Tekelec Signaling Products

Eagle 31.3

Feature Notice

909-1186 Revision A
January 2004

TEKELEC

Notice

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Ordering Information

Additional copies of this document can be ordered from Tekelec Network Systems Division,
5200 Paramount Parkway, Morrisville, North Carolina, 27560.

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Introduction

Feature Notices are distributed to customers with each new release of software. This release introduces the following new features to the Eagle STP:

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- Link Maintenance Enhancements / LFS Increase for MPL-T and MIM
- Measurements Platform Filename with CLLI
- Enhance RTRV-LOG
- Expanded Terminal Output Groups
- Change Default ATM CLP Bit for Data Cells from 1 to 0
- FTRA 2.1 Compatibility with Eagle 31.3 FN–79

The *Feature Notice* includes a brief feature overview, lists new hardware required if any, provides the hardware baseline for this release, and tells you where to find the *Release Notice*) for this release (see "How to Find Customer Documentation on the Customer Support Site" on page FN-97).

Feature Overview

Table FN-1 shows the commands that support Eagle Release 31.3 features. For a detailed description of all commands and their parameters, refer to the *Commands Manual* of your current documentation set.

Table FN-1. New Parameters for Eagle Release 31.3 Features

Commands	Parameters
rept / chg-meas rept-ftp-meas	**:qh**
chg / rtrv-measopts	**:collect15min**
ent / chg / rtrv-dstn chg / ent / rtrv-gtt chg / ent / rtrv-gta	**:ngti** **:nsdd** **:nsds**
chg / ent / rtrv-gta	**:pctype**

Table FN-1. New Parameters for Eagle Release 31.3 Features (Cont'd)

Commands	Parameters
ent / chg / dlt / rtrv-gtcnv	**:dir** **:tta** **:tti** **:np** **:nai** **:npdd** **:npds** **:nsdd** **:rdmod**
tst-slk	**:action** **:force** **:time**
act / dact-cdl rept-stat-cdl rept-stat-tstslk ent / chg / dlt / rtrv / act / dact-lbp rept-stat-lfs	**:loc** **:port**
act / dact-cdl rept-stat-cdl rept-stat-tstslk ent / chg / dlt / rtrv / act / dact-lbp	**:loopback**
ent / chg / dlt / rtrv / act / dact-lbp	**:clli** **:force** **:lbp** **:lfst** **:maxerr** **:rep** **:rle** **:time**
chg / rtrv-measopts	**:cllibasedname**
rtrv-log	**:dir** **:edate** **:enum** **:etime** **:mode** **:next** **:num** **:outgrp** **:sdate** **:snum** **:stime** **:type**

Table FN-1. New Parameters for Eagle Release 31.3 Features (Cont'd)

Commands	Parameters
rtrv-trbltx	**:enum** **:outgrp** **:snum** **:type**
chg/rtrv-trm	**:all** **:appserv** **:appss** **:card** **:clk** **:dbg** **:gtt** **:gws** **:meas** **:mps** **:seas** **:slan**
rtrv-data-rtdb	**:dn** **:entity** **:imei** **:imsi** **:loc**
chg/rtrv-stpopts	**:cnvcgda** **:cnvcgdi** **:cnvcgdn** **:cnvcgdn24** **:gtcnvdflt**

Hardware Baseline

This section lists the baseline hardware supported by this release. Shown in this listing are top-level part numbers (in bold) and assembly part numbers (if applicable).

• Control Shelf	**870-2321-02 Rev A**[1] or **870-2321-04 Rev A**[2] or **870-2377-01 Rev A**[3]
• Control Shelf Backplane	**870-0775-03 Rev E**
• Extension Shelf	**870-2378-01 Rev A**[4]
• Extension Shelf Backplane	**870-0776-08 Rev A** or **870-0776-11 Rev A**
• ACM ACM ACM ACM	**870-1008-02 Rev D** or **870-1008-03 Rev A** or **870-1008-04 Rev A** or **870-1008-05 Rev A**
• ASM ASM ASM ASM ASM ASM	**870-1011-02 Rev D** or **870-1011-03 Rev A** or **870-1011-04 Rev B** or **870-1011-05 Rev B** or **870-1011-06 Rev A** or **870-1011-07 Rev A**
• DCM DCM DCM DCM DCM	**870-1945-03 Rev A** **870-1671-02 Rev B** **870-1671-04 Rev A** **870-1945-01 Rev A** **870-1945-02 Rev A**
• DCMX	**870-1984-01 Rev A**
• DSM, 1GB MEM DSM, 2GB MEM DSM, 3GB MEM DSM, 4GB MEM	**870-1984-02 Rev A3** or **870-1984-03 Rev A** or **870-1984-04 Rev A** or **870-1984-05 Rev A**
• DSM-1G DSM-2G	**870-1945-01 Rev A** **870-2371-03 Rev E**
• E1/T1 MIM E1/T1 MIM	**870-2198-01 Rev G or** **870-2198-02 Rev A**
• E1-ATM E1-ATM	**870-2455-01 Rev B** **870-2455-02 Rev B**
• EDCM	**870-2372-01 Rev E**
• EILA EILA w/ DIMM	**870-2049-01 Rev A** or **870-2049-02 Rev A**
• FAP	**870-1606-02 Rev A**[5] or **870-2320-01 Rev A**[6]

[1] Required for HMUX.
[2] Required for HMUX, Standard Frame
[3] Required for HMUX, Heavy Duty frame
[4] Required for Heavy Duty frame

• FAP-CF/EF	**870-0243-08 Rev C**
FAP-MISC	**870-0243-09 Rev C**
• GPSM-II	**870-2360-01 Rev E**
• HMUX	**870-1965-01 Rev A**
• LIM-AINF	**870-1014-01 Rev D** or
LIM-AINF	**870-1014-02 Rev A** or
LIM-AINF	**870-1014-03 Rev B** or
LIM-AINF	**870-1014-04 Rev A** or
LIM-AINF	**870-1014-05 Rev A** or
LIM-AINF	**870-1014-06 Rev A** or
LIM-AINFw/ DIMM	**870-1488-01 Rev A** or
LIM-AINFw/ DIMM	**870-1488-02 Rev A** or
LIM-AINFw/ DIMM	**870-1488-03 Rev A** or
LIM-AINFw/ DIMM	**870-1488-04 Rev A** or
LIM-AINFw/ DIMM	**870-1488-05 Rev A** or
LIM-AINFw/ DIMM	**870-1488-06 Rev A**
• LIM-ATM	**870-1293-02 Rev A** or
LIM-ATM	**870-1293-03 Rev A**
LIM ATM	**870-1293-06 Rev A**
LIM ATM	**870-1293-07 Rev A**
LIM-ATM	**870-1293-08 Rev A**
• LIM-DS0	**870-1009-02 Rev D** or
LIM-DS0	**870-1009-03 Rev A** or
LIM-DS0	**870-1009-04 Rev A** or
LIM-DS0 w/ DIMM	**870-1485-01 Rev A** or
LIM-DS0 w/ DIMM	**870-1485-02 Rev A** or
LIM-DS0 w/ DIMM	**870-1485-03 Rev A**
• LIM-E1	**870-1379-01 Rev A**
• LIM-ILA	**870-1484-01 Rev E** or
LIM-ILA w/ DIMM	**870-1484-02 Rev C**
• LIM-OCU	**870-1010-03 Rev D** or
LIM-OCU	**870-1010-04 Rev A** or
LIM-OCU	**870-1010-05 Rev A** or
LIM-OCU w/ DIMM	**870-1486-02 Rev A** or
LIM-OCU w/ DIMM	**870-1486-03 Rev A** or
LIM-OCU w/ DIMM	**870-1486-04 Rev A**
• LIM-V.35	**870-1012-02 Rev D**
LIM-V.35	**870-1012-03 Rev A**
LIM-V.35	**870-1012-04 Rev A**
LIM-V.35 w/ DIMM	**870-1487-01 Rev A** or
LIM-V.35 w/ DIMM	**870-1487-02 Rev A** or
LIM-V.35 w/ DIMM	**870-1487-03 Rev A**
• MDAL	**870-0773-04 Rev B** or
MDAL	**870-0773-05 Rev A** or
MDAL	**870-0773-06 Rev A**
MDAL	**870-0773-08 Rev A**
• MPL	**870-2061-01 Rev A**
MPL-T	**870-2061-02 Rev C**
• MPS TekServer EPAP	**890-1801-01 Rev D**
• MPS Sun Netra EPAP	**890-1374-05 Rev A**

[5] Required for Standard frame
[6] Required for Heavy Duty frame

- MPS Sun Netra ELAP **890-1374-06 Rev A**
- TDM **870-0774-10 Rev A**
  TDM **870-0774-11 Rev A**
- TSM-256 **870-1289-02 Rev A** or
  TSM-256 **870-1289-03 Rev A**
- TSM-512 **870-1290-02 Rev A** or
  TSM-512 **870-1290-03 Rev A**
- TSM-768 **870-1291-02 Rev A** or
  TSM-768 **870-1291-03 Rev A**
- TSM-1024 **870-1292-02 Rev A** or
  TSM-1024 **870-1292-03 Rev A**
- Dual GR-376 EOAP **890-1050-02 Rev G**
- Single EOAP **890-1050-03 Rev H**
- Dual EOAP **890-1050-01 Rev K**
- Kit, E1 **890-1037-01 Rev A**
- Kit, Holdover Clock Assy **890-1013-01 Rev A**
- Fan Assy **890-1038-01 Rev D**
- MPS Sun Netra EPAP **890-1277-03 Rev H**
  MPS Sun Netra ELAP **890-1277-04 Rev G**
- Sun Netra EPAP **890-1374-03 Rev E**
  Sun Netra ELAP **890-1374-04 Rev E**

15 Minute Measurements

Description

The 15 minute Measurements feature is controlled by a feature access key and a measurement option. Turning on the feature requires a part number. The feature cannot be turned off once turned on. It is a Permanently ON feature. Upon turn on, the collection period defaults to the 30-minute option to maintain compatibility with the existing system capabilities.

The feature becomes operational when the collection period has been changed to 15 minutes. The collection period can be changed from 30 minutes to 15 minutes (and vice versa) by changing the 15 Minute Measurements collection option of the Measurements Platform options table. When the 15 Minute Measurements collection is disabled, measurements data will be collected and reported each half-hour at hh:00 and hh:30. When the 15 Minute Measurements collection option is selected to enabled, measurements data will be collected and reported four times each hour at hh:00, hh:15, hh:30, and hh:45. The current state of the option is displayed with the Measurements Platform options. Report types supported by 15 Minute measurements are: systot, comp, gtwy, and avl.

Turning on the feature requires a feature access key. This feature cannot be turned off once turned on, therefore it is a Permanently ON feature. When the feature is turned on, the collection period defaults to the 30-minute option to maintain compatibility with the existing system capabilities.

Highlights

The 15 Minute Measurements feature provides the Measurements Platform with the capability to collect and report STP, link, and linkset measurements on a 15 Minute basis. All of the measurements currently available for 30-minute collection are available every 15 minutes when the feature option is operational. (15 Minute Measurements are not supported on the OAM.)

Hardware Requirements

Any hardware required is included in the “Hardware Baseline” on page FN-4. The 15 Minute Measurements feature requires the measurement platform feature with the MCPM card.

Enhancements to Existing Commands

The following commands or command families have been enhanced with new parameters to support this feature. For a complete description of these commands, refer to the *Commands Manual* of your current documentation set.

ent-card

Use this command to add a card to the database. The card type and application specifies the function assigned to the card. When the 15 Minute Measurements feature is on no emd-c cards can be provisioned in the system.

chg-meas

Use the chg-meas command to change both the report and collecting status of the measurement subsystem.

> **NOTE: Once the Measurements Platform collection function has been enabled, the collect=on/off parameter controls only the output of reports to the UI. The parameter has no effect on enabling and disabling collection and report generation for the Measurements Platform. Measurements Platform collection can, but should not, be enabled and disabled by allowing and inhibiting the MCPM cards. (See the alw-card and inh-card command descriptions.) Report generation for the Measurements Platform is controlled by the rept-ftp-meas and chg-measopts commands.**

When the 15 Minute Measurements collection option is on, collect=on cannot be specified in this command.

rept-meas

Use the rept-meas command to generate measurement reports on demand. The reports display on the UI terminal, and are not transferred to the customer FTP server when the Measurements Platform feature is enabled.

ITU gateway measurements are done for **stp** and, on a per-linkset basis, for **lnkset**, **lsonismt**, **lsdestni**, and **lsorigni** entity types.

Parameters

:qh= (optional)
The specific quarter-hour interval. The **qh** parameter implies the ending time for the collection interval; for example, **qh=0315** generates a report for **3:00-3:15**.

Range: *hhmm*
hh—**00 - 24**
mm—**00**, **15**, **30**, or **45**

Output

rept-meas:type=systot:enttype=stp

```
rlghncxa03w 03-07-27 16:53:22 EST  EAGLE 31.3.0
Measurements Report will be generated.

rlghncxa03w 03-07-27 16:53:22 EST  EAGLE 31.3.0
TYPE OF REPORT: STP SYSTEM TOTAL MEASUREMENTS ON STP
REPORT PERIOD: LAST
REPORT INTERVAL:  03-07-27  12:14:00 THRU 12:29:59

STP-SYSTOT MEASUREMENTS
    ORIGMSUS   =       425, TRMDMSUS   =       420, THRSWMSU   =    730980,
    ORMSUOCT   =      8490, TRMSUOCT   =      8400, TSMSUOCT   =  14619600,
    DURINTFL   =         0, DTAMSULOST =         0, MSINVDPC   =         5,
    MSINVSIO   =         0, OMSINVDPC  =         0, MSINVLNK   =         0,
    MSINVSIF   =         0, MSNACDPC   =         5, MSINVSLC   =         0,
    GTTPERFD   =         0, GTTUN0NS   =         0, GTTUN1NT   =         0,
    MSSCCPFL   =         0, MSULOST1   =         0, MSULOST2   =         0,
    MSULOST3   =         0, MSULOST4   =         0, MSULOST5   =         0,
    CRSYSAL    =         1, MASYSAL    =         2, MISYSAL    =         9,
    XLXTSPACE  =         0, XLXTELEI   =         0, MSUDSCRD   =         0,
    OVSZMSG    =         0, GFGTMATCH  =         0, GFGTNOMCH  =         0,
    GFGTNOLKUP =         0, MSUSCCPFLR =         0
rlghncxa03w 03-07-27 16:53:22 EST  EAGLE 31.3.0
END OF ON-DEMAND STP-SYSTOT MEASUREMENT REPORT
```

rept-ftp-meas

Use this command to manually initiate generation and FTP transfer of a measurements report from the Measurements Platform MCPM to the customer's FTP server.

Parameters

:qh= (optional)
The specific quarter-hour for the specified report. The entry implies the ending time for the collection interval. For example, the parameter **qh=0315** generates a report for the interval **3:00-3:15**.

Range: *hhmm* where *hh* = **00-24** and *mm* = **00**, **15**, **30**, or **45**

chg-measopts

Use this command for the following functions:

- Enable the Measurements Platform collection function
- Turn on or turn off the 15 Minute Measurements collection function
- Enable or disable the automatic generation and FTP transfer of scheduled measurements reports to the FTP serve
- Turn on or off the CLLI-based file name option for measurements reports files

NOTE: Once the Measurements Platform collection function has been enabled with the platformenable=on parameter, it cannot be disabled with this command.

Parameters

:collect15min= (optional)
Turns on or off the 15 Minute Measurements collection function.

Range: on, off
Default: No change to the current value

rtrv-measopts

- Show the enabled / disabled status of all FTP scheduled measurements reports
- Verify that the Measurements Platform has been enabled (PLATFORMENABLE setting)
- Verify that the 15 Minute Measurements collection option has been turned on (COLLECT15MIN setting)
- Verify that the CLLI-based report file name option is turned on or off (CLLIBASEDNAME setting)

chg/rtrv-ctrl-feat

Use the chg-ctrl-feat command for controlled features that have been purchased and enabled with the **enable-ctrl-feat** command. to:

- Turn on or turn off On / Off features
- Turn on Permanently On features (they cannot be turned off once they have been turned on)
- The 15 Minute Measurements feature is permanently On

Use this command when the **Eagle** station shows an expired temporary key and the administrator wants to clear the CRITICAL system error without purchasing a permanent Feature Access Key.

Use the rtrv-ctrl-feat command to retrieve the status of feature access key controlled features that are purchased and enabled in the system.

Output

NOTE: The following output examples will differ from the output shown at your terminal and might include features that are not supported in your system. A feature must be purchased before you can enable the feature and turn the feature on. If you are not sure whether you have purchased a feature, contact your Tekelec Sales Representative or Account Representative.

If a Part Number (**partnum** parameter) is entered that belongs to a feature associated with quantity, the output will show which quantity is currently enabled on the system, even if the specified Part Number is for a different quantity. The output will also include the temporary enabled information, if applicable.

rtrv-ctrl-feat

```
   rlghncxa03w 03-07-29 16:40:40 EST  EAGLE5 31.3.0
   The following features have been permanently enabled:
   Feature Name              Partnum    Status  Quantity
   TPS                       893000110  on          1000
   ISUP Normalization        893000201  on          ----
   Command Class Management  893005801  on          ----
   LNP Short Message Service 893006601  on          ----
   Prepaid SMS Intercept Ph1 893006701  on          ----
   Intermed GTT Load Sharing 893006901  on          ----
   G-Port Circ Route Prevent 893007001  on          ----
   XGTT Table Expansion      893006101  on        400000
   XMAP Table Expansion      893007710  on          3000
   Large System # Links      893005910  on          1500
   Routesets                 893006401  on          6000
   Telnet                    893005701  off         ----
   EAGLE5 Product            893007101  on          ----
   EAGLE Product             893007201  off         ----
   IP7 Product               893007301  off         ----
   Network Security Enhance  893009101  off         ----
   Telnet                    893005701  on          ----
   Port Chk for MO SMS       893009301  on          ----
   LNP ELAP Configuration    893010901  on          ----
   LNP ported TNs            893011012  on      96000000
   LNP ported LRNs           893010501  on        150000
   LNP ported NPANXXs        893009402  on        300000
   15 Minute Measurements    893012101  off         ----
   EIR                       893012301  on          ----
   EAGLE OA&M IP Security    893400001  off         ----
   SCCP Conversion           893012001  on          ----

      The following features have been temporarily enabled:
   Feature Name              Partnum    Status  Quantity     Trial Period Left
G-Port Circ Route Prevent 893007001 On           ----  20 days 8 hrs 57 mins

   The following features have expired temporary keys:
   Feature Name            Part Num
```

ANSI-ITU-China SCCP Conversion

Description

Since some ANSI and ITU SCCP parameters are incompatible in format and/or coding, subsequently the EAGLE has not historically supported SCCP traffic between ANSI and ITU networks. A specialized SCCP/TCAP conversion was previously implemented for MTP Routed UDT/UDTS messages. This feature will not interact with the Release 22.2 SCCP/TCAP conversion feature but will be mutually exclusive of it. Since the specialized SCCP/TCAP conversion was implemented, many improvements have been made to the Eagle in regards to ITU SCCP compliance and features. (e.g. EGTT, MGTT). ANSI-ITU-China SCCP Conversion will provide a generic capability that will correctly format and decode/encode the following inter-network SCCP traffic:

- UDT and UDTS messages - includes SCMG messages, which are a specialized form of a UDT
- MTP routed
- GT routed

The feature also provides SCCP management (SCMG) across network type boundaries, i.e. concerned point codes for a mated application may be of a different network type than the mated application.

UDTS message return is controlled inherently by the SCCP layer protocol within the protocol class byte. If bits 5-8 indicate return message on error, a UDTS message will be sent when there is an error. Otherwise, no UDTS is returned to the originator.

