reporting feature server
TCAP_UNRECOG_RE_INVOKE_ID_TX	The total number of unrecognized invoke ids on return-error sent by the reporting feature server
TCAP_UNEXPECT_RR_RX	The total number of unexpected return-results received on the reporting feature server
TCAP_UNEXPECT_RR_TX	The total number of unexpected return-results sent by the reporting feature server
TCAP_INCORRECT_PARAM_RR_RX	The total number of incorrect parameters on return-results received on the reporting feature server
TCAP_INCORRECT_PARAM_RR_TX	The total number of incorrect parameters on return-results sent by the reporting feature server
TCAP_UNRECOG_INVOKE_ID_RX	The total number of unrecognized invoke ids on return-results received on the reporting feature server
TCAP_UNRECOG_INVOKE_ID_TX	The total number of unrecognized invoke ids on return results sent by the reporting feature server
TCAP_UNEXPECT_RE_RX	The total number of unexpected return error received on the reporting feature server
TCAP_UNEXPECT_RE_TX	The total number of unexpected return error sent by the reporting feature server

**Table 6-18**      **TCAP Measurements (continued)**

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
TCAP_INCORRECT_COMP_ENCODE_RX	The total number of incorrect component encoding errors received on the reporting feature server
TCAP_INCORRECT_COMP_ENCODE_TX	The total number of incorrect component encoding errors sent by the reporting feature server
TCAP_INVOKE_RSCR_LIMIT_PROB_RX	The total number of resource limitation invoke problems received on the reporting feature server
TCAP_INVOKE_RSCR_LIMIT_PROB_TX	The total number of resource limitation invoke problems sent by the reporting feature server
TCAP_UNRECOG_ERR_CODE_RX	The total number of unrecognized error codes on return-error received on the reporting feature server
TCAP_UNRECOG_ERR_CODE_TX	The total number of unrecognized error codes on return-error sent by the reporting feature server.
TCAP_UNEXPECT_ERR_CODE_RX	The total number of unexpected error codes on return-error received on the reporting feature server.
TCAP_UNEXPECT_ERR_CODE_TX	The total number of unexpected error codes on return-error sent by the reporting feature server.
TCAP_INCORRECT_PARAM_RE_RX	The total number of incorrect parameters on return errors received on the reporting feature server.
TCAP_INCORRECT_PARAM_RE_TX	The total number of incorrect parameters on return errors sent by the reporting feature server.
TCAP_OPERATION_REQ_RX	The total number of operation request messages received on the reporting feature server.
TCAP_OPERATION_CONFIRM_RX	The total number of operation confirm messages received on the reporting feature server.
TCAP_OPERATION_IND_RX	The total number of operation indication messages received on the reporting feature server.
TCAP_COMPONENT_REQ_RX	The total number of component request messages received on the reporting feature server.
TCAP_COMPONENT_CONFIRM_RX	The total number of component confirm messages received on the reporting feature server.
TCAP_COMPONENT_IND_RX	The total number of component indication messages received on the reporting feature server.
TCAP_DATA_IND_RX	The total number of data indication messages received on the reporting feature server.
TCAP_UDATA_IND_RX	The total number of udata indication messages received on the reporting feature server.
TCAP_DATA_REQ_RX	The total number of data request messages received on the reporting feature server.
TCAP_DELIMITER_REQ_RX	The total number of delimiter request messages received on the reporting feature server.

**Table 6-18** TCAP Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
TCAP_DELIMITER_IND_RX	The total number of delimiter indication messages received on the reporting feature server.
TCAP_OPEN_IND_RX	The total number of open indication messages received on the reporting feature server.
TCAP_OPEN_CONFIRM_RX	The total number of open confirm messages received on the reporting feature server.
TCAP_STATUS_IND_RX	The total number of status indication messages received on the reporting feature server.
TCAP_DIALOG_CONFIRM_RX	The total number of dialog confirm messages received on the reporting feature server.
TCAP_CLOSE_IND_RX	The total number of close indication messages received on the reporting feature server.
TCAP_ABORT_IND_RX	The total number of abort indication messages received on the reporting feature server.
TCAP_BIND_CONFIRM_RX	The total number of TCAP bind confirm messages received on the reporting feature server.
TCAP_STAT_CONFIRM_RX	The total number of TCAP statistics confirm messages received on the reporting feature server.
TCAP_NOTICE_IND_RX	The total number of TCAP notice indication messages received on the reporting feature server.
TCAP_STAT_IND_RX	The total number of TCAP statistics indication messages received on the reporting feature server.

## SUA Measurements

Table 6-19 lists the SUA measurements.

**Table 6-19** SUA Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
SUA_ERR_TX	The total number of errors sent on the reporting signaling gateway process
SUA_ERR_RX	The total number of errors received on the reporting signaling gateway process
SUA_NOTIFY_TX	The total number of NOTIFYs sent on the reporting signaling gateway process
SUA_NOTIFY_RX	The total number of NOTIFYs received on the reporting signaling gateway process
SUA_DUNA_RX	The total number of DUNAs received on the reporting signaling gateway process
SUA_DAVA_RX	The total number of DAVAs received on the reporting signaling gateway process
SUA_DAUD_TX	The total number of DAUDs sent on the reporting signaling gateway process
SUA_SCON_TX	The total number of SCONs sent on the reporting signaling gateway process

**Table 6-19**      **SUA Measurements (continued)**

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
SUA_SCON_RX	The total number of SCONs received on the reporting signaling gateway process
SUA_DRST_RX	The total number of DRSTs received on the reporting signaling gateway process
SUA_DUPU_RX	The total number of DUPUs received on the reporting signaling gateway process
SUA_UP_TX	The total number of UPs sent on the reporting signaling gateway process
SUA_DOWN_TX	The total number of DOWNs sent on the reporting signaling gateway process
SUA_BEAT_TX	The total number of BEATs sent on the reporting signaling gateway process
SUA_BEAT_RX	The total number of BEATs received on the reporting signaling gateway process
SUA_UP_ACK_RX	The total number of UP Acknowledges received on the reporting signaling gateway process
SUA_DOWN_ACK_RX	The total number of DOWN Acknowledges received on the reporting signaling gateway process
SUA_BEAT_ACK_TX	The total number of BEAT Acknowledges sent on the reporting signaling gateway process
SUA_BEAT_ACK_RX	The total number of BEAT Acknowledges received on the reporting signaling gateway process
SUA_ACTIVE_TX	The total number of ACTIVEs sent on the reporting signaling gateway process
SUA_INACTIVE_TX	The total number of ACTIVEs received on the reporting signaling gateway process
SUA_ACTIVE_ACK_RX	The total number of ACTIVE Acknowledges received on the reporting signaling gateway process
SUA_INACTIVE_ACK_RX	The total number of INACTIVE Acknowledges received on the reporting signaling gateway process
SUA_CLDT_TX	The total number of CLDTs sent on the reporting signaling gateway process
SUA_CLDT_RX	The total number of CLDTs received on the reporting signaling gateway process
SUA_CLDR_TX	The total number of CLDRs sent on the reporting signaling gateway process
SUA_CLDR_RX	The total number of CLDRs received on the reporting signaling gateway process
SUA_DATA_BYTES_TX	The total number of data bytes sent on the reporting signaling gateway process
SUA_DATA_BYTES_RX	The total number of data bytes received on the reporting signaling gateway process
SUA_INVALID_SCTP_SIG NALS	The total number of invalid SCTP signals on the reporting signaling gateway process
SUA_SINCE_LAST_RESET _ASSOC	The total number of SCTP errors since last reset of association on the reporting signaling gateway process
SUA_ASSOC_FAIL	The total number of association failures on the reporting signaling gateway process
SUA_SCTP_TX_FAIL	The total number of SCTP send failures on message processing errors on the reporting signaling gateway process
SUA_MSG_INVALID_LEN GTH_RX	The total number of messages of invalid length received on the reporting signaling gateway process
SUA_NO_MEMORY_FAIL	The total number of no memory for message errors on the reporting signaling gateway process
SUA_VERSION_ERR	The total number of version errors on the reporting signaling gateway process
SUA_MSG_CLASS_ERR	The total number of message class errors on the reporting signaling gateway process
SUA_MSG_TYPE_ERR	The total number of message type errors on the reporting signaling gateway process

**Table 6-19** SUA Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
SUA_STREAM_ID_ERR	The total number of stream id errors on the reporting signaling gateway process
SUA_UNEXPECT_MSG_ERR	The total number of unexpected message errors on the reporting signaling gateway process
SUA_PROTOCOL_ERR	The total number of protocol errors on the reporting signaling gateway process
SUA_PARAM_VALUE_ERR	The total number of parameter value errors on the reporting signaling gateway process
SUA_PARAM_FIELD_ERR	The total number of parameter field errors on the reporting signaling gateway process
SUA_UNEXPECT_PARAM_ERR	The total number of unexpected parameter errors on the reporting signaling gateway process
SUA_NETWORK_APPEAR_ERR	The total number of network appearance errors on the reporting signaling gateway process
SUA_ROUTING_CONTEXT_ERR	The total number of routing context errors on the reporting signaling gateway process

## M3UA Protocol Measurements

Table 6-16 lists the M3UA protocol measurements.

**Table 6-20** M3UA Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
M3UA_SGP_ID	The id of the signaling gateway process that these counters are associated with.
M3UA_ERR_TX	The total number of errors sent on the reporting signaling gateway process
M3UA_ERR_RX	The total number of errors received on the reporting signaling gateway process
M3UA_NOTIFY_TX	The total number of NOTIFYs sent on the reporting signaling gateway process
M3UA_NOTIFY_RX	The total number of NOTIFYs received on the reporting signaling gateway process
M3UA_DUNA_RX	The total number of DUNAs received on the reporting signaling gateway process
M3UA_DAVA_RX	The total number of DAVAs received on the reporting signaling gateway process
M3UA_DAUD_TX	The total number of DAUDs sent on the reporting signaling gateway process
M3UA_SCON_TX	The total number of SCONs sent on the reporting signaling gateway process
M3UA_SCON_RX	The total number of SCONs received on the reporting signaling gateway process
M3UA_DRST_RX	The total number of DRSTs received on the reporting signaling gateway process
M3UA_DUPU_RX	The total number of DUPUs received on the reporting signaling gateway process
M3UA_UP_TX	The total number of UPs sent on the reporting signaling gateway process
M3UA_DOWN_TX	The total number of DOWNs sent on the reporting signaling gateway process
M3UA_BEAT_TX	The total number of BEATs sent on the reporting signaling gateway process
M3UA_BEAT_RX	The total number of BEATs received on the reporting signaling gateway process



**Table 6-20**      **M3UA Measurements (continued)**

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
M3UA_UP_ACK_RX	The total number of UP Acknowledges received on the reporting signaling gateway process
M3UA_DOWN_ACK_RX	The total number of DOWN Acknowledges received on the reporting signaling gateway process
M3UA_BEAT_ACK_TX	The total number of BEAT Acknowledges sent on the reporting signaling gateway process
M3UA_BEAT_ACK_RX	The total number of BEAT Acknowledges received on the reporting signaling gateway process
M3UA_ACTIVE_TX	The total number of ACTIVEs sent on the reporting signaling gateway process
M3UA_INACTIVE_TX	The total number of ACTIVEs received on the reporting signaling gateway process
M3UA_ACTIVE_ACK_RX	The total number of ACTIVE Acknowledges received on the reporting signaling gateway process
M3UA_INACTIVE_ACK_RX	The total number of INACTIVE Acknowledges received on the reporting signaling gateway process
M3UA_DATA_TRANS_TX	The total number of data transfers sent on the reporting signaling gateway process
M3UA_DATA_TRANS_RX	The total number of data transfers received on the reporting signaling gateway process
M3UA_DATA_BYTES_TX	The total number of data bytes sent on the reporting signaling gateway process
M3UA_DATA_BYTES_RX	The total number of data bytes received on the reporting signaling gateway process
M3UA_INVALID_SCTP_SIGNALS	The total number of invalid SCTP signals on the reporting signaling gateway process
M3UA_SINCE_LAST_RESET_ASSOC	The total number of SCTP errors since last reset of association on the reporting signaling gateway process
M3UA_ASSOC_FAIL	The total number of association failures on the reporting signaling gateway process
M3UA_SCTP_TX_FAIL	The total number of SCTP send failures on message processing errors on the reporting signaling gateway process
M3UA_MSG_LENGTH_ERR	The total number of messages of invalid length received on the reporting signaling gateway process
M3UA_NO_MEMORY_ERR	The total number of no memory for message errors on the reporting signaling gateway process
M3UA_VERSION_ERR	The total number of version errors on the reporting signaling gateway process
M3UA_MSG_CLASS_ERR	The total number of message class errors on the reporting signaling gateway process
M3UA_MSG_TYPE_ERR	The total number of message type errors on the reporting signaling gateway process
M3UA_STREAM_ID_ERR	The total number of stream id errors on the reporting signaling gateway process
M3UA_UNEXPECT_MSG_ERR	The total number of unexpected message errors on the reporting signaling gateway process
M3UA_PROTOCOL_ERR	The total number of protocol errors on the reporting signaling gateway process
M3UA_PARAM_VALUE_ERR	The total number of parameter value errors on the reporting signaling gateway process

**Table 6-20** M3UA Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
M3UA_PARAM_FIELD_ERR	The total number of parameter field errors on the reporting signaling gateway process
M3UA_UNEXPECT_PARAM_ERR	The total number of unexpected parameter errors on the reporting signaling gateway process
M3UA_NETWORK_APPEAR_ERR	The total number of network appearance errors on the reporting signaling gateway process
M3UA_ROUTING_CONTEXT_ERR	The total number of routing context errors on the reporting signaling gateway process
M3UA_MSG_RX_OTHER_ERR	The total number of messages received with other errors on the reporting call agent or feature server

## SCTP Protocol Measurements

Table 6-21 lists the SCTP protocol measurements.

**Table 6-21** SCTP Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
SCTP_SCTP_ASSOC_ID	The id of the SCTP association that the measurement counter block is associated with.
SCTP_DATA_CHUNK_RX	The total number of data chunks received on the reporting sctp association
SCTP_DATA_CHUNK_RX_SEQ_ERR	The total number of out-of-sequence data chunks received on the reporting sctp association
SCTP_DATA_CHUNK_RX_ORDER	The total number of ordered data chunks received on the reporting sctp association
SCTP_DATA_CHUNK_RX_UNORDER	The total number of unordered data chunks received on the reporting sctp association
SCTP_DATA_CHUNK_TX	The total number of data chunks sent on the reporting sctp association
SCTP_DATA_CHUNK_TX_ORDER	The total number of ordered data chunks sent on the reporting sctp association
SCTP_DATA_CHUNK_TX_UNORDER	The total number of unordered data chunks sent on the reporting sctp association
SCTP_DATA_CHUNK_DISCARD	The total number of received duplicate data chunks that were discarded on the reporting sctp association
SCTP_DATA_CHUNK_RETRAN	The total number of data chunks that were retransmitted on the reporting sctp association
SCTP_DATA_CHUNK_TX_BUNDLE	The total number of bundled data chunks that were sent on the reporting sctp association
SCTP_DATA_CHUNK_RX_BUNDLE	The total number of bundled data chunks that were received on the reporting sctp association
SCTP_DATA_BYTE_TX	The total number of data bytes sent over SCTP on the reporting sctp association

**Table 6-21** SCTP Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
SCTP_DATA_BYTE_RX	The total number of data bytes received over SCTP on the reporting sctp association
SCTP_CONTROL_CHUNK_TX	The total number of control chunks sent on the reporting sctp association
SCTP_CONTROL_CHUNK_RX	The total number of control chunks received on the reporting sctp association
SCTP_ULP_TX	The total number of ULP datagrams sent on the reporting sctp association
SCTP_ULP_READY	The total number of received datagrams that are ready to be sent to upper layer processes on the reporting sctp association
SCTP_ULP_RX	The total number of received upper layer process datagrams on the reporting sctp association
SCTP_ULP_QUEUE	The total number of upper layer process datagrams queued to be transmitted on the reporting sctp association
SCTP_SCTP_DATAG_TX	The total number of datagrams sent on the reporting sctp association
SCTP_SCTP_DATAG_RX	The total number of datagrams received on the reporting sctp association
SCTP_INVALID_DATAG_LENGTH	The total number of datagrams received with an invalid length on the reporting sctp association
SCTP_PARTIAL_CHUNK_ERR	The total number of partial chunks that were received in a datagram on the reporting sctp association
SCTP_EMPTY_DATAG_ERR	The total number of datagrams received with no data chunks on the reporting sctp association
SCTP_INVALID_CHECKSUM	The total number of SCTP datagrams received with an invalid checksum on the reporting sctp association
SCTP_INVALID_BUNDLE_CHUNK	The total number of invalid bundle chunks received on the reporting sctp association
SCTP_INVALID_VERIF_TAG	The total number of datagrams with invalid verification tags received on the reporting sctp association
SCTP_OOTB	The total number of out of the blue packets received on the reporting sctp association
SCTP_INVALID_STREAM	The total number of datagrams with invalid stream ids received on the reporting sctp association
SCTP_ASSOC_COMM_LOST	The total number of times the SCTP association communication was lost on the reporting sctp association
SCTP_DEST_ADDR_FAIL	The total number of times a destination address failed on the reporting sctp association
SCTP_CHUNK_ORDER_ERR	The total number of ordered chunks that were in error on the reporting sctp association
SCTP_ECNE_CHUNK_RX	The total number of ECNE chunks received on the reporting sctp association
SCTP_CWR_CHUNK_RX	The total number of CWR chunks received on the reporting sctp association
SCTP_UNKNOWN_CHUNK_TYPE	The total number of datagrams with an unknown chunk type received on the reporting sctp association

Table 6-21 SCTP Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
SCTP_UNKNOWN_INIT_PARAM	The total number of INIT datagrams with an unknown parameter received on the reporting sctp association
SCTP_INVALID_COOKIE_SIG	The total number of invalid cookie signals received on the reporting sctp association
SCTP_EXPIRED_COOKIE_ERR	The total number of times a cookie echo was received after the cookie timer expired on the reporting sctp association
SCTP_STALE_COOKIE_ERR	The total number of times other endpoint indicates that the cookie echo was received after the cookie time expired on the reporting sctp association
SCTP_PEER_RESTART_ERR	The total number of times the SCTP peer restarted on the reporting sctp association
SCTP_V6_ADDR_PARAM_RX	The total number of packets received with version 6 parameters on the reporting sctp association
SCTP_INVALID_STREAM_ERR_RX	The total number of times an SCTP peer reported receiving a data chunk on a non-existing stream on the reporting sctp association
SCTP_MISSING_PARAM_ERR_RX	The total number of times an INIT or INIT ACK was missing one or more mandatory parameters received on the reporting sctp association
SCTP_STALE_COOKIE_ERR_RX	The total number of times an SCTP peer received a valid cookie that had expired on the reporting sctp association
SCTP_OUT_OF_RSCR_ERR_RX	The total number of times an SCTP peer reported it was out of resources on the reporting sctp association
SCTP_UNRESOLV_ADDR_ERR_RX	The total number of times an SCTP reported that it received a packet with an address it could not resolve on the reporting sctp association
SCTP_UNRECOG_CHUNK_ERR_RX	The total number of times an SCTP peer reported that it received a chunk that it could not understand on the reporting sctp association.
SCTP_INVALID_PARAM_ERR_RX	The total number of times an SCTP peer reported that it received an INIT or INIT ACK chunk containing one or more mandatory parameters that were set to an invalid value on the reporting sctp association.
SCTP_UNRECOG_PARAM_ERR_RX	The total number of times an SCTP peer reported that it received an INIT ACK containing one or more parameters that were unrecognized on the reporting sctp association.
SCTP_NO_USER_DATA_ERR_RX	The total number of times an SCTP peer reported that it received a data chunk with no user data in it on the reporting sctp association.
SCTP_COOKIE_IN_SHUTDOWN_ERR_RX	The total number of times an SCTP peer reported that is received a COOKIE ECHO while in the SHUTDOWN_ACK_SENT state on the reporting sctp association.
SCTP_CHUNK_TOO_SMALL_ERR	The total number of data chunks received that were too small on the reporting sctp association.
SCTP_CHUNK_TOO_LARGE_ERR	The total number of data chunks received that were too big on the reporting sctp association.