Highlights

This feature provides the EAGLE the ability to support a generic ANSI-ITU-China SCCP Conversion. Throughout this document, ANSI-ITU-China SCCP Conversion refers to UDT and UDTS messages conversion only. The EAGLE has not supported other types of SCCP messages (e.g. XUDTS) as these will continue to be discarded

Hardware Requirements

Any hardware required is included in the “Hardware Baseline” on page FN-4

Enhancements to Existing Commands

The following commands or command families have been enhanced with new parameters to support this feature. For a complete description of these commands, refer to the *Commands Manual* of your current documentation set.

rtrv-dstn

Use the rtrv-dstn command to show the destination point code entries in the Destination point code table.

Output

The following example displays a single destination by 24-bit ITU-N secondary point code:

rtrv-dstn:spcn24=99-99-99

```
    tekelecstp 03-11-11 10:56:38 EST  EAGLE 31.3.0
    DPCN24        CLLI        BEI ELEI  ALIASA       ALIASI        DOMAIN
    012-012-012   ----------- no  ---   -----------  -------        SS7

                SPC           NCAI
                099-099-099    ----

    Destination table is (1 of 2000) 1% full
;
```

The following example displays a single destination by 24-bit ITU-N alias:

rtrv-dstn:alias24=4-4-4

```
    tekelecstp 03-11-11 10:56:38 EST  EAGLE 31.3.0
    DPCI          CLLI        BEI ELEI  ALIASA       ALIASN/N24    DOMAIN
    1-006-1       ----------- no  ---   -----------  004-004-004    SS7

                SPC           NCAI
                -----------  ----

    Destination table is (2 of 2000) 1% full
```

rtrv-dstn:dpcn24=12-12-12

```
    tekelecstp 03-11-11 10:56:38 EST  EAGLE 31.3.0
    DPCN24        CLLI        BEI ELEI  ALIASA       ALIASI        DOMAIN
    012-012-012   ----------- no  ---   -----------  -------        SS7

                SPC           NCAI
                099-099-099   ----
```

Legend

DPC / DPCA / DPCI / DPCN/DPCN24—Destination point code.

CLLI—Command Language Location Indicator.

BEI—Broadcast Exception Indicator.

ELEI—Cluster Exception-List Exclusion Indicator.

NCAI—Nested Cluster Allowed Indicator.

ALIASA / ALIASI / ALIASN/ALIASN24—Alias point code.

SPC—Secondary point code.

DOMAIN—Destination Entity Domain.

chg/ent/rtrv-gtt

Use the chg/ent-gtt commands to change and enter the routing objects for messages requiring global title translation. The global title addresses remain unchanged.

NOTE: If the EGTT (Enhanced Global Title Translation) feature is turned on, the Eagle **will no longer accept GTT (Global Title Translation) and TT (Translation Type) commands. Refer to the new command sets that replace the GTT and TT commands: GTT Selector commands (ent/chg/dlt/rtrv-gttsel), GTT Set commands (ent/dlt/rtrv-gttset), and GTA commands (ent/chg/dlt/rtrv-gta).**

NOTE: With the ANSI-ITU-China SCCP Conversion feature turned on, the Translated Point Code ((pc, pca, pci, pcn, and pcn24 parameters) can be of a different network type than the Translation Type (type parameter).

NOTE: When the ANSI-ITU-China SCCP Conversion and MGTT features are on and the Translated Point Code is of a different network type, the ngti parameter specifies whether the new GTI translation format is GTI type 2 or GTI type 4.

NOTE: When the MGTT feature is off, ngti cannot be specified and the Default GT Conversion Table is used for conversion. With the ANSI-ITU-China SCCP Conversion feature off, mixed network types are not allowed.

Use the rtrv-gtt command to show one or more entries from the GTT Data and the Translation Type tables. The report that is displayed contains two records (the percentage full and number-of-cells-used field) that give the total entries in the GTT table without regard to the **type** parameter specified.

Parameters

:ngti= (optional)
New GTI code. When the ANSI-ITU-China SCCP Conversion and MGTT features are on and the Translated Point Code is of a different network type, the **ngti** parameter specifies whether the new GTI translation format is GTI type 2 or GTI type 4.

Range: 2, 4

:nsdd= (optional)
New Suffix Digits to be Deleted. This parameter identifies the number of Suffix Digits to be replaced with the New Suffix Digits String (**nsds)**.

Range: 0–21
Default: 0

:nsds= (optional)
New Suffix Digits String

New Suffix Digits String. This parameter identifies the New Suffix Digits String with which to replace the deleted Suffix Digits.

Range: Maximum of 21 digits
Default: No digits

:pctype= (optional)

Point code type. This parameter can be specified, only when the ANSI-ITU-China SCCP Conversion feature is enabled, to retrieve a single type of point code among mixed types of point code provisioned for a Translation Type.

Range: ansi, itui, itun, itun24

Default: Display all

Output

The following example shows output when the ANSI-ITU-China SCCP Conversion feature is enabled, with suffix digits and new GTI code parameter values.

NOTE: When the ANSI-ITU-China SCCP Conversion feature is enabled, entries that are provisioned with xlat=dpc where ngt has been specified are displayed with an xlat of dpcngt.

rtrv-gtt:type=7

```
rlghncxa03w 03-11-07 11:43:04 EST  EAGLE 31.3.0
    TYPEI    TTN        NDGT
    7        isvm       3,6,7,10
    GTT TABLE IS   1 % FULL    (17 of 1000000)

    START GTA             END GTA               XLAT   RI  PC            SSN NGT
    564                   564                   DPCNGT GT  002-136-005   245 123
                                                NNP=3 NNAI=100 NSDD=3 NSDS=345
                                                NGTI=4
    641                   641                   DPCNGT GT  23456         245 123
                                                NGTI=2
    589234                598744                DPCNGT GT  3-006-1       245 123
                                                NNP=10 NNAI=50 NPDD=3 NPDS=345
                                                NGTI=4
    648392                659832                DPCSSN SSN 007-006-005   245 ---
;
```

The following examples show output when the ANSI-ITU-China SCCP Conversion feature is enabled and the **pctype** parameter is specified.

rtrv-gtt:typei=7:pctype=ansi

```
rlghncxa03w 03-11-07 11:43:04 EST  EAGLE 31.3.0
    TYPEI    TTN        NDGT
    7        isvm       3,6,7,10
    GTT TABLE IS   1 % FULL    (17 of 1000000)

    START GTA             END GTA               XLAT   RI  PCA           SSN NGT
    564                   564                   DPCNGT GT  002-136-005   245 123
                                                NNP=3 NNAI=100 NSDD=3 NSDS=345
                                                NGTI=4
    648392                659832                DPCSSN SSN 007-006-005   245 ---
;
```

rtrv-gtt:typen=106:pctype=itui

```
rlghncxa03w 03-11-07 11:43:04 EST  EAGLE 31.3.0
    TYPEN    TTN        NDGT
    106      ntoi43     6
    GTT TABLE IS   1 % FULL (17 of 1000000)

    START GTA             END GTA               XLAT   RI  ITUI PC       SSN NGT

    300006                300006                DPCNGT GT  6-002-3       ---  33

                          NNP=6  NNAI=7   NPDD=0  NPDS=
                          NGTI=4
;
```

rtrv-gtt:type=55:pctype=itun

```
rlghncxa03w 03-11-07 11:43:04 EST  EAGLE 31.3.0
    TYPEA    TTN        NDGT
    55       aton44     7
    GTT TABLE IS   1 % FULL (17 of 1000000)

    START GTA             END GTA               XLAT   RI  ITUN PC       SSN NGT

    6543210               6543210               DPCNGT GT  12341         ---  42

                          NNP=3  NNAI=1   NPDD=0  NPDS=
                          NGTI=4
;
```

rtrv-gtt:type=9:pctype=itun24

```
rlghncxa03w 03-11-07 11:43:04 EST  EAGLE 31.3.0
    TYPE     TTN        NDGT
    7        isvm       3,6,7,10
    GTT TABLE IS   1 % FULL    (17 of 1000000)

    START GTA             END GTA               XLAT   RI  ITUN24 PC     SSN NGT
    764                   864                   DPCNGT GT  002-136-005   245 123
                                                NNP=3 NNAI=100 NSDD=3 NSDS=345
                                                NGTI=4
    668392                689832                DPCSSN SSN 007-006-005   245 ---
;
```

Legend

TYPE/TYPEA/TYPEI/TYPEN/TYPEN24—The translation type.

TTN—The translation name.

NDGT—The number of digits.

GTT TABLE IS 10% FULL—The relative size of the GTT table.

X OF Y—Nunber of entries in the table (x) and the maximum number of entries configured for the table (y)

START GTA—Global title start address.

END GTA—Global title end address.

XLAT—Translate indicator.

RI—Route indicator.

PC, PCA, ITU PC, ITUI PC, ITUN PC, ITUN24 PC—Point code.

SSN—Subsystem number.

NGT—New global title translation type**.** This field identifies the type of global title translation that replaces the original type.

NNP—New Numbering Plan.

NNAI—New Nature of Address Indicator.

NPDD—New Prefix Digits to be Deleted.

NPDS—New Prefix Digits String.

NSDD—New Suffix Digits to be Deleted.

NSDS—New Suffix Digits String

NGTI—New GTI code. When the ANSI-ITU-China SCCP Conversion and MGTT features are on and the Translated Point Code is of a different network type, the *NGTI* value indicates whether the new GTI translation format is GTI type 2 or GTI type 4.

rtrv-rte

Use this command to show the parameter information for a route.

Output

rtrv-rte

```
rlghncxa03w 03-11-07 12:05:33 EST  EAGLE 31.3.0

DPCA        ALIASI  ALIASN/N24    CLLI        LSN        RC APCA
001-001-002 ------- -----------   ----------- ls11234567 10 001-001-002
001-001-003 ------- -----------   ----------- ls11345678 10 001-001-003
001-001-004 ------- -----------   ----------- ls11345679 10 001-001-004
001-001-005 ------- -----------   ----------- ---------- -- -----------
001-001-006 ------- -----------   ----------- ---------- -- -----------
001-001-007 ------- -----------   sillyseas7  ls11345    10 001-001-007
001-001-008 ------- -----------   sillyseas8  ls113467   10 001-001-008
001-001-009 ------- -----------   sillyseas9  ls1134     10 001-001-009
020-002-*   ------- -----------   ----------- ---------- -- -----------
001-003-001 ------- -----------   ----------- ---------- -- -----------
009-008-007 ------- -----------   seas987     ---------- -- -----------
009-008-009 ------- -----------   seas989     ---------- -- -----------
008-008-008 ------- -----------   ----------- ---------- -- -----------
111-222-111 ------- -----------   ----------- ---------- -- -----------

DPCI    ALIASN/N24        ALIASA      CLLI        LSN        RC APC
1-001-4 -----------   ----------- ----------- ---------- -- -----------
7-255-7 -----------   ----------- ----------- ---------- -- -----------
1-222-1 -----------   ----------- ----------- ---------- -- -----------
```

chg/rtrv-stpopts

Use the chg-stpopts command to change the values of one or more of the STP node level processing option indicators maintained in the STP's options table. All values are assigned initially to system defaults at STP installation time, and they may be updated subsequently using this command.

NOTE: For those STP option attributes supporting STP event message throttling, the values for the indicated parameters shall become effective in the next event-message output interval following their activation. All other updates shall be effective immediately, as of the time of activation.

Use the rtrv-stpopts commands to retrieve the current value of the Eagle's node-level processing option indicators maintained in the system's options table.

Parameters

:cnvcgda= (optional)
Enables discarding of the CGPA point code in ANSI SCCP messages if the point code or alias point code of the destination network type is not defined.

Range: **yes, no**
yes—Enabled
no—Disabled
Default: Current value
System Default: **no**

:cnvcgdi= (optional)
Enables discarding of the CGPA point code in ITU-I SCCP messages if the point code or alias point code of the destination network type is not defined

Range: **yes, no**
Default: Current value
System Default: **no**

:cnvcgdn= (optional)
Enables discarding of the CGPA point code in ITU-N SCCP messages if the point code or alias point code of the destination network type is not defined

Range: **yes, no**
Default: Current value
System Default: **no**

:cnvcgdn24= (optional)
Enables discarding of the CGPA point code in ITU-N24 SCCP messages if the point code or alias point code of the destination network type is not defined

Range: **yes, no**
Default: Current value

System Default: **no**

:gtcnvdflt= (optional)
Enables routing of SCCP messages using system defaults when an appropriate entry is not found in the Default GT Conversion Table

If the entry cannot be found in the table, an STP system wide option will determine if the message is to be discarded, or if default values are used. For ITU GTI 4 or GTI 2 to ANSI GTI 2, the TT is

copied. For ANSI GTI 2 to ITU, the GTI is defaulted to 4. The defaults used are NP (1) and NAI (4). The ITU TT is copied from the inbound messageís ANSI TT. These defaults are shown below.

GT Field	ANSI ñ GTI 2	ITU - GTI 2	ITU - GTI 4
TT	Copied from incoming message	Copied from incoming message	Copied from incoming message
NP	NA	NA	1 (E.164)
NAI	NA	NA	4 (International)
ES	NA	NA	Auto-calculated

Range: yes, no
Default: Current value
System Default: **no**

Output

The following example displays MTP STP options with no affecting features on. Certain features that are shown in other examples control additional options and / or changes to this option list:

```
rlghncxa03w 03-11-17 16:02:05 EST  EAGLE 31.3.0
STP OPTIONS
---------------------------
MTPT31CTL                  1
MTPLTI                   yes
MTPLTCTDPCQ                3
MTPLTST                10000
MTPXLQ                   500
MTPXLET                 0100
MTPXLOT                  90%
MTPDPCQ                 2000
TFATFRPR                1000
MTPRSI                   yes
MTPRSIT                 5000
MTPLPRST                 yes
MTPT10ALT              30000
SLSCNV                 perls
UIMRD                    yes
CRITALMINH               yes
DISPACTALMS               no
NPCFMTI             14-0-0-0
GSMDFLT                  PASS
GSMDECERR                PASS
DEFCC                      49
DEFNDC                    177
DSMAUD                     no
RPTLNPMRSS               yes
RANDSLS                  off
GR2878RGLBL              yes
RSTRDEV                   on
```

```
SECMTPMATE              off
SECMTPSID              test
SECMTPSNM            notify
SECSCCPSCMG          silent
CNVCGDA                 no
CNVCGDI                 no
CNVCGDN                 no
CNVCGDN24               no
GTCNVDFLT               no
```

chg/ent/rtrv-gta

Use the chg/ent-gta commands to change and add the global title address information (GTA) for applicable global title selectors required to specify a global title entry.

The chg-gta command changes the routing objects for messages requiring global title translations. The point code, subsystem number, and routing indicator specified overwrite the existing data values.

The ent-gta command adds the routing object (a destination address and a subsystem number) for messages requiring a global title translation. The translation is performed on the basis of the global title address (GTA), global title indicator (GTI), numbering plan (NP), nature of address indicator (NAI), and translation type (TT) of each SS7 SCCP message directed to the STP with a routing indicator of 0, indicating a GTT is required.

Use the rtrv-gta command to display a list of the GTA (global title address) information applicable to the specified GTT set. This list can be filtered using a number of parameters. The report that is displayed contains two records (the percentage full and number-of-cells-used field) that give the total entries in the GTT table without regard to the selector specified.

The rtrv-gta command obtains the routing object (destination address and subsystem number), relative cost, and routing indicator assigned to that object for specified GTAs (global title addresses) or ranges of GTAs with a given GTT set.

Parameters

:ngti= (optional)
New GTI code. When the ANSI-ITU-China SCCP Conversion and MGTT features are on and the Translated Point Code is of a different network type, the **ngti** parameter specifies whether the new GTI translation format is GTI type 2 or GTI type 4.

Range: 2, 4

:nsdd= (optional)
New Suffix Digits to be Deleted. This parameter identifies the number of Suffix Digits to be replaced with the New Suffix Digits String (**nsds)**.

Range: 0–21
Default: 0

:nsds= (optional)
New Suffix Digits String

New Suffix Digits String. This parameter identifies the New Suffix Digits String with which to replace the deleted Suffix Digits.

Range: Maximum of 21 digits
Default: No digits

:pctype= (optional)
Point code type. This parameter can be specified, only when the ANSI-ITU-China SCCP Conversion feature is enabled, to retrieve a single type of point code among mixed types of point code provisioned for a Translation Type.

Range: ansi, itui, itun, itun24
Default: Display all

Output

The following examples show output when the ANSI-ITU-China SCCP Conversion feature is enabled and the **pctype** parameter is specified.

rtrv-gta:gttsn=ntoa23:pctype=ansi

```
    GTTSN      NETDOM  NDGT
    ntoa23     itu     4
    GTT TABLE IS   1 % FULL (36 of 269999)

    START GTA  END GTA    XLAT   RI  PC          SSN CCGT NTT
    1899       1899       DPCNGT GT  010-002-002 --- no   37
         NNP=   NNAI=    NPDD=0  NPDS=
         NGTI=2
;
```

rtrv-gta:gttsn=atoi22:pctype=itui

```
    GTTSN      NETDOM  NDGT
    atoi22     ansi    9
    GTT TABLE IS   1 % FULL (36 of 269999)

    START GTA END GTA   XLAT   RI  ITUI PC       SSN CCGT NTT
    991001200 991001300 DPCNGT GT  7-001-4       --- no   4
         NNP=   NNAI=    NPDD=0  NPDS=
         NGTI=2
;
```

rtrv-gta:gttsn=aton21:pctype=itun

```
    GTTSN      NETDOM  NDGT
    aton21     ansi    2
    GTT TABLE IS   1 % FULL (36 of 269999)

    START GTA END GTA   XLAT   RI  ITUN PC       SSN CCGT NTT
    80        89        DPCSSN SSN 15441         45  no   ---
;
```

rtrv-gta:gttsn=ntin24:pctype=itun24

```
    GTTSN     NETDOM  NDGT
    ntin24    itu     10
    GTA TABLE IS   1 % FULL  (36 of 269999)

    START GTA  END GTA    XLAT   RI  ITUN24 PC   SSN CCGT NTT
    8006550000 8006551999 DPCSSN SSN 100-120-003 255 no   ---
;
```

Legend

GTTSN—The GTT set name. A GTT set is an entity to which global title addresses and selectors are assigned.

NETDOM—The network domain.

NDGT—The number of digits required for GTAs associated with this set.

START GTA—The start global title address.

END GTA—The end global title address.

XLAT—The translate indicator.

RI—The routing indicator.

PC, PCA, ITU PC, ITUI PC, ITUN PC, ITUN24 PC—Translated point code.

SSN—The translated subsystem number.

CCGT—The cancel called CdPA GTA address.

NNP—New Numbering Plan.

NNAI—New Nature of Address Indicator.

NPDD—New Prefix Digits to be Deleted.

NPDS—New Prefix Digits String.

NTT—The new translation type.

rtrv-ctrl-feat

Use the rtrv-ctrl-feat command to retrieve the status of feature access key controlled features that are purchased and enabled in the system.

Output

rtrv-ctrl-feat:enable=perm

```
rlghncxa03w 03-07-29 16:40:40 EST  Rel 31.3.0
The following features have been permanently enabled:
Feature Name              Partnum    Status  Quantity
TPS                       893000110  on          1000
ISUP Normalization        893000201  on          ----
Command Class Management  893005801  on          ----
LNP Short Message Service 893006601  on          ----
Prepaid SMS Intercept Ph1 893006701  on          ----
Intermed GTT Load Sharing 893006901  on          ----
G-Port Circ Route Prevent 893007001  on          ----
XGTT Table Expansion      893006101  on        400000
XMAP Table Expansion      893007710  on          3000
Large System # Links      893005910  on          1500
Routesets                 893006401  on          6000
EAGLE5 Product            893007101  off         ----
EAGLE Product             893007201  on          ----
IP7 Product               893007301  on          ----
Network Security Enhance  893009101  on          ----
Telnet                    893005701  on          ----
Port Chk for MO SMS       893009301  on          ----
LNP ELAP Configuration    893010901  on          ----
LNP ported TNs            893011012  on      96000000
LNP ported LRNs           893010501  on        150000
LNP ported NPANXXs        893009402  on        300000
15 Minute Measurements    893012101  off         ----
EIR                       893012301  on          ----
EAGLE OA&M IP Security    893400001  off         ----
SCCP Conversion           893012001  on          ----
GSM Map Screening (GMS)   893013201  on          ----
Enhanced GMS (EGMS)       893012401  on          ----
```

rtrv-cspc

Use the rtrv-cspc command to show one or more lists of concerned signaling point codes that are to be notified when subsystem-prohibited or subsystem-allowed messages are received for an associated mate application.