**Table 6-21** SCTP Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
SCTP_MISSING_PARAM_ERR	The total number of times that an INIT or INIT ACK chunk was received with one or more mandatory parameters missing on the reporting sctp association.
SCTP_NO_SPACE_INCOM_ERR	The total number of data chunks that were dropped due to no space being available in the local receive window on the reporting sctp association.

## ISUP Protocol Measurements

The following table identifies the Signaling Gateway-based ISUP protocol measurements provided in Release 4.3 and their respective meanings. This is a super set of all the possible measurements across all the supported ISUP variants.

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**Table 6-22** ISUP Protocol Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
ISUP_MSG_TX	The total number of messages sent on the reporting trunk group.
ISUP_MSG_RX	The total number of messages received on the reporting trunk group.
ISUP_ACM_TX	The total number of Address Complete messages sent on the reporting trunk group.
ISUP_ACM_RX	The total number of Address Complete messages received on the reporting trunk group.
ISUP_ANM_TX	The total number of Answer messages sent on the reporting trunk group.
ISUP_ANM_RX	The total number of Answer messages received on the reporting trunk group.
ISUP_ARR_TX	The total number of Automatic Re-Route messages sent on the reporting trunk group.
ISUP_ARR_RX	The total number of Automatic Re-Route messages received on the reporting trunk group.
ISUP_BLA_TX	The total number of Blocking Acknowledge messages sent on the reporting trunk group.
ISUP_BLA_RX	The total number of Blocking Acknowledge messages received on the reporting trunk group.
ISUP_BLO_TX	The total number of Blocking messages sent on the reporting trunk group.
ISUP_BLO_RX	The total number of Blocking messages received on the reporting trunk group.
ISUP_CCL_TX	The total number of Calling Party Clear messages sent on the reporting trunk group.
ISUP_CCL_RX	The total number of Calling Party Clear messages received on the reporting trunk group.
ISUP_CCR_TX	The total number of Continuity Check Request messages sent on the reporting trunk group.

**Table 6-22** *ISUP Protocol Measurements (continued)*

ISUP_CCR_RX	The total number of Continuity Check Request messages received on the reporting trunk group.
ISUP_CFN_TX	The total number of Confusion messages sent on the reporting trunk group.
ISUP_CFN_RX	The total number of Confusion messages received on the reporting trunk group.
ISUP_CGB_TX	The total number of Circuit Group Blocking messages sent on the reporting trunk group.
ISUP_CGB_RX	The total number of Circuit Group Blocking messages received on the reporting trunk group.
ISUP_CGBA_TX	The total number of Circuit Group Blocking Acknowledgement messages sent on the reporting trunk group.
ISUP_CGBA_RX	The total number of Circuit Group Blocking Acknowledgement messages received on the reporting trunk group.
ISUP_CGU_TX	The total number of Circuit Group Unblocking messages sent on the reporting trunk group.
ISUP_CGU_RX	The total number of Circuit Group Unblocking messages received on the reporting trunk group.
ISUP_CGUA_TX	The total number of Circuit Group Unblocking Acknowledgement messages sent on the reporting trunk group.
ISUP_CGUA_RX	The total number of Circuit Group Unblocking Acknowledgement messages received on the reporting trunk group.
ISUP_CON_TX	The total number of Connect messages sent on the reporting trunk group.
ISUP_CON_RX	The total number of Connect messages received on the reporting trunk group.
ISUP_COT_TX	The total number of Continuity messages sent on the reporting trunk group.
ISUP_COT_RX	The total number of Continuity messages received on the reporting trunk group.
ISUP_CPG_TX	The total number of Call Progress messages sent on the reporting trunk group.
ISUP_CPG_RX	The total number of Call Progress messages received on the reporting trunk group.
ISUP_CQM_TX	The total number of Circuit Query messages sent on the reporting trunk group.
ISUP_CQM_RX	The total number of Circuit Query messages received on the reporting trunk group.
ISUP_CQR_TX	The total number of Circuit Query Response messages sent on the reporting trunk group.
ISUP_CQR_RX	The total number of Circuit Query Response messages received on the reporting trunk group.
ISUP_CRA_TX	The total number of Circuit Reservation Acknowledgement messages sent on the reporting trunk group.
ISUP_CRA_RX	The total number of Circuit Reservation Acknowledgement messages received on the reporting trunk group.
ISUP_CRM_TX	The total number of Circuit Reservation messages sent on the reporting trunk group.
ISUP_CRM_RX	The total number of Circuit Reservation messages received on the reporting trunk group.

**Table 6-22** *ISUP Protocol Measurements (continued)*

ISUP_CRG_TX	The total number of Charge Information messages sent on the reporting trunk group.
ISUP_CRG_RX	The total number of Charge Information messages received on the reporting trunk group.
ISUP_CVR_TX	The total number of Circuit Validation Response messages sent on the reporting trunk group.
ISUP_CVR_RX	The total number of Circuit Validation Response messages received on the reporting trunk group.
ISUP_CVT_TX	The total number of Circuit Validation Test messages sent on the reporting trunk group.
ISUP_CVT_RX	The total number of Circuit Validation Test messages received on the reporting trunk group.
ISUP_EXM_TX	The total number of Exit messages sent on the reporting trunk group.
ISUP_EXM_RX	The total number of Exit messages received on the reporting trunk group.
ISUP_FAA_TX	The total number of Facility Accepted messages sent on the reporting trunk group.
ISUP_FAA_RX	The total number of Facility Accepted messages received on the reporting trunk group.
ISUP_FAC_TX	The total number of Facility messages sent on the reporting trunk group.
ISUP_FAC_RX	The total number of Facility messages received on the reporting trunk group.
ISUP_FAR_TX	The total number of Facility Request messages sent on the reporting trunk group.
ISUP_FAR_RX	The total number of Facility Request messages received on the reporting trunk group.
ISUP_FOT_TX	The total number of Forward Transfer messages sent on the reporting trunk group.
ISUP_FOT_RX	The total number of Forward Transfer messages received on the reporting trunk group.
ISUP_FRJ_TX	The total number of Facility Reject messages sent on the reporting trunk group.
ISUP_FRJ_RX	The total number of Facility Reject messages received on the reporting trunk group.
ISUP_FWT_TX	The total number of Forward Transfer messages sent on the reporting trunk group.
ISUP_FWT_RX	The total number of Forward Transfer messages received on the reporting trunk group.
ISUP_GRA_TX	The total number of Circuit Group Reset Acknowledge messages sent on the reporting trunk group.
ISUP_GRA_RX	The total number of Circuit Group Reset Acknowledge messages received on the reporting trunk group.
ISUP_GRS_TX	The total number of Circuit Group Reset messages sent on the reporting trunk group.
ISUP_GRS_RX	The total number of Circuit Group Reset messages received on the reporting trunk group.
ISUP_IAM_TX	The total number of Initial Address messages sent on the reporting trunk group.

**Table 6-22** *ISUP Protocol Measurements (continued)*

ISUP_IAM_RX	The total number of Initial Address messages received on the reporting trunk group.
ISUP_IDR_TX	The total number of Identification Request messages sent on the reporting trunk group.
ISUP_IDR_RX	The total number of Identification Request messages received on the reporting trunk group.
ISUP_INF_TX	The total number of Information messages sent on the reporting trunk group.
ISUP_INF_RX	The total number of Information messages received on the reporting trunk group.
ISUP_INR_TX	The total number of Information Request messages sent on the reporting trunk group.
ISUP_INR_RX	The total number of Information Request messages received on the reporting trunk group.
ISUP_IRS_TX	The total number of Identification Response messages sent on the reporting trunk group.
ISUP_IRS_RX	The total number of Identification Response messages received on the reporting trunk group.
ISUP_ITX_TX	The total number of Charge Unit messages sent on the reporting trunk group.
ISUP_ITX_RX	The total number of Charge Unit messages received on the reporting trunk group.
ISUP_LPA_TX	The total number of Loop Prevention Acknowledgement messages sent on the reporting trunk group.
ISUP_LPA_RX	The total number of Loop Prevention Acknowledgement messages received on the reporting trunk group.
ISUP_LPM_TX	The total number of Loop Prevention messages sent on the reporting trunk group.
ISUP_LPM_RX	The total number of Loop Prevention messages received on the reporting trunk group.
ISUP_NRM_TX	The total number of Network Resource Management messages sent on the reporting trunk group.
ISUP_NRM_RX	The total number of NRM messages received on the reporting trunk group.
ISUP_OLM_TX	The total number of Overload messages sent on the reporting trunk group.
ISUP_OLM_RX	The total number of Overload messages received on the reporting trunk group.
ISUP_OPR_TX	The total number of Operator messages sent on the reporting trunk group.
ISUP_OPR_RX	The total number of Operator messages received on the reporting trunk group.
ISUP_PAM_TX	The total number of Pass Along messages sent on the reporting trunk group.
ISUP_PAM_RX	The total number of Pass Along messages received on the reporting trunk group.
ISUP_PRI_TX	The total number of Pre-Release Information messages sent on the reporting trunk group.
ISUP_PRI_RX	The total number of Pre-Release Information messages received on the reporting trunk group.
ISUP_REL_TX	The total number of Release messages sent on the reporting trunk group.
ISUP_REL_RX	The total number of Release messages received on the reporting trunk group.
ISUP_RES_TX	The total number of Resume messages sent on the reporting trunk group.



**Table 6-22** ISUP Protocol Measurements (continued)

ISUP_RES_RX	The total number of Resume messages received on the reporting trunk group.
ISUP_RLC_TX	The total number of Release Complete messages sent on the reporting trunk group.
ISUP_RLC_RX	The total number of Release Complete messages received on the reporting trunk group.
ISUP_RSC_TX	The total number of Reset Circuit messages sent on the reporting trunk group.
ISUP_RSC_RX	The total number of Reset Circuit messages received on the reporting trunk group.
ISUP_SAM_TX	The total number of Subsequent Address messages sent on the reporting trunk group.
ISUP_SAM_RX	The total number of Subsequent Address messages received on the reporting trunk group.
ISUP_SGM_TX	The total number of Segmentation messages sent on the reporting trunk group.
ISUP_SGM_RX	The total number of Segmentation messages received on the reporting trunk group.
ISUP_SUS_TX	The total number of Suspend messages sent on the reporting trunk group.
ISUP_SUS_RX	The total number of Suspend messages received on the reporting trunk group.
ISUP_TXA_TX	The total number of Charging Acknowledgement messages sent on the reporting trunk group.
ISUP_TXA_RX	The total number of Charging Acknowledgement messages received on the reporting trunk group.
ISUP_UBA_TX	The total number of Unblocking Acknowledge messages sent on the reporting trunk group.
ISUP_UBA_RX	The total number of Unblocking Acknowledge messages received on the reporting trunk group.
ISUP_UBL_TX	The total number of Unblocking messages sent on the reporting trunk group.
ISUP_UBL_RX	The total number of Unblocking messages received on the reporting trunk group.
ISUP_UPA_TX	The total number of User Part Acknowledgement messages sent on the reporting trunk group.
ISUP_UPA_RX	The total number of User Part Acknowledgement messages received on the reporting trunk group.
ISUP_UPT_TX	The total number of User Part Test messages sent on the reporting trunk group.
ISUP_UPT_RX	The total number of User Part Test messages received on the reporting trunk group.
ISUP_USR_TX	The total number of User To User messages sent on the reporting trunk group.
ISUP_USR_RX	The total number of User To User messages received on the reporting trunk group.
ISUP_ABNORMAL_REL_TX	The total number of Release messages sent with a cause other than NORMAL on the reporting trunk group.
ISUP_ABNORMAL_REL_RX	The total number of Release messages received with a cause other than NORMAL on the reporting trunk group.
ISUP_UNEXPECT_MSG_RX	The total number of unexpected messages received on the reporting trunk group.
ISUP_UNRECOG_MSG_RX	The total number of unrecognized messages received on the reporting trunk group.

The following table illustrates the message measurements applicable to a given ISUP variant, the total message, abnormal release, unexpected and unrecognized message measurements that apply to all variants:

**Table 6-23** Message Measurements Applicable to ISUP Variants

Message	ANSI	China	Mexico	Thailand	Hong-Kong	Chile	Australia	Israel	ETSIv2	Hungary	France
ACM	X	X	X	X	X	X	X	X	X	X	X
ANM	X	X	X	X	X	X	X	X	X	X	X
ARR				X							
BLA	X	X	X	X	X	X	X	X	X	X	X
BLO	X	X	X	X	X	X	X	X	X	X	X
CCL		X	X				X	X	X		
CCR	X	X	X	X		X	X	X	X	X	X
CFN	X		X	X	X					X	X
CGB	X	X	X	X	X	X	X	X	X	X	X
CGBA	X	X	X	X	X	X	X	X	X	X	X
CGU	X	X	X	X	X	X	X	X	X	X	X
CGUA	X	X	X	X	X	X	X	X	X	X	X
CON		X	X	X	X	X	X	X	X	X	X
COT	X	X	X	X	X	X	X	X	X	X	X
CPG	X	X	X	X	X	X	X	X	X	X	X
CQM	X		X	X							
CQR	X		X	X							
CRA	X										
CRM	X										
CRG						X					
CVR	X										
CVT	X										
EXM	X										
FAA									X	X	X
FAC	X				X					X	X
FAR						X					
FOT	X										
FRJ						X					
FWT						X					

**Table 6-23** Message Measurements Applicable to ISUP Variants (continued)

GRA	X	X	X	X	X	X	X	X	X	X	X
GRS	X	X	X	X	X	X	X	X	X	X	X
IAM	X	X	X	X	X	X	X	X	X	X	X
IDR						X				X	X
INF	X		X	X	X	X				X	X
INR			X	X	X	X				X	X
IRS						X				X	X
ITX											X
LPA	X										
LPM						X					
NRM					X	X					
OLM										X	X
OPR		X					X	X	X		
PAM	X				X	X					
PRI						X					
REL	X	X	X	X	X	X	X	X	X	X	X
RES	X	X	X	X	X	X	X	X	X	X	X
RLC	X	X	X	X	X	X	X	X	X	X	X
RSC	X	X	X	X	X	X	X	X	X	X	X
SAM		X	X	X	X	X	X	X	X	X	X
SGM		X			X	X	X	X	X	X	X
SUS	X	X	X	X	X	X	X	X	X	X	X
TXA											X
UBA	X	X		X	X	X	X	X	X	X	X
UBL	X	X	X	X		X	X	X	X	X	X
UCIC	X		X	X		X					
UPA										X	X
UPT										X	X
USR	X					X				X	X

## ISUP (ANSI) Measurements

Table 6-24 lists the ISUP (ANSI) measurements.

**Table 6-24** ISUP (ANSI) Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
SGA_MSG_TX	The total number of messages sent on the reporting trunk group
SGA_MSG_RX	The total number of messages received on the reporting trunk group
SGA_ACM_TX	The total number of ACM messages sent on the reporting trunk group
SGA_ACM_RX	The total number of ACM messages received on the reporting trunk group
SGA_ANM_TX	The total number of ANM messages sent on the reporting trunk group
SGA_ANM_RX	The total number of ANM messages received on the reporting trunk group
SGA_BLO_TX	The total number of BLO messages sent on the reporting trunk group
SGA_BLO_RX	The total number of BLO messages received on the reporting trunk group
SGA_BLA_TX	The total number of BLA messages sent on the reporting trunk group
SGA_BLA_RX	The total number of BLA messages received on the reporting trunk group
SGA_CCR_TX	The total number of CCR messages sent on the reporting trunk group
SGA_CCR_RX	The total number of CCR messages received on the reporting trunk group
SGA_CFN_TX	The total number of CFN messages sent on the reporting trunk group
SGA_CFN_RX	The total number of CFN messages received on the reporting trunk group
SGA_CPG_TX	The total number of CPG messages sent on the reporting trunk group
SGA_CPG_RX	The total number of CPG messages received on the reporting trunk group
SGA_CGB_TX	The total number of CGB messages sent on the reporting trunk group
SGA_CGB_RX	The total number of CGB messages received on the reporting trunk group
SGA_CGU_TX	The total number of CGU messages sent on the reporting trunk group
SGA_CGU_RX	The total number of CGU messages received on the reporting trunk group
SGA_CGBA_TX	The total number of CGBA messages sent on the reporting trunk group
SGA_CGBA_RX	The total number of CGBA messages received on the reporting trunk group
SGA_CGUA_TX	The total number of CGUA messages sent on the reporting trunk group
SGA_CGUA_RX	The total number of CGUA messages received on the reporting trunk group
SGA_COT_TX	The total number of COT messages sent on the reporting trunk group
SGA_COT_RX	The total number of COT messages received on the reporting trunk group
SGA_CQM_TX	The total number of CQM messages sent on the reporting trunk group
SGA_CQM_RX	The total number of CQM messages received on the reporting trunk group
SGA_CQR_TX	The total number of CQR messages sent on the reporting trunk group
SGA_CQR_RX	The total number of CQR messages received on the reporting trunk group
SGA_CRA_TX	The total number of CRA messages sent on the reporting trunk group
SGA_CRA_RX	The total number of CRA messages received on the reporting trunk group

**Table 6-24** ISUP (ANSI) Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
SGA_CRM_TX	The total number of CRM messages sent on the reporting trunk group
SGA_CRM_RX	The total number of CRM messages received on the reporting trunk group
SGA_CVR_TX	The total number of CVR messages sent on the reporting trunk group
SGA_CVR_RX	The total number of CVR messages received on the reporting trunk group
SGA_CVT_TX	The total number of CVT messages sent on the reporting trunk group
SGA_CVT_RX	The total number of CVT messages received on the reporting trunk group
SGA_EXM_TX	The total number of EXM messages sent on the reporting trunk group
SGA_EXM_RX	The total number of EXM messages received on the reporting trunk group
SGA_FAC_TX	The total number of FAC messages sent on the reporting trunk group
SGA_FAC_RX	The total number of FAC messages received on the reporting trunk group
SGA_FOT_TX	The total number of FOT messages sent on the reporting trunk group
SGA_FOT_RX	The total number of FOT messages received on the reporting trunk group
SGA_GRS_TX	The total number of GRS messages sent on the reporting trunk group
SGA_GRS_RX	The total number of GRS messages received on the reporting trunk group
SGA_GRA_TX	The total number of GRA messages sent on the reporting trunk group
SGA_GRA_RX	The total number of GRA messages received on the reporting trunk group
SGA_IAM_TX	The total number of IAM messages sent on the reporting trunk group
SGA_IAM_RX	The total number of IAM messages received on the reporting trunk group
SGA_INF_TX	The total number of INF messages sent on the reporting trunk group
SGA_INF_RX	The total number of INF messages received on the reporting trunk group
SGA_INR_TX	The total number of INR messages sent on the reporting trunk group
SGA_INR_RX	The total number of INR messages received on the reporting trunk group
SGA_LPA_TX	The total number of LPA messages sent on the reporting trunk group
SGA_LPA_RX	The total number of LPA messages received on the reporting trunk group
SGA_PAM_TX	The total number of PAM messages sent on the reporting trunk group
SGA_PAM_RX	The total number of PAM messages received on the reporting trunk group
SGA_REL_TX	The total number of REL messages sent on the reporting trunk group
SGA_REL_RX	The total number of REL messages received on the reporting trunk group
SGA_RLC_TX	The total number of RLC messages sent on the reporting trunk group
SGA_RLC_RX	The total number of RLC messages received on the reporting trunk group
SGA_RSC_TX	The total number of RSC messages sent on the reporting trunk group
SGA_RSC_RX	The total number of RSC messages received on the reporting trunk group
SGA_RES_TX	The total number of RES messages sent on the reporting trunk group
SGA_RES_RX	The total number of RES messages received on the reporting trunk group
SGA_SUS_TX	The total number of SUS messages sent on the reporting trunk group

**Table 6-24** ISUP (ANSI) Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
SGA_SUS_RX	The total number of SUS messages received on the reporting trunk group
SGA_UBL_TX	The total number of UBL messages sent on the reporting trunk group
SGA_UBL_RX	The total number of UBL messages received on the reporting trunk group
SGA_UBA_TX	The total number of UBA messages sent on the reporting trunk group
SGA_UBA_RX	The total number of UBA messages received on the reporting trunk group
SGA_UCIC_TX	The total number of UCIC messages sent on the reporting trunk group
SGA_UCIC_RX	The total number of UCIC messages received on the reporting trunk group
SGA_USR_TX	The total number of USR messages sent on the reporting trunk group
SGA_USR_RX	The total number of USR messages received on the reporting trunk group
SGA_ABNORMAL_REL_RX	The total number of RELs received with a cause other than NORMAL on the reporting trunk group
SGA_UNEXPECT_MSG_RX	The total number of unexpected messages received on the reporting trunk group
SGA_UNRECOG_MSG_RX	The total number of unrecognized messages received on the reporting trunk group

## ISUP (France) Measurements

Table 6-27 lists the ISUP (France) measurements.