Output

NOTE: The command must be entered first with the group only (no point code); then the command must be entered again with the group and the point code.

rtrv-cspc

```
    rlghncxa03w  03-03-07 11:43:02  EST  EAGLE 31.3.0
    CSPC GRP   NETWORK               PERCENT FULL
    Grp01      ANSI                       2%
    Grp02      ANSI, ITU, ITU-N24         3%
    Grp03      ITU                        2%
;
```

rtrv-cspc:grp=grp02

```
    tekelecstp 03-03-17 16:40:57 EST  EAGKE 31.0.0
    CSPC GRP   PC             Type
    GRP02      001-012-123     A
               001-012-124     A
               001-012-007     I
               023-012-126     N24
```

Legend

CSPC PC TABLE IS 15% FULL—The relative size of the CSPC point code tables.

CSPC GRP—The name of the CSPC broadcast group.

NETWORK—The network type or types associated with the point code or codes in the group. (When no parameters are specified in the command, only the groups are listed. The **grp** parameter must be specified to list the point codes in the specified group.)

PERCENT FULL—The relative size of the CSPC broadcast group.

PC—The point codes that make up the CSPC broadcast group.

TYPE—The network type of the point code in the group. (The **grp** parameter is specified in the command to list the point codes in the specified group.)

ent/chg/dlt/rtrv-gtcnv

Use the chg-gtcnv command to change entries in the Default Global Title Conversion table. A table entry is identified by the direction and either the **tta** parameter, the **tti** parameter, or the **tti** / **np** / **nai** parameter combination.

Use the ent-gtcnv command to provision the Default Global Title Conversion table. The table is used during conversion for MTP-routed cross network SCCP UDT, UDTS and SCCP Management messages. It is also used during conversion for GT routed messages when a matching entry exists in the Global Title address table but the NGTI value is not provisioned.

Use the dlt-gtcnv command to delete entries from the Default Global Title Conversion table. The particular entry to be deleted is identified by the direction in conjunction with the TTA or TTI, or with the TTI, NP, and NAI.

Use the rtrv-gtcnv command to display entries in the Default Global Title Conversion table.

Parameters

:dir= (mandatory)
Direction of conversion.
Range: **atoi, itoa, both**

atoi—ANSI to ITU conversion
itoa—ITU to ANSI conversion
both—Conversion in both directions

:tta= (optional)
ANSI translation type. This parameter is mandatory when **dir=atoi** or **dir=both** is specified.
Range: 0-255, *
Default: No change to current value

:tti= (optional)
ITU translation type. This parameter is reqired when **dir=atoi** is specified.
Range: 0–255, *
Default: No change to current value

:np= (optional)
Numbering Plan. This parameter is mandatory when **gtixlat=24** is specified, and cannot be specified when **gtixlat=22** is specified.
Range: 0–15, *
Default: No change to current value

:nai= (optional)
Nature of Address Indicator. This parameter is mandatory when **gtixlat=24** is specified, and cannot be specified when **gtixlat=22** is specified.
Range: 0–63, *
Default: No change to current value

:npdd= (optional)
The number of New Prefix Digits to be Deleted, which will be replaced with the New Prefix Digits String (**npds**).
Range: 0–21
Default: No change to current value

:npds= (optional)
The New Prefix Digits String with which to replace the received Prefix Digits String that is deleted (**npdd**).
Range: Maximum of 21 digits
Default: No change to current value

:nsdd= (optional)
The number of New Suffix Digits to be Deleted, which will be replaced with the New Suffix Digits String (**nsds**)..
Range: 0–21
Default: No change to current value

:nsds= (optional)
The New Suffix Digits String with which to replace the received Suffix Digits String that is deleted (**nsdd**).
Range: Maximum of 21 digits
Default: No change to current value

:rdmod= (optional)
Reset digit modifiers (**npdd** and **npds** or **nsdd** and **nsds**) values to "no digit modification."

Range: **yes, no**
yes—Reset the **npdd** and **npsd** parameter or **nsdd** and **nsds** parameter values.
no—Do not reset the **npdd** and **npsd** parameter or **nsdd** and **nsds** parameter values.
Default: No change to current value

Output

rtrv-gtcnv

```
tekelecstp 03-04-04 11:09:57 EST  Rel 31.3.0
     DIR   GTIXLAT  TTA  TTI  NP  NAI  DEL  POS  ADD
     atoi    22     24   12   --- ---  ---  ---  ---
     itoa    22     2    5    --- ---  ---  ---  ---
     itoa    24     3    6    4   8    ---  ---  ---
     itoa    24     4    7    4   8    3    sfx  123
     atoi    24     5    7    4   8    3    sfx  123
     atoi    22     7    8    --- ---  3    sfx  123
     both    24     8    9    4   8    4    pfx  4567
     both    22     9    11   --- ---  ---  ---  ---

     GTCNV table is (8 of 1000) 1% full
;
```

Legend

TYPE/TYPEA/TYPEI/TYPEN/TYPEN24—The translation type.

TTN—The translation name.

NDGT—The number of digits.

rept-meas

Use this command to generate measurement reports on demand. The reports display on the UI terminal, and are not transferred to the customer FTP server when the Measurements Platform feature is enabled.

ITU gateway measurements are done for **stp** and, on a per-linkset basis, for **lnkset**, **lsonismt**, **lsdestni**, and **lsorigni** entity types. Take note of the new measurement peg GTTMSCNVTD.

Output

rept-meas:type=systot:enttype=stp

```
rlghncxa03w 03-07-27 16:53:22 EST  EAGLE 31.3.0
Measurements Report will be generated.

rlghncxa03w 03-07-27 16:53:22 EST  EAGLE 31.3.0
TYPE OF REPORT: STP SYSTEM TOTAL MEASUREMENTS ON STP
REPORT PERIOD: LAST
REPORT INTERVAL:  03-07-27  12:00:00 THRU 12:29:59

STP-SYSTOT MEASUREMENTS
    ORIGMSUS   =      2914, TRMDMSUS   =       873, THRSWMSU   =   1801236,
    ORMSUOCT   =     53892, TRMSUOCT   =     17154, TSMSUOCT   =  48470140,
    DURINTFL   =      1799, DTAMSULOST =         0, MSINVDPC   =         0,
    MSINVSIO   =         0, OMSINVDPC  =         0, MSINVLNK   =         0,
    MSINVSIF   =         0, MSNACDPC   =     82774, MSINVSLC   =         0,
    GTTPERFD   =         0, GTTUN0NS   =         0, GTTUN1NT   =         0,
    GTTALTROUT =         0, MSSCCPFL   =         0, MSGWSAGT   =         0,
    MSUGWSFL   =       153, MSULOST1   =         0, MSULOST2   =         0,
    MSULOST3   =         0, MSULOST4   =         0, MSULOST5   =         0,
    CRSYSAL    =         3, MASYSAL    =         0, MISYSAL    =         4,
    XLXTSPACE  =         0, XLXTELEI   =         0, MSUDSCRD   =         0,
    OVSZMSG    =         0, GFGTMATCH  =         0, GFGTNOMCH  =         0,
    GFGTNOLKUP =         0, MSUSCCPFLR =         0


rlghncxa03w 03-07-27 16:53:22 EST   Rel 31.3.0
END OF HALF-HOURLY STP-SYSTOT MEASUREMENT REPORT
;
```

rept-meas:type=comp:enttype=lnkset:lsn=xy212

```
    rlghncxa03w 03-07-27 16:53:22 EST   EAGLE 31.3.0
    Measurements Report will be generated.

    rlghncxa03w 03-07-27 16:53:22 EST   EAGLE 31.3.0
    TYPE OF REPORT: COMPONENT MEASUREMENTS ON LNKSET
    REPORT PERIOD: LAST
    REPORT INTERVAL:  03-07-16  10:00:00 THRU 10:29:59

    LNKSET-COMP MEASUREMENTS: lsn1    (SAAL)

    MSUTRAN    =    120755, MSURECVD   =    147190, OCTTRAN    =   2415100,
    OCTRECVD   =   2943800, MSUSRGTT   =         0, OCTRCGTT   =         0,
    TDLSINAC   =         0, MSGWSDSLIM =         0, ZTTMAPO    =         0,
    ZTTMAPI    =         0, ATMNDCTRN  =         0, ATMNDCRCV  =         0,
    SDUSTRAN   =         0, SDURECVD   =         0, SDURETRN   =         0
    MTPMSCNVTD =         0, GTTMSCNVTD =         0

;

    rlghncxa03w 03-07-27 16:53:22 EST   EAGLE 31.3.0
    LNKSET-COMP MEASUREMENTS: lsn2

    MSUTRAN    =    120740, MSURECVD   =    147196, OCTTRAN    =   2414790,
    OCTRECVD   =   2943920, MSUSRGTT   =         0, OCTRCGTT   =         0,
    TDLSINAC   =         0, MSGWSDSLIM =         0, ZTTMAPO    =         0,
    ZTTMAPI    =         0,   MTPMSCNVTD =         0, GTTMSCNVTD =         0

;

    rlghncxa03w 03-07-27 16:53:22 EST   EAGLE 31.3.0
    LNKSET-COMP MEASUREMENTS: lsn3

    MSUTRAN    =    144895, MSURECVD   =    147190, OCTTRAN    =   2897900,
    OCTRECVD   =   2943800, MSUSRGTT   =         0, OCTRCGTT   =         0,
    TDLSINAC   =         0, MSGWSDSLIM =         0, ZTTMAPO    =         0,
    ZTTMAPI    =         0,   MTPMSCNVTD =         0, GTTMSCNVTD =         0

;

    rlghncxa03w 03-07-27 16:53:22 EST   EAGLE 31.3.0

    MSUTRAN    =         0, MSURECVD   =         0, OCTTRAN    =         0,
    OCTRECVD   =         0, MSUSRGTT   =         0, OCTRCGTT   =         0,
    TDLSINAC   =         0, MSGWSDSLIM =         0, ZTTMAPO    =         0,
    ZTTMAPI    =         0, ATMNDCTRN  =         0, ATMNDCRCV  =         0,
    SDUSTRAN   =         0, SDURECVD   =         0, SDURETRN   =         0,
    MTPMSCNVTD =         0, GTTMSCNVTD =         0

;

    rlghncxa03w 03-07-27 16:53:22 EST   EAGLE 31.3.0
    END OF HALF-HOURLY LNKSET-COMP MEASUREMENT REPORT
```

Legend

TYPE OF REPORT—The type of report, defined by the **type** and **enttype** parameters.

REPORT PERIOD—The date and the time period for which the report was generated.

REPORT INTERVAL—The time period for which the report was generated.

LINK-AVL MEASUREMENTS: LOC—For the link reports (in this example the availability report), the card location, port, and linkset name of the link for which the report is being generated.

LINK-COMP MEASUREMENTS: LOC—For the link reports (in this example the components report), the card location, port, and linkset name of the link for which the report is being generated.

LINKSET-COMP MEASUREMENTS—For the linkset components report, the name of the linkset for which the report was generated.

STPLAN-AVL MEASUREMENTS: LOC—For the STP LAN availability reports, the card location for which the report is being generated.

<ENTITY>-GTWY MEASUREMENTS—For Gateway Measurements reports, where the **entity** value will be one of the following: STP, LNKSET, ORIGNI, ORIGNINC, LSDESTNI, LSONISMT, LSORIGNI, depending on what is being reported.

The remainder of the items displayed are the measurements that were made. For more information of these measurements, refer to the *Maintenance Manual*

CgPA GWS Routing Indicator Enhancement

Description

The wildcarding of the CgPA routing indicator (RI=*) produced 2 entries in the GWS database on the LIM card; that reduced the number of CgPA rules available to the customer from 4000 to 2000 per screenset.

The wildcarding has been changed to produce a single database entry for wildcard (*) of the routing indicator in CgPA GWS screening rules. The Eagle does not expand the provisioned wildcard routing indicator into multiple rules in the bound screenset.

Upgrade to Release 31.3 auto consolidates existing entries that were provisioned with RI=*.

Link Maintenance Enhancements/LFS Increase for MPL-T and MIM

Description

Proper functionality of a signaling link (SLK), from an EAGLE MTP card to a remote Network Element, is determined through a variety of mechanisms provided by Eagle. This feature covers two main areas of improvement to these mechanisms. These improvements are the introduction of an operator command to force a signaling link into local line-oriented loopback and the enhancement of the TST-SLK command to allow for duration tests up to 24 hours.

The LFS Increase for MPL-T and MIM feature increases the number of simultaneously initiated Link Fault Sectionalization (LFS) tests on the MPL-T, T1 MIM and CR-T1 MIM from 1 to at least 4.

Highlights

This feature satisfies long standing customer needs on Eagle STP link maintenance items.

Hardware Requirements

Any hardware required is included in the "Hardware Baseline" on page FN-4.

Enhancements to Existing Commands

The following commands or command families have been enhanced with new parameters to support this feature. For a complete description of these commands, refer to the *Commands Manual* of your current documentation set.

tst-slk

Use this command for testing signaling links. The **loopback** parameter on the **tst-slk** command provides the ability to select from among the following loopback tests: local transceiver (**lxvr**), **oam**, **line**, **payload**, and either low-speed signaling links or ATM high-speed signaling links (**sltc**).

The **tst-slk** command is rejected if the loopback test is not compatible with the link type.

- The **tst-slk** command is not valid on TCP/IP point-to-multipoint links (DCM cards equipped as SS7IPGW and IPGWI links).
- For low-speed links, the **lxvr** and **sltc** tests are allowed.
- On LIM-ATMs, the **lxvr**, **sltc**, **payload**, **line**, and **oam** tests are allowed.
- On TCP/IP point-to-point links (DCM cards equipped as IPLIM or IPLIMI links), **sltc** is the only supported test. The **sltc** test is allowed only for links configured with **ipliml2=saaltal**i or **ipliml2-m2pa**.
- On E1/T1 MIM cards, the **sltc** test is the only supported test.

- On E1 ATM card (**atmitu** application), the **lxvr, oam,** and **sltc** tests are allowed.

Parameters

:action= (optional)
Indicator of command action to stop or start a test.

Range: start, stop
Default: start

:force= (optional)
The **force=yes** parameter must be specified to start a test when there are 256 or more tests already running.

Range: yes, no
Default: no

:time= (optional)
The time dusation for testing the link.

Range: 1-240000
hhmmss—hh=hours, *mm*=minutes, ss=seconds
time=1 is one second; **time=240000** is 24 hours
Default: 1

Output

tst-slk:loc=1205:port=b:time=000200:force=yes:action=start

```
    tekelecstp 03-11-27 16:25:20 EST  EAGLE 31.3.0
    tst-slk:loc=1205:port=b:time=000200:force=yes:action=start
    Command Accepted: Test Link message is sent.
;

    tekelecstp 03-11-27 16:25:22 EST  EAGLE 31.3.0
    Command Completed.
;

    tekelecstp 03-11-27 16:25:25 EST  EAGLE 31.3.0
    LOC = 1205  Port = B  LSN = ls12345678  Start time = 16:22:25
    LOOPBACK = SLTC      TIME = 00:02:00
    TEST STATUS = Loopback success
;
```

tst-slk:loc=1205:port=b:action=stop

```
    tekelecstp 03-11-27 16:25:20 EST  EAGLE 31.3.0
    tst-slk:l oc=1205:port=b:action=stop
    Command Accepted: Stop Test Link message is sent.
;

    tekelecstp 03-11-27 16:25:22 EST  EAGLE 31.3.0
    Command Completed.
;

    tekelecstp 03-11-27 16:25:25 EST  EAGLE 31.3.0
    LOC = 1205  Port = B  LSN = ls12345678  Start time = 16:22:25
    LOOPBACK = LXVR      TIME = 00:01:00
    TEST STATUS = Loopback cleared
;
```

tst-slk:loc=1205:port=b:time=200

```
    tekelecstp 03-11-27 16:25:20 EST  EAGLE 31.3.0
    tst-slk:loc=1205:port=b:time=200
    Command Accepted: Stop Test Link message is sent.
;

    tekelecstp 03-11-27 16:25:22 EST  EAGLE 31.3.0
    Command Completed.
;

    tekelecstp 03-11-27 16:25:25 EST  EAGLE 31.3.0
    LOC = 1205  Port = B  LSN = ls12345678  Start time = 16:22:25
    LOOPBACK = SLTC      TIME = 00:00:53
    TEST STATUS = Loopback failed
;
```

Legend

LOC—Card location that contains the signaling being tested.

Port—Signaling link being tested on the card.

LSN—Name of the linkset that contains the link being tested.

Start time—Time that the test started.

LOOPBACK—Type of loopback test being run.

TIME—Specified length of time to run the test.

TEST STATUS—

When a **tst-slk** command with **action=start** (specified or default) is entered, any one of the following `Test Status` values can appear:

- Loopback success
- Loopback failed
- Loopback aborted
- Loopback in-progress
- Loopback prevented
- Loopback invalid

When a **tst-slk** command with **action=stop** is entered, any one of the following `Test Status` values can appear:

- Loopback clearred
- Loopback could not be clearred

act/dact-cdl

Use the act-cdl command to initiate a command driven loopback for testing a signaling link.

Use the dact-cdl command to deactivate a previously initiated command driven loopback for testing a signaling link, if the test is active. If it is not active, the command will attempt to clear both near-end and far-end latched loopback points

Command Driven Loopback is the ability to locally drive a signaling link into a manual line loopback. The data received on the signaling link is echoed (transmitted) back. This is effectively the reverse of the **tst-slk**:**loopback=lxvr**, which loops the transmitted data back to the receive.

Parameters

:loc= (mandatory)
The card location as stenciled on the shelf of the Eagle.

Range: **1101–1108, 1111–1112, 1201–1208, 1211–1218, 1301–1308, 1311–1318, 2101–2108, 2111–2118, 2201–2208, 2211–2218, 2301–2308, 2311–2318, 3101–3108, 3111–3118, 3201–3208, 3211–3218, 3301–3308, 3311–3318, 4101–4108, 4111–4118, 4201–4208, 4211–4218, 4301–4308, 4311–4318, 5101–5108, 5111–5118, 5201–5208, 5211–5218, 5301–5308, 5311–5318, 6101–6108, 6111–6118**

:port= (mandatory)
SS7 signaling ports. The signaling port to which the SS7 signaling link to be tested is assigned.

Range: **a, b, a1, b1, a2. b2. a3. b3**
Not all card types support all **port** parameter values.
See Appendix A in the *Commands Manual* for valid **port** parameter range values for each type of card that can have assigned signaling link ports.

:loopback= (optional)
Loopback test type.

Range: **line, payload**
The **payload** value is valid only on LIM-ATM and E1-ATM cards.

Default: **line**

Output

act-cdl:loc=1205:port=b

```
    tekelecstp 03-11-21 17:00:36 EST  EAGLE 31.3.0
    Command Accepted: Command Driven Loopback message is sent.
;

    tekelecstp 03-11-21 17:00:36 EST  EAGLE 31.3.0
    Command Completed.
```

rept-stat-cdl

Use this command to generate a report of the signaling links currently in Command Driven Loopback (CDL) testing, including the amount of time the link has been in CDL testing.

Command Driven Loopback is the ability to locally drive a signaling link into a manual line loopback. The data received on the signaling link is echoed (transmitted) back. This is effectively the reverse of the **tst-slk:loopback=lxvr**, which loops the transmitted data back to the receive.

Parameters

loc= (optional)
The card location as stenciled on the shelf of the Eagle.

Range: **1101–1108, 1111–1112, 1201–1208, 1211–1218, 1301–1308, 1311–1318, 2101–2108, 2111–2118, 2201–2208, 2211–2218, 2301–2308, 2311–2318, 3101–3108, 3111–3118, 3201–3208, 3211–3218, 3301–3308, 3311–3318, 4101–4108, 4111–4118, 4201–4208, 4211–4218, 4301–4308, 4311–4318, 5101–5108, 5111–5118, 5201–5208, 5211–5218, 5301–5308, 5311–5318, 6101–6108, 6111–6118**

Default: All cards containing signaling links that are in CDL testing are displayed.

:loopback= (optional)
Loopback test type.

Range: **line, payload**
The **payload** value is valid only on LIM-ATM and E1-ATM cards.

Default: All loopback tests are displayed.

:port= (optional)
SS7 signaling ports. The signaling port to which the SS7 signaling link being tested is assigned.

Range: **a, b, a1, b1, a2. b2. a3. b3**
Not all card types support all **port** parameter values.
See Appendix A in the *Commands Manual* for valid **port** parameter range values for each type of card that can have assigned signaling link ports.

Default: All signaling links that are in CDL testing are displayed.

Output

rept-stat-cdl

```
    tekelecstp 03-11-27 01:29:06 EST  EAGLE 31.3.0
    SLK        CDL      CDL-TIME
    1102,A1    LINE     00:04:01
    1201,A     PAYLOAD  01:04:11
    1203,A     LINE     00:22:21
    1203,B     LINE     20:04:01
    1208,A     LINE     01:05:22
    1211,A     PAYLOAD  00:14:01
;
```

Legend

SLK—The card and assigned signaling link that is in CDL testing.

CDL—Command Driven Loopback test type (LINE or PAYLOAD).

CDL-TIME—The time that the signaling link has been in CDL testing.

rept-stat-tstslk

Use this command to generate a report of the status of the MTP signaling links currently under test.

Parameters

loc= (optional)
The card location as stenciled on the shelf of the Eagle.

Range: **1101–1108, 1111–1112, 1201–1208, 1211–1218, 1301–1308, 1311–1318, 2101–2108, 2111–2118, 2201–2208, 2211–2218, 2301–2308, 2311–2318, 3101–3108, 3111–3118, 3201–3208, 3211–3218, 3301–3308, 3311–3318, 4101–4108, 4111–4118, 4201–4208, 4211–4218, 4301–4308, 4311–4318, 5101–5108, 5111–5118, 5201–5208, 5211–5218, 5301–5308, 5311–5318, 6101–6108, 6111–6118**

:loopback= (optional)
Loopback test type.

Range: **sltc, lxvr, oam, line, payload**

:port= (optional)
SS7 signaling ports. The signaling port to which the SS7 signaling link being tested is assigned.

Range: **a, b, a1, b1, a2. b2. a3. b3**
Not all card types support all **port** parameter values.
See Appendix A in the *Commands Manual* for valid **port** parameter range values for each type of card that can have assigned signaling link ports.

Output

f no parameters are specified, all links in test are displayed.

If only the **loc** parameter is specified, all links in test on the specified card are displayed.

If the **loc** and **port** parameters are specified, the specified link on the specified card is displayed.

If the **loopback** parameter is specified, all links in the specified type of loopback test are displayed.

rept-stat-tstslk

```
   tekelecstp 03-11-27 10:05:28 EST  EAGLE 31.3.0
    SLK        LOOPBACK   MAX-TIME   TEST-TIME
    1102,A1     SLTC      01:00:00   00:04:01
    1201,A      OAM       02:00:00   01:04:11
    1203,A      LXVR      00:50:00   00:22:21
    1203,B      LXVR      24:00:00   20:04:01
    1208,A      PAYLOAD   01:10:00   01:05:22
    1211,A      LINE      21:30:00   00:14:01
;
```

Legend

SLK—Card and signaling link that are being tested.

LOOPBACK—Type of loopback test being run.

MAX-TIME—Maximum length of time for the test to run, as specified in the **tst-slk** command **time** parameter.

TEST-TIME—The length of time that the test has been running when this command was entered.

act-lbp

Use the act-lbp command to activate one or more loopback point tests for testing data signaling link elements in an SS7 transmission path. The maximum number of loop-back points is 32.

Parameters

:clli= (optional)
The Common Language Location Identifier (CLLI) code, or other mnemonic identifier, used to refer to the given loopback point.
Range: 1 alphabetic character followed by up to 10 alphanumeric characters
Default: f the **rle**, **lfst**, or **rep** parameter is specified—null string (blank)
If the **rle**, **lfst**, or **rep** parameter is not specified—the value in the LFS database

:force= (optional)
The **force=yes** parameter must be specified to start a test when there are 256 or more tests already running.
Range: **yes, no**
Default: **no**

:lbp= (optional)
Loopback point ID. This parameter identifies a far-end loopback point that lies along an SS7 signaling link path between the STP and the target device (up to *and including* the target device).
Range: **1–32**
Default: If the **rle**, **clli**, **rep**, or **lfst** parameter is specified, the default is **1**.
If the **rle**, **clli**, **rep**, or **lfst** parameter is not specified, the default is all loopback points found inthe LFS database (up to 32 loopback points), as shown in the **rtrv-lbp** command output.

:lfst= (optional; mandatory if the **rle**, **clli**, or **rep** parameter is specified)
Link fault sectionalization test. The type of link fault sectionalization loopback test to be performed.
Range: **LLT, MLT, NLT**
LLT—latching loopback test
MLT—manual latch loopback test
NLT—nonlatching loopback test
Default: The value in the LFS database, as shown in the **rtrv-lbp** command output

:maxerr= (optional)
The bit error threshold. The actual number of errors allowed for a specific time period during which loopback testing is being performed. If this threshold is exceeded, the *TEST STATUS* field in the output report indicates an error.

Range: 0-48384000

Default: 56

:rep= (optional for chg-lbp command)
Repetition count. The number of link elements of the same type (not including the target device) that lie between the STP and the link element to be tested.

Range: 0–31

Default: If the **rle**, **clli**, **rep**, or **lfst** parameter is specified, the default is **0**.
If the **rle**, **clli**, **rep**, or **lfst** parameter is not specified, the default is the value in the LFS database, as shown in the **rtrv-lbp** command output.

:rep= (optional for ent-lbp)
Repetition count. The number of link elements of the same type (not including the target device) that lie between the STP and the link element to be tested.

Range: 0–31

Default: If the **rle**, **clli**, **rep**, or **lfst** parameter is specified, the default is **0**.
If the **rle**, **clli**, **rep**, or **lfst** parameter is not specified, the default is the value in the LFS database, as shown in the **rtrv-lbp** command output.

:rle= (optional; mandatory if the **lfst**, **clli**, or **rep** parameter is specified)
Remote link element. The link element to be looped back for testing.

Range: ds0, ocu, csu, dsu, nei

Default: The value from the LFS database, as shown in the **rtrv-lbp** command output

:time= (optional)
How long the test must be run in order to determine success or failure. If the number of errors that actually occur during this time exceeds the threshold set by the **maxerr** parameter, the loopback test is identified as a failure.

Range: 1–240000
hhmmss—hh=hours, *mm*=minutes, ss=seconds
time=1 is one second; **time=240000** is 24 hours

Default: 1 second

Output

The LFS report is displayed when the LFS test completes.

The following example shows how the test failed because the bit error rate exceeded the threshold. Here the **maxerr=10** parameter is used for a test time of 2 minutes. Because more than 10 errors occurred within 2 minutes, the test is considered a failure and the TEST STATUS field displays the cause.

act-lbp:loc=1205:port=b:pattern=alternate:maxerr=10:time=002000

```
rlghncxa03w 00-10-17 16:02:05 EST  Rel 31.0.0
LOC = 1205  Port = B  LSN = ls11345678  Start time = 11:10:34

PATTERN = ALTERNATE  DATA= FF  MAXERR = 10  TIME = 00:02:00

TEST STATUS = ERROR, bit error exceeded threshold.

LBP  CLLI         RLE  REP  LFST  BIT_ERROR  ERRORED_SEC  DURATION
2    rlghncxa05w  DS0  0    LLT   0          0            00:02:00
3    ------------ OCU  0    NLT   8          2            00:02:00
5    ------------ NEI  0    LLT   15         1            00:01:20
;
```

In the following example, the test failed because the loopback could not be established in the first place.

act-lbp:loc=1205:port=b:pattern=alternate:maxerr=10:time=000200

```
    rlghncxa03w 00-10-17 16:02:05 EST  Rel 31.0.0
    LOC = 1205  PORT = B  LSN = ----------  Start time = 11:10:34

    PATTERN = ALTERNATE  DATA= FF  MAXERR = 10  TIME = 00:02:00

    TEST STATUS = ERROR, loopback was not established.

    LBP  CLLI         RLE  REP  LFST  BIT_ERROR  ERRORED_SEC  DURATION
    1    rlghncxa05w  DS0  0    LLT   0          0            00:00:00
;
```

Legend

LOC—Card location that contains the signaling being tested.

Port—Signaling link being tested on the card.

LSN—Name of the linkset that contains the link being tested.

Start time—Time that the test started.

PATTERN—Type of test pattern used to perform the LFS test.

DATA—Data used with the **octet** or **alternate** patterns.

MAXERR—Bit error threshold; actual number of errors allowed for the specific time period during which loopback testing is being performed. If this threshold is exceeded in the specified time period, the *TEST STATUS* field in the output report indicates an error.

TIME—Specified length of time to run the test in order to determine success or failure. If the number of errors that actually occur during this time exceeds the threshold set by the **maxerr** parameter, the loopback test is identified as a failure.

TEST STATUS—

Any one of the following `Test Status` values can appear:

- PASS
- ERROR, LFS HARDWARE is not available.
- ERROR, loopback could not be established.
- ERROR, bit error exceeded threshold.
- ERROR, LFS test aborted.
- ERROR, LFS hardware failed.

LBP—Loopback point used to perform the LFS test.

CLLI—Common Language Location Identifier (CLLI) code, or other mnemonic identifier, used to refer to the given loopback point.

RLE—Remote link element to be looped back for testing.

REP—Repetition count. The number of link elements of the same type (not including the target device) that lie between the STP and the link element to be tested.

LFST—Type of link fault sectionalization loopback test to be performed.

BIT_ERROR—The number of bit errors observed during the test.

ERRORED_SEC—The number of seconds that contained bit errors during the test. (Bit errors are sampled once per second; each sample that contains bit errors adds one second to this count.)

DURATION—Length of time that the test actually ran for the loopback point. For successful test, the TIME and the DURATION should be the same. If a test ran for less than the specified amount of time, the DURATION will be less than the TIME.

rept-stat-lfs

Use this command to generate a report of all the SS7 links that are under LFS test. Along with the link identification information, the command output lists the current LBP, the test pattern, the maximum bit-errors threshold, the bit-errors since the beginning of this test, the maximum test time, and the time elapsed since the beginning of the test.

Parameters

:loc= (optional)
The card location containing the signaling link or links to be displayed.
This parameter is mandatory when the **port** parameter is specified.
Range: **1101–1108, 1111–1112, 1201–1208, 1211–1212, 1301–1308, 1311–1318, 2101–2108, 2111–2118, 2201–2208, 2211–2218, 2301–2308, 2311–2318, 3101–3108, 3111–3118, 3201–3208, 3211–3218, 3301–3308, 3311–3318, 4101–4108, 4111–4118, 4201–4208, 4211–4218, 4301–4308, 4311–4318, 5101–5108, 5111–5118, 5201–5208, 5211–5218, 5301–5308, 5311–5318, 6101–6108, 6111–6118**
Default: All card locations are displayed.

:port= (optional)
The signaling link port on the card specified in the **loc** parameter.
Range: **a, b, a1, b1, a2, b2, a3, b3**
Not all card types support all **port** parameter values.

See Appendix A in the *Commands Manual* for valid **port** parameter range values for each type of card that can have assigned signaling link ports.

Default: All links are displayed.

Output

If no parameters are specified, all links that are in LFS test are displayed.

rept-stat-lfs

```
    rlghncxa03w 00-10-27 16:50:24 EST  Rel 31.0.0
    SLK     LBP  PATTERN    MAX-ERRORS  BIT_ERRORS  MAX-TIME TEST-TIME
    1201,A    5  B0247              56          30  01:00:00 00:00:50
    1202,A    3  B511               56          27  01:00:00 00:01:05
    1203,A    1  OCTET              56          12  01:00:00 00:02:07
    1204,A    6  ALTERNATE          56          28  01:00:00 00:04:08
    1205,A    2  B0247              56          36  01:00:00 00:03:05
    1206,A    1  B0247              56          15  01:00:00 00:06:06
    1207,A    3  B0247              56          19  01:00:00 00:02:04
    1208,A    5  B0247              56          23  01:00:00 00:04:01
;
```

If only the **loc** parameter is specified, all links in LFS test on the specified card are displayed.

rept-stat-lfs:loc=1208

```
    rlghncxa03w 00-10-27 16:50:24 EST  Rel 31.0.0
    SLK      LBP  PATTERN    MAX-ERRORS  BIT_ERRORS  MAX-TIME TEST-TIME
    1208,A     5  B0247              56          23  01:00:00 00:04:01
    1208,B1    4  B0247              56          23  01:00:00 00:08:01
;
```

If the **loc** and **port** parameters are specified, only the specified link on the specified card is displayed.

rept-stat-lfs:loc=1208:port=a

```
    rlghncxa03w 00-10-27 16:50:24 EST  Rel 31.0.0
    SLK      LBP  PATTERN    MAX-ERRORS  BIT_ERRORS  MAX-TIME TEST-TIME
    1208,A     5  B0247              56          23  01:00:00 00:04:01
;
```

Legend

SLK—The signaling link identifier; same as **loc** and **port** parameters of **act-lbp** command.

LBP—The loopback point of this test; same as **lbp** parameter of **act-lbp** command.

PATTERN—The test pattern; same as **pattern** parameter of **act-lbp** command.

MAX-ERRORS—The bit-error threshold allowed for this LFS test; same as **maxerr** parameter of **act-lbp** command.

BIT_ERRORS—Number of bit-errors since the beginning of this test.

MAX-TIME—The time window for testing each loop-back point; same as **time** parameter of **act-lbp** command.

TEST-TIME—Amount of time the test has run.

Measurements Platform Filename with CLLI

Description

The Measurements Platform Filename with CLLI feature allows Measurement Platform processors on several EAGLEs to send their measurements reports to a single directory on a centralized FTP server without duplicate file name problems or overwritten files caused by multiple EAGLEs writing to the directory.

The Measurements Platform Filename with CLLI function is controlled. Feature ON / OFF status is controlled by a measurements option. when the option is turned ON, the unique CLLI field for each EAGLE is prepended to the beginning of the measurements report file name.

The only other major impact of this feature on the filenames generated to the FTP server is that when the option is ON the year is not included as a part of the name.

Highlights

The Measurements Platform Filename with CLLI feature allows Measurement Platform processors on several EAGLEs to send their measurements reports to a single directory on a centralized FTP server without duplicate file name problems or overwritten files caused by multiple EAGLEs writing to the directory.

Hardware Requirements

Any hardware required is included in the “Hardware Baseline” on page FN-4. The 15 Minute Measurements feature requires the measurement platform feature with the MCPM card.

Enhancements to Existing Commands

The following commands or command families have been enhanced with new parameters to support this feature. For a complete description of these commands, refer to the *Commands Manual* of your current documentation set.

chg/rtrv-measopts

Use the chg-measopts command for the following functions:

- Enable the Measurements Platform collection function
- Turn on or turn off the 15 Minute Measurements collection function
- Enable or disable the automatic generation and FTP transfer of scheduled measurements reports to the FTP serve
- Turn on or off the CLLI-based file name option for measurements reports files

NOTE: Once the Measurements Platform collection function has been enabled with the platformenable=on parameter, it cannot be disabled with this command.

Use the rtrv-measopts command for the following functions:

- Show the enabled / disabled status of all FTP scheduled measurements reports
- Verify that the Measurements Platform has been enabled (PLATFORMENABLE setting)
- Verify that the 15 Minute Measurements collection option has been turned on (COLLECT15MIN setting)
- Verify that the CLLI-based report file name option is turned on or off (CLLIBASEDNAME setting)

Parameters

:cllibasedname= (optional)
Enable or disable CLLI-based measurements report file name option.

Range: on, off
Default: No change to the current value

Output

```
    rlghncxa03w 03-03-07 00:57:31 EAGLE  Rel 31.3.0
    EAGLE MEASUREMENT OPTIONS LIST

PLATFORMENABLE =on

COLLECT15MIN   = off

CLLIBASEDNAME  = on
-------------------------------------
SYSTOTSTP     = on
SYSTOTTT      = off
SYSTOTSTPLAN  = on
COMPLINK      = off
COMPLNKSET    = on
GTWYSTP       = on
GTWYLNKSET    = on
GTWYORIGNI    = on
GTWYORIGNINC  = on
GTWYLSORIGNI  = on
GTWYLSDESTNI  = off
GTWYLSONISMT  = off


MTCHLNP       = on
MTCHNP        = off
MTCHMAP       = off
MTCHEIR       = off
MTCDSTP       = on
MTCDLINK      = off
MTCDLNKSET    = off
MTCDSTPLAN    = on
MTCDLNP       = on
MTCDNP        = on
MTCDMAP       = on
MTCDEIR       = on
NMSTP         = on
NMLINK        = on
NMLNKSET      = on
AVLLINK       = on
AVLSTPLAN     = on
AVLDLINK      = on
;
```

Legend

PLATFORMENABLE—Indicator that measurements collection is enabled or disabled when the Measurements Platform feature is turned on. See the **chg-measopts** command.

COLLECT15MIN—Indicator that 15 Minute Measurements collection is enabled or disabled when the 15 Minute Measurements feature is turned on. See the **chg-measopts** command **collect15min** parameter.

CLLIBASEDNAME—Indicator that the CLLI-based file name option is turned on or off.

SYSTOTSTP—System Total measurements report for the entire STP.

SYSTOTTT—System Total report for Translation Type measurements.

SYSTOTSTPLAN—System Total report STP LAN measurements.

COMPLINK—Component measurements report for a single link.

COMPLNKSET—Component measurements report for a link set.

GTWYORIGNI—Gateway Administration measurements report per originating network (large network uniquely identified by NI only).

GTWYORIGNINC—Gateway Administration measurements report per originating network (small network identified by NI-NC).

GTWYLSORIGNI—Gateway Administration measurements report per link set and originating network.

GTWYLSDESTNI—Gateway Administration measurements report per link set and destination network.

GTWYLSONISMT—Gateway Administration measurements report per link set, per originating network, per ISUP message type.

MTCHEIR—Maintenance Hourly (marginal) measurements report for Equipment Identity Register

MTCHNP—Maintenance Hourly (marginal) measurements report for INP or G-Port.

MTCHLNP—Maintenance Hourly (marginal) measurements report for LNP.

MTCHMAP—Maintenance Hourly (marginal) measurements report for GSM Map Screening.

MTCDEIR—Maintenance Daily measurements report for Equipment Identity Register

MTCDSTP—Maintenance Daily measurements report for STP.

MTCDLNK—Maintenance Daily measurements report for links.

MTCDLNKSET—Maintenance Daily measurements report for linksets.

MTCDSTPLAN—Maintenance Daily measurements report for STPLAN.

MTCDLNP—Maintenance Daily measurements report for LNP.

MTCDNP—Maintenance Daily measurements report for INP or G-Port.

MTCDMAP—Maintenance Daily measurements report for GSM Map Screening.

NMLINK—Network Management measurements report for a single link.

NMLNKSET—Network Management measurements report for a link set.

NMSTP—Network Management measurements report for the entire STP.

AVLINK—Hourly Availability report for a single link.

AVLSTPLAN—Hourly Availability report for STP LAN.

AVLDLINK—Daily Availability report for a single link.

Enhance RTRV-LOG

Description

This enhancement will allow the customer to customize RTRV-LOG output. The following list contains examples of customized reports of the logs:

- Filtered for a particular Output Group
- Separated between UIMs and Alarms and further separated by Output Group
- Filtered by a given alarm number or range of numbers.

In addition, this command is modified to become a cancelable command, allowing a user or sysadmin to stop the processing of the command at any time during its execution.