**Table 6-25** ISUP (France) Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
SGA_TXA_RX	The total number of Charging Acknowledgement (TXA) messages received on the reporting trunk group.
SGA_TXA_TX	The total number of TXA messages sent on the reporting trunk group.
SGA_ITX_RX	The total number of Charge Unit (ITX) message received on the reporting trunk group.
SGA_ITX_TX	The total number of ITX messages sent on the reporting trunk group.

## ISUP (Poland) Measurements

Table 6-26 lists the ISUP (Poland) measurements.

**Table 6-26** ISUP (Poland) Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
SGA_CRG_RX	The number of Charging Information messages received on the reporting trunk group.
SGA_CRG_TX	The number of Charging Information messages transmitted on the reporting trunk group.

## ISUP (ITU-China) Measurements

Table 6-27 lists the ISUP (ITU-China) measurements.

**Table 6-27** *ISUP (ITU-China) Measurements*

Measurement	Description (* = rapid count could mean a potential problem in the system)
SGA_MSG_TX	The total number of messages sent on the reporting trunk group
SGA_MSG_RX	The total number of messages received on the reporting trunk group
SGA_ACM_TX	The total number of ACM messages sent on the reporting trunk group
SGA_ACM_RX	The total number of ACM messages received on the reporting trunk group
SGA_ANM_TX	The total number of ANM messages sent on the reporting trunk group
SGA_ANM_RX	The total number of ANM messages received on the reporting trunk group
SGA_BLO_TX	The total number of BLO messages sent on the reporting trunk group
SGA_BLO_RX	The total number of BLO messages received on the reporting trunk group
SGA_BLA_TX	The total number of BLA messages sent on the reporting trunk group
SGA_BLA_RX	The total number of BLA messages received on the reporting trunk group
SGA_CCL_TX	The total number of CCL messages sent on the reporting trunk group
SGA_CCL_RX	The total number of CCL messages received on the reporting trunk group
SGA_CCR_TX	The total number of CCR messages sent on the reporting trunk group
SGA_CCR_RX	The total number of CCR messages received on the reporting trunk group
SGA_CPG_TX	The total number of CPG messages sent on the reporting trunk group
SGA_CPG_RX	The total number of CPG messages received on the reporting trunk group
SGA_CGB_TX	The total number of CGB messages sent on the reporting trunk group
SGA_CGB_RX	The total number of CGB messages received on the reporting trunk group
SGA_CGU_TX	The total number of CGU messages sent on the reporting trunk group
SGA_CGU_RX	The total number of CGU messages received on the reporting trunk group
SGA_CGBA_TX	The total number of CGBA messages sent on the reporting trunk group
SGA_CGBA_RX	The total number of CGBA messages received on the reporting trunk group
SGA_CGUA_TX	The total number of CGUA messages sent on the reporting trunk group
SGA_CGUA_RX	The total number of CGUA messages received on the reporting trunk group
SGA_CON_TX	The total number of CON messages sent on the reporting trunk group
SGA_CON_RX	The total number of CON messages received on the reporting trunk group
SGA_COT_TX	The total number of COT messages sent on the reporting trunk group
SGA_COT_RX	The total number of COT messages received on the reporting trunk group
SGA_GRS_TX	The total number of GRS messages sent on the reporting trunk group
SGA_GRS_RX	The total number of GRS messages received on the reporting trunk group
SGA_GRA_TX	The total number of GRA messages sent on the reporting trunk group
SGA_GRA_RX	The total number of GRA messages received on the reporting trunk group

**Table 6-27** ISUP (ITU-China) Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
SGA_IAM_TX	The total number of IAM messages sent on the reporting trunk group
SGA_IAM_RX	The total number of IAM messages received on the reporting trunk group
SGA_OPR_TX	The total number of OPR messages sent on the reporting trunk group
SGA_OPR_RX	The total number of OPR messages received on the reporting trunk group
SGA_REL_TX	The total number of REL messages sent on the reporting trunk group
SGA_REL_RX	The total number of REL messages received on the reporting trunk group
SGA_RLC_TX	The total number of RLC messages sent on the reporting trunk group
SGA_RLC_RX	The total number of RLC messages received on the reporting trunk group
SGA_RSC_TX	The total number of RSC messages sent on the reporting trunk group
SGA_RSC_RX	The total number of RSC messages received on the reporting trunk group
SGA_RES_TX	The total number of RES messages sent on the reporting trunk group
SGA_RES_RX	The total number of RES messages received on the reporting trunk group
SGA_SAM_TX	The total number of SAM messages sent on the reporting trunk group
SGA_SAM_RX	The total number of SAM messages received on the reporting trunk group
SGA_SGM_TX	The total number of SGM messages sent on the reporting trunk group
SGA_SGM_RX	The total number of SGM messages received on the reporting trunk group
SGA_SUS_TX	The total number of SUS messages sent on the reporting trunk group
SGA_SUS_RX	The total number of SUS messages received on the reporting trunk group
SGA_UBL_TX	The total number of UBL messages sent on the reporting trunk group
SGA_UBL_RX	The total number of UBL messages received on the reporting trunk group
SGA_UBA_TX	The total number of UBA messages sent on the reporting trunk group
SGA_UBA_RX	The total number of UBA messages received on the reporting trunk group
SGA_ABNORMAL_REL_TX	The total number of RELs sent with a cause other than NORMAL on the reporting trunk group
SGA_ABNORMAL_REL_RX	The total number of RELs received with a cause other than NORMAL on the reporting trunk group
SGA_UNEXPECT_MSG_RX	The total number of unexpected messages received on the reporting trunk group
SGA_UNRECOG_MSG_RX	The total number of unrecognized messages received on the reporting trunk group

## ISUP (ITU-Mexico) Measurements

Table 6-28 lists the ISUP (ITU-Mexico) measurements.



**Table 6-28**      *ISUP (ITU-Mexico) Measurements*

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
SGA_MSG_TX	The total number of messages sent on the reporting trunk group
SGA_MSG_RX	The total number of messages received on the reporting trunk group
SGA_ACM_TX	The total number of ACM messages sent on the reporting trunk group
SGA_ACM_RX	The total number of ACM messages received on the reporting trunk group
SGA_ANM_TX	The total number of ANM messages sent on the reporting trunk group
SGA_ANM_RX	The total number of ANM messages received on the reporting trunk group
SGA_BLO_TX	The total number of BLO messages sent on the reporting trunk group
SGA_BLO_RX	The total number of BLO messages received on the reporting trunk group
SGA_BLA_TX	The total number of BLA messages sent on the reporting trunk group
SGA_BLA_RX	The total number of BLA messages received on the reporting trunk group
SGA_CCL_TX	The total number of CCL messages sent on the reporting trunk group
SGA_CCL_RX	The total number of CCL messages sent on the reporting trunk group
SGA_CCR_TX	The total number of CCR messages sent on the reporting trunk group
SGA_CCR_RX	The total number of CCR messages received on the reporting trunk group
SGA_CFN_TX	The total number of CFN messages sent on the reporting trunk group
SGA_CFN_RX	The total number of CFN messages received on the reporting trunk group
SGA_CPG_TX	The total number of CPG messages sent on the reporting trunk group
SGA_CPG_RX	The total number of CPG messages received on the reporting trunk group
SGA_CGB_TX	The total number of CGB messages sent on the reporting trunk group
SGA_CGB_RX	The total number of CGB messages received on the reporting trunk group
SGA_CGU_TX	The total number of CGU messages sent on the reporting trunk group
SGA_CGU_RX	The total number of CGU messages received on the reporting trunk group
SGA_CGBA_TX	The total number of CGBA messages sent on the reporting trunk group
SGA_CGBA_RX	The total number of CGBA messages received on the reporting trunk group
SGA_CGUA_TX	The total number of CGUA messages sent on the reporting trunk group
SGA_CGUA_RX	The total number of CGUA messages received on the reporting trunk group
SGA_CON_TX	The total number of CON messages sent on the reporting trunk group
SGA_CON_RX	The total number of CON messages received on the reporting trunk group
SGA_COT_TX	The total number of COT messages sent on the reporting trunk group
SGA_COT_RX	The total number of COT messages received on the reporting trunk group
SGA_CQM_TX	The total number of CQM messages sent on the reporting trunk group
SGA_CQM_RX	The total number of CQM messages received on the reporting trunk group
SGA_CQR_TX	The total number of CQR messages sent on the reporting trunk group
SGA_CQR_RX	The total number of CQR messages received on the reporting trunk group

**Table 6-28** *ISUP (ITU-Mexico) Measurements (continued)*

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
SGA_GRS_TX	The total number of GRS messages sent on the reporting trunk group
SGA_GRS_RX	The total number of GRS messages received on the reporting trunk group
SGA_GRA_TX	The total number of GRA messages sent on the reporting trunk group
SGA_GRA_RX	The total number of GRA messages received on the reporting trunk group
SGA_IAM_TX	The total number of IAM messages sent on the reporting trunk group
SGA_IAM_RX	The total number of IAM messages received on the reporting trunk group
SGA_INF_TX	The total number of INF messages sent on the reporting trunk group
SGA_INF_RX	The total number of INF messages received on the reporting trunk group
SGA_INR_TX	The total number of INR messages sent on the reporting trunk group
SGA_INR_RX	The total number of INR messages received on the reporting trunk group
SGA_REL_TX	The total number of REL messages sent on the reporting trunk group
SGA_REL_RX	The total number of REL messages received on the reporting trunk group
SGA_RLC_TX	The total number of RLC messages sent on the reporting trunk group
SGA_RLC_RX	The total number of RLC messages received on the reporting trunk group
SGA_RSC_TX	The total number of RSC messages sent on the reporting trunk group
SGA_RSC_RX	The total number of RSC messages received on the reporting trunk group
SGA_RES_TX	The total number of RES messages sent on the reporting trunk group
SGA_RES_RX	The total number of RES messages received on the reporting trunk group
SGA_SAM_TX	The total number of SAM messages sent on the reporting trunk group
SGA_SAM_RX	The total number of SAM messages received on the reporting trunk group
SGA_SUS_TX	The total number of SUS messages sent on the reporting trunk group
SGA_SUS_RX	The total number of SUS messages received on the reporting trunk group
SGA_UBL_TX	The total number of UBL messages sent on the reporting trunk group
SGA_UBL_RX	The total number of UBL messages received on the reporting trunk group
SGA_UBA_TX	The total number of UBA messages sent on the reporting trunk group
SGA_UBA_RX	The total number of UBA messages received on the reporting trunk group
SGA_UCIC_TX	The total number of UCIC messages sent on the reporting trunk group
SGA_UCIC_RX	The total number of UCIC messages received on the reporting trunk group
SGA_ABNORMAL_REL_TX	The total number of RELs sent with a cause other than NORMAL on the reporting trunk group
SGA_ABNORMAL_REL_RX	The total number of RELs received with a cause other than NORMAL on the reporting trunk group
SGA_UNEXPECT_MSG_RX	The total number of unexpected messages received on the reporting trunk group
SGA_UNRECOG_MSG_RX	The total number of unrecognized messages received on the reporting trunk group

## ISUP (ITU-HongKong) Counters

Table 6-29 lists the ISUP (ITU-HongKong) measurements provided in Release 4.2.

**Table 6-29** *ISUP (ITU-HongKong) Counters*

Measurement	Description (* = rapid count could mean a potential problem in the system)
SGA_MSG_TX	The total number of messages sent on the reporting trunk group
SGA_MSG_RX	The total number of messages received on the reporting trunk group
SGA_ACM_TX	The total number of ACM messages sent on the reporting trunk group
SGA_ACM_RX	The total number of ACM messages received on the reporting trunk group
SGA_ANM_TX	The total number of ANM messages sent on the reporting trunk group
SGA_ANM_RX	The total number of ANM messages received on the reporting trunk group
SGA_BLO_TX	The total number of BLO messages sent on the reporting trunk group
SGA_BLO_RX	The total number of BLO messages received on the reporting trunk group
SGA_BLA_TX	The total number of BLA messages sent on the reporting trunk group
SGA_BLA_RX	The total number of BLA messages received on the reporting trunk group
SGA_CFN_TX	The total number of CFN messages sent on the reporting trunk group
SGA_CFN_RX	The total number of CFN messages received on the reporting trunk group
SGA_CPG_TX	The total number of CPG messages sent on the reporting trunk group
SGA_CPG_RX	The total number of CPG messages received on the reporting trunk group
SGA_CGB_TX	The total number of CGB messages sent on the reporting trunk group
SGA_CGB_RX	The total number of CGB messages received on the reporting trunk group
SGA_CGU_TX	The total number of CGU messages sent on the reporting trunk group
SGA_CGU_RX	The total number of CGU messages received on the reporting trunk group
SGA_CGBA_TX	The total number of CGBA messages sent on the reporting trunk group
SGA_CGBA_RX	The total number of CGBA messages received on the reporting trunk group
SGA_CGUA_TX	The total number of CGUA messages sent on the reporting trunk group
SGA_CGUA_RX	The total number of CGUA messages received on the reporting trunk group
SGA_CON_TX	The total number of CON messages sent on the reporting trunk group
SGA_CON_RX	The total number of CON messages received on the reporting trunk group
SGA_COT_TX	The total number of COT messages sent on the reporting trunk group
SGA_COT_RX	The total number of COT messages received on the reporting trunk group
SGA_FAC_TX	The total number of FAC messages sent on the reporting trunk group
SGA_FAC_RX	The total number of FAC messages received on the reporting trunk group
SGA_GRS_TX	The total number of GRS messages sent on the reporting trunk group
SGA_GRS_RX	The total number of GRS messages received on the reporting trunk group
SGA_GRA_TX	The total number of GRA messages sent on the reporting trunk group
SGA_GRA_RX	The total number of GRA messages received on the reporting trunk group

**Table 6-29** *ISUP (ITU-HongKong) Counters*

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
SGA_IAM_TX	The total number of IAM messages sent on the reporting trunk group
SGA_IAM_RX	The total number of IAM messages received on the reporting trunk group
SGA_INF_TX	The total number of INF messages sent on the reporting trunk group
SGA_INF_RX	The total number of INF messages received on the reporting trunk group
SGA_INR_TX	The total number of INR messages sent on the reporting trunk group
SGA_INR_RX	The total number of INR messages received on the reporting trunk group
SGA_PAM_TX	The total number of PAM messages sent on the reporting trunk group
SGA_PAM_RX	The total number of PAM messages received on the reporting trunk group
SGA_NRM_TX	The total number of NRM messages sent on the reporting trunk group
SGA_NRM_RX	The total number of NRM messages received on the reporting trunk group
SGA_REL_TX	The total number of REL messages sent on the reporting trunk group
SGA_REL_RX	The total number of REL messages received on the reporting trunk group
SGA_RLC_TX	The total number of RLC messages sent on the reporting trunk group
SGA_RLC_RX	The total number of RLC messages received on the reporting trunk group
SGA_RSC_TX	The total number of RSC messages sent on the reporting trunk group
SGA_RSC_RX	The total number of RSC messages received on the reporting trunk group
SGA_RES_TX	The total number of RES messages sent on the reporting trunk group
SGA_RES_RX	The total number of RES messages received on the reporting trunk group
SGA_SAM_TX	The total number of SAM messages sent on the reporting trunk group
SGA_SAM_RX	The total number of SAM messages received on the reporting trunk group
SGA_SGM_TX	The total number of SGM messages sent on the reporting trunk group
SGA_SGM_RX	The total number of SGM messages received on the reporting trunk group
SGA_SUS_TX	The total number of SUS messages sent on the reporting trunk group
SGA_SUS_RX	The total number of SUS messages received on the reporting trunk group
SGA_UBA_TX	The total number of UBA messages sent on the reporting trunk group
SGA_UBA_RX	The total number of UBA messages received on the reporting trunk group
SGA_ABNORMAL_REL_TX	The total number of RELs sent with a cause other than NORMAL on the reporting trunk group
SGA_ABNORMAL_REL_RX	The total number of RELs received with a cause other than NORMAL on the reporting trunk group
SGA_UNEXPECT_MSG_RX	The total number of unexpected messages received on the reporting trunk group
SGA_UNRECOG_MSG_RX	The total number of unrecognized messages received on the reporting trunk group

## Audit Measurements

Table 6-30 lists the audit measurements.

**Table 6-30**      *Audit Measurements*

Measurement	Description (* = rapid count could mean a potential problem in the system)
AUDIT_SS7_TRUNK_STATE_SYNCED	The total number of SS7 trunks that had their local and remote states synchronized on the reporting trunk group.
AUDIT_SS7_LONG_DUR_EXCEEDED	The total number of SS7 calls that exceeded the long duration threshold on the reporting trunk group.
AUDIT_FS_TOTAL_SIP_RESP_TMO	The total number of CCB audits initiated due to a SIP Request that has timed out that is detected by the reporting feature server.
AUDIT_FS_TOTAL_SIP_NOACK_TMO	The total number of CCB audits initiated due to a SIP Invite that was not acknowledged that is detected by the reporting feature server.
AUDIT_FS_TOTAL_CA_SWITCHOVER	The total number of audits to check all active CCBs in response to a call agent platform switchover occurring. This is only applicable when the standby call agent becomes active.

## SIP Interface Adapter Measurements

Table 6-31 lists the SIP interface adapter measurements.

**Table 6-31**      *SIP Interface Adapter Measurements*

Measurement	Description (* = rapid count could mean a potential problem in the system)
SIA_OUTG_INIT	The number of outgoing SIP call initializations on the reporting call agent.
SIA_OUTG_SUCC	The number of successful outgoing SIP calls on the reporting call agent.
SIA_OUTG_FAIL	The number of failed outgoing SIP calls on the reporting call agent.
SIA_INCOM_INIT	The number of incoming SIP call initializations on the reporting call agent.
SIA_INCOM_SUCC	The number of successful incoming SIP calls on the reporting call agent.
SIA_INCOM_FAIL	The number of failed incoming SIP calls on the reporting call agent.
SIA_TOTAL_SUCC	The total number of successfully completed SIP calls on the reporting call agent (DEPRECATED - always will contain a value of ZERO).
SIA_TOTAL_FAIL	The total number of unsuccessfully completed SIP calls on the reporting call agent (DEPRECATED - always will contain a value of ZERO).
SIA_TOTAL_OUTG_MSG_FAIL	The number of outgoing SIP message attempts that were not successfully transmitted by the reporting call agent (DEPRECATED - always will contain a value of ZERO).

**Table 6-31** SIP Interface Adapter Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
SIA_TOTAL_INCOM_MSG_FAIL	The number of incoming SIP message attempts that were not successfully received by the reporting call agent (DEPRECATED - always will contain a value of ZERO).
SIA_REFRESHES_TX	The number of SIP message refreshes that occurred on the reporting call agent.
SIA_TOTAL_SESS_TIMER_FAIL	The number of call failures due to session timer expiry that occurred on the reporting call agent.
SIA_CALL_FAIL_BY_EXPIRED_REG	The number of call failures due to a registration expiration on the reporting call agent.
SIA_MWI_NOTIFY_TX	The number of SIP Notify MWIs sent to SIP phones by the reporting call agent.
SIA_MWI_NOTIFY_TX_FAIL	The number of SIP Notify MWIs that failed to be sent to SIP phones by the reporting call agent.
SIA_MWI_NOTIFY_RX	The number of SIP Notify MWIs received from SIP subscribers by the reporting call agent.
SIA_AUDIT_CCB_FREED	The total number of Call Control Blocks freed due to the SIA audit on the reporting call agent.
SIA_AUDIT_CALL_RELEASED	The total number of SIP side calls released due to the SIA memory audit when the BCM side of the call is already released on the reporting call agent.
SIA_AUDIT_BCM_CALL_RELEASED	The total number of calls released when the SIP side is inactive on the reporting call agent.
SIA_AUDIT_REGCONTACT_FREED	The total number of SIP Registration Contacts freed as a result of the SIA Memory Audit on the reporting call agent.
SIA_SECURE_FQDN_VIOLATION_REQ	The total number of times that a SIP request fails the validation for a secure SIP endpoint on the reporting call agent.
SIA_SECURE_FQDN_VIOLATION_RESP	The total number of times that a SIP response fails the validation for a secure SIP endpoint on the reporting call agent.

## Call Detail Block Measurements

Table 6-32 lists the call detail block measurements.

**Table 6-32** Call Detail Block Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
BILLING_TOTAL_NULL	The number call detail block of type “null” (non-routed calls) created by the reporting element management system.
BILLING_TOTAL_TEST	The number call detail block of type test call created by the reporting element management system - this includes all subtypes of test calls performed by the call agent.
BILLING_TOTAL_INTL	The number call detail block of type international created by the reporting element management system

**Table 6-32**      **Call Detail Block Measurements (continued)**

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
BILLING_TOTAL_LOCAL	The number call detail block of type local created by the reporting element management system
BILLING_TOTAL_TOLL	The number call detail block of type toll created by the reporting element management system
BILLING_TOTAL_INTERLATA	The number call detail block of type interlata created by the reporting element management system
BILLING_TOTAL_TANDEM	The number call detail block of type tandem created by the reporting element management system
BILLING_TOTAL_EMG	The number call detail block of type emergency created by the reporting element management system
BILLING_TOTAL_NON_EMG	The number call detail block of type non-emergency created by the reporting element management system
BILLING_TOTAL_DA	The number call detail block of type directory assistance created by the reporting element management system
BILLING_TOTAL_DA_TOLL	The number call detail block of type directory assistance toll created by the reporting element management system
BILLING_TOTAL_REPAIR	The number call detail block of type repair created by the reporting element management system
BILLING_TOTAL_RELAY	The number call detail block of type relay created by the reporting element management system
BILLING_TOTAL_BUSINESS	The number call detail block of type business created by the reporting element management system
BILLING_TOTAL_TOLL_FREE	The number call detail block of type toll free created by the reporting element management system
BILLING_TOTAL_900	The number call detail block of type 900 created by the reporting element management system
BILLING_TOTAL_500	The number call detail block of type 500 created by the reporting element management system
BILLING_TOTAL_700	The number call detail block of type 700 created by the reporting element management system
BILLING_TOTAL_976	The number call detail block of type 976 created by the reporting element management system
BILLING_TOTAL_VACANT	The number call detail block of type vacant created by the reporting element management system
BILLING_TOTAL_PCS	The number call detail block of type pcs created by the reporting element management system
BILLING_TOTAL_INVALID	The number call detail block of type invalid created by the reporting element management system
BILLING_TOTAL_NONE	The number call detail block of type none created by the reporting element management system

**Table 6-32**      **Call Detail Block Measurements (continued)**

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
BILLING_TOTAL_LRN	The number call detail block of type LRN created by the reporting element management system
BILLING_TOTAL_EXTENSION	The number call detail block of type extension created by the reporting element management system
BILLING_TOTAL_CUT_THRU	The number call detail block of type cut thru created by the reporting element management system
BILLING_TOTAL_OP	The number call detail block of type cut operator created by the reporting element management system
BILLING_TOTAL_CARRIER_OP	The number call detail block of type carrier operator created by the reporting element management system
BILLING_TOTAL_OP_ASSIST	The number call detail block of type operator assisted created by the reporting element management system
BILLING_TOTAL_BLV	The number call detail block of type busy line verification created by the reporting element management system
BILLING_TOTAL_SPEED_DIAL	The number call detail block of type speed dial created by the reporting element management system
BILLING_TOTAL_NATIONAL	The number call detail block of type national (NANP) created by the reporting element management system
BILLING_TOTAL_TW	The number call detail block of type time and weather created by the reporting element management system
BILLING_TOTAL_INFO	The number call detail block of type information (i.e. 976 calls) created by the reporting element management system
BILLING_TOTAL_PREMIUM	The number call detail block of type premium (i.e. 900 calls) created by the reporting element management system
BILLING_TOTAL_ATTENDANT	The number call detail block of type attendant created by the reporting element management system
BILLING_TOTAL_NAS	The number call detail block of type NAS created by the reporting element management system
BILLING_TOTAL_POLICE	The number call detail block of type police created by the reporting element management system
BILLING_TOTAL_FIRE	The number call detail block of type fire created by the reporting element management system
BILLING_TOTAL_AMBULANCE	The number call detail block of type ambulance created by the reporting element management system
BILLING_TOTAL_TIME	The number call detail block of type time created by the reporting element management system.
BILLING_TOTAL_WEATHER	The number call detail block of type weather created by the reporting element management system.
BILLING_TOTAL_TRAFFIC	The number call detail block of type traffic created by the reporting element management system.



**Table 6-32**      **Call Detail Block Measurements (continued)**

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
BILLING_TOTAL_LB_TEST	The number call detail blocks of type Loopback Test created by the reporting element management system.
BILLING_TOTAL_INTL_OPR	The number call detail blocks of type International Operator created by the reporting element management system.
BILLING_TOTAL_NAT_OPR	The number call detail blocks of type National Operator created by the reporting element management system.
BILLING_TOTAL_AIRLINES	The number call detail blocks of type Airlines created by the reporting element management system.
BILLING_TOTAL_RAILWAYS	The number call detail blocks of type Railways created by the reporting element management system.
BILLING_TOTAL_SVC_CODE	The number call detail blocks of type Service Code created by the reporting element management system.
BILLING_TOTAL_INTL_WZ1	The number call detail blocks of type International World Zone 1 created by the reporting element management system.
BILLING_TOTAL_CNA	The number call detail blocks of type Calling Number Announcement created by the reporting element management system.
BILLING_TOTAL_DA_INTER	The number call detail blocks of type Directory Assistance Interlata created by the reporting element management system.
BILLING_TOTAL_DA_INTL	The number call detail blocks of type Directory Assistance International created by the reporting element management system.
BILLING_TOTAL_UAN	The number call detail blocks of type Universal Access Number created by the reporting element management system.
BILLING_TOTAL_MOBILE	The number call detail blocks of type Mobile created by the reporting element management system.
CALLP_NLB_TEST_SUCC	The number of call detail block of test calls of the “network loopback” type created by the reporting element management system.
CALLP_NLB_TEST_FAIL	The number of call detail block of test calls of the “network loopback” type that are abnormally released by the BTS 10200 Softswitch (due to reasons such as resource priority should be given to regular calls).
CALLP_NCT_TEST_SUCC	The number of call detail block of type test calls of type “network continuity” created by the reporting element management system.
CALLP_NCT_TEST_FAIL	The number of call detail block of test calls of the “network continuity” type that are abnormally released by the BTS 10200 Softswitch (due to reasons such as resource priority should be given to regular calls).
CALLP-LB-TEST-SUCC	The number of call detail block of test calls of the “TDM loop back 108 test” type created by the reporting element management system.
CALLP-TEST-ROUTE-SUCC	The number of call detail block of test calls of the “TDM loop back 108 test” type and the DN dialed out in an outgoing message.
BILLING_TOTAL_TEST	This existing counter is incremented for calls of the network loopback test type (based on the CALL-TYPE field in the destination table).

## Event Messaging Measurements

Table 6-33 lists the event messaging measurements.

**Table 6-33** Event Messaging Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
BILLING_EM_ACKED	The number of event messages acknowledged by the Record Keeping System.
BILLING_EM_LOGGED	The number of event messages written to disk but not sent to any RKS.
BILLING_EM_RETRANS	The number of event messages that were transmitted to an alternate RKS due to a lack of response from a previously tried RKS, excluding retries. The counter is incremented when an event message is first sent to an alternate RKS. Any retries that occur at the RADIUS stack level (as provisioned in the “radius-profile” table) will not be included in this count.

## Dynamic QoS Measurements

Table 6-34 lists the dynamic quality of service (QoS) measurements.

**Table 6-34** Dynamic QoS Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
DQOS_GATESET_ATTMP	The number of DQOS gate set attempts of all types on the reporting aggregator.
DQOS_GATESET_SUCC	The number of successful DQOS gate set attempts of all types on the reporting aggregator.
DQOS_GATE_COMMIT	The number of successfully committed DQOS gates of all types on the reporting aggregator.

## SNMP Protocol Measurements

Table 6-35 lists the SNMP protocol measurements.

**Table 6-35** SNMP Protocol Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
SNMP_TRAP_TX	The total number of SNMP TRAPs generated by the reporting element management system
SNMP_SET_RX	The total number of SNMP SETs received by the reporting element management system
SNMP_SET_TX	The total number of SNMP SETs transmitted by the reporting element management system
SNMP_GET_RX	The total number of SNMP GETs received by the reporting element management system
SNMP_GET_TX	The total number of SNMP GETs transmitted by the reporting element management system

**Table 6-35** *SNMP Protocol Measurements (continued)*

Measurement	Description (*= <b>rapid count could mean a potential problem in the system</b> )
SNMP_GET_NEXT_RX	The total number of SNMP GET NEXTs received by the reporting element management system
SNMP_GET_NEXT_TX	The total number of SNMP GET NEXTs transmitted by the reporting element management system

## Trunk Group Usage Measurements

Table 6-36 lists the trunk group usage measurements.

**Table 6-36** *Trunk Group Usage Measurements*

Measurement	Description (*= <b>rapid count could mean a potential problem in the system</b> )
TRKGRP_TYPE	The signaling type of the reporting trunk group.
TRKGRP_EXCHANGE	The CLLI code from the POP table of the reporting trunk group.
TRKGRP_NAME	The remote switch CLLI code and trunk group type of the reporting trunk group.
TGN_ID	The identification number of the reporting trunk group.
TRKGRP_INCOM_ATTMP	The number of times the system recognizes an incoming seizure for any trunk within the reporting trunk group: <ul style="list-style-type: none"> <li>In the case of a SIP trunk, this is incremented for every Invite received on a trunk.</li> <li>In the case of an H.323 trunk, this is incremented for each Incoming Setup received on a trunk when not associated with a H.323 subscriber.</li> </ul>
TRKGRP_OUTG_ATTMP	The number of times the system tries to access any trunk for an outbound call within the reporting trunk group: <ul style="list-style-type: none"> <li>In the case of a SIP trunk, this is incremented for each received SetupReq request for a SIP trunk.</li> <li>In the case of an H.323 trunk, this is incremented for each Outgoing Setup sent on a trunk when not associated with a H.323 subscriber.</li> </ul>
TRKGRP_OUTBOUND_FAIL	The number of times the system tries to access any trunk for an outbound call unsuccessfully within the reporting trunk group: <ul style="list-style-type: none"> <li>In the case of a SIP trunk, this is incremented for each outgoing initial Invite request failure over a SIP trunk. For each failure response received over a trunk for any other failure causing failure of the outbound call setup. If an Invite is cancelled, the counter for failure is not incremented as this includes just an outbound call.</li> <li>In the case of an H.323 trunk, this is incremented for each Outgoing Setup sent on a trunk that failed when not associated with a H.323 subscriber.</li> </ul>
TRKGRP_TOTAL_OVERFLOW	The number of outbound trunk call attempt failures due to all trunks within the reporting trunk group being in a busy state. This counter is not incremented for SIP or H.323 trunk groups.
TRKGRP_TOTAL_TRK	The number of trunks within the reporting trunk group

**Table 6-36**      **Trunk Group Usage Measurements (continued)**

Measurement	Description (*= <b>rapid count could mean a potential problem in the system</b> )
TRKGRP_INCOM_BUSY_TRK	Summation (CCS based) of the number of trunk circuits within the reporting trunk group marked as busy with terminating calls taken every 100 seconds during the interval. This counter is not incremented for SIP or H323 trunk groups.
TRKGRP_OUTG_BUSY_TRK	Summation (CCS based) of the number of trunk circuits within the reporting trunk group marked as busy with originating calls taken every 100 seconds during the interval. This counter is not incremented for SIP or H323 trunk groups.
TRKGRP_TOTAL_OOS_TRK	<p>This measurement is a summation of the following measurements for this reporting trunk group:</p> <ul style="list-style-type: none"> <li>• TRKGRP_MAINT_TRK_USAGE</li> <li>• TRKGRP_OOS_TRK_USAGE</li> <li>• TRKGRP_UEQP_TRK_USAGE</li> <li>• TRKGRP_LBLK_TRK_USAGE</li> <li>• TRKGRP_RBLK_TRK_USAGE</li> </ul> <p>This measurement is not incremented for SIP or H323 trunk groups.</p>
TRKGRP_INCOM_USAGE	<p>Summation (CCS based) of the number of trunk circuits within the reporting trunk group marked as busy or in the maintenance state with terminating calls taken every 100 seconds during the interval.</p> <p>This measurement is mapped to the same value as the TRKGRP_INCOM_BUSY_TRK in this release. This measurement will be re-implemented to account for the MAINT state in a later release.</p>
TRKGRP_OUTG_USAGE	<p>Summation (CCS based) of the number of trunk circuits within the reporting trunk group marked as busy or in the maintenance state with originating calls taken every 100 seconds during the interval.</p> <p>This measurement is mapped to the same value as the TRKGRP_OUTG_BUSY_TRK in this release. This measurement will be re-implemented to account for the MAINT state in a later release.</p>
TRKGRP_TOTAL_USAGE	Summation (CCS based) of the incoming usage and the outgoing usage measurements for the reporting trunk group. This measurement is not incremented for SIP or H323 trunk groups.
TRKGRP_AVERAGE_USAGE	The total usage measurement divided by the number of trunks in the reporting trunk group. This measurement is not incremented for SIP or H.323 trunk groups.
TRKGRP_OOS_TRK_USAGE	The CCS value for trunks that are OOS, UEQP in the reporting trunk group for this reporting period. This counter is not incremented for SIP or H323 trunk groups.
TRKGRP_GLARE_COUNT	The total number of attempts by the local and remote switch to use the same CIC on a 2-way trunk group. When glare is encountered and pegged here, the TRKGRP_OUTGOING_ATTMP counter is NOT pegged. This counter is not incremented for SIP or H323 trunk groups.
TRKGRP_TOTAL_INS_TRK	The CCS value for trunks with a status of INS in the reporting trunk group. This counter is not incremented for SIP or H323 trunk groups.
TRKGRP_MAINT_TRK_USAGE	The CCS value for trunks that are MAINT in the reporting trunk group for this reporting period. This counter is not incremented for SIP or H323 trunk groups.

**Table 6-36** Trunk Group Usage Measurements (continued)

Measurement	Description (* = rapid count could mean a potential problem in the system)
TRKGRP_UEQP_TRK_USAGE	The CCS value for trunks that are UEQP, in the reporting trunk group for this reporting period. This counter is not incremented for SIP or H323 trunk groups.
TRKGRP_LBLK_TRK_USAGE	The CCS value for trunks that are Local Blocked in the reporting trunk group for this reporting period. This counter is not incremented for SIP or H323 trunk groups.
TRKGRP_RBLK_TRK_USAGE	The CCS value for trunks that are Remote Blocked in the reporting trunk group for this reporting period. This counter is not incremented for SIP or H323 trunk groups.

## Announcement Measurements

Table 6-37 lists the announcement measurements.

**Table 6-37** Announcement Measurements

Measurement	Description (* = rapid count could mean a potential problem in the system)
ANM_CKT_UNAVAIL	The number of calls resulting in the playing of the circuit unavailable announcement by the reporting call agent
ANM_CALL_REJECTED	The number of calls resulting in the playing of the call rejected announcement by the reporting call agent
ANM_ADDR_INCOMPLETE	The number of calls resulting in the playing of the address incomplete announcement by the reporting call agent
ANM_FAC_REJECTED	The number of calls resulting in the playing of the facility rejected announcement by the reporting call agent
ANM_PRE_0_1_ABSENT	The number of calls resulting in the playing of the prefix of 0 or 1 absent announcement by the reporting call agent
ANM_PRE_0_1_PRESENT	The number of calls resulting in the playing of the prefix 0 or 1 present announcement by the reporting call agent
ANM_HNPA_ABSENT	The number of calls resulting in the playing of the HNPA area code announcement by the reporting call agent
ANM_NO_ROUTE_DEST	The number of calls resulting in the playing of the no route to destination announcement by the reporting call agent
ANM_UNALLOCATED_NUM	The number of calls resulting in the playing of the unallocated directory number announcement by the reporting call agent
ANM_NUM_CHANGED	The number of calls resulting in the playing of the directory number changed announcement by the reporting call agent
ANM_DEST_OUTOFORDER	The number of calls resulting in the playing of the destination out of order announcement by the reporting call agent
ANM_TEMP_DISCONNECT	The number of calls resulting in the playing of the temporarily disconnected announcement by the reporting call agent
ANM_FEAT_NOT_SUBS	The number of calls resulting in the playing of the feature not subscribed to announcement by the reporting call agent

**Table 6-37**      **Announcement Measurements (continued)**

Measurement	Description (* = rapid count could mean a potential problem in the system)
ANM_AUTHCODE_INVALID	The number of calls resulting in the playing of the authorization code invalid announcement by the reporting call agent
ANM_NO_RTE_TRANSITNW	The number of calls resulting in the playing of the no route to specified network announcement by the reporting call agent
ANM_CAUSE_UNKNOWN	The number of calls resulting in the playing of the cause unknown announcement by the reporting call agent
ANM_EMG_CKT_UNAVAIL	The number of calls resulting in the playing of the “No Emergency Circuit Available” announcement by the reporting call agent.

## H.323 Protocol Measurements

Table 6-38 lists the H.323 protocol measurements.