The RTRV-LOG enhancement feature also includeds a new command (rtrv-trbltx) that allows the craftsperson to display information from the trbltx table, which contains all of the UIMs and Alarms for each EAGLE release. The information displayed for each entry of the trbltx table will be the MRN, alarm severity (for Alarms), Output Group and text. Optional parameters for rtrv-trbltx allow the craftsperson to display a subset of the information available to them. The optional parameters for rtrv-trbltx allow an Output Group or TYPE to be specified or a range of MRN numbers to be specified. Additionally, all Output Groups may be displayed with a list of MRNs that match each Output Group.

Highlights

The RTRV-LOG enhancement feature allows the customer greater flexibility of output options when issuing the RTRV-LOG command.

Hardware Requirements

Any hardware required is included in the “Hardware Baseline” on page FN-4.

Enhancements to Existing Commands

The following commands or command families have been enhanced with new parameters to support this feature. For a complete description of these commands, refer to the *Commands Manual* of your current documentation set.

canc/dact-cmd

This command halts processing and output of the commands listed in Table FN-2:

Table FN-2. Commands For Which **canc-cmd** Halts Processing and Output

Commands		
rept-stat-card **rept-stat-clk** **rept-stat-dstn** **rept-stat-ls** **rept-stat-slk** **rtrv-cmd**	**rtrv-dstn** **rtrv-gta** **rtrv-gtt** **rtrv-lbp** **rtrv-log** **rtrv-ls** **rtrv-map**	**rtrv-mrn** **rtrv-rte** **rtrv-seculog** **rtrv-secu-user** **rtrv-slk** **rtrv-trbltx**

When using the **canc-cmd** command without the **trm** parameter, enter the command on the same terminal that is currently running the command you want to cancel.

When using the **canc-cmd** command with the **trm** parameter, enter the command on a terminal other than the one that is currently running the command you want to cancel.

rtrv-log

Use this command to retrieve records from the active or standby Alarm and UIM logs generated by the Maintenance system. This command selects these records based on a span of time or a specific log file index.

Parameters

:dir= (optional)
Direction in which to obtain entries from within the log (forward or backward) for displaying. See the Dependencies and Notes sections for usage information.

Range: **fwd, bkwd**
fwd—Display entries from nearer the beginning of the log toward entries at the end of the log
bkwd—Display entries from nearer the end of the log toward entries at the beginning of the log

Default: **fwd**

:edate= (optional)
End date. Report only log entries that were created on or *before* the specified date (when **dir=fwd**), or only log entries that were created on or *after* the specified date (when **dir=bkwd**). See the Notes section for usage information.

Range: **000101–991231**
(in the form *yymmdd*, where *yy* is year, *mm* is month, and *dd* is day)

Default: Report log entries regardless of their creation date

:enum= (optional)
Ending Message Reference Number (MRN) for which to display entries. The ending Alarm or UIM number if specifying a range.

Range: **1–1499**
1-999—Alarms (UAMs)
1000-1499—UIMs

Default: If **enum** is not specified and:
If **snum** is specified, the default **enum** value is the same as the specified **snum** value.
If **snum** is not specified and **type** is **alarm** or not specified, **enum= 999**.
If **snum** is not specified and **type** is **all** or **uim**, **enum= 1499**.

:etime= (optional)
End time. Report only log entries that were created on or *before* the specified time (when **dir=fwd**), or only log entries that were created on or *after* the specified time (when **dir=bkwd**).

Range: **000000–235959**
(in the form *yymmdd*, where *yy* is year, *mm* is month, and *dd* is day)

Default: Report log entries regardless of their creation time

:mode= (optional)
Log display mode; display all information or just summary information from each log entry.

Range: **brief, full**
brief—Display only the first "Summary" line of the log entry
full—Display all information available in the log entry

Default: **full**

:next= (optional)
Number of additional records to display using the same direction (**dir**) and filtering criteria of **outgrp**, **type**, **slog**, and **mode** that were used for the previous sucessful **rtrv-log** command at the same terminal. This parameter cannot be specified with any other parameters in the command.

Range: **1–65500**

:num= (optional)
Number of records that can be displayed before the report is stopped.

Range: **1–65500**

Default: **15**

:outgrp= (optional)
Output Group to sort or filter the Alarms (UAMs) and/or UIMs on. This parameter cannot be specified when the **snum** parameter is specified.

Range: **all, appserv, appss, card, clk, db, dbg, gtt, gws, link, lnpdb, lnpsub, meas, mon, mps, pu, sa, seas, slan, sys, traf**
all—retrieve information for all Output Groups
appserv—Application Server
appss—Application Subsystem
card—Card
clk—Clock
db—Database
dbg—Debug

gtt—GTT Maintenance
gws—GWS Maintenance
link—Link Maintenance
lnpdb—LNP Database
lnpsub—LNP Subsystem
meas—Measurements Maintenance
mon—Monitoring (Sentinel) Maintenance
mps—MPS Maintenance
pu—Program Update
sa—System Administration
seas—SEAS (Sentinel)
slan—SLAN Maintenance
sys—System Maintenance
traf—Traffic

Default: If the **next** parameter is not specified, the default is **all**.
If the **next** parameter is specified, the output is the same as the immediately previous sucessful **rtrv-log** command that was entered at the same terminal (and no **rtrv-log** command was entered at another terminal).

:sdate= (optional)
Start date. Report only log entries that were created on or *after* the specified date (when **dir=fwd**), or only log entries that were created on or *before* the specified date (when **dir=bkwd**). See the Notes section for usage information.

Range: **000101–991231**
(in the form *yymmdd*, where *yy* is year, *mm* is month, and *dd* is day)

Default: Report log entries regardless of their creation date

:snum= (optional)
A single Alarm or UIM Message Reference Number (MRN), or the starting Alarm or UIM MRN if specifying a range. This parameter cannot be specified when the **outgrp** parameter is specified.

Range: **1–1499**
1-999—Alarms (UAMs)
1000-1499—UIMs

Default: All entries for the specified **type** are displayed.
If **type** is **all**, **alarm**, or not specified, **snum=1**.
If **type** is **uim**, **snum=1000**.

:stime= (optional)
Start time. Report only log entries that were created on or *after* the specified time (when **dir=fwd**), or only log entries that were created on or *before* the specified time (when **dir=bkwd**). See the Notes section for usage information.

Range: **000000–235959** (in the form *hhmmss*, where *hh* is hour, *mm* is minutes, and *ss* is seconds)

Default: Report log entries regardless of their creation time

:type= (optional)
Type of Maintenance log to access for the report: alarms (UAMs), or UIMs, or both logs (**all**).

Range: **all, alarm, uim**
Default: **alarm**

Output

The following example shows the records in the log created after 15 July 20031996 at 10 PM up to a maximum of 50 records.

rtrv-log:sdate=030715:stime=220000:num=50

```
    ncralstp00001 03-07-16 10:15:29 EST  EAGLE 31.3.0
 Card 1113; SYS REL= 31.3.0; STP CLLI= ncralstp00001; Timezone= EST
    ****03-07-15  22:03:09****
    3159.0013 ** CARD 1207  CCS7ITU     Card is isolated from the system
    ****03-07-15  22:03:11****
    3160.0046    TERMINAL 10            Terminal enabled
    ****03-07-16  00:23:55****
    3161.0200    SLK 1103,B             RCVRY-LKF: link available
    ****03-07-16  01:42:18****
    3162.0155  * DLK 2117,A             STPLAN Exceededn unavailable
    ****03-07-16  01:43:51****
    3163.0317    LSET A123456789        RCVRY-LKSTO: linkset allowed
    ****03-07-16  02:35:16****
    3164.0082  * FUSE PANEL 11xx        Alarm in fuse panel
    ****03-07-16  03:00:23****
    3165.0108 ** IMT BUS A              Major IMT fault detected
    ****03-07-16  03:37:59****
    3166.0292 *C GLS SYSTEM             GLS is not available
    ****03-07-16  07:22:06****
    3167.0313 *C DPC  021-005-000       DPC is prohibited
    ****03-07-16  09:33:17****
    3168.0348  * SEAS SYSTEM            SEAS is at minimum service
    ****03-07-16  09:34:01****
    3169.0112  * IMT SYSTEM             Major Failures detected on both
    ****03-07-16  09:35:07****
    3170.0160  * CLOCK SYSTEM           1116-S clock failed
    ****03-07-16  09:36:34****
    3171.0160  * CARD 1116 OAM          1116-S clock failed
    ****03-07-16  09:37:23****
    3172.0065  * CLOCK                  Minor holdover clock trouble detected
    ****03-07-16  09:38:12****
    3173.0308 *C SYSTEM                 Node isolated due to SLK failure
    ****03-07-16  09:39:56****
    3174.0331 *C SCCP SYSTEM            SCCP is not available
    ****03-07-16  09:40:15****
    3175.0002  * GPL SYSTEM OAM         Card is not running approved GP
    ****03-07-16  09:41:34****
    3176.0153 *C SLAN SYSTEM            STPLAN not available
    ****03-07-16  09:42:45****
    3177.0060  * CDT 9                  Minor customer trouble detected
    ****03-07-16  09:43:52****
    3178.0344  * SEAS X25 LINK A1       SEAS PVC unavailable
    ****03-07-16  09:44:18****
    3179.0344  * SEAS OAP A             SEAS UAL unavailable
    ****03-07-16  09:45:29****
    3180.0321  * XLIST                  X-LIST occupancy threshold Exceeded
    ****03-07-16  09:48:48****
    3181.0175  * SECURITY 1114          LOGBUFROVL-SECULOG - upload required
;

Report terminated - end of log reached.
    END OF LOG REPORT.
```

The following example shows the records in the log created after 15 July 2003 at 10 PM for Alarm (UAM) 160.

rtrv-log:sdate=030715:stime=220000:num=50:snum=160

```
    ncralstp00001 03-07-16 10:15:29 EST  EAGLE 31.3.0

 Card 1113; SYS REL= 31.3.0; STP CLLI= ncralstp00001; Timezone= EST
    ****03-07-16  09:35:07****
    3170.0160  * CLOCK SYSTEM           1116-S clock failed
    ****03-07-16  09:36:34****
    3171.0160  * CARD 1116 OAM          1116-S clock failed
;

Report terminated - end of log reached.
    END OF LOG REPORT.
;
```

The following example shows the records in the log created after 15 July 2003 at 10 PM that include Alarms (UAMs) 106 through 350.

rtrv-log:sdate=030715:stime=220000:num=50:snum=106:enum=350

```
    ncralstp00001 03-07-16 10:15:29 EST  EAGLE 31.3.0

 Card 1113; SYS REL= 31.3.0; STP CLLI= ncralstp00001; Timezone= EST
    ****03-07-16  00:23:55****
    3161.0200    SLK 1103,B             RCVRY-LKF: link available
    ****03-07-16  01:42:18****
    3162.0155  * DLK 2117,A             STPLAN Exceededn unavailable
    ****03-07-16  01:43:51****
    3163.0317    LSET A123456789        RCVRY-LKSTO: linkset allowed
    ****03-07-16  03:00:23****
    3165.0108 ** IMT BUS A              Major IMT fault detected
    ****03-07-16  03:37:59****
    3166.0292 *C GLS SYSTEM             GLS is not available
    ****03-07-16  07:22:06****
    3167.0313 *C DPC  021-005-000       DPC is prohibited
    ****03-07-16  09:33:17****
    3168.0348  * SEAS SYSTEM            SEAS is at minimum service
    ****03-07-16  09:34:01****
    3169.0112  * IMT SYSTEM             Major Failures detected on both
    ****03-07-16  09:35:07****
    3170.0160  * CLOCK SYSTEM           1116-S clock failed
    ****03-07-16  09:36:34****
    3171.0160  * CARD 1116 OAM          1116-S clock failed
    ****03-07-16  09:38:12****
    3173.0308 *C SYSTEM                 Node isolated due to SLK failure
    ****03-07-16  09:39:56****
    3174.0331 *C SCCP SYSTEM            SCCP is not available
    ****03-07-16  09:41:34****
    3176.0153 *C SLAN SYSTEM            STPLAN not available
    ****03-07-16  09:43:52****
    3178.0344  * SEAS X25 LINK A1       SEAS PVC unavailable
    ****03-07-16  09:44:18****
    3179.0344  * SEAS OAP A             SEAS UAL unavailable
    ****03-07-16  09:45:29****
    3180.0321  * XLIST                  X-LIST occupancy threshold Exceeded
    ****03-07-16  09:48:48****
    3181.0175  * SECURITY 1114          LOGBUFROVL-SECULOG - upload required
;

Report terminated - end of log reached.
    END OF LOG REPORT.
;
```

The following example shows the records in the log created after 15 July 2003 at 10 PM for Alarms (UAMs) and UIMs in the SLAN Output Group.

rtrv-log:sdate=030715:stime=220000:num=50:outgrp=slan:type=all

```
    ncralstp00001 03-07-16 10:15:29 EST  Rel 31.3.0

 Card 1113; SYS REL= 31.3.0; STP CLLI= ncralstp00001; Timezone= EST


    Alarm Output Group - SLAN
    ****03-07-16  09:41:34****
    3176.0153 *C SLAN SYSTEM            STPLAN not available


    UIM Output Group - SLAN
    **** Logged 03-07-16  01:03:09****
    0001.1005    CARD 1105,B    INFO  GWS rcvd OPC that is not allowed
                 SIO=01   OPC=001-001-001  DPC=002-002-002
                 H0H1=000  AFTPC=003-003-003
                 TEST MODE
                 SR=scrb  LSN=A1234567
                 Report Date: 03-07-16  Time: 01:00:01

;

Report terminated - end of log reached.
    END OF LOG REPORT.
;
```

The following example shows the records in the log in the backwards direction that were created between 12 June 2003 at 4:48:37 PM and 11 June 2003 at 10:00:45 PM for Alarms (UAMs).

rtrv-log:dir=bkwd:stime=044827:sdate=030612:etime=100045:edate=030611

```
tekelecstp 03-06-23 04:10:12 EST  EAGLE 31.3.0
Card 1115; SYS REL= 31.3.0. STP CLLI=   tekelecstp; Timezone= EST

Report Initiated   - extended processing time required

****03-06-12  04:48:27****
5001.0009    CARD 1115 EOAM          MASP became active
****03-06-11  13:38:55****
5003.0002  * GPL SYSTEM BPHMUX       Card is not running approved GPL
****03-06-11  13:38:55****
5002.0002  * GPL SYSTEM BPDCM        Card is not running approved GPL
****03-06-11  13:36:04****
5001.0009    CARD 1115 EOAM          MASP became active
****03-06-11  12:15:29****
5001.0009    CARD 1115 EOAM          MASP became active
****03-06-11  11:19:51****
5001.0009    CARD 1115 EOAM          MASP became active
****03-06-11  10:00:46****
5019.0109    IMT SYSTEM              All IMT System level alarms cleared
****03-06-11  10:00:45****
5018.0106    IMT BUS B               IMT Bus alarm cleared
****03-06-11  10:00:45****
5017.0106    IMT BUS A               IMT Bus alarm cleared
****03-06-11  10:00:45****
5016.0014    CARD 1107 SS7ANSI       Card is present
             ASSY SN:  10200301518
****03-06-11  10:00:45****
5015.0111 ** IMT SYSTEM              Failure on both IMT A and IMT B
Report terminated - 11 records displayed
END OF LOG REPORT.
```

rtrv-trbltx

Use this command to retrieve Alarm (UAM) and UIM message information including MRN (message reference number), level (for Alarms), Output Group, and text.

The default report displays all Alarms (in numerical order) and then all UIMs.

The optional parameters can be used to:

- Display a range of Alarms or UIMs (ranges spanning both Alarms and UIMs are not supported)
- Search for Alarms, UIMs, or both message types matching a specific Output Group
- Sort all entries by Output Group

Parameters

:enum= (optional)
The ending Message Reference Number (MRN) when specifying a range.

Range: **1-999** for Alarms, **1000-1499** for UIMs
Default: When **enum** is not specified,
If **snum** is specified, the **enum** value defaults to the specified **snum** value.
If **snum** is not specified and **type=all**, **type=uim**, or **type** not specified, the **enum** value defaults to **1499**
If **snum** is not specified and**type=alarm**, the **enum** value defaults to **999**

:outgrp= (optional)
The Output Group to sort or filter the Alarms/UIMs on.

Range: **appserv, appss, card, clk, db, dbg, gtt, gws, link, lnpdb, lnpsub, meas, mon, mps, pu, sa, seas, slan, sys, traf**
all—retrieve information for all Output Groups
appserv—Application Server
appss—Application Subsystem
card—Card
clk—Clock
db—Database
dbg—Debug
gtt—GTT Maintenance
gws—GWS Maintenance
link—Link Maintenance
lnpdb—LNP Database
lnpsub—LNP Subsystem
meas—Measurements Maintenance
mon—Monitoring (Sentinel) Maintenance
mps—MPS Maintenance
pu—Program Update
sa—System Administration
seas—SEAS (Sentinel)
slan—SLAN Maintenance
sys—System Maintenance
traf—Traffic
Default: No sorting or filtering is done on Output Groups.

:snum= (optional)
A single Message Reference Number (MRN), or the starting MRN when specifying a range.

Range: **1-999 for Alarms, 1000-1499 for UIMs.**
Default: All message entries for the specified **type** are displayed.
For **type=all**, **type=alarm**, or **type** not specified—**snum** Default: **1**
For **type=uim**—**snum** Default: **1000**

:type= (optional)
The type of trouble text entry—Alarm, UIM, or both types—to display.

Range: **all, alarm, uim**
all—Both types are displayed
alarm—Only Alarm entries are displayed
uim—Only UIM entries are displayed
Default: **all**

Output

The following example shows output when the command has no parameters. All entries are not shown; the list is long:

rtrv-trbltx

```
    ncralstp00001 03-07-16 10:15:29 EST  EAGLE 31.3.0

    Alarm Report
            MRN   LEVEL  OUTPUT GROUP    TEXT
       ------------------------------------------------------------------------
            0001   MAJR   SYS             Card has reset
            0002   MINR   SYS             Card is not running approved GPL
            0003   NONE   SYS             Alarm cleared for GPL
         .
         .
         .
            0912   NONE   SYS             Dynamic database is now consistent

    UIM Report
            MRN            OUTPUT GROUP    TEXT
       ------------------------------------------------------------------------
            1000           SYS             MTP rcvd UPU - user part is not SCCP
            1001           SYS             MTP rcvd Transfer Controlled (TFC)
            1002           SYS             MTP rcvd invalid TFC - status 0
         .
         .
         .
            1499           SYS             Invalid MRN detected

    END OF RTRV-TRBLTX REPORT.
;
```

The following example shows the display with **type=alarm**. All entries are not shown; the list is long:

rtrv-trbltx:type=alarm

```
    ncralstp00001 03-07-16 10:15:29 EST  EAGLE 31.3.0

    Alarm Report
            MRN    LEVEL  OUTPUT GROUP    TEXT
      -------------------------------------------------------------------------
            0001   MAJR   SYS             Card has reset
            0002   MINR   SYS             Card is not running approved GPL
            0003   NONE   SYS             Alarm cleared for GPL
         .
         .
         .
            0912   NONE   SYS             Dynamic database is now consistent

    END OF RTRV-TRBLTX REPORT.
;
```

The following example shows the display with **type=uim**. All entries are not shown; the list is long:

rtrv-trbltx:type=uim

```
    ncralstp00001 03-07-16 10:15:29 EST  EAGLE 31.3.0

    UIM Report

            MRN           OUTPUT GROUP    TEXT
       ------------------------------------------------------------------------
            1000          SYS             MTP rcvd UPU - user part is not SCCP
            1001          SYS             MTP rcvd Transfer Controlled (TFC)
            1002          SYS             MTP rcvd invalid TFC - status 0
            .
            .
            .
            1499          SYS             Invalid MRN detected
    END OF RTRV-TRBLTX REPORT.
;
```

The following example shows the display with **outgrp=all**. The complete list of Alarms and UIMs is not shown; it is a long list; examples from each type and several Output Groups are shown.