**Table 6-38**      **H.323 Protocol Measurements**

Measurement	Description (* = rapid count could mean a potential problem in the system)
H323_SETUP_RX	The total number of H323 SETUPS received by the reporting call agent
H323_SETUP_TX	The total number of H323 SETUPS transmitted by the reporting call agent
H323_SETUP_FAIL	The total number of H323 SETUPS that failed. The failure is due to one of the following scenarios: unable to send due to full socket queue, unable to compose message due to invalid socket, or lack of available memory.
H323_CONNECT_RX	The total number of H323 CONNECTs received by the reporting call agent
H323_CONNECT_TX	The total number of H323 CONNECTs transmitted by the reporting call agent
H323_CONNECT_FAIL	The total number of H323 CONNECT CONFIRMs that failed. The failure is due to one of the following scenarios: unable to send due to full socket queue, unable to compose message due to invalid socket, or lack of available memory.
H323_ALERT_RX	The total number of H323 ALERTs received by the reporting call agent
H323_ALERT_TX	The total number of H323 ALERTs transmitted by the reporting call agent
H323_ALERT_FAIL	The total number of H323 ALERTs that failed. The failure is due to one of the following scenarios: unable to send due to full socket queue, unable to compose message due to invalid socket, or lack of available memory.
H323_IN_PROGRESS_RX	The total number of H323 IN PROGRESSs received by the reporting call agent
H323_IN_PROGRESS_TX	The total number of H323 IN PROGRESSs transmitted by the reporting call agent
H323_IN_PROGRESS_FAIL	The total number of H323 IN PROGRESSs that failed. The failure is due to one of the following scenarios: unable to send due to full socket queue, unable to compose message due to invalid socket, or lack of available memory.
H323_CALL_PROCEEDING_RX	The total number of H323 CALL PROCEEDINGs received by the reporting call agent

**Table 6-38**      **H.323 Protocol Measurements (continued)**

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
H323_CALL_PROCEEDING_TX	The total number of H323 CALL PROCEEDINGs transmitted by the reporting call agent
H323_CALL_PROCEEDING_FAIL	The total number of H323 CALL PROCEEDINGs that failed. The failure is due to one of the following scenarios: unable to send due to full socket queue, unable to compose message due to invalid socket, or lack of available memory.
H323_RELEASE_COMPLETE_RX	The total number of H323 RELEASEs received by the reporting call agent
H323_RELEASE_COMPLETE_TX	The total number of H323 RELEASEs transmitted by the reporting call agent
H323_RELEASE_COMPLETE_FAIL	The total number of H323 RELEASEs that failed. The failure is due to one of the following scenarios: unable to send due to full socket queue, unable to compose message due to invalid socket, or lack of available memory.
H323_REJECT_RX	The total number of H323 REJECTs received by the reporting call agent
H323_REJECT_TX	The total number of H323 REJECTs transmitted by the reporting call agent
H323_REJECT_FAIL	The total number of H323 REJECTs that failed. The failure is due to one of the following scenarios: unable to send due to full socket queue, unable to compose message due to invalid socket, or lack of available memory.
H323_INFORMATION_RX	The total number of H323 INFOs received by the reporting call agent
H323_INFORMATION_TX	The total number of H323 INFOs transmitted by the reporting call agent
H323_INFORMATION_FAIL	The total number of H323 INFOs that failed. The failure is due to one of the following scenarios: unable to send due to full socket queue, unable to compose message due to invalid socket, or lack of available memory.
H323_USER_INFO_RX	The total number of H323 USER INFOs received by the reporting call agent
H323_USER_INFO_TX	The total number of H323 USER INFOs transmitted by the reporting call agent
H323_USER_INFO_FAIL	The total number of H323 USER INFOs that failed. The failure is due to one of the following scenarios: unable to send due to full socket queue, unable to compose message due to invalid socket, or lack of available memory.
H323_FACILITY_RX	The total number of H323 FACILITYs received by the reporting call agent
H323_FACILITY_TX	The total number of H323 FACILITYs transmitted by the reporting call agent
H323_FACILITY_FAIL	The total number of H323 FACILITYs that failed. The failure is due to one of the following scenarios: unable to send due to full socket queue, unable to compose message due to invalid socket, or lack of available memory.
H323_NOTIFY_RX	The total number of H323 NOTIFYs received by the reporting call agent
H323_NOTIFY_TX	The total number of H323 NOTIFYs transmitted by the reporting call agent
H323_NOTIFY_FAIL	The total number of H323 NOTIFYs that failed. The failure is due to one of the following scenarios: unable to send due to full socket queue, unable to compose message due to invalid socket, or lack of available memory.
H323_PASSTHROU_RX	The total number of H323 PASS THROUGHs received by the reporting call agent
H323_PASSTHROU_TX	The total number of H323 PASS THROUGHs transmitted by the reporting call agent

**Table 6-38** *H.323 Protocol Measurements (continued)*

<b>Measurement</b>	<b>Description (* = rapid count could mean a potential problem in the system)</b>
H323_PASSTHROU_FAIL	The total number of H323 PASS THROUGHs that failed. The failure is due to one of the following scenarios: unable to send due to full socket queue, unable to compose message due to invalid socket, or lack of available memory.
H323_GRQ_TX	The total number of H323 GRQs transmitted by the reporting call agent
H323_GRQ_RX	The total number of H323 GRQs received by the reporting call agent
H323_GCF_TX	The total number of H323 GCFs transmitted by the reporting call agent
H323_GCF_RX	The total number of H323 GCFs received by the reporting call agent
H323_GRJ_TX	The total number of H323 GRJs received by the reporting call agent
H323_GRJ_RX	The total number of H323 GRJs transmitted by the reporting call agent
H323_RRQ_TX	The total number of H323 RRQs transmitted by the reporting call agent
H323_RRQ_RX	The total number of H323 RRQs received by the reporting call agent
H323_RCF_TX	The total number of H323 RCFs transmitted by the reporting call agent
H323_RCF_RX	The total number of H323 RCFs received by the reporting call agent
H323_RRJ_TX	The total number of H323 RRJs transmitted by the reporting call agent
H323_RRJ_RX	The total number of H323 RRJs received by the reporting call agent
H323_RIP_TX	The total number of H323 RIPs transmitted by the reporting call agent
H323_RIP_RX	The total number of H323 RIPs received by the reporting call agent
H323_RAI_TX	The total number of H323 RAIs transmitted by the reporting call agent
H323_RAI_RX	The total number of H323 RAIs received by the reporting call agent
H323_RAC_TX	The total number of H323 RACs transmitted by the reporting call agent
H323_RAC_RX	The total number of H323 RACs received by the reporting call agent
H323_ARQ_TX	The total number of H323 ARQs transmitted by the reporting call agent
H323_ARQ_RX	The total number of H323 ARQs received by the reporting call agent
H323_ACF_TX	The total number of H323 ACFs transmitted by the reporting call agent
H323_ACF_RX	The total number of H323 ACFs received by the reporting call agent
H323_ARJ_TX	The total number of H323 ARJs transmitted by the reporting call agent
H323_ARJ_RX	The total number of H323 ARJs received by the reporting call agent
H323_URQ_RX	The total number of H323 URQs received by the reporting call agent
H323_URQ_TX	The total number of H323 URQs transmitted by the reporting call agent
H323_UCF_RX	The total number of H323 UCFs received by the reporting call agent
H323_UCF_TX	The total number of H323 UCFs transmitted by the reporting call agent
H323_URJ_RX	The total number of H323 URJs received by the reporting call agent
H323_URJ_TX	The total number of H323 URJs transmitted by the reporting call agent
H323_BRQ_RX	The total number of H323 BRQs received by the reporting call agent
H323_BRQ_TX	The total number of H323 BRQs transmitted by the reporting call agent
H323_BCF_RX	The total number of H323 BCFs received by the reporting call agent



**Table 6-38** H.323 Protocol Measurements (continued)

Measurement	Description (*= <b>rapid count could mean a potential problem in the system</b> )
H323_BCF_TX	The total number of H323 BCFs transmitted by the reporting call agent
H323_BRJ_RX	The total number of H323 BRJs received by the reporting call agent
H323_BRJ_TX	The total number of H323 BRJs transmitted by the reporting call agent
H323_DRQ_RX	The total number of H323 DRQs received by the reporting call agent
H323_DRQ_TX	The total number of H323 DRQs transmitted by the reporting call agent
H323_DCF_RX	The total number of H323 DCFs received by the reporting call agent
H323_DCF_TX	The total number of H323 DCFs transmitted by the reporting call agent
H323_DRJ_RX	The total number of H323 DRJs received by the reporting call agent
H323_DRJ_TX	The total number of H323 DRJs transmitted by the reporting call agent

## Call Tools Measurements

Table 6-39 lists the Call Tools measurements.

**Table 6-39** Call Tools Measurements

Measurement	Description (*= <b>rapid count could mean a potential problem in the system</b> )
TOOLS_TRUNK_TRANS_ATTMP	The total number of times the TVT process on the reporting call agent received a request to perform a trunk based translation.
TOOLS_TRUNK_TRANS_SUCC	The total number of times the TVT process on the reporting call agent received a request to perform a trunk based translation and completed it successfully.
TOOLS_LINE_TRANS_ATTMP	The total number of times the TVT process on the reporting call agent received a request to perform a line based translation.
TOOLS_LINE_TRANS_SUCC	The total number of times the TVT process on the reporting call agent received a request to perform a line based translation and completed it successfully.

## AIN Tools Measurements

Table 6-40 lists the AIN feature server tools measurements.

**Table 6-40** AIN Tools Measurements

Measurement	Description (*= <b>rapid count could mean a potential problem in the system</b> )
TOOLS_LNP_QUERY_ATTMP	The total number of times the reporting feature server received a request to perform an LNP query from the QVT tool.
TOOLS_LNP_QUERY_SUCC	The total number of times the reporting feature server received a request to perform an LNP query from the QVT tool and completed it successfully.

**Table 6-40** AIN Tools Measurements (continued)

Measurement	Description (*= <b>rapid count could mean a potential problem in the system</b> )
TOOLS_TOLLFREE_QUERY_ATTMP	The total number of times the reporting feature server received a request to perform a Toll Free query from the QVT tool.
TOOLS_TOLLFREE_QUERY_SUCC	The total number of times the reporting feature server received a request to perform a Toll Free query from the QVT tool and completed it successfully.

## PCT Tools Measurements

Table 6-41 lists the PCT feature server tools measurements.

**Table 6-41** PCT Tools Measurements

Measurement	Description (*= <b>rapid count could mean a potential problem in the system</b> )
TOOLS_LIDB_QUERY_ATTMP	The total number of times the reporting feature server received a request to perform an LIDB query from the QVT tool.
TOOLS_LIDB_QUERY_SUCC	The total number of times the reporting feature server received a request to perform an LIDB query from the QVT tool and completed it successfully.

## Measurement Data Report Formats

The BTS 10200 Softswitch provides statistical reports through the command line interface. The construction of the reports are similar— only the titles and respective measurement labels differ to facilitate searching the reports for analysis. The following sections depict a sample report from each of the various measurement types. Each report header contains information specifying the location where the data was reported from, and the condition of the data (either normal or suspect).

### ISDN Protocol Summary Report Example

```
CLI>report measurement-isdn-summary
```

TIMESTAMP	2003-02-20 10:30:00
CALL_AGENT_ID	CA146
CONDITION	Normal
ISDN_SETUP_TX	1
ISDN_SETUP_RX	1
ISDN_SETUP_ACK_TX	1
ISDN_SETUP_ACK_RX	1
ISDN_CALL_PROCEED_TX	1
ISDN_CALL_PROCEED_RX	1
ISDN_ALERTING_TX	1
ISDN_ALERTING_RX	1
ISDN_PROGRESS_TX	1
ISDN_PROGRESS_RX	1
ISDN_CONNECT_TX	1
ISDN_CONNECT_RX	1
ISDN_CONNECT_ACK_TX	1

ISDN_CONNECT_ACK_RX	1
ISDN_DISCONNECT_TX	1
ISDN_DISCONNECT_RX	1
ISDN_RELEASE_TX	1
ISDN_RELEASE_RX	1
ISDN_RELEASE_COMPLETE_TX	1
ISDN_RELEASE_COMPLETE_RX	1
ISDN_RESTART_TX	1
ISDN_RESTART_RX	1
ISDN_RESTART_ACK_TX	1
ISDN_RESTART_ACK_RX	1
ISDN_INFORMATION_TX	1
ISDN_INFORMATION_RX	1
ISDN_NOTIFY_TX	1
ISDN_NOTIFY_RX	1
ISDN_STATUS_TX	1
ISDN_STATUS_RX	1
ISDN_STATUS_ENQUIRY_TX	1
ISDN_STATUS_ENQUIRY_RX	1
ISDN_NUM_OF_SRVC_TX	1
ISDN_NUM_OF_SRVC_RX	1
ISDN_NUM_OF_SRVC_ACK_TX	1
ISDN_NUM_OF_SRVC_ACK_RX	1
ISDN_FACILITY_TX	1
ISDN_FACILITY_RX	1
ISDN_SUSPEND_TX	1
ISDN_SUSPEND_RX	1
ISDN_SUSPEND_ACK_TX	1
ISDN_SUSPEND_ACK_RX	1
ISDN_SUSPEND_REJ_TX	1
ISDN_SUSPEND_REJ_RX	1
ISDN_RESUME_TX	1
ISDN_RESUME_RX	1
ISDN_RESUME_ACK_TX	1
ISDN_RESUME_ACK_RX	1
ISDN_RESUME_REJ_TX	1
ISDN_RESUME_REJ_RX	1
ISDN_USER_INFO_TX	1
ISDN_USER_INFO_RX	1
ISDN_CONGEST_CNTL_TX	1
ISDN_CONGEST_CNTL_RX	1
ISDN_SEGMENT_TX	1
ISDN_SEGMENT_REJ_RX	1

Reply : Success: Entry 1 of 1 returned.

## Call Processing Summary Report Example

CLI>report measurement-callp-summary

TIMESTAMP	2003-02-20 10:30:00
CALL_AGENT_ID	CA146
CONDITION	Normal
CALLP_ORIG_ATTMP	1
CALLP_TERM_ATTMP	1
CALLP_ORIG_FAIL	1
CALLP_TERM_FAIL	1
CALLP_CALL_SUCC	1
CALLP_CALL_ABAND	1
CALLP_ISDN_ORIG_ATTMP	1
CALLP_ISDN_TERM_ATTMP	1

CALLP_ISDN_ORIG_FAIL	1
CALLP_ISDN_TERM_FAIL	1
CALLP_ISDN_CALL_SUCC	1
CALLP_ISDN_CALL_ABAND	1
CALLP_SS7_ORIG_ATTMP	1
CALLP_SS7_TERM_ATTMP	1
CALLP_SS7_ORIG_FAIL	1
CALLP_SS7_TERM_FAIL	1
CALLP_SS7_CALL_SUCC	1
CALLP_SS7_CALL_ABAND	1
CALLP_SIP_ORIG_ATTMP	1
CALLP_SIP_TERM_ATTMP	1
CALLP_SIP_ORIG_FAIL	1
CALLP_SIP_TERM_FAIL	1
CALLP_SIP_CALL_SUCC	1
CALLP_SIP_CALL_ABAND	1
CALLP_MGCP_ORIG_ATTMP	1
CALLP_MGCP_TERM_ATTMP	1
CALLP_MGCP_ORIG_FAIL	1
CALLP_MGCP_TERM_FAIL	1
CALLP_MGCP_CALL_SUCC	1
CALLP_MGCP_CALL_ABAND	1
CALLP_CAS_ORIG_ATTMP	1
CALLP_CAS_TERM_ATTMP	1
CALLP_CAS_ORIG_FAIL	1
CALLP_CAS_TERM_FAIL	1
CALLP_CAS_CALL_SUCC	1
CALLP_CAS_CALL_ABAND	1
CALLP_H323_ORIG_ATTEMPTS	1
CALLP_H323_TERM_ATTEMPTS	1
CALLP_H323_ORIG_FAILURES	1
CALLP_H323_TERM_FAILURES	1
CALLP_H323_CALLS_SUCCESS	1
CALLP_H323_CALLS_ABANDON	1
CALLP_ISDN_SS7_CALL	1
CALLP_ISDN_ISDN_CALL	1
CALLP_ISDN_SIP_CALL	1
CALLP_ISDN_MGCP_CALL	1
CALLP_ISDN_CAS_CALL	1
CALLP_SS7_ISDN_CALL	1
CALLP_SS7_SS7_CALL	1
CALLP_SS7_SIP_CALL	1
CALLP_SS7_MGCP_CALL	1
CALLP_SS7_CAS_CALL	1
CALLP_SIP_SS7_CALL	1
CALLP_SIP_ISDN_CALL	1
CALLP_SIP_SIP_CALL	1
CALLP_SIP_MGCP_CALL	1
CALLP_SIP_CAS_CALL	1
CALLP_MGCP_SIP_CALL	1
CALLP_MGCP_ISDN_CALL	1
CALLP_MGCP_SS7_CALL	1
CALLP_MGCP_MGCP_CALL	1
CALLP_MGCP_CAS_CALL	1
CALLP_CAS_SIP_CALL	1
CALLP_CAS_ISDN_CALL	1
CALLP_CAS_SS7_CALL	1
CALLP_CAS_MGCP_CALL	1
CALLP_CAS_CAS_CALL	1
CALLP_ISDN_H323_CALLS	1
CALLP_SS7_H323_CALLS	1
CALLP_SIP_H323_CALLS	1
CALLP_MGCP_H323_CALLS	1
CALLP_CAS_H323_CALLS	1

CALLP_H323_SIP_CALLS	1
CALLP_H323_ISDN_CALLS	1
CALLP_H323_SS7_CALLS	1
CALLP_H323_MGCP_CALLS	1
CALLP_H323_CAS_CALLS	1
CALLP_H323_H323_CALLS	1
CALLP_INTERLA_ATTMP	1
CALLP_INTERLA_FAIL	1
CALLP_INTERLA_SUCC	1
CALLP_INTERLA_ABAND	1
CALLP_INTRALA_ATTMP	1
CALLP_INTRALA_FAIL	1
CALLP_INTRALA_SUCC	1
CALLP_INTRALA_ABAND	1
CALLP_INTL_ATTMP	1
CALLP_INTL_FAIL	1
CALLP_INTL_SUCC	1
CALLP_INTL_ABAND	1
CALLP_EMGNCY_ATTMP	1
CALLP_EMGNCY_FAIL	1
CALLP_EMGNCY_SUCC	1
CALLP_EMGNCY_ABAND	1
CALLP_LOCAL_ATTMP	1
CALLP_LOCAL_FAIL	1
CALLP_LOCAL_SUCC	1
CALLP_LOCAL_ABAND	1
CALLP_TOLL_FREE_ATTMP	1
CALLP_TOLL_FREE_FAIL	1
CALLP_TOLL_FREE_SUCC	1
CALLP_TOLL_FREE_ABAND	1
CALLP_NAS_AUTH_SUCC	1
CALLP_NAS_AUTH_FAIL	1
CALLP_NAS_OP_FAIL	1
CALLP_NAS_ISP_PORT_LIMIT	1
CALLP_NAS_NO_MODEMS	1
CALLP_NAS_CLG_UNACC	1
CALLP_NAS_CLD_UNACC	1
CALLP_NAS_USER_REQUEST	1
CALLP_NAS_LOST_CARRIER	1
CALLP_NAS_LOST_SERVICE	1
CALLP_NAS_IDLE_TIMEOUT	1
CALLP_NAS_SESSION_TIMEOUT	1
CALLP_NAS_ADMIN_RESET	1
CALLP_NAS_ADMIN_REBOOT	1
CALLP_NAS_PORT_ERROR	1
CALLP_NAS_NAS_ERROR	1
CALLP_NAS_NAS_REQUEST	1
CALLP_NAS_NAS_REBOOT	1
CALLP_NAS_PORT_UNNEEDED	1
CALLP_NAS_PORT_PREEMPTED	1
CALLP_NAS_PORT_SUSPENDED	1
CALLP_NAS_SERVICE_UNAVAIL	1
CALLP_NAS_CALLBACK	1
CALLP_NAS_USER_ERROR	1
CALLP_NAS_HOST_REQUEST	1
CALLP_IVR_NETWORK_REQ	1
CALLP_IVR_NATIVE_REQ	1
CALLP_IVR_RESOURCE_FAIL	1
CALLP_TDISC_ORIG_ATTMP	1
CALLP_NLB_TEST_SUCC	1
CALLP_NLB_TEST_FAIL	1
CALLP_NCT_TEST_SUCC	1
CALLP_NCT_TEST_FAIL	1
CALLP_LB_TEST_SUCC	1

CALLP_TEST_ROUTE_SUCC	1
CALLP_T38_FAX_MEDIA_SETUP_SUCC	1
CALLP_T38_FAX_MEDIA_SETUP_FAIL	1

Reply : Success: Entry 1 of 1 returned.

## MGCP Signaling Adapter Summary Report Example

CLI>report measurement-mgcp-summary

TIMESTAMP	2003-02-20 10:30:00
CALL_AGENT_ID	CA146
CONDITION	Normal
MGCP_DECODE_ERROR	1
MGCP_ENCODE_ERROR	1
MGCP_UNREACHABLE	1
MGCP_SEND_FAIL	1
MGCP_CRCX_ACK_RX	1
MGCP_CRCX_NACK_RX	1
MGCP_CRCX_TX	1
MGCP_MDCX_ACK_RX	1
MGCP_MDCX_NACK_RX	1
MGCP_MDCX_TX	1
MGCP_DLCX_RX	1
MGCP_DLCX_TX	1
MGCP_DLCX_ACK_RX	1
MGCP_DLCX_NACK_RX	1
MGCP_RQNT_ACK_RX	1
MGCP_RQNT_NACK_RX	1
MGCP_RQNT_TX	1
MGCP_AUEP_ACK_RX	1
MGCP_AUEP_NACK_RX	1
MGCP_AUEP_TX	1
MGCP_NTIFY_RX	1
MGCP_RSIP_RX	1
MGCP_RSIP_ACK_TX	1
MGCP_AUCX_TX	1
MGCP_AUCX_ACK_RX	1
MGCP_AUCX_NACK_RX	1

Reply : Success: Entry 1 of 1 returned.

## Service Interaction Manager Summary Report Example

CLI>report measurement-sim-summary

TIMESTAMP	2003-02-20 10:30:00
CALL_AGENT_ID	CA146
CONDITION	Normal
SIS_TOTAL_INCOM_MSG	1
SIS_TOTAL_SUCC_INCOM_MSG	1
SIS_TOTAL_OUTG_MSG	1
SIS_TOTAL_SUCC_OUTG_MSG	1
SIS_REQ_RETRAN_RX	1
SIS_REQ_RETRAN_TX	1
SIS_RSP_RETRAN_RX	1
SIS_RSP_RETRAN_TX	1

SIS_T1_TIMER_EXPIRED	1
SIS_T2_TIMER_REACHED	1
SIS_INVITE_RX	1
SIS_INVITE_TX	1
SIS_CANCEL_RX	1
SIS_CANCEL_TX	1
SIS_BYE_RX	1
SIS_BYE_TX	1
SIS_ACK_RX	1
SIS_ACK_TX	1
SIS_OPTIONS_RX	1
SIS_OPTIONS_TX	1
SIS_REGISTER_RX	1
SIS_REGISTER_TX	1
SIS_INFO_RX	1
SIS_INFO_TX	1
SIS_NOTIFY_RX	1
SIS_NOTIFY_TX	1
SIS_100_RX	1
SIS_100_TX	1
SIS_18X_RX	1
SIS_18X_TX	1
SIS_200_RX	1
SIS_200_TX	1
SIS_3XX_RX	1
SIS_3XX_TX	1
SIS_4XX_RX	1
SIS_4XX_TX	1
SIS_5XX_RX	1
SIS_5XX_TX	1
SIS_6XX_RX	1
SIS_6XX_TX	1
SIS_7XX_RX	1
SIS_7XX_TX	1
SIS_PROV_RSP_RETRAN_RX	1
SIS_PROV_RSP_RETRAN_TX	1
SIS_PRACK_RX	1
SIS_PRACK_TX	1
SIS_SUBSCRIBE_RX	1
SIS_SUBSCRIBE_TX	1
SIS_REFER_RX	1
SIS_REFER_TX	1
SIS_REFER_W_REPLACES_RX	1
SIS_INVITE_REPLACES_TX	1
SIS_INVITE_REPLACES_RX	1
SIS_REL100_RX	1
SIS_REL100_TX	1
SIS_UNSUPPORTED_RX	1
SIS_UPDATE_RX	1
SIS_UPDATE_TX	1
SIM_BCM_MSG	1
SIM_RELATIONS	1
SIM_TDP_N	1
SIM_TDP_R	1
SIM_EDP_N	1
SIM_EDP_R	1
SIM_INSTRUCT	1
SIM_INSTRUCT_RSP	1
SIM_TERMINATE_RX	1
SIM_TERMINATE_TX	1
SIM_FS_MSG_TX	1
SIM_FS_MSG_RX	1
SIM_FS_PING_MSG_TX	1
SIM_FS_PING_NO_RSP_FAULTY	1

SIM_FS_RESTART_MSG_TX	1
SIM_FS_ASYNC_MSG_TX	1
SIM_AUDIT_CCB_FREED	1
SIM_AUDIT_SIP_CCB_FREED	1

Reply : Success: Entry 1 of 1 returned.

## POTS Local Feature Server Summary Report Example

CLI>report measurement-pots-local-summary

TIMESTAMP	2003-02-20 10:30:00
FEATURE_SERVER_ID	PCT01
CONDITION	Normal
POTS_CFU_ACT_ATTMP	1
POTS_CFU_DEACT_ATTMP	1
POTS_CFU_ACT_REFUSED	1
POTS_CFU_ACT_ANSWERED	1
POTS_CFU_ACT_SECOND	1
POTS_CFU_FORWARDED_FAIL	1
POTS_CFU_FORWARDED_SUCC	1
POTS_CFU_INTERROG_ATTMP	1
POTS_CFB_ACT_ATTMP	1
POTS_CFB_DEACT_ATTMP	1
POTS_CFB_ACT_REFUSED	1
POTS_CFB_FORWARDED_FAIL	1
POTS_CFB_FORWARDED_SUCC	1
POTS_CFB_INTERROG_ATTMP	1
POTS_CFNA_ACT_ATTMP	1
POTS_CFNA_DEACT_ATTMP	1
POTS_CFNA_ACT_REFUSED	1
POTS_CFNA_FORWARDED_FAIL	1
POTS_CFNA_FORWARDED_SUCC	1
POTS_CFNA_INTERROG_ATTMP	1
POTS_CFC_ACT_SUCC	1
POTS_CFC_ACT_FAIL	1
POTS_CFC_ACT_ATTMP	1
POTS_CFC_DEACT_SUCC	1
POTS_CFC_DEACT_FAIL	1
POTS_CFC_DEACT_ATTMP	1
POTS_CFC_DN_CHG_ACT_SUCC	1
POTS_CFC_DN_CHG_ACT_FAIL	1
POTS_CFC_DN_CHG_ACT_ATTMP	1
POTS_CFC_INTERROG_SUCC	1
POTS_CFC_INTERROG_FAIL	1
POTS_CFC_INTERROG_ATTMP	1
POTS_CFC_FORWARD_SUCC	1
POTS_CFC_FORWARD_FAIL	1
POTS_CFC_FORWARD_ATTMP	1
POTS_NSA_INVOKE_SUCC	1
POTS_NSA_INVOKE_FAIL	1
POTS_NSA_INVOKE_ABANDON	1
POTS_CW_ATTMP	1
POTS_CW_ANSWERED	1
POTS_CW_NOT_ANSWERED	1
POTS_CW_REJECT_NO_RSRC	1
POTS_CW_REJECT_INTERACT	1
POTS_CCW_ATTMP	1
POTS_CCW_REJECT_NO_RSRC	1
POTS_CCW_REJECT_BY_CCW	1
POTS_CCW_LENGTH	1



POTS_CHD_ATTMP	1
POTS_CHD_ANSWER	1
POTS_CHD_NOT_ANSWER	1
POTS_CHD_REJECT_NO_RSRC	1
POTS_CHD_REJECT_INTERACT	1
POTS_MDC_ATTMP	1
POTS_MDC_REJECT_NO_RSRC	1
POTS_MDC_REJECT_INTERACT	1
POTS_MDC_REJECT_OTHERS	1
POTS_CT_ATTMP	1
POTS_CT_ANSWER	1
POTS_CT_TRANSFER	1
POTS_CT_CONF	1
POTS_CT_FAIL	1
POTS_TWC_ATTMP	1
POTS_TWC_ANSWER	1
POTS_TWC_CONF	1
POTS_TWC_FAIL	1
POTS_DRCW_ATTMP	1
POTS_DRCW_REJECT_NO_RSRC	1
POTS_DRCW_SUCC	1
POTS_RACF_ATTMP	1
POTS_RACF_REFUSE	1
POTS_RACF_REJECT_NO_RSRC	1
POTS_RACF_CFU_ACT	1
POTS_RACF_CFU_DEACT	1
POTS_RACF_CFU_UNCHANGED	1
POTS_RACF_PIN_ATTMP	1
POTS_RACF_PIN_REFUSE	1
POTS_RACF_PIN_REJECT_NO_RSRC	1
POTS_RACF_PIN_CHANGE	1
POTS_RACF_PIN_UNCHANGE	1
POTS_CPRK_SUCC_ATTMP	1
POTS_CPRK_FAIL_ATTMP	1
POTS_CPRK_SUCC_RET_ATTMP	1
POTS_CPRK_FAIL_RET_ATTMP	1
POTS_CPRK_FORWARD	1
POTS_CPRK_CLEAR	1
POTS_SC_1_DIGIT_ATTMP	1
POTS_SC_2_DIGIT_ATTMP	1
POTS_SC_1_SUCC_CCSC	1
POTS_DND_ACT_SUCC	1
POTS_DND_ACT_FAIL	1
POTS_DND_DEACT_SUCC	1
POTS_DND_DEACT_FAIL	1
POTS_DND_SUCC	1
POTS_CWD_ATTMP	1
POTS_CWD_ANSWER	1
POTS_CWD_ACT_SUCC	1
POTS_CWD_ACT_FAIL	1
POTS_CWD_DEACT_SUCC	1
POTS_CWD_DEACT_FAIL	1
POTS_CWD_INTERROG_SUCC	1
POTS_CWD_INTERROG_FAIL	1
POTS_TWCD_ATTMP	1
POTS_TWCD_CONF	1
POTS_OCB_LOCAL_BLOCK	1
POTS_OCB_NATL_BLOCK	1
POTS_OCB_INTL_BLOCK	1
POTS_OCB_INVOCATION	1
POTS_OCB_ACT_SUCC	1
POTS_OCB_DEACT_SUCC	1
POTS_OCB_INTERROG_SUCC	1
POTS_OCB_INVALID_PASSWORD	1

POTS_CNDB_ATTMP	1
POTS_CNAB_ATTMP	1
POTS_CIDS_ATTMP	1
POTS_CIDSS_ATTMP	1
POTS_REFERER_ATTMP	1
POTS_REFERER_FAIL	1
POTS_REFERER_SUCC	1
POTS_TOTAL_CNAM_QUERY	1
POTS_EXT_CNAM_QUERY	1
POTS_EXT_CNAM_QUERY_SUCC	1
POTS_EXT_CNAM_FAIL_APP	1
POTS_EXT_CNAM_FAIL_NETW	1

Reply : Success: Entry 1 of 1 returned.

## POTS Miscellaneous Feature Server Summary Report Example

CLI>report measurement-pots-misc-summary

TIMESTAMP	2003-02-20 10:30:00
FEATURE_SERVER_ID	PCT01
CONDITION	Normal
SIS_TOTAL_INCOM_MSG	1
SIS_TOTAL_SUCC_INCOM_MSG	1
SIS_TOTAL_OUTG_MSG	1
SIS_TOTAL_SUCC_OUTG_MSG	1
SIS_REQ_RETRAN_RX	1
SIS_REQ_RETRAN_TX	1
SIS_RSP_RETRAN_RX	1
SIS_RSP_RETRAN_TX	1
SIS_T1_TIMER_EXPIRED	1
SIS_T2_TIMER_REACHED	1
SIS_INVITE_RX	1
SIS_INVITE_TX	1
SIS_CANCEL_RX	1
SIS_CANCEL_TX	1
SIS_BYE_RX	1
SIS_BYE_TX	1
SIS_ACK_RX	1
SIS_ACK_TX	1
SIS_OPTIONS_RX	1
SIS_OPTIONS_TX	1
SIS_REGISTER_RX	1
SIS_REGISTER_TX	1
SIS_INFO_RX	1
SIS_INFO_TX	1
SIS_NOTIFY_RX	1
SIS_NOTIFY_TX	1
SIS_100_RX	1
SIS_100_TX	1
SIS_18X_RX	1
SIS_18X_TX	1
SIS_200_RX	1
SIS_200_TX	1
SIS_3XX_RX	1
SIS_3XX_TX	1
SIS_4XX_RX	1
SIS_4XX_TX	1
SIS_5XX_RX	1
SIS_5XX_TX	1
SIS_6XX_RX	1

SIS_6XX_TX	1
SIS_7XX_RX	1
SIS_7XX_TX	1
SIS_PROV_RSP_RETRAN_RX	1
SIS_PROV_RSP_RETRAN_TX	1
SIS_PRACK_RX	1
SIS_PRACK_TX	1
SIS_SUBSCRIBE_RX	1
SIS_SUBSCRIBE_TX	1
SIS_REFER_RX	1
SIS_REFER_TX	1
SIS_REFER_W_REPLACES_RX	1
SIS_INVITE_REPLACES_TX	1
SIS_INVITE_REPLACES_RX	1
SIS_REL100_RX	1
SIS_REL100_TX	1
SIS_UNSUPPORTED_RX	1
SIS_UPDATE_RX	1
SIS_UPDATE_TX	1
POTS_HOTLINE_ATTMP	1
POTS_WARMLINE_ATTMP	1
POTS_BLV_ATTMP	1
POTS_OP_INTERRUPT_ATTMP	1
POTS_CTX_SFG_OVERFLOW	1
POTS_HOTV_ATTMP	1
POTS_HOTV_ACT	1
POTS_HOTV_DEACT	1
POTS_HOTV_INTERROG	1
POTS_VM_ACT_SUCC	1
POTS_VM_ACT_FAIL	1
POTS_VM_DEACT_SUCC	1
POTS_VM_DEACT_FAIL	1
POTS_VM_ACCESS	1
POTS_VM_ATTMP	1
POTS_PS_SUCC	1
POTS_PS_FAIL	1
POTS_PS_MANAGE_SUCC	1
POTS_PS_MANAGE_FAIL	1
POTS_LCD_AUTH_ATTMP	1
POTS_LCD_AUTH_SUCC	1
POTS_LCD_AUTH_FAIL	1
POTS_LCD_REAUTH_FAIL	1
POTS_LCD_FORCED_DISC	1

Reply : Success: Entry 1 of 1 returned.

## POTS Class of Service Feature Server Summary Report Example

```
CLI>report measurement-pots-cos-summary
```

TIMESTAMP	2003-02-20 10:30:00
FEATURE_SERVER_ID	PCT01
CONDITION	Normal
POTS_COS_ANI_ATTMP_SUCC	1
POTS_COS_ANI_BLOCKED_CALL	1
POTS_COS_NANP_BLOCKED_BW	1
POTS_COS_INTL_BLOCKED_BW	1
POTS_COS_900_BLOCKED	1
POTS_COS_976_BLOCKED	1
POTS_COS_NANP_RESTRICT	1
POTS_COS_INTL_RESTRICT	1

POTS_COS_CASUAL_RESTRICT	1
POTS_COS_DA_BLOCKED	1
POTS_COS_NANP_OP_BLOCKED	1
POTS_COS_INTL_OP_BLOCKED	1
POTS_COS_AUTH_CODE_SUCC	1
POTS_COS_AUTH_CODE_FAIL	1
POTS_COS_ACCT_CODE_SUCC	1
POTS_COS_ACCT_CODE_FAIL	1
POTS_COS_TOLLFREE_BLOCKED	1
POTS_TDISC_CALLS_OUTG_BLOCKED	1
POTS_COS_TOT_AUTH_IVR_SESSION	1
POTS_COS_TOT_ACCT_IVR_SESSION	1
POTS_COS_TOT_IVR_FAIL	1

Reply : Success: Entry 1 of 1 returned.

## POTS Screening List Editing Feature Server Summary Report Example

```
CLI>report measurement-pots-sle-summary
```

TIMESTAMP	2003-02-20 10:30:00
FEATURE_SERVER_ID	PCT01
CONDITION	Normal
POTS_SCR_ATTMP	1
POTS_SCA_ATTMP	1
POTS_SCF_ATTMP	1
POTS_SCR_REJECT_NO_RSRC	1
POTS_SCA_REJECT_NO_RSRC	1
POTS_SCF_REJECT_NO_RSRC	1
POTS_SCR_SUCC	1
POTS_SCA_SUCC	1
POTS_SCF_SUCC	1

Reply : Success: Entry 1 of 1 returned.

## POTS Customer Originated Trace (COT) Feature Server Summary Report Example

```
CLI>report measurement-pots-cot-summary
```

TIMESTAMP	2003-02-20 10:30:00
FEATURE_SERVER_ID	PCT01
CONDITION	Normal
POTS_COT_ACCESS	1
POTS_COT_DENY	1
POTS_COT_ACT	1
POTS_COT_ABAND	1
POTS_COT_DN_UNAVAIL	1
POTS_COT_TRACE_CONFIRM	1
POTS_COT_TRACE_OUTPUT	1

Reply : Success: Entry 1 of 1 returned.