NOTE: The output for outgrp=all:type=alarm includes all Output Groups in the Alarm Report only; the output for outgrp=all:type=uim includes all Output Groups in the UIM Report only.

rtrv-trbltx:outgrp=all

```
    ncralstp00001 03-07-16 10:15:29 EST  EAGLE 31.3.0

    Alarm Report

            MRN    LEVEL  OUTPUT GROUP    TEXT
       ------------------------------------------------------------------------
        Output Group - SYS
            0001   MAJR   SYS             Card has reset
            0002   MINR   SYS             Card is not running approved GPL
        .
        .
        .
            0912   NONE   SYS             Dynamic database is now consistent

        .
        .
        .

        Output Group - LINK
            0155   MINR   LINK            STPLAN connection unavailable
            0156   NONE   LINK            STPLAN connection available
                           :
            0479   NONE   LINK            Link not Monitored

    UIM Report
            MRN            OUTPUT GROUP    TEXT
       ------------------------------------------------------------------------
        Output Group - SYS
            1000           SYS             MTP rcvd UPU - user part is not SCCP
            1001           SYS             MTP rcvd Transfer Controlled (TFC)
        .
        .
        .
            1499           SYS             Invalid MRN detected
                .
        .
        .
        .
        Output Group - LINK
            13nn           LINK            Example text

    END OF RTRV-TRBLTX REPORT.
;
```

The following example shows the display for **outgrp=sys**. All entries are not shown; the list is long:

rtrv-trbltx:type=alarm:outgrp=sys

```
    ncralstp00001 03-07-16 10:15:29 EST  EAGLE 31.3.0

    Alarm Report
            MRN    LEVEL  OUTPUT GROUP    TEXT
       ------------------------------------------------------------------------
        Output Group - SYS
            0001   MAJR   SYS             Card has reset
            0002   MINR   SYS             Card is not running approved GPL
        .
        .
        .
            0912   NONE   SYS             Dynamic database is now consistent

    END OF RTRV-TRBLTX REPORT.
;
```

The following example shows the display for only Alarm MRN 3:

rtrv-trbltx:snum=3

```
    ncralstp00001 03-07-16 10:15:29 EST  EAGLE 31.3.0

    Card 1113; SYS REL= 31.3.0; STP CLLI= ncralstp00001; Timezone= EST

    Alarm Report
            MRN    LEVEL  OUTPUT GROUP    TEXT
       ------------------------------------------------------------------------
            0003   NONE   SYS             Alarm cleared for GPL

    END OF RTRV-TRBLTX REPORT.
;
```

The following example shows the display for only UIM MRN 1002:

rtrv-trbltx:snum=1002

```
    ncralstp00001 03-07-16 10:15:29 EST  EAGLE 31.3.0

    UIM Report
            MRN           OUTPUT GROUP    TEXT
       ------------------------------------------------------------------------
            1002          SYS             MTP rcvd invalid TFC - status 0

    END OF RTRV-TRBLTX REPORT.
```

Expanded Terminal Output Groups

Description

The output groups currently defined by the EAGLE allow the messages generated by the system to be selectively displayed on the various terminals connected to the EAGLE. The expansion adds 12 new output groups and reassigns messages from existing groups to be used exclusively for controlling the output destination of all UAMs and UIMs. Upgrade automatically assigns messages to the correct groups.

The upgrade will automatically change existing groups to the new groups and additional output may be seen post upgrade depending on which groups are activated.

Highlights

This feature expands and remaps the number of output groups currently defined by the EAGLE.

Hardware Requirements

Any hardware required is included in the “Hardware Baseline” on page FN-4.

Enhancements to Existing Commands

The following commands or command families have been enhanced with new parameters to support this feature. For a complete description of these commands, refer to the *Commands Manual* of your current documentation set.

chg/rtrv-trm

Use the change terminal command to configure the operational characteristics of each of the 40 terminal ports used to connect modems, printers, and terminals to the Eagle.

Use the rtrv-trm command to show the port configuration for all TDM terminals or a specified terminal. These ports are used to connect modems, printers, and terminals to the system. This command displays the following information: device type, data transmission rate, parity, type of flow control used, number of stop bits, number of data bits, and the type of unsolicited messages to be received.

Parameters

:all= (optional)
Specifies whether you want to see unsolicited messages of all types (TRAF, LINK, SA, DB, SYS, PU, LNPDB, LNPSUB, UIMRD, APPSERV, APPSS, CARD, CLK, DBG, GTT, GWS, MEAS, MON, MPS, SEAS, SLAN) in the scroll area.

Range: yes, no
yes—Receive all.

no—Receive none.

Default: Current value

:appserv= (optional)
Specifies whether you want to see UAMs/UIMs assigned to the Application Server output group in the scroll area.

Range: **yes, no**
yes—Receive all.
no—Receive none.

Default: If **all** is specified—current **all** value
If **all** is not specified—current **appserv** value.
System Default: **no**

:appss= (optional)
Specifies whether you want to see UAMs/UIMs assigned to the Application Subsystem output group in the scroll area

Range: **yes, no**
yes—Receive all.
no—Receive none.

Default: If **all** is specified—current **all** value
If **all** is not specified—current **appss** value.
System Default: **no**

:card= (optional)
Specifies whether you want to see UAMs/UIMs assigned to the Card output group in the scroll area.

Range= **yes, no**
yes—Receive all.
no—Receive none.

Default: If **all** is specified—current **all** value
If **all** is not specified—current **card** value.
System Default: **no**

:clk= (optional)
Specifies whether you want to see UAMs/UIMs assigned to the Clock output group in the scroll area.

Range: **yes, no**
yes—Receive all.
no—Receive none.

Default: If **all** is specified—current **all** value
If **all** is not specified—current **clk** value.
System Default: **no**

:dbg= (optional)
Specifies whether you want to see UAMs/UIMs assigned to the Debug output group in the scroll area.

Range: **yes, no**
yes—Receive all.
no—Receive none.

Default: If **all** is specified—current **all** value
If **all** is not specified—current **dbg** value.
System Default: **no**

:gtt= (optional)
Specifies whether you want to see UAMs/UIMs assigned to the GTT output group in the scroll area.

Range: **yes, no**
yes—Receive all.
no—Receive none.

Default: If **all** is specified—current **all** value
If **all** is not specified—current **gtt** value.
System Default: **no**

:gws= (optional)
Specifies whether you want to see UAMs/UIMs assigned to the GWS output group in the scroll area.

Range: **yes, no**
yes—Receive all.
no—Receive none.

Default: If **all** is specified—current **all** value
If **all** is not specified—current **gws** value.
System Default: **no**

:meas= (optional)
Specifies whether you want to see UAMs/UIMs assigned to the Measurements Maintenance output group in the scroll area.

Range: **Yes, no**
yes—Receive all.
no—Receive none.

Default: If **all** is specified—current **all** value
If **all** is not specified—current **meas** value.
System Default: **no**

:meas= (optional)
Specifies whether you want to see UAMs/UIMs assigned to the Monitor output group in the scroll area.

Range: **yes, no**
yes—Receive all.
no—Receive none.

Default: If **all** is specified—current **all** value
If **all** is not specified—current **mon** value.
System Default: **no**

:mps= (optional)
Specifies whether you want to see UAMs/UIMs assigned to the MPS output group in the scroll area.

Range: **yes, no**
yes—Receive all.
no—Receive none.

Default: If **all** is specified—current **all** value
If **all** is not specified—current **mps** value.
System Default: **no**

:seas= (optional)
Specifies whether you want to see UAMs/UIMs assigned to the SEAS Maintenance output group in the scroll area.

Range: **yes, no**
yes—Receive all.
no—Receive none.
Default: If **all** is specified—current **all** value
If **all** is not specified—current **seas** value.
System Default: **no**

:slan= (optional)
Specifies whether you want to see UAMs/UIMs assigned to the SLAN Maintenance output group in the scroll area.

Range: **yes, no**
yes—Receive all.
no—Receive none.
Default: If **all** is specified—current **all** value
If **all** is not specified—current **slan** value.
System Default: **no**

Output

The following example, with the LNP feature turned on, shows the display of the terminal settings for terminal port 3, which is configured for a terminal:

rtrv-trm:trm=3

```
    rlghncxa03w  03-11-01 16:02:08 EST  EAGLE 31.3.0
    TRM  TYPE    COMM        FC    TMOUT MXINV DURAL
    3    KSR      9600-7-E-1 SW    60    0     00:00:00

                                   LNP LNP
    TRM  TRAF LINK SA  SYS PU  DB  DB  SUB UIMRD
    3    YES  YES  YES YES YES YES YES YES YES

         APP  APP
    TRM  SERV SS  CARD CLK DBG GTT GWS MEAS MON MPS SEAS SLAN
    3    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
;
```

The following example, with the LNP feature turned off, shows the display of the terminal settings for terminal port 3, which is configured for a terminal:

rtrv-trm:trm=3

```
    rlghncxa03w  03-11-01 16:02:08 EST  EAGLE 31.3.0
    TRM  TYPE    COMM        FC    TMOUT MXINV DURAL
    3    KSR      9600-7-E-1 SW    60    0     00:00:00

    TRM  TRAF LINK SA  SYS PU  DB  UIMRD
    3    YES  YES  YES YES YES YES YES

         APP  APP
    TRM  SERV SS  CARD CLK DBG GTT GWS MEAS MON MPS SEAS SLAN
    3    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
;
```

The following example, with the LNP feature turned on, shows the display of the terminal settings for 16 terminal ports (no IPSM cards are equipped):

rtrv-trm

```
rlghncxa03w  03-11-01 16:02:08 EST  EAGLE 31.3.0
TRM  TYPE    COMM         FC    TMOUT MXINV DURAL
1    VT320    9600-7-E-1 SW    60    5     99:59:59
2    VT320    9600-7-E-1 BOTH  60    5     INDEF
3    KSR      9600-7-E-1 SW    60    0     00:00:00
4    NONE     9600-7-E-1 SW    60    5     00:30:00
5    NONE     9600-7-E-1 SW    60    5     00:00:30
6    OAP     19200-7-E-1 SW    0     5     INDEF
7    VT320    9600-7-E-1 SW    60    5     99:59:59
8    VT320    9600-7-E-1 SW    60    5     INDEF
9    VT320    9600-7-E-1 SW    60    0     00:00:00
10   VT320    9600-7-E-1 SW    60    5     00:30:00
11   VT320    9600-7-E-1 NONE  60    5     00:00:30
12   NONE    19200-7-E-1 SW    0     5     INDEF
13   VT320    9600-7-E-1 SW    60    5     99:59:59
14   VT320    9600-7-E-1 SW    60    5     INDEF
15   VT320    9600-7-E-1 SW    60    0     00:00:00
16   VT320    9600-7-E-1 SW    60    5     00:30:00

                                        LNP LNP
TRM  TRAF LINK SA  SYS PU  DB  DB  SUB UIMRD
1    YES  YES  YES YES YES YES YES YES YES
2    YES  YES  YES YES YES YES YES YES YES
3    YES  YES  YES YES YES YES YES YES YES
4    YES  YES  YES YES NO  YES YES YES YES
5    YES  YES  YES YES YES YES YES YES YES
6    YES  YES  YES YES YES YES YES YES YES
7    NO   YES  YES YES YES YES YES YES YES
8    YES  YES  YES YES YES YES YES YES YES
9    YES  YES  YES YES YES YES YES YES YES
10   NO   NO   NO  NO  NO  NO  NO  NO  NO
11   NO   NO   NO  NO  NO  NO  NO  NO  NO
12   NO   NO   NO  NO  NO  NO  NO  NO  NO
13   NO   NO   NO  NO  NO  NO  NO  NO  NO
14   NO   NO   NO  NO  NO  NO  NO  NO  NO
15   NO   NO   NO  NO  NO  NO  NO  NO  NO
16   NO   NO   NO  NO  NO  NO  NO  NO  NO

     APP  APP
TRM  SERV SS  CARD CLK DBG GTT GWS MEAS MON MPS SEAS SLAN
1    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
2    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
3    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
4    YES  YES YES  YES YES NO  YES YES  YES YES NO   NO
5    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
6    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
7    NO   YES YES  YES YES YES YES YES  YES YES NO   NO
8    YES  YES YES  YES YES YES YES YES  YES YES YES  YES
9    YES  YES YES  YES YES YES YES YES  YES YES YES  YES
10   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
11   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
12   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
13   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
14   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
15   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
16   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
;
```

The following example, with the LNP feature turned off, shows the display of the terminal settings for 16 terminal ports (no IPSM cards are equipped):

rtrv-trm

```
    rlghncxa03w  03-11-01 16:02:08 EST  EAGLE 31.3.0
    TRM  TYPE    COMM         FC    TMOUT MXINV DURAL
    1    VT320    9600-7-E-1 SW    60    5     99:59:59
    2    VT320    9600-7-E-1 BOTH  60    5     INDEF
    3    KSR      9600-7-E-1 SW    60    0     00:00:00
    4    NONE     9600-7-E-1 SW    60    5     00:30:00
    5    NONE     9600-7-E-1 SW    60    5     00:00:30
    6    OAP     19200-7-E-1 SW    0     5     INDEF
    7    VT320    9600-7-E-1 SW    60    5     99:59:59
    8    VT320    9600-7-E-1 SW    60    5     INDEF
    9    VT320    9600-7-E-1 SW    60    0     00:00:00
    10   VT320    9600-7-E-1 SW    60    5     00:30:00
    11   VT320    9600-7-E-1 NONE  60    5     00:00:30
    12   NONE    19200-7-E-1 SW    0     5     INDEF
    13   VT320    9600-7-E-1 SW    60    5     99:59:59
    14   VT320    9600-7-E-1 SW    60    5     INDEF
    15   VT320    9600-7-E-1 SW    60    0     00:00:00
    16   VT320    9600-7-E-1 SW    60    5     00:30:00

    TRM  TRAF LINK SA  SYS PU  DB  UIMRD
    1    YES  YES  YES YES YES YES YES
    2    YES  YES  YES YES YES YES YES
    3    YES  YES  YES YES YES YES YES
    4    YES  YES  YES YES YES YES YES
    5    YES  YES  YES YES NO  YES YES
    6    YES  YES  YES YES YES YES YES
    7    NO   YES  YES YES YES YES YES
    8    YES  YES  YES YES YES YES YES
    9    YES  YES  YES YES YES YES YES
    10   NO   NO   NO  NO  NO  NO  NO
    11   NO   NO   NO  NO  NO  NO  NO
    12   NO   NO   NO  NO  NO  NO  NO
    13   NO   NO   NO  NO  NO  NO  NO
    14   NO   NO   NO  NO  NO  NO  NO
    15   NO   NO   NO  NO  NO  NO  NO
    16   NO   NO   NO  NO  NO  NO  NO

         APP  APP
    TRM  SERV SS  CARD CLK DBG GTT GWS MEAS MON MPS SEAS SLAN
    1    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
    2    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
    3    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
    4    YES  YES YES  YES YES NO  YES YES  YES YES NO   NO
    5    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
    6    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
    7    NO   YES YES  YES YES YES YES YES  YES YES NO   NO
    8    YES  YES YES  YES YES YES YES YES  YES YES YES  YES
    9    YES  YES YES  YES YES YES YES YES  YES YES YES  YES
    10   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    11   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    12   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    13   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    14   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    15   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    16   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
;
```

The following example shows the display of the terminal settings for a **mgmt** terminal used for Network Surveillance:

rtrv-trm:trm=3

```
    rlghncxa03w  03-11-01 16:02:08 EST  EAGLE 31.3.0
    TRM  TYPE    COMM         FC    TMOUT MXINV DURAL
    3    MGMT     9600-7-E-1 SW    60    0     00:00:00

                               LNP LNP
    TRM  TRAF LINK SA  SYS PU  DB  DB  SUB  UIMRD
    3    YES  YES  YES YES YES YES YES YES  YES

         APP  APP
    TRM  SERV SS  CARD CLK DBG GTT GWS MEAS MON MPS SEAS SLAN
    3    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
;
```

The following example shows the display of the terminal settings with the IP User Interface feature enabled and one IPSM card equipped:

rtrv-trm

```
    rlghncxa03w  03-11-01 16:02:08 EST  EAGLE 31.3.0
    TRM   TYPE    COMM         FC    TMOUT MXINV DURAL
    1     VT320   9600 -7-E-1 SW    0     5     00:01:00
    2     VT320   9600 -7-E-1 SW    0     5     00:01:00
    3     VT320   9600 -7-E-1 SW    0     5     00:01:00
    4     KSR     9600 -7-E-1 SW    0     5     00:01:00
    5     NONE    9600 -7-E-1 SW    30    5     00:01:00
    6     NONE    9600 -7-E-1 SW    30    5     00:01:00
    7     NONE    9600 -7-E-1 SW    30    5     00:01:00
    8     NONE    9600 -7-E-1 SW    30    5     00:01:00
    9     VT320   9600 -7-E-1 SW    0     5     00:01:00
    10    VT320   9600 -7-E-1 SW    0     5     00:01:00
    11    VT320   9600 -7-E-1 SW    0     5     00:01:00
    12    KSR     9600 -7-E-1 SW    0     5     00:01:00
    13    NONE    9600 -7-E-1 SW    30    5     00:01:00
    14    NONE    9600 -7-E-1 SW    30    5     00:01:00
    15    NONE    9600 -7-E-1 SW    30    5     00:01:00
    16    NONE    9600 -7-E-1 SW    30    5     00:01:00

    TRM  TYPE      LOC              TMOUT MXINV DURAL
    17   TELNET    1201             60    5     00:30:00
    18   TELNET    1201             60    5     00:30:00
    19   TELNET    1201             60    5     00:30:00
    20   TELNET    1201             60    5     00:30:00
    21   TELNET    1201             60    5     00:30:00
    22   TELNET    1201             60    5     00:30:00
    23   TELNET    1201             60    5     00:30:00
    24   TELNET    1201             60    5     00:30:00

;
```

```
                                          LNP LNP
TRM  TRAF LINK SA  SYS PU  DB  DB  SUB  UIMRD
1    YES  YES  YES YES YES YES YES YES  YES
2    YES  YES  YES YES YES YES YES YES  YES
3    YES  YES  YES YES YES YES YES YES  YES
4    YES  YES  YES YES NO  YES YES YES  YES
5    YES  YES  YES YES YES YES YES YES  YES
6    YES  YES  YES YES YES YES YES YES  YES
7    NO   YES  YES YES YES YES YES YES  YES
8    YES  YES  YES YES YES YES YES YES  YES
9    YES  YES  YES YES YES YES YES YES  YES
10   NO   NO   NO  NO  NO  NO  NO  NO   NO
11   NO   NO   NO  NO  NO  NO  NO  NO   NO
12   NO   NO   NO  NO  NO  NO  NO  NO   NO
13   NO   NO   NO  NO  NO  NO  NO  NO   NO
14   NO   NO   NO  NO  NO  NO  NO  NO   NO
15   NO   NO   NO  NO  NO  NO  NO  NO   NO
16   NO   NO   NO  NO  NO  NO  NO  NO   NO
17   NO   NO   NO  NO  NO  NO  NO  NO   NO
18   NO   NO   NO  NO  NO  NO  NO  NO   NO
19   NO   NO   NO  NO  NO  NO  NO  NO   NO
20   NO   NO   NO  NO  NO  NO  NO  NO   NO
21   NO   NO   NO  NO  NO  NO  NO  NO   NO
22   NO   NO   NO  NO  NO  NO  NO  NO   NO
23   NO   NO   NO  NO  NO  NO  NO  NO   NO
24   NO   NO   NO  NO  NO  NO  NO  NO   NO

     APP  APP
TRM  SERV SS  CARD CLK DBG GTT GWS MEAS MON MPS SEAS SLAN
1    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
2    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
3    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
4    YES  YES YES  YES YES NO  YES YES  YES YES NO   NO
5    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
6    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
7    NO   YES YES  YES YES YES YES YES  YES YES NO   NO
8    YES  YES YES  YES YES YES YES YES  YES YES YES  YES
9    YES  YES YES  YES YES YES YES YES  YES YES YES  YES
10   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
11   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
12   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
13   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
14   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
15   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
16   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
17   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
18   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
19   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
20   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
21   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
22   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
23   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
24   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
;
```