## POTS Auto Callback/Recall/Call Rejection Feature Server Summary Report Example

```
CLI>report measurement-pots-acar-summary
```

TIMESTAMP	2003-02-20 10:30:00
FEATURE_SERVER_ID	PCT01
CONDITION	Normal
POTS_AC_ACT_ATTMP	1
POTS_AC_OVERFLOW	1
POTS_AC_IMMEDIATE_PROC	1
POTS_AC_DELAYED_PROC	1
POTS_AC_DEACT_BY_SYSTEM	1
POTS_AC_DEACT_ATTMP	1
POTS_AC_INTERLATA_ATTMP	1
POTS_AR_ACT_ATTMP	1
POTS_AR_OVERFLOW	1
POTS_AR_IMMEDIATE_PROC	1
POTS_AR_DELAYED_PROC	1
POTS_AR_DEACT_BY_SYSTEM	1
POTS_AR_DEACT_ATTMP	1
POTS_AR_INTERLATA_ATTMP	1
POTS_AR_2LEVEL_ACC_CODE_ATTMP	1
POTS_AR_2LEVEL_ACT_CODE_ATTMP	1
POTS_ACART_QUEUED_REQ	1
POTS_ACART_TERM_SCAN_REQ	1
POTS_ACART_ORIG_SCAN_REQ	1
POTS_ACART_REJECT_NO_RSRC	1
POTS_ACR_ACT_ATTMP	1
POTS_ACR_DEACT_ATTMP	1
POTS_ACR_ACT_REJECT_NO_RSRC	1
POTS_ACR_DEACT_REJECT_NO_RSRC	1
POTS_ACR_SUCC	1

```
Reply : Success: Entry 1 of 1 returned.
```

## AIN Services Summary Report Example

```
CLI>report measurement-ainsvc-summary
```

TIMESTAMP	2003-02-20 10:30:00
FEATURE_SERVER_ID	AIN01
CONDITION	Normal
SIS_TOTAL_INCOM_MSG	1
SIS_TOTAL_SUCC_INCOM_MSG	1
SIS_TOTAL_OUTG_MSG	1
SIS_TOTAL_SUCC_OUTG_MSG	1
SIS_REQ_RETRAN_RX	1
SIS_REQ_RETRAN_TX	1
SIS_RSP_RETRAN_RX	1
SIS_RSP_RETRAN_TX	1
SIS_T1_TIMER_EXPIRED	1
SIS_T2_TIMER_REACHED	1
SIS_INVITE_RX	1
SIS_INVITE_TX	1
SIS_CANCEL_RX	1
SIS_CANCEL_TX	1
SIS_BYE_RX	1
SIS_BYE_TX	1

SIS_ACK_RX	1
SIS_ACK_TX	1
SIS_OPTIONS_RX	1
SIS_OPTIONS_TX	1
SIS_REGISTER_RX	1
SIS_REGISTER_TX	1
SIS_INFO_RX	1
SIS_INFO_TX	1
SIS_NOTIFY_RX	1
SIS_NOTIFY_TX	1
SIS_100_RX	1
SIS_100_TX	1
SIS_18X_RX	1
SIS_18X_TX	1
SIS_200_RX	1
SIS_200_TX	1
SIS_3XX_RX	1
SIS_3XX_TX	1
SIS_4XX_RX	1
SIS_4XX_TX	1
SIS_5XX_RX	1
SIS_5XX_TX	1
SIS_6XX_RX	1
SIS_6XX_TX	1
SIS_7XX_RX	1
SIS_7XX_TX	1
SIS_PROV_RSP_RETRAN_RX	1
SIS_PROV_RSP_RETRAN_TX	1
SIS_PRACK_RX	1
SIS_PRACK_TX	1
SIS_SUBSCRIBE_RX	1
SIS_SUBSCRIBE_TX	1
SIS_REFERER_RX	1
SIS_REFERER_TX	1
SIS_REFERER_W_REPLACES_RX	1
SIS_INVITE_REPLACES_TX	1
SIS_INVITE_REPLACES_RX	1
SIS_REL100_RX	1
SIS_REL100_TX	1
SIS_UNSUPPORTED_RX	1
SIS_UPDATE_RX	1
SIS_UPDATE_TX	1
AIN SVC_TOTAL_QUERY	1
AIN SVC_8XX_QUERY	1
AIN SVC_EXT_8XX_QUERY	1
AIN SVC_EXT_8XX_QUERY_SUCC	1
AIN SVC_EXT_8XX_FAIL_APP	1
AIN SVC_EXT_8XX_FAIL_NETW	1
AIN SVC_LOC_8XX_QUERY	1
AIN SVC_LOC_8XX_QUERY_SUCC	1
AIN SVC_LOC_8XX_ANI_BLOCK	1
AIN SVC_LOC_8XX_II_BLOCK	1
AIN SVC_LOC_8XX_DNIS_SUC	1
AIN SVC_LOC_8XX_ROUTING_SUCC	1
AIN SVC_LOC_8XX_REROUTE	1
AIN SVC_LOC_8XX_FAIL_APP	1
AIN SVC_TOTAL_LNP_QUERY	1
AIN SVC_EXT_LNP_QUERY	1
AIN SVC_EXT_LNP_QUERY_SUCC	1
AIN SVC_EXT_LNP_FAIL_APP	1
AIN SVC_EXT_LNP_FAIL_NETW	1
AIN SVC_EXT_8XX_QUERY_FAIL	1
AIN SVC_EXT_LNP_QUERY_LRN	1
AIN SVC_EXT_LNP_QUERY_FAIL	1

```

AINSVCLLOC_LNP_QUERY      1
AINSVCLLOC_LNP_QUERY_SUCC 1
AINSVCLLOC_LNP_FAIL_APP   1
AINSVCLLOC_LNP_QUERY_RN_FOUND 1
AINSVCLLOC_LNP_QUERY_NO_RN 1

```

Reply : Success: Entry 1 of 1 returned.

## SCCP Protocol Summary Report Example

```
CLI>report measurement-sccp-summary
```

```

TIMESTAMP                2003-02-20 10:30:00
FEATURE_SERVER_ID         AIN01
CONDITION                 Normal
SCCP_NO_TRANS_ADDR_FAIL   1
SCCP_NO_TRANS_SPECIFIC_ADDR_FAIL 1
SCCP_NETWORK_FAIL        1
SCCP_NETWORK_CONGEST_FAIL 1
SCCP_SUBSYS_FAIL         1
SCCP_SUBSYS_CONGEST_FAIL 1
SCCP_UNEQUIP_USER_FAIL   1
SCCP_HOP_COUNTER_FAIL    1
SCCP_SYNTAX_ERR          1
SCCP_UNKNOWN_FAIL        1
SCCP_TOTAL_UDATA_TX      1
SCCP_TOTAL_UDATA_SVC_TX  1
SCCP_TOTAL_UDATA_RX      1
SCCP_TOTAL_UDATA_SVCX_RX 1
SCCP_TOTAL_EXT_UDATA_TX  1
SCCP_TOTAL_EXT_UDATA_SVC_TX 1
SCCP_TOTAL_EXT_UDATA_RX  1
SCCP_TOTAL_EXT_UDATA_SVC_RX 1
SCCP_TOTAL_LONG_UDATA_TX 1
SCCP_TOTAL_LONG_UDATA_SVC_TX 1
SCCP_TOTAL_LONG_UDATA_RX 1
SCCP_TOTAL_LONG_UDATA_SVC_RX 1
SCCP_TOTAL_MSG           1
SCCP_TOTAL_LOCAL_MSG     1
SCCP_TOTAL_GLOBAL_ADDR_TRAN 1
SCCP_TOTAL_CLASS_0_TX    1
SCCP_TOTAL_CLASS_1_TX    1
SCCP_TOTAL_CLASS_0_RX    1
SCCP_TOTAL_CLASS_1_RX    1
SCCP_SUBSYS_OOS_REQ_GRANT 1
SCCP_SUBSYS_OOS_REQ_DENY 1
SCCP_MSG_TX_BACKUP_SUBSYS 1
SCCP_USAP_TOTAL_CLASS_0_TX 1
SCCP_USAP_TOTAL_CLASS_1_TX 1
SCCP_USAP_TOTAL_CLASS_0_RX 1
SCCP_USAP_TOTAL_CLASS_1_RX 1
SCCP_NSAP_ALLOW_MSG_RX   1
SCCP_NSAP_OOS_GRANT_RX   1
SCCP_NSAP_OOS_REQ_RX     1
SCCP_NSAP_PROHIBIT_RX    1
SCCP_NSAP_STAT_TEST_RX   1
SCCP_NSAP_CONGEST_RX     1
SCCP_NSAP_ALLOW_MSG_TX   1
SCCP_NSAP_OOS_GRANT_TX   1
SCCP_NSAP_OOS_REQ_TX     1
SCCP_NSAP_PROHIBIT_TX    1

```

```

SCCP_NSAP_STAT_TEST_TX          1
SCCP_NSAP_CONGEST_TX            1

```

Reply : Success: Entry 1 of 1 returned.

## TCAP Protocol Summary Report Example

```
CLI>report measurement-tcap-summary
```

```

TIMESTAMP                        2003-02-20 10:30:00
FEATURE_SERVER_ID                AIN01
CONDITION                        Normal
TCAP_TOTAL_MSG_RX                1
TCAP_TOTAL_MSG_TX                1
TCAP_TOTAL_UNI_MSG_RX            1
TCAP_TOTAL_UNI_MSG_TX            1
TCAP_ABORT_MSG_RX                1
TCAP_ABORT_MSG_TX                1
TCAP_BEGIN_MSG_RX                1
TCAP_BEGIN_MSG_TX                1
TCAP_CONT_MSG_RX                 1
TCAP_CONT_MSG_TX                 1
TCAP_END_MSG_RX                  1
TCAP_END_MSG_TX                  1
TCAP_PERMISS_QUERY_RX            1
TCAP_PERMISS_QUERY_TX            1
TCAP_NO_PERMISS_QUERY_RX         1
TCAP_NO_PERMISS_QUERY_TX         1
TCAP_PERMISS_CONVERS_RX          1
TCAP_PERMISS_CONVERS_TX          1
TCAP_NO_PERMISS_CONVERS_RX       1
TCAP_NO_PERMISS_CONVERS_TX       1
TCAP_RSP_RX                      1
TCAP_RSP_TX                      1
TCAP_TOTAL_COMP_RX               1
TCAP_TOTAL_COMP_TX               1
TCAP_INVOKE_COMP_RX              1
TCAP_INVOKE_COMP_TX              1
TCAP_RETURN_RESULT_COMP_RX       1
TCAP_RETURN_RESULT_COMP_TX       1
TCAP_RETURN_ERR_COMP_RX          1
TCAP_RETURN_ERR_COMP_TX          1
TCAP_REJECT_COM_RX               1
TCAP_REJECT_COM_TX               1
TCAP_ACT_TRANSACTIONS            1
TCAP_ACT_INVOCATIONS             1
TCAP_TRANSACTION_IDS_INUSE        1
TCAP_TOTAL_DROPPED_MSG_RX        1
TCAP_UNRECOG_MSG_TYPE_RX         1
TCAP_UNRECOG_MSG_TYPE_TX         1
TCAP_INCORRECT_TRANS_PORT_RX     1
TCAP_INCORRECT_TRANS_PORT_TX     1
TCAP_BAD_STRUCT_TRANS_PORT_RX    1
TCAP_BAD_STRUCT_TRANS_PORT_TX    1
TCAP_UNRECOG_TRANS_ID_RX         1
TCAP_UNRECOG_TRANS_ID_TX         1
TCAP_RSCR_LIMIT_RX               1
TCAP_RSCR_LIMIT_TX               1
TCAP_TRANS_PORT_PERM_REL_RX       1
TCAP_TRANS_PORT_PERM_REL_TX       1
TCAP_UNRECOG_DIALOG_PORT_ID_RX   1

```



TCAP_UNRECOG_DIALOG_PORT_ID_TX	1
TCAP_BAD_STRUCT_DIALOG_PORT_RX	1
TCAP_BAD_STRUCT_DIALOG_PORT_TX	1
TCAP_MISSING_DIALOG_PORT_RX	1
TCAP_MISSING_DIALOG_PORT_TX	1
TCAP_INCONSIST_DIALOG_PORT_RX	1
TCAP_INCONSIST_DIALOG_PORT_TX	1
TCAP_UNRECOG_COMP_RX	1
TCAP_UNRECOG_COMP_TX	1
TCAP_INCORRECT_COMP_PORT_RX	1
TCAP_INCORRECT_COMP_PORT_TX	1
TCAP_BAD_STRUCT_COMP_PORT_RX	1
TCAP_BAD_STRUCT_COMP_PORT_TX	1
TCAP_DUP_INVOKE_ID_RX	1
TCAP_DUP_INVOKE_ID_TX	1
TCAP_UNRECOG_OPCODE_RX	1
TCAP_UNRECOG_OPCODE_TX	1
TCAP_INCORRECT_PARAM_RX	1
TCAP_INCORRECT_PARAM_TX	1
TCAP_UNRECOG_LINK_ID_RX	1
TCAP_UNRECOG_LINK_ID_TX	1
TCAP_INIT_REL_RX	1
TCAP_INIT_REL_TX	1
TCAP_UNEXPECT_LINK_RSP_RX	1
TCAP_UNEXPECT_LINK_RSP_TX	1
TCAP_UNEXPECT_LINK_OPER_RX	1
TCAP_UNEXPECT_LINK_OPER_TX	1
TCAP_UNRECOG_RE_INVOKE_ID_RX	1
TCAP_UNRECOG_RE_INVOKE_ID_TX	1
TCAP_UNEXPECT_RR_RX	1
TCAP_UNEXPECT_RR_TX	1
TCAP_INCORRECT_PARAM_RR_RX	1
TCAP_INCORRECT_PARAM_RR_TX	1
TCAP_UNRECOG_INVOKE_ID_RX	1
TCAP_UNRECOG_INVOKE_ID_TX	1
TCAP_UNEXPECT_RE_RX	1
TCAP_UNEXPECT_RE_TX	1
TCAP_INCORRECT_COMP_ENCODE_RX	1
TCAP_INCORRECT_COMP_ENCODE_TX	1
TCAP_INVOKE_RSCR_LIMIT_PROB_RX	1
TCAP_INVOKE_RSCR_LIMIT_PROB_TX	1
TCAP_UNRECOG_ERR_CODE_RX	1
TCAP_UNRECOG_ERR_CODE_TX	1
TCAP_UNEXPECT_ERR_CODE_RX	1
TCAP_UNEXPECT_ERR_CODE_TX	1
TCAP_INCORRECT_PARAM_RE_RX	1
TCAP_INCORRECT_PARAM_RE_TX	1
TCAP_OPERATION_REQ_RX	1
TCAP_OPERATION_CONFIRM_RX	1
TCAP_OPERATION_IND_RX	1
TCAP_COMPONENT_REQ_RX	1
TCAP_COMPONENT_CONFIRM_RX	1
TCAP_COMPONENT_IND_RX	1
TCAP_DATA_IND_RX	1
TCAP_UDATA_IND_RX	1
TCAP_DATA_REQ_RX	1
TCAP_DELIMITER_REQ_RX	1
TCAP_DELIMITER_IND_RX	1
TCAP_OPEN_IND_RX	1
TCAP_OPEN_CONFIRM_RX	1
TCAP_STATUS_IND_RX	1
TCAP_DIALOG_CONFIRM_RX	1
TCAP_CLOSE_IND_RX	1
TCAP_ABORT_IND_RX	1

TCAP_BIND_CONFIRM_RX	1
TCAP_STAT_CONFIRM_RX	1
TCAP_NOTICE_IND_RX	1
TCAP_STAT_IND_RX	1

Reply : Success: Entry 1 of 1 returned.

## M3UA Protocol Summary Report Example

The following is a sample M3UA protocol Summary Report for signaling gateway processes.

```
CLI>report measurement-m3ua-summary
```

TIMESTAMP	2003-02-20 10:30:00
SGP_ID	4
CONDITION	Normal
M3UA_ERR_TX	1
M3UA_ERR_RX	1
M3UA_NOTIFY_TX	1
M3UA_NOTIFY_RX	1
M3UA_DUNA_RX	1
M3UA_DAVA_RX	1
M3UA_DAUD_TX	1
M3UA_SCON_TX	1
M3UA_SCON_RX	1
M3UA_DRST_RX	1
M3UA_DUPU_RX	1
M3UA_UP_TX	1
M3UA_DOWN_TX	1
M3UA_BEAT_TX	1
M3UA_BEAT_RX	1
M3UA_UP_ACK_RX	1
M3UA_DOWN_ACK_RX	1
M3UA_BEAT_ACK_TX	1
M3UA_BEAT_ACK_RX	1
M3UA_ACTIVE_TX	1
M3UA_INACTIVE_TX	1
M3UA_ACTIVE_ACK_RX	1
M3UA_INACTIVE_ACK_RX	1
M3UA_DATA_TRANS_TX	1
M3UA_DATA_TRANS_RX	1
M3UA_DATA_BYTES_TX	1
M3UA_DATA_BYTES_RX	1
M3UA_INVALID_SCTP_SIGNALS	1
M3UA_SINCE_LAST_RESET_ASSOC	1
M3UA_ASSOC_FAIL	1
M3UA_SCTP_TX_FAIL	1
M3UA_MSG_INVALID_LENGTH_RX	1
M3UA_NO_MEMORY_FAIL	1
M3UA_VERSION_ERR	1
M3UA_MSG_CLASS_ERR	1
M3UA_MSG_TYPE_ERR	1
M3UA_MSG_LENGTH_ERR	1
M3UA_STREAM_ID_ERR	1
M3UA_UNEXPECT_MSG_ERR	1
M3UA_PROTOCOL_ERR	1
M3UA_PARAM_VALUE_ERR	1
M3UA_PARAM_FIELD_ERR	1
M3UA_UNEXPECT_PARAM_ERR	1
M3UA_NETWORK_APPEAR_ERR	1

```

M3UA_ROUTING_CONTEXT_ERR      1
M3UA_MSG_RX_OTHER_ERR         1

```

Reply : Success: Entry 1 of 1 returned.

## SUA Protocol Feature Server Summary Report Example

```
CLI>report measurement-sua-summary
```

```

TIMESTAMP                      2003-02-20 10:30:00
SGP_ID                          4
CONDITION                       Normal
SUA_ERR_TX                      1
SUA_ERR_RX                      1
SUA_NOTIFY_TX                   1
SUA_NOTIFY_RX                   1
SUA_DUNA_RX                     1
SUA_DAVA_RX                     1
SUA_DAUD_RX                     1
SUA_SCON_TX                     1
SUA_SCON_RX                     1
SUA_DRST_RX                     1
SUA_DUPU_RX                     1
SUA_UP_TX                       1
SUA_DOWN_TX                     1
SUA_BEAT_TX                     1
SUA_BEAT_RX                     1
SUA_UP_ACK_RX                   1
SUA_DOWN_ACK_RX                 1
SUA_BEAT_ACK_TX                 1
SUA_BEAT_ACK_RX                 1
SUA_ACTIVE_TX                   1
SUA_INACTIVE_TX                 1
SUA_ACTIVE_ACK_RX               1
SUA_INACTIVE_ACK_RX             1
SUA_CLDT_TX                     1
SUA_CLDT_RX                     1
SUA_CLDR_TX                     1
SUA_CLDR_RX                     1
SUA_DATA_BYTES_TX               1
SUA_DATA_BYTES_RX               1
SUA_INVALID_SCTP_SIGNALS        1
SUA_SINCE_LAST_RESET_ASSOC      1
SUA_ASSOC_FAIL                  1
SUA_SCTP_TX_FAIL                1
SUA_MSG_INVALID_LENGTH_RX       1
SUA_NO_MEMORY_FAIL              1
SUA_VERSION_ERR                 1
SUA_MSG_CLASS_ERR               1
SUA_MSG_TYPE_ERR                1
SUA_STREAM_ID_ERR               1
SUA_UNEXPECT_MSG_ERR            1
SUA_PROTOCOL_ERR                1
SUA_PARAM_VALUE_ERR             1
SUA_PARAM_FIELD_ERR             1
SUA_UNEXPECT_PARAM_ERR          1
SUA_NETWORK_APPEAR_ERR          1
SUA_ROUTING_CONTEXT_ERR         1

```

Reply : Success: Entry 1 of 1 returned.

## SCTP Protocol Feature Server Summary Report Example

```
CLI>report measurement-sctp-summary
```

TIMESTAMP	2003-02-20 10:30:00
SCTP_ASSOC_ID	5
CONDITION	Normal
SCTP_DATA_CHUNK_RX	1
SCTP_DATA_CHUNK_RX_SEQ_ERR	1
SCTP_DATA_CHUNK_RX_ORDER	1
SCTP_DATA_CHUNK_RX_UNORDER	1
SCTP_DATA_CHUNK_TX	1
SCTP_DATA_CHUNK_TX_ORDER	1
SCTP_DATA_CHUNK_TX_UNORDER	1
SCTP_DATA_CHUNK_DISCARD	1
SCTP_DATA_CHUNK_RETRAN	1
SCTP_DATA_CHUNK_TX_BUNDLE	1
SCTP_DATA_CHUNK_RX_BUNDLE	1
SCTP_DATA_BYTE_TX	1
SCTP_DATA_BYTE_RX	1
SCTP_CONTROL_CHUNK_TX	1
SCTP_CONTROL_CHUNK_RX	1
SCTP_ULP_TX	1
SCTP_ULP_READY	1
SCTP_ULP_RX	1
SCTP_ULP_QUEUE	1
SCTP_SCTP_DATAG_TX	1
SCTP_SCTP_DATAG_RX	1
SCTP_INVALID_DATAG_LENGTH	1
SCTP_PARTIAL_CHUNK_ERR	1
SCTP_EMPTY_DATAG_ERR	1
SCTP_INVALID_CHECKSUM	1
SCTP_INVALID_VERIF_TAG	1
SCTP_OOTB	1
SCTP_INVALID_STREAM	1
SCTP_ASSOC_COMM_LOST	1
SCTP_DEST_ADDR_FAIL	1
SCTP_CHUNK_UNORDER_ERR	1
SCTP_ECNE_CHUNK_RX	1
SCTP_CWR_CHUNK_RX	1
SCTP_UNKNOWN_CHUNK_TYPE	1
SCTP_UNKNOWN_INIT_PARAM	1
SCTP_INVALID_COOKIE_SIG	1
SCTP_EXPIRED_COOKIE_ERR	1
SCTP_STALE_COOKIE_ERR	1
SCTP_PEER_RESTART_ERR	1
SCTP_UNORDER_DATAG_ERR	1
SCTP_V6_ADDR_PARAM_RX	1
SCTP_INVALID_STREAM_ERR_RX	1
SCTP_MISSING_PARAM_ERR_RX	1
SCTP_STALE_COOKIE_ERR_RX	1
SCTP_OUT_OF_RSCR_ERR_RX	1
SCTP_UNRESOLV_ADDR_ERR_RX	1
SCTP_UNRECOG_CHUNK_ERR_RX	1
SCTP_INVALID_PARAM_ERR_RX	1
SCTP_UNRECOG_PARAM_ERR_RX	1
SCTP_NO_USER_DATA_ERR_RX	1
SCTP_COOKIE_IN_SHUTDOWN_ERR_RX	1
SCTP_CHUNK_TOO_SMALL_ERR	1
SCTP_CHUNK_TOO_BIG_ERR	1
SCTP_MISSING_PARAM_ERR	1
SCTP_NO_SPACE_INCOM_ERR	1

Reply : Success: Entry 1 of 1 returned.

## ISUP Protocol Summary Report Example

The following example is a Signaling Gateway-based ANSI ISUP Protocol summary report created on the BTS 10200 Softswitch. Each of the other support ISUP variants will contain only the measurements that are applicable to them.

```
CLI>report measurement-isup-summary tgn-id=dal-001;
```

TIMESTAMP		2003-02-20 10:30:00
TRUNK_GROUP_ID	DAL-001	
CONDITION		Normal
VARIANT	ANSI	
ISUP_MSG_TX		1
ISUP_MSG_RX		1
ISUP_ACM_TX		1
ISUP_ACM_RX		1
ISUP_ANM_TX		1
ISUP_ANM_RX		1
ISUP_BLA_TX		1
ISUP_BLA_RX		1
ISUP_BLO_TX		1
ISUP_BLO_RX		1
ISUP_CCR_TX		1
ISUP_CCR_RX		1
ISUP_CFN_TX		1
ISUP_CFN_RX		1
ISUP_CPG_TX		1
ISUP_CPG_RX		1
ISUP_CGB_TX		1
ISUP_CGB_RX		1
ISUP_CGU_TX		1
ISUP_CGU_RX		1
ISUP_CGBA_TX		1
ISUP_CGBA_RX		1
ISUP_CGUA_TX		1
ISUP_CGUA_RX		1
ISUP_COT_TX		1
ISUP_COT_RX		1
ISUP_CQM_TX		1
ISUP_CQM_RX		1
ISUP_CQR_TX		1
ISUP_CQR_RX		1
ISUP_CRA_TX		1
ISUP_CRA_RX		1
ISUP_CRM_TX		1
ISUP_CRM_RX		1
ISUP_CVR_TX		1
ISUP_CVR_RX		1
ISUP_CVT_TX		1
ISUP_CVT_RX		1
ISUP_EXM_TX		1
ISUP_EXM_RX		1
ISUP_FAA_TX		1
ISUP_FAA_RX		1
ISUP_FAC_TX		1
ISUP_FAC_RX		1
ISUP_FOT_TX		1

ISUP_FOT_RX	1
ISUP_GRS_TX	1
ISUP_GRS_RX	1
ISUP_GRA_TX	1
ISUP_GRA_RX	1
ISUP_IAM_TX	1
ISUP_IAM_RX	1
ISUP_INF_TX	1
ISUP_INF_RX	1
ISUP_INR_TX	1
ISUP_INR_RX	1
ISUP_LPA_TX	1
ISUP_LPA_RX	1
ISUP_PAM_TX	1
ISUP_PAM_RX	1
ISUP_REL_TX	1
ISUP_REL_RX	1
ISUP_RLC_TX	1
ISUP_RLC_RX	1
ISUP_RSC_TX	1
ISUP_RSC_RX	1
ISUP_RES_TX	1
ISUP_RES_RX	1
ISUP_SUS_TX	1
ISUP_SUS_RX	1
ISUP_UBL_TX	1
ISUP_UBL_RX	1
ISUP_UBA_TX	1
ISUP_UBA_RX	1
ISUP_UCIC_TX	1
ISUP_UCIC_RX	1
ISUP_USR_TX	1
ISUP_USR_RX	1
ISUP_ABNORMAL_REL_RX	1
ISUP_ABNORMAL_REL_TX	1
ISUP_UNEXPECT_MSG_RX	1
ISUP_UNRECOG_MSG_RX	1

Reply : Success: Entry 1 of 1 returned.

## Audit Summary Report Example

```
CLI>report measurement-audit-summary
```

TIMESTAMP	2003-02-20 10:30:00
CALL_AGENT_ID	CA146
CONDITION	Normal
AUDIT_SS7_TRUNK_STATE_SYNCED	1
AUDIT_SS7_LONG_DUR_EXCEEDED	1
AUDIT_FS_TOTAL_SIP_RESP_TMO	1
AUDIT_FS_TOTAL_SIP_NOACK_TMO	1
AUDIT_FS_TOTAL_CA_SWITCHOVERS	1

Reply : Success: Entry 1 of 1 returned.

## SIP Interface Adapter Summary Report Example

```
CLI>report measurement-sia-summary
```

TIMESTAMP	2003-02-20 10:30:00
CALL_AGENT_ID	CA146
CONDITION	Normal
SIS_TOTAL_INCOM_MSG	1
SIS_TOTAL_SUCC_INCOM_MSG	1
SIS_TOTAL_OUTG_MSG	1
SIS_TOTAL_SUCC_OUTG_MSG	1
SIS_REQ_RETRAN_RX	1
SIS_REQ_RETRAN_TX	1
SIS_RSP_RETRAN_RX	1
SIS_RSP_RETRAN_TX	1
SIS_T1_TIMER_EXPIRED	1
SIS_T2_TIMER_REACHED	1
SIS_INVITE_RX	1
SIS_INVITE_TX	1
SIS_CANCEL_RX	1
SIS_CANCEL_TX	1
SIS_BYE_RX	1
SIS_BYE_TX	1
SIS_ACK_RX	1
SIS_ACK_TX	1
SIS_OPTIONS_RX	1
SIS_OPTIONS_TX	1
SIS_REGISTER_RX	1
SIS_REGISTER_TX	1
SIS_INFO_RX	1
SIS_INFO_TX	1
SIS_NOTIFY_RX	1
SIS_NOTIFY_TX	1
SIS_100_RX	1
SIS_100_TX	1
SIS_18X_RX	1
SIS_18X_TX	1
SIS_200_RX	1
SIS_200_TX	1
SIS_3XX_RX	1
SIS_3XX_TX	1
SIS_4XX_RX	1
SIS_4XX_TX	1
SIS_5XX_RX	1
SIS_5XX_TX	1
SIS_6XX_RX	1
SIS_6XX_TX	1
SIS_7XX_RX	1
SIS_7XX_TX	1
SIS_PROV_RSP_RETRAN_RX	1
SIS_PROV_RSP_RETRAN_TX	1
SIS_PRACK_RX	1
SIS_PRACK_TX	1
SIS_SUBSCRIBE_RX	1
SIS_SUBSCRIBE_TX	1
SIS_REFER_RX	1
SIS_REFER_TX	1
SIS_REFER_W_REPLACES_RX	1
SIS_INVITE_REPLACES_TX	1
SIS_INVITE_REPLACES_RX	1
SIS_REL100_RX	1
SIS_REL100_TX	1
SIS_UNSUPPORTED_RX	1

SIS_UPDATE_RX	1
SIS_UPDATE_TX	1
SIA_OUTG_INIT	1
SIA_OUTG_SUCC	1
SIA_OUTG_FAIL	1
SIA_ICOM_INIT	1
SIA_ICOM_SUCC	1
SIA_ICOM_FAIL	1
SIA_TOTAL_SUCC	0
SIA_TOTAL_FAIL	0
SIA_TOTAL_OUTG_MSG_FAIL	0
SIA_TOTAL_INCOM_MSG_FAIL	0
SIA_REFRESHES_TX	1
SIA_TOTAL_SESS_TIMER_FAIL	1
SIA_CALL_FAIL_BY_EXPIRED_REG	1
SIA_MWI_NOTIFY_TX	1
SIA_MWI_NOTIFY_TX_FAIL	1
SIA_MWI_NOTIFY_RX	1
SIA_AUDIT_CCB_FREED	1
SIA_AUDIT_CALL_RELEASED	1
SIA_AUDIT_BCM_CALL_RELEASED	1
SIA_AUDIT_REGCONTACT_FREED	1
SIA_SECURE_FQDN_VIOLATION_REQ	1
SIA_SECURE_FQDN_VIOLATION_RESP	1

Reply : Success: Entry 1 of 1 returned.

## Call Detail Block Summary Report Example

CLI>report measurement-billing-summary

TIMESTAMP	2003-02-20 10:30:00
CALL_AGENT_ID	CA146
CONDITION	Normal
BILLING_TOTAL_NULL	1
BILLING_TOTAL_INTL	1
BILLING_TOTAL_LOCAL	1
BILLING_TOTAL_TOLL	1
BILLING_TOTAL_INTERLATA	1
BILLING_TOTAL_TANDEM	1
BILLING_TOTAL_EMG	1
BILLING_TOTAL_NON_EMG	1
BILLING_TOTAL_DA	1
BILLING_TOTAL_DA_TOLL	1
BILLING_TOTAL_REPAIR	1
BILLING_TOTAL_RELAY	1
BILLING_TOTAL_BUSINESS	1
BILLING_TOTAL_TOLL_FREE	1
BILLING_TOTAL_900	1
BILLING_TOTAL_500	1
BILLING_TOTAL_700	1
BILLING_TOTAL_976	1
BILLING_TOTAL_VACANT	1
BILLING_TOTAL_PCS	1
BILLING_TOTAL_INVALID	1
BILLING_TOTAL_NONE	1
BILLING_TOTAL_LRN	1
BILLING_TOTAL_EXTENSION	1
BILLING_TOTAL_CUT_THRU	1
BILLING_TOTAL_OPERATOR	1
BILLING_TOTAL_CARRIER_OPERATOR	1



BILLING_TOTAL_OPERATOR_ASSISTED	1
BILLING_TOTAL_BLV	1
BILLING_TOTAL_SPEED_DIAL	1
BILLING_TOTAL_NATIONAL	1
BILLING_TOTAL_TW	1
BILLING_TOTAL_INFO	1
BILLING_TOTAL_PREMIUM	1
BILLING_TOTAL_ATTENDANT	1
BILLING_TOTAL_NAS	1
BILLING_TOTAL_POLICE	1
BILLING_TOTAL_FIRE	1
BILLING_TOTAL_AMBULANCE	1
BILLING_TOTAL_TIME	1
BILLING_TOTAL_WEATHER	1
BILLING_TOTAL_TRAFFIC	1
BILLING_TOTAL_LB_TEST	1
BILLING_TOTAL_INTL_OPR	1
BILLING_TOTAL_NAT_OPR	1
BILLING_TOTAL_AIRLINES	1
BILLING_TOTAL_RAILWAYS	1
BILLING_TOTAL_SVC_CODE	1
BILLING_TOTAL_INTL_WZ1	1
BILLING_TOTAL_CNA	1
BILLING_TOTAL_DA_INTER	1
BILLING_TOTAL_INTL	1
BILLING_TOTAL_UAN	1
BILLING_TOTAL_BILLING	1

Reply : Success: Entry 1 of 1 returned.

## Event Messaging Summary Report Example

```
CLI>report measurement-em-summary
```

TIMESTAMP	2003-02-20 10:30:00
CALL_AGENT_ID	CA146
CONDITION	Normal
BILLING_EM_ACKED	1
BILLING_EM_LOGGED	1
BILLING_EM_RETRANS	1

Reply : Success: Entry 1 of 1 returned.

## Dynamic QoS Summary Report Example

```
CLI>report measurement-dqos-summary
```

TIMESTAMP	2003-02-20 10:30:00
AGGR_ID	2
CONDITION	Normal
DQOS_GATESET_ATTMP	1
DQOS_GATESET_SUCC	1
DQOS_GATE_COMMIT	1

Reply : Success: Entry 1 of 1 returned.

## SNMP Protocol Summary Report Example

```

CLI>report measurement-snmp-summary

TIMESTAMP                2003-02-20 10:30:00
EMS_ID                   0
CONDITION                 Normal
SNMP_TRAP_TX             1
SNMP_SET_RX              1
SNMP_SET_TX              1
SNMP_GET_RX              1
SNMP_GET_TX              1
SNMP_GET_NEXT_RX         1
SNMP_GET_NEXT_TX         1

Reply : Success: Entry 1 of 1 returned.

```

## Trunk Group Usage Summary Report Example

```

CLI>report measurement-tg-usage-summary trkgrp-exchange=RONLVA31GT0;
trkgrp-name=RONKVACSDS0_LC;

TIMESTAMP                2003-02-20 10:30:00
CALL_AGENT_ID            CA146
CONDITION                 Normal
TRKGRP_EXCHANGE           RONLVA31GT0
TRKGRP_NAME               RONKVACSDS0_LC
TGN_ID                   1
TRKGRP_TYPE               SS7
TRKGRP_INCOM_ATTMP        1
TRKGRP_OUTG_ATTMP         1
TRKGRP_OUTBOUND_FAIL      1
TRKGRP_TOTAL_OVERFLOW     1
TRKGRP_TOTAL_TRUNK        1
TRKGRP_INCOM_BUSY_TRK     1
TRKGRP_OUTG_BUSY_TRK      1
TRKGRP_TOTAL_OOS_TRK      1
TRKGRP_INCOM_USAGE        1
TRKGRP_OUTG_USAGE         1
TRKGRP_TOTAL_USAGE        1
TRKGRP_AVERAGE_USAGE     1
TRKGRP_GLARE_COUNT        1
TRKGRP_TOTAL_INS_TRK      1
TRKGRP_MAINT_TRK_USAGE    1
TRKGRP_OOS_TRK_USAGE      1
TRKGRP_UEQP_TRK_USAGE     1
TRKGRP_LBLK_TRK_USAGE     1
TRKGRP_RBLK_TRK_USAGE     1

```

## Announcement Summary Report Example

```

CLI>report measurement-anm-summary;

TIMESTAMP                2003-02-20 10:30:00
CALL_AGENT_ID            CA146
CONDITION                 Normal
ANM_CKT_UNAVAIL           1

```

ANM_CALL_REJECT	1
ANM_ADDR_INCOMPLETE	1
ANM_FAC_REJECT	1
ANM_PRE_0_1_ABSENT	1
ANM_PRE_0_1_PRESENT	1
ANM_HNPA_ABSENT	1
ANM_NO_ROUTE_DEST	1
ANM_UNALLOCATED_NUMBER	1
ANM_NUM_CHANGED	1
ANM_DEST_OUTOFORDER	1
ANM_TEMP_DISCONNECT	1
ANM_FEAT_NUT_SUBS	1
ANM_AUTHOCODE_INVALID	1
ANM_NO_RTE_TRANSITNW	1
ANM_CAUSE_UNKNOWN	1
ANM_EMG_CKT_UNAVAIL	1

Reply : Success: Entry 1 of 1 returned.

## H.323 Summary Report Example

CLI>report measurement-h323-summary;

TIMESTAMP	2003-02-20 10:30:00
CALL_AGENT_ID	CA146
CONDITION	Normal
H323_GRQ_TX	1
H323_GCF_TX	1
H323_GRJ_TX	1
H323_RRQ_TX	1
H323_RCF_TX	1
H323_RRJ_TX	1
H323_ARQ_TX	1
H323_ACF_TX	1
H323_ARJ_TX	1
H323_BRQ_TX	1
H323_BCF_TX	1
H323_BRJ_TX	1
H323_DRQ_TX	1
H323_DCF_TX	1
H323_DRJ_TX	1
H323_URQ_TX	1
H323_UCF_TX	1
H323_URJ_TX	1
H323_RIP_TX	1
H323_RAI_TX	1
H323_RAC_TX	1
H323_GRQ_RX	1
H323_GCF_RX	1
H323_GRJ_RX	1
H323_RRQ_RX	1
H323_RCF_RX	1
H323_RRJ_RX	1
H323_ARQ_RX	1
H323_ACF_RX	1
H323_ARJ_RX	1
H323_BRQ_RX	1
H323_BCF_RX	1
H323_BRJ_RX	1
H323_DRQ_RX	1
H323_DCF_RX	1

H323_DRJ_RX	1
H323_URQ_RX	1
H323_UCF_RX	1
H323_URJ_RX	1
H323_RIP_RX	1
H323_RAI_RX	1
H323_RAC_RX	1
H323_SETUP_TX	1
H323_SETUP_CONFIRM_TX	1
H323_ALERT_TX	1
H323_IN_PROGRESS_TX	1
H323_CALL_PROCEED_TX	1
H323_NOTIFY_TX	1
H323_INFORMATION_TX	1
H323_USER_INFO_TX	1
H323_FACILITY_TX	1
H323_RELEASE_COMPLETE_TX	1
H323_REJECT_TX	1
H323_PASSTHROU_TX	1
H323_SETUP_RX	1
H323_SETUP_CONFIRM_RX	1
H323_ALERT_RX	1
H323_IN_PROGRESS_RX	1
H323_CALL_PROCEED_RX	1
H323_NOTIFY_RX	1
H323_INFORMATION_RX	1
H323_USER_INFO_RX	1
H323_FACILITY_RX	1
H323_RELEASE_COMPLETE_RX	1
H323_REJECT_RX	1
H323_PASSTHROU_RX	1
H323_SETUP_FAIL	1
H323_CONNECT_FAIL	1
H323_ALERT_FAIL	1
H323_IN_PROGRESS_FAIL	1
H323_CALL_PROCEED_FAIL	1
H323_NOTIFY_FAIL	1
H323_INFORMATION_FAIL	1
H323_USER_INFO_FAIL	1
H323_FACILITY_FAIL	1
H323_RELEASE_COMPLETE_FAIL	1
H323_REJECT_FAIL	1
H323_PASSTHROU_FAIL	1

Reply : Success: Entry 1 of 1 returned.

## Call Tools Summary Report Example

CLI>report measurement-call-tools-summary;

TIMESTAMP	2003-02-20 10:30:00
CONDITION	Normal
TOOLS_TRUNK_TRANS_ATTMP	1
TOOLS_TRUNK_TRANS_SUCC	1
TOOLS_LINE_TRANS_ATTMP	1
TOOLS_LINE_TRANS_SUCC	1

Reply : Success: Entry 1 of 1 returned.

## AIN Tools Summary Report Example

```
CLI>report measurement-ain-tools-summary;
```

TIMESTAMP	2003-02-20 10:30:00
CONDITION	Normal
TOOLS_LNP_QUERY_ATTMP	1
TOOLS_LNP_QUERY_SUCC	1
TOOLS_TOLLFREE_QUERY_ATTMP	1
TOOLS_TOLLFREE_QUERY_SUCC	1

```
Reply : Success: Entry 1 of 1 returned.
```

## PCT Tools Summary Report Example

```
CLI>report measurement-pct-tools-summary;
```

TIMESTAMP	2003-02-20 10:30:00
CONDITION	Normal
TOOLS_LIDB_QUERY_ATTMP	1
TOOLS_LIDB_QUERY_SUCC	1

```
Reply : Success: Entry 1 of 1 returned.
```