The following example shows the display of the terminal settings with the IP User Interface feature enabled and three IPSM cards equipped:

rtrv-trm

```
rlghncxa03w  03-11-01 16:02:08 EST  EAGLE 31.3.0
TRM   TYPE    COMM         FC    TMOUT MXINV DURAL
1     VT320   9600 -7-E-1 SW    0     5     00:01:00
2     VT320   9600 -7-E-1 SW    0     5     00:01:00
3     VT320   9600 -7-E-1 SW    0     5     00:01:00
4     KSR     9600 -7-E-1 SW    0     5     00:01:00
5     NONE    9600 -7-E-1 SW    30    5     00:01:00
6     NONE    9600 -7-E-1 SW    30    5     00:01:00
7     NONE    9600 -7-E-1 SW    30    5     00:01:00
8     NONE    9600 -7-E-1 SW    30    5     00:01:00
9     VT320   9600 -7-E-1 SW    0     5     00:01:00
10    VT320   9600 -7-E-1 SW    0     5     00:01:00
11    VT320   9600 -7-E-1 SW    0     5     00:01:00
12    KSR     9600 -7-E-1 SW    0     5     00:01:00
13    NONE    9600 -7-E-1 SW    30    5     00:01:00
14    NONE    9600 -7-E-1 SW    30    5     00:01:00
15    NONE    9600 -7-E-1 SW    30    5     00:01:00
16    NONE    9600 -7-E-1 SW    30    5     00:01:00

TRM  TYPE      LOC              TMOUT MXINV DURAL
17   TELNET    1201             60    5     00:30:00
18   TELNET    1201             60    5     00:30:00
19   TELNET    1201             60    5     00:30:00
20   TELNET    1201             60    5     00:30:00
```

```
    21   TELNET    1201              60    5      00:30:00
    22   TELNET    1201              60    5      00:30:00
    23   TELNET    1201              60    5      00:30:00
    24   TELNET    1201              60    5      00:30:00
    25   TELNET    1203              60    5      00:30:00
    26   TELNET    1203              60    5      00:30:00
    27   TELNET    1203              60    5      00:30:00
    28   TELNET    1203              60    5      00:30:00
    29   TELNET    1203              60    5      00:30:00
    30   TELNET    1203              60    5      00:30:00
    31   TELNET    1203              60    5      00:30:00
    32   TELNET    1203              60    5      00:30:00
    33   TELNET    1208              60    5      00:30:00
    34   TELNET    1208              60    5      00:30:00
    35   TELNET    1208              60    5      00:30:00
    36   TELNET    1208              60    5      00:30:00
    37   TELNET    1208              60    5      00:30:00
    38   TELNET    1208              60    5      00:30:00
    39   TELNET    1208              60    5      00:30:00
    40   TELNET    1208              60    5      00:30:00
;
                                          LNP LNP
    TRM  TRAF LINK SA  SYS PU  DB  LNP  DB  SUB  UIMRD
    1    YES  YES  YES YES YES YES YES  YES YES  YES
    2    YES  YES  YES YES YES YES YES  YES YES  YES
    3    YES  YES  YES YES YES YES YES  YES YES  YES
    4    YES  YES  YES YES NO  YES YES  YES YES  YES
    5    YES  YES  YES YES YES YES YES  YES YES  YES
    6    YES  YES  YES YES YES YES YES  YES YES  YES
    7    NO   YES  YES YES YES YES YES  YES YES  YES
    8    YES  YES  YES YES YES YES YES  YES YES  YES
    9    YES  YES  YES YES YES YES YES  YES YES  YES
    10   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    11   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    12   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    13   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    14   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    15   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    16   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    17   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    18   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    19   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    20   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    21   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    22   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    23   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    24   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    25   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    26   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    27   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    28   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    29   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    30   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    31   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    32   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    33   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    34   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    35   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    36   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    37   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
    38   NO   NO   NO  NO  NO  NO  NO   NO  NO   NO
```

```
    39   NO   NO   NO  NO  NO  NO  NO  NO   NO
    40   NO   NO   NO  NO  NO  NO  NO  NO   NO

         APP  APP
    TRM  SERV SS  CARD CLK DBG GTT GWS MEAS MON MPS SEAS SLAN
    1    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
    2    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
    3    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
    4    YES  YES YES  YES YES NO  YES YES  YES YES NO   NO
    5    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
    6    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
    7    NO   YES YES  YES YES YES YES YES  YES YES NO   NO
    8    YES  YES YES  YES YES YES YES YES  YES YES YES  YES
    9    YES  YES YES  YES YES YES YES YES  YES YES YES  YES
    10   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    11   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    12   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    13   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    14   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    15   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    16   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    17   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    18   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    19   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    20   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    21   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    22   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    23   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    24   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    25   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    26   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    27   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    28   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    29   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    30   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    31   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    32   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    33   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    34   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    35   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    36   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    37   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    38   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    39   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    40   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
;
```

The following example shows the display of the terminal settings with the IP User Interface feature enabled and two IPSM cards equipped (the second IPSM card was removed):

rtrv-trm

```
    rlghncxa03w  03-11-01 16:02:08 EST  EAGLE 31.3.0
    TRM   TYPE    COMM         FC    TMOUT MXINV DURAL
    1     VT320   9600 -7-E-1 SW    0     5     00:01:00
    2     VT320   9600 -7-E-1 SW    0     5     00:01:00
    3     VT320   9600 -7-E-1 SW    0     5     00:01:00
    4     KSR     9600 -7-E-1 SW    0     5     00:01:00
    5     NONE    9600 -7-E-1 SW    30    5     00:01:00
    6     NONE    9600 -7-E-1 SW    30    5     00:01:00
```

```
7     NONE    9600 -7-E-1 SW    30    5     00:01:00
8     NONE    9600 -7-E-1 SW    30    5     00:01:00
9     VT320   9600 -7-E-1 SW    0     5     00:01:00
10    VT320   9600 -7-E-1 SW    0     5     00:01:00
11    VT320   9600 -7-E-1 SW    0     5     00:01:00
12    KSR     9600 -7-E-1 SW    0     5     00:01:00
13    NONE    9600 -7-E-1 SW    30    5     00:01:00
14    NONE    9600 -7-E-1 SW    30    5     00:01:00
15    NONE    9600 -7-E-1 SW    30    5     00:01:00
16    NONE    9600 -7-E-1 SW    30    5     00:01:00

TRM  TYPE      LOC              TMOUT MXINV DURAL
17   TELNET    1201             60    5     00:30:00
18   TELNET    1201             60    5     00:30:00
19   TELNET    1201             60    5     00:30:00
20   TELNET    1201             60    5     00:30:00
21   TELNET    1201             60    5     00:30:00
22   TELNET    1201             60    5     00:30:00
23   TELNET    1201             60    5     00:30:00
24   TELNET    1201             60    5     00:30:00

33   TELNET    1208             60    5     00:30:00
34   TELNET    1208             60    5     00:30:00
35   TELNET    1208             60    5     00:30:00
36   TELNET    1208             60    5     00:30:00
37   TELNET    1208             60    5     00:30:00
38   TELNET    1208             60    5     00:30:00
39   TELNET    1208             60    5     00:30:00
40   TELNET    1208             60    5     00:30:00

;
                                      LNP LNP
TRM  TRAF LINK SA  SYS PU  DB  DB  SUB  UIMRD
1    YES  YES  YES YES YES YES YES YES  YES
2    YES  YES  YES YES YES YES YES YES  YES
3    YES  YES  YES YES YES YES YES YES  YES
4    YES  YES  YES YES NO  YES YES YES  YES
5    YES  YES  YES YES YES YES YES YES  YES
6    YES  YES  YES YES YES YES YES YES  YES
7    NO   YES  YES YES YES YES YES YES  YES
8    YES  YES  YES YES YES YES YES YES  YES
9    YES  YES  YES YES YES YES YES YES  YES
10   NO   NO   NO  NO  NO  NO  NO  NO   NO
11   NO   NO   NO  NO  NO  NO  NO  NO   NO
12   NO   NO   NO  NO  NO  NO  NO  NO   NO
13   NO   NO   NO  NO  NO  NO  NO  NO   NO
14   NO   NO   NO  NO  NO  NO  NO  NO   NO
15   NO   NO   NO  NO  NO  NO  NO  NO   NO
16   NO   NO   NO  NO  NO  NO  NO  NO   NO
17   NO   NO   NO  NO  NO  NO  NO  NO   NO
18   NO   NO   NO  NO  NO  NO  NO  NO   NO
19   NO   NO   NO  NO  NO  NO  NO  NO   NO
20   NO   NO   NO  NO  NO  NO  NO  NO   NO
21   NO   NO   NO  NO  NO  NO  NO  NO   NO
22   NO   NO   NO  NO  NO  NO  NO  NO   NO
23   NO   NO   NO  NO  NO  NO  NO  NO   NO
24   NO   NO   NO  NO  NO  NO  NO  NO   NO

33   NO   NO   NO  NO  NO  NO  NO  NO   NO
34   NO   NO   NO  NO  NO  NO  NO  NO   NO
35   NO   NO   NO  NO  NO  NO  NO  NO   NO
```

```
    36   NO   NO   NO  NO  NO  NO  NO  NO   NO
    37   NO   NO   NO  NO  NO  NO  NO  NO   NO
    38   NO   NO   NO  NO  NO  NO  NO  NO   NO
    39   NO   NO   NO  NO  NO  NO  NO  NO   NO
    40   NO   NO   NO  NO  NO  NO  NO  NO   NO

         APP  APP
    TRM  SERV SS  CARD CLK DBG GTT GWS MEAS MON MPS SEAS SLAN
    1    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
    2    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
    3    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
    4    YES  YES YES  YES YES NO  YES YES  YES YES NO   NO
    5    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
    6    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
    7    NO   YES YES  YES YES YES YES YES  YES YES NO   NO
    8    YES  YES YES  YES YES YES YES YES  YES YES YES  YES
    9    YES  YES YES  YES YES YES YES YES  YES YES YES  YES
    10   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    11   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    12   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    13   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    14   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    15   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    16   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    17   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    18   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    19   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    20   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    21   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    22   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    23   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    24   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO

    33   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    34   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    35   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    36   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    37   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    38   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    39   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    40   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
;
```

The following example shows the display of the terminal settings for **telnet** terminal 30:

rtrv-trm:trm=30

```
    rlghncxa03w  03-11-01 16:02:08 EST  EAGLE 31.3.0
    TRM  TYPE    LOC         TMOUT MXINV DURAL
    30   TELNET  1204        60    0     00:00:00

    TRM  TRAF LINK SA  SYS PU  DB  UIMRD
    30   YES  YES  YES YES YES YES YES

         APP  APP
    TRM  SERV SS  CARD CLK DBG GTT GWS MEAS MON MPS SEAS SLAN
    3    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
;
```

The following example shows the display of the terminal settings with the IP User Interface feature enabled, one IPSM card equipped, and the OA&M IP Security Enhancements feature turned off:

rtrv-trm

```
rlghncxa03w  03-11-01 16:02:08 EST  EAGLE 31.3.0
TRM   TYPE    COMM         FC    TMOUT MXINV DURAL
1     VT320   9600 -7-E-1 SW    0     5     00:01:00
2     VT320   9600 -7-E-1 SW    0     5     00:01:00
3     VT320   9600 -7-E-1 SW    0     5     00:01:00
4     KSR     9600 -7-E-1 SW    0     5     00:01:00
5     NONE    9600 -7-E-1 SW    30    5     00:01:00
6     NONE    9600 -7-E-1 SW    30    5     00:01:00
7     NONE    9600 -7-E-1 SW    30    5     00:01:00
8     NONE    9600 -7-E-1 SW    30    5     00:01:00
9     VT320   9600 -7-E-1 SW    0     5     00:01:00
10    VT320   9600 -7-E-1 SW    0     5     00:01:00
11    VT320   9600 -7-E-1 SW    0     5     00:01:00
12    KSR     9600 -7-E-1 SW    0     5     00:01:00
13    NONE    9600 -7-E-1 SW    30    5     00:01:00
14    NONE    9600 -7-E-1 SW    30    5     00:01:00
15    NONE    9600 -7-E-1 SW    30    5     00:01:00
16    NONE    9600 -7-E-1 SW    30    5     00:01:00

TRM   TYPE    LOC              TMOUT MXINV DURAL      SECURE
17    TELNET  1201             60    5     00:30:00   no
18    TELNET  1201             60    5     00:30:00   no
19    TELNET  1201             60    5     00:30:00   no
20    TELNET  1201             60    5     00:30:00   no
21    TELNET  1201             60    5     00:30:00   no
22    TELNET  1201             60    5     00:30:00   no
23    TELNET  1201             60    5     00:30:00   no
24    TELNET  1201             60    5     00:30:00   no

                                    LNP LNP
TRM  TRAF LINK SA  SYS PU  DB  DB  SUB  UIMRD
1    YES  YES  YES YES YES YES YES YES  YES
2    YES  YES  YES YES YES YES YES YES  YES
3    YES  YES  YES YES YES YES YES YES  YES
4    YES  YES  YES YES NO  YES YES YES  YES
5    YES  YES  YES YES YES YES YES YES  YES
6    YES  YES  YES YES YES YES YES YES  YES
7    NO   YES  YES YES YES YES YES YES  YES
8    YES  YES  YES YES YES YES YES YES  YES
9    YES  YES  YES YES YES YES YES YES  YES
10   NO   NO   NO  NO  NO  NO  NO  NO   NO
11   NO   NO   NO  NO  NO  NO  NO  NO   NO
12   NO   NO   NO  NO  NO  NO  NO  NO   NO
13   NO   NO   NO  NO  NO  NO  NO  NO   NO
14   NO   NO   NO  NO  NO  NO  NO  NO   NO
15   NO   NO   NO  NO  NO  NO  NO  NO   NO
16   NO   NO   NO  NO  NO  NO  NO  NO   NO
17   NO   NO   NO  NO  NO  NO  NO  NO   NO
18   NO   NO   NO  NO  NO  NO  NO  NO   NO
19   NO   NO   NO  NO  NO  NO  NO  NO   NO
20   NO   NO   NO  NO  NO  NO  NO  NO   NO
21   NO   NO   NO  NO  NO  NO  NO  NO   NO
22   NO   NO   NO  NO  NO  NO  NO  NO   NO
```

```
23   NO   NO   NO  NO  NO  NO  NO  NO   NO
24   NO   NO   NO  NO  NO  NO  NO  NO   NO

     APP  APP
TRM  SERV SS   CARD CLK DBG GTT GWS MEAS MON MPS SEAS SLAN
1    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
2    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
3    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
4    YES  YES YES  YES YES NO  YES YES  YES YES NO   NO
5    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
6    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
7    NO   YES YES  YES YES YES YES YES  YES YES NO   NO
8    YES  YES YES  YES YES YES YES YES  YES YES YES  YES
9    YES  YES YES  YES YES YES YES YES  YES YES YES  YES
10   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
11   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
12   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
13   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
14   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
15   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
16   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
17   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
18   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
19   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
20   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
21   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
22   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
23   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
24   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO

;
```

The following example shows the display of the terminal settings with the IP User Interface feature enabled, one IPSM card equipped, and the OA&M IP Security Enhancements feature turned on:

rtrv-trm

```
rlghncxa03w  03-11-01 16:02:08 EST  EAGLE 31.3.0
TRM   TYPE    COMM         FC    TMOUT MXINV DURAL
1     VT320   9600 -7-E-1 SW    0     5     00:01:00
2     VT320   9600 -7-E-1 SW    0     5     00:01:00
3     VT320   9600 -7-E-1 SW    0     5     00:01:00
4     KSR     9600 -7-E-1 SW    0     5     00:01:00
5     NONE    9600 -7-E-1 SW    30    5     00:01:00
6     NONE    9600 -7-E-1 SW    30    5     00:01:00
7     NONE    9600 -7-E-1 SW    30    5     00:01:00
8     NONE    9600 -7-E-1 SW    30    5     00:01:00
9     VT320   9600 -7-E-1 SW    0     5     00:01:00
10    VT320   9600 -7-E-1 SW    0     5     00:01:00
11    VT320   9600 -7-E-1 SW    0     5     00:01:00
12    KSR     9600 -7-E-1 SW    0     5     00:01:00
13    NONE    9600 -7-E-1 SW    30    5     00:01:00
14    NONE    9600 -7-E-1 SW    30    5     00:01:00
15    NONE    9600 -7-E-1 SW    30    5     00:01:00
16    NONE    9600 -7-E-1 SW    30    5     00:01:00
```

```
TRM   TYPE    LOC              TMOUT MXINV DURAL      SECURE
17    TELNET  1201             60    5     00:30:00   yes
18    TELNET  1201             60    5     00:30:00   yes
19    TELNET  1201             60    5     00:30:00   yes
20    TELNET  1201             60    5     00:30:00   yes
21    TELNET  1201             60    5     00:30:00   yes
22    TELNET  1201             60    5     00:30:00   yes
23    TELNET  1201             60    5     00:30:00   yes
24    TELNET  1201             60    5     00:30:00   yes

                                    LNP LNP
TRM  TRAF LINK SA  SYS PU  DB  DB  SUB  UIMRD
1    YES  YES  YES YES YES YES YES YES  YES
2    YES  YES  YES YES YES YES YES YES  YES
3    YES  YES  YES YES YES YES YES YES  YES
4    YES  YES  YES YES NO  YES YES YES  YES
5    YES  YES  YES YES YES YES YES YES  YES
6    YES  YES  YES YES YES YES YES YES  YES
7    NO   YES  YES YES YES YES YES YES  YES
8    YES  YES  YES YES YES YES YES YES  YES
9    YES  YES  YES YES YES YES YES YES  YES
10   NO   NO   NO  NO  NO  NO  NO  NO   NO
11   NO   NO   NO  NO  NO  NO  NO  NO   NO
12   NO   NO   NO  NO  NO  NO  NO  NO   NO
13   NO   NO   NO  NO  NO  NO  NO  NO   NO
14   NO   NO   NO  NO  NO  NO  NO  NO   NO
15   NO   NO   NO  NO  NO  NO  NO  NO   NO
16   NO   NO   NO  NO  NO  NO  NO  NO   NO
17   NO   NO   NO  NO  NO  NO  NO  NO   NO
18   NO   NO   NO  NO  NO  NO  NO  NO   NO
19   NO   NO   NO  NO  NO  NO  NO  NO   NO
20   NO   NO   NO  NO  NO  NO  NO  NO   NO
21   NO   NO   NO  NO  NO  NO  NO  NO   NO
22   NO   NO   NO  NO  NO  NO  NO  NO   NO
23   NO   NO   NO  NO  NO  NO  NO  NO   NO
24   NO   NO   NO  NO  NO  NO  NO  NO   NO

     APP  APP
TRM  SERV SS  CARD CLK DBG GTT GWS MEAS MON MPS SEAS SLAN
1    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
2    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
3    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
4    YES  YES YES  YES YES NO  YES YES  YES YES NO   NO
5    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
6    YES  YES YES  YES YES YES YES YES  YES YES NO   NO
7    NO   YES YES  YES YES YES YES YES  YES YES NO   NO
8    YES  YES YES  YES YES YES YES YES  YES YES YES  YES
9    YES  YES YES  YES YES YES YES YES  YES YES YES  YES
10   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
11   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
12   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
13   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
14   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
15   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
16   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
17   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
18   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
19   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
20   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
21   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
22   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
```

```
    23   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
    24   NO   NO  NO   NO  NO  NO  NO  NO   NO  NO  NO   NO
;
```

Legend

Part one of the **rtrv-trm** report contains these fields:

TRM—The TDM terminal port number associated with the output device.

TYPE—The type of output device being connected.

COMM—This field is composed of four communication attributes in the format *baud-dbts-prty-sb*. The parts are:

BAUD—The serial port baud rate of the output device

DBTS—The number of data bits used by the output device

PRTY—The parity of the output device

SB—The number of stop bits used in communications with the output device

FC—The type of protocol used between the Eagle and the output devices.

TMOUT—Shows the maximum amount of time (in minutes) that a login session can remain idle.

MXINV—Shows the login / unlock failure threshold.

DURAL—Shows the length of time (in seconds, minutes, and hours) the terminal is disabled after each failed login / unlock attempt in excess of the threshold configured with the **mxinv** parameter.

SECURE—Indicates whether the OA&M IP Security Enhancements feature is turned on or off for Telnet terminals.

Part two of the **rtrv-trm** report contains these fields:

TRM—The TDM terminal associated with the output device.

TRAF—Shows whether traffic-related unsolicited messages are received by the output device.

LINK—Shows whether link-related unsolicited messages are received by the output device.

SA—Shows whether security administration-related unsolicited messages are received by the output device.

SYS—Shows whether system maintenance-related unsolicited messages are received by the output device.

PU—Shows whether program update-related unsolicited messages are received by the output device.

DB—Shows whether database-related unsolicited messages are received by the output device.

UIMRD—Shows whether Unsolicited Information Messages (UIMs) specific to the group are received by the output device.

If the LNP feature is turned on, the following fields are displayed:

LNPDB—Shows whether LNP database-related unsolicited messages are received by the output device.

LNPSUB—Shows whether LNP subscription-related unsolicited messages are received by the output device.

Part three of the **rtrv-trm** report contains these fields:

APP SERV—Shows whether Application Server unsolicited messages are received by the output device.

APP SS—Shows whether Application Subsystem unsolicited messages are received by the output device.

CARD—Shows whether Card unsolicited messages are received by the output device.

CLK—Shows whether Clock unsolicited messages are received by the output device.

DBG—Shows whether Debug unsolicited messages are received by the output device.

GTT—Shows whether GTT unsolicited messages are received by the output device.

GWS—Shows whether GWS unsolicited messages are received by the output device.

MEAS—Shows whether Measurements Maintenance unsolicited messages are received by the output device.

MON—Shows whether Monitor unsolicited messages are received by the output device.

MPS—Shows whether MPS unsolicited messages are received by the output device.

SEAS—Shows whether SEAS Maintenance unsolicited messages are received by the output device.

SLAN—Shows whether STP LAN unsolicited messages are received by the output device.

Change Default ATM CLP Bit for Data Cells from 1 to 0

The Cell Loss Priority (CLP) bit is in the ATM packet header and is used by ATM network elements to determine which messages are discarded when an ATM network element is in congestion. Should there be congestion in an ATM network element, it will first start to discard ATM packets with a CLP bit of 1 first before discarding any ATM packets with a CLP bit of 0. The CLP bit has the following characteristics:1. The CLP bit for ATM-SS7 signaling (data cells) is specified to be either be 0 or 1 and is not specifically assigned a default value in GR-2878 CORE (ANSI) nor I.361 (ITU). The CLP bit for ATM unassigned / idle (filler) cells is specified to be 0 for T1 interfaces and 1 for E1 interfaces. ATM equipment is required to discard these cells upon receipt and therefore the CLP bit for unassigned / idle (filler) cells will remain unchanged.2. The CLP bit for ATM-SS7 signaling (data cells) is used by ATM network equipment much in a similar fashion as the priority field is used by TDM SS7 equipment 3. The CLP bit determines how important a message is when an ATM network node is in congestion and needs to discard messages / packets. Currently, the CLP bit for ATM-SS7 signaling (data cells) is a non-configurable value in the Eagle ATM header that is defaulted to 1 for both LIM-ATM (ANSI) and E1-ATM (ITU) cards. Effective in Release 31.3, this default will be changed to 0 (higher priority). The new CLP bit value of 0 has a higher priority than the current CLP bit value of 1.

FTRA 2.1 Compatibility with Eagle 31.3

The FTRA Release 2.1provides FTRA compatibility with Eagle 31.3. There are no new features or functionality in Release 2.1.

Alarms

New hardware verification codes necessary to support Eagle Release 31.3 are as defined in Table FN-3.

New UIMs neccessary to support Eagle Release 31.3 are as defined in Table FN-4.

Table FN-3. Eagle Release 31.3 New / Changed Hardware Verification Codes

H / W Code	33	UAM	
Action	Added for PR 48156- ANSI / ITU / China SCCP Conversion		
Old Data	Available		
New Data	SCCP card equipped with ASM when ANSI / ITU / China SCCP Conversion feature is on	441	SCCP

Table FN-4. Eagle Release 31.3 New / Changed UIMs

UIM	1050		
Action	Added for ANSI / ITU SCCP Conversion feature		
Old data	Available for reuse		
New data	SCCP-CNV: Unable to convert ANSI CDPA GT	I43	GTT
UIM	1051		
Action	Added for ANSI / ITU SCCP Conversion feature		
Old data	Available for reuse		
New data	SCCP-CNV: Unable to convert ANSI CGPA GT	I43	GTT
UIM	1052		
Action	Added for ANSI / ITU SCCP Conversion feature		
Old data	Available for reuse		
New data	SCCP-CNV: Unable to convert ITU CDPA GT	I43	GTT
UIM	1053		
Action	Added for ANSI / ITU SCCP Conversion feature		
Old data	Available for reuse		
New data	SCCP-CNV: Unable to convert ITU CGPA GT	I43	GTT

Table FN-4. Eagle Release 31.3 New / Changed UIMs

UIM	1297		
Action	Updated for PR 48156 ANSI / ITU SCCP Conversion feature		
Old data	Invalid length of prefixed digits		
New data	Invalid length of prefix / suffix digits	I43	Application Subsystem
UIM	1077		
Action	Updated for PR 48431, Link Maintenance Enhancements		
Old data	SLTC failure: failed link	I22	SYSMAINT
New data	Available for whenever upgrade from Rel 31.3 is no longer supported		
UIM	1078		
Action	Updated for PR 48431, Link Maintenance Enhancements		
Old data	SLTC success: manual test passed	I22	SYSMAINT
New data	Available for whenever upgrade from Rel 31.3 is no longer supported		
UIM	1079		
Action	Updated for PR 48431, Link Maintenance Enhancements		
Olddata	SLTC aborted: unable to perform test	I22	SYSMAINT
New data	Available for whenever upgrade from Rel 31.3 is no longer supported		
UIM	1086		
Action	Updated for PR 48431, Link Maintenance Enhancements		
Old data	LFS test terminated with OAM switchover		
New data	Test terminated with OAM switchover	I1	SYSMAINT
UIM	1156		
Action	Updated for PR 48431, Link Maintenance Enhancements		
Old data	Loopback success	I1	SYSMAINT
New data	Available for whenever upgrade from Rel 31.3 is no longer supported		
UIM	1157		

Table FN-4. Eagle Release 31.3 New / Changed UIMs

Action	Updated for PR 48431, Link Maintenance Enhancements		
Old data	Loopback failed	I1	SYSMAINT
New data	Available for whenever upgrade from Rel 31.3 is no longer supported		
UIM	1158		
Action	Updated for PR 48431, Link Maintenance Enhancements		
Old data	Loopback aborted	I1	SYSMAINT
New data	Available for whenever upgrade from Rel 31.3 is no longer supported		
UIM	1159		
Action	Updated for PR 48431, Link Maintenance Enhancements		
Old data	Loopback in progress	I1	SYSMAINT
New data	Available for whenever upgrade from Rel 31.3 is no longer supported		
UIM	1170		
Action	Updated for PR 48431, Link Maintenance Enhancements		
Old data	Loopback prevented	I1	SYSMAINT
New data	Available for whenever upgrade from Rel 31.3 is no longer supported		
UIM	1171		
Action	Updated for PR 48431, Link Maintenance Enhancements		
Old data	Loopback invalid	I1	SYSMAINT
New data	Available for whenever upgrade from Rel 31.3 is no longer supported		
UIM	1032		
Action	Updated for PR 53482		
Old data	Available for reuse		

UIM Format Changes

The following UIM format has changed for EAGLE Release 31.3.

1.1 I43 (SCCP CDPA FOR EGTT)

Release 31.3	
Literal	RPT_SCCP_INV_CDPA_2
Format	1 2 3 4 5 6 7 8 12345678901234567890123456789012345678901234567890123456789012345678901234567890 xxxx.xxxx CARD cccc,ppppINFO 'text' SIO=xx OPC=###-###-### DPC=###-###-### SCCP MSG TYPE=## CDPA: NI=# RI=@ GTI=## SSNI=@ PCI=@ TT=### NP=## NAI=### ADDR=###################### PC=###-###-### SSN=### CGPA: NI=# RI=@ GTI=## SSNI=@ PCI=@ TT=### NP=## NAI=### ADDR=###################### PC=###-###-### SSN=### LSN=[lnkset]
Output Examples	1 2 3 4 5 6 7 8 12345678901234567890123456789012345678901234567890123456789012345678901234567890 0018.1120 CARD 1103,A INFO SCCP-CNV: Unable to convert ANSI CDPA GT SIO=03 OPC=001-001-001 DPC=002-002-002 SCCP MSG TYPE=04 CDPA: NI=1 RI=0 GTI=04 SSNI=0 PCI=1 TT=250 NP=04 NAI=010 ADDR=123456789012345678901 PC=003-003-003 SSN=005 CGPA: NI=1 RI=0 GTI=04 SSNI=0 PCI=1 TT=100 NP=07 NAI=012 ADDR=01234567890123456789O PC=001-001-001 SSN=004 LSN=ABCD123 Report Date:02-07-21 Time:16:20:19

Data Structures	#define ATH_RPT_MAX_SCCP_BCD_ADDR_BYTES SCCP_MAX_GT_ADDRESS_BYTES
	
	#define SIH_UIM_MAX_DATA (ATH_MAX_DATA_DUMP * 2)
	
	union u_gt_struct
	{
	struct
	{
	t_sccp_gt_tt_np_es_nai selectors;
	t_sccp_gt_address addr;
	} gt;
	t_ss7_pc pc;
	};
	
	typedefu_gt_struct t_gt_struct;
	
	structs_ath_rpt_egtt_cpa
	{
	t_sccp_addr_ind ai;
	t_sccp_subsystem ssn;
	t_gt_struct gt_or_pc;
	};
	
	typedefstructs_ath_rpt_egtt_cpa t_ath_rpt_egtt_cpa;
	
	structs_ath_rpt_sccp_inv_cdpa_2
	{
	t_u8 sio;
	t_ss7_pc opc;

Error Codes

Incorrect use of the enhanced commands for Eagle Release 31.3 features may result in the error messages listed in Table FN-5:

Table FN-5. Eagle Release 31.3: Error Messages

Response ID Code	Error Message	New?	Used by Command:
E2278	30-minute measurement collection in progress	N	**chg-measopts** **chg-ctrl-feat**
E2916	Link must not be active to execute command	N	**tst-slk** **act-cdl** **dact-cdl**
E3289	Must specify NC when NI is specified for ORIGNINC	Y	**rept-meas**
E3688	15 Minute measurement collection in progress	Y	**rept-meas** **rept-ftp-meas** **chg-measopts**
E3689	Period must be 1/4 hour boundary	Y	**rept-ftp-meas** **rept-meas**
E3690	QH cannot be specified unless 15 min meas is turned on	Y	**rept-ftp-meas** **rept-meas**
E3692	Cannot turn on feature with EMDC provisioned	Y	**chg-ctrl-feat**
E3693	collect=on cannot be specified with 15 min coll operational	Y	**chg-meas**
E3694	QH and HH cannot be specified together	Y	**rept-meas** **rept-ftp-meas**
E3696	Cannot provision EMDC card with 15 min coll feature on	Y	**ent-card**
E3697	15 Minute measurement feature must be on	Y	**chg-measopts**
E3698	At least one MCP card must be IS-NR	Y	**chg-ctrl-feat**
E4033	If GTXLAT is 22, NAI and NP cannot be specified	Y	**ent-gtcnv**
E4034	If GTIXLAT is 24, NAI and NP must be specified	Y	**ent-gtcnv**
E4035	TTA must be specified for a direction of ATOI	Y	**chg-gtcnv**
E4036	At least TTA, TTI must be specified for a direction of BOTH	Y	**chg-gtcnv**

Table FN-5. Eagle Release 31.3: Error Messages (Cont'd)

Response ID Code	Error Message	New?	Used by Command:
E4114	At least TTA, TTI must be specified for a direction of BOTH	Y	`dlt-gtcnv`
E4115	TTI must be specified for a direction of ITOA	Y	`dlt-gtcnv` `chg-gtcnv`

E4116	Wildcard/Asterisk invalid for direction of BOTH	Y	`dlt-gtcnv`
			`chg-gtcnv`
			`ent-gtcnv`

E4117	Wildcard/Asterisk combination invalid for direction	Y	`ent-gtcnv`

E4118	Wildcard/Asterisk required for TTI,NP,NAI if DIR is ITOA	Y	`dlt-gtcnv`
			`chg-gtcnv`
			`ent-gtcnv`

E4119	Key values: DIR, TTA, TTI, NP, NAI already exist	Y	`ent-gtcnv`
E4120	Key values: dir, TTA, TTI, NP, NAI does not exist	Y	`chg-gtcnv` `dlt-gtcnv`
E4122	Both NP and NAI must be specified if either is present	Y	`chg-gtcnv` `dlt-gtcnv`
E4167	Cannot add NP or NAI to an entry where GTIX-LAT is 22	Y	`chg-gtcnv`
E4168	At least one Non-Key parm that is to be changed is required	Y	`chg-gtcnv`
E4169	GT Conversion Table is full	Y	`ent-gtcnv`

E4170	Suffix & Prefix digit modification parameters can't be mixed	Y	`ent-gtcnv`
			`chg-gtcnv`
			`chg-gtt`
			`chg-gta`

E4171	SCCP Conversion feature must be enabled	Y	`chg-gtcnv`
			`ent-gtcnv`
			`dlt-gtcnv`
			`rtrv-gtcnv`
			`chg-gtt`
			`chg-stpopts`
			`chg-gta`

E4172	Can't switch existing Pfx/Sfx, use RDMOD to reset	Y	`chg-gtcnv`

Table FN-5. Eagle Release 31.3: Error Messages (Cont'd)

Response ID Code	Error Message	New?	Used by Command:
E4173	Not compatible with SCCP Conversion feature	Y	**chg-feat**
E4174	NGTI only valid when PC and GTTSN are different domains	Y	**chg-gta**
E4197	CCGT and NGTI are mutually exclusive		**chg-gta**
E4198	Can't switch existing Pfx/Sfx, use RMGTT to reset		**chg-gtt** **chg-gta**
E4199	NGTI only valid when PC and TYPE are different domain	Y	**chg-gtt**
E4200	Cannot use NEXT if preceding RTRV-LOG command used TYPE=ALL	N	**rtrv-log**
E4201	SCCPCNV,TCAPCNV must be disabled	Y	**enable-ctrl-feat**
E4202	SCCP Conversion feature requires at least TSM-Hardware	Y	**enable-ctrl-feat**
E4203	ENUM requires an SNUM as its mate parameter	Y	**rtrv-log** **rtrv-trbltx**
E4204	ENUM must be greater or equal to mate parameter SNUM	Y	**rtrv-trbltx** **rtrv-log**
E4205	ENUM range does not match SNUM: 1-999 or 1000-1499	Y	**rtrv-trbltx** **rtrv-log**
E4206	NEXT option requires terminal issued last RTRV-LOG command	Y	**rtrv-log**
E4208	No other parameters are permitted with the NEXT parameter	Y	**rtrv-log**
E4209	OUTGRP and SNUM/ENUM combination invalid	Y	**rtrv-trbltx**
E4211	If DIR=BKWD, SDATE/STIME must be > EDATE/ETIME	Y	**rtrv-log**
E4212	Cannot execute command until table initialization complete	N	**rtrv-log**
E4213	Current set of next elog entries have been overwritten	N	**rtrv-log**
E4234	RI must be GT when specifying NGT	Y	**chg-gtt**

Table FN-5. Eagle Release 31.3: Error Messages (Cont'd)

Response ID Code	Error Message	New?	Used by Command:
E4235	NGT can only be specified when XLAT=DPC or DPCNGT	Y	**chg-gtt**
E4236	RI must be GT when specifying NTT	Y	**chg-gta**
E4237	NTT can only be specified when XLAT=DPC or DPCNGT	Y	**chg-gta**
E4238	Point code matches a STP secondary point code	Y	**chg-dstn** **dlt-dstn** **rtrv-dstn** **ent-rte** **chg-rte** **dlt-rte** **rtrv-rte**
E4239	At least one other optional parameter is required	Y	**rtrv-data-rtdb**
E4240	GFLEX or GPORT feature must be ON	Y	**rtrv-data-rtdb**
E4241	Link test must not be running on requested link	Y	**act-cdl** **act-lbp** **dact-lbp**
E4242	Requested link must not be in command driven loopback	Y	**act-lbp** **dact-lbp** **tst-slk**
E4243	Link test command in progress	Y	**tst-slk**
E4244	Link test command not in progress	Y	**tst-slk**
E4245	Card does not support command driven loop-back	Y	**act-cdl**
E4246	Command driven loopback in progress	Y	**act-cdl**
E4247	Command driven loopback not in progress	Y	**dact-cdl**
E4268	Cannot delete last route to DPC ref. in CSPC table	Y	**dlt-rte**
E4901	TTI, NP, NAI cannot be specified for a direction of ATOI	Y	**dlt-gtcnv**
E4902	CSPC group cannot contain both PCN and PCN24 Point codes	Y	**ent-cspc**
E4903	If NGTI is 4, PC cannot be ANSI	Y	**chg-gtt** **chg-gta**

Limitations

ANSI-ITU-China SCCP Conversion

1. The ANSI-ITU-China SCCP Conversion feature cannot coexist with the ‘ SCCP Conversion for South Korea Telecom feature

2. Conversion support for messages other than UDTs and UDTS' will not be provided.

3. Conversion of GTI formats other than ANSI 2, ITU 2 and ITU 4 are not supported.

4. Conversion of TCAP layer data will not be provided.

5. Prefix and Suffix Digit Manipulation are mutually exclusive. Each GTA entry (with MGTT enabled) can have either suffix or prefix digit modification data, but not both. This same restriction also applies to the new Default GT Conversion Table.

6. Prefix and suffix digit manipulation for messages with a GTI of 2 (both ANSI and ITU) may produce invalid results. Since no Encoding Scheme is provided, it is not known if the final address nibble in the message is a digit or a filler value. This only applies if the last digit is zero.

7. The Calling Party Address Discard Option can cause problems if the message in which the CGPA Point Code is dropped, responds with the CGPA replacing the CDPA. The Eagle in this case would misroute the message. It is the responsibility of the network administrator to prevent this problem from occurring.

8. ITU-N24 bit Point Codes cannot be converted to / from ITU-National format with 14 bit Point Codes.

9. ITU-N and ITU-N24 Point Codes cannot reside in the same Concerned Point Code Group.

10. ITU to ITU SCCP Conversions do not support the changing of the NP, NAI, and / or TT through the Default GT Conversion Table.

11. When the ANSI-ITU-China SCCP Conversion feature is enabled, a new TT can now be provisioned for Global Title Translation entries where XLAT is equal to DPC. GTT and EGTT entries that are provisioned with XLAT=DPC where NGT / NTT has been specified are displayed during a retrieve with an XLAT of DPCNGT. If this type of entry is changed specifying XLAT=DPC without specifying a new TT (NGT / NTT) the existing NGT is removed.

12. For GT routed messages, if the Calling Party Address is set to Route-On-GT and translates to a Point Code in a different network than the originating message, then a UDTS message cannot be delivered.

15 Minute Measurements

13. During Upgrade, the 15 Minute measurements feature cannot be turned on. Upgrade must complete before turning on the feature.

Link Maintenance Enhancements/LFS Increase for MPL-T and MIM

14. The final test (TST-SLK) results are displayed only once; upon test completion to the terminal that originated the command.

15. There is no capability of determining reception of loopback codes for links in command driven loopback.

16. TST-SLK duration will be specified in terms of hours, minutes and seconds (hh:mm:ss) and will be at most 24 hours.

17. 4.EAGLE will support a maximum of 1024 simultaneous link tests (ACT-LBP or TST-SLK).

18. Existing TST-SLK commands are unrecoverable following an OAM Switchover.

Enhance RTRV-LOG

19. There are several limitations associated with the "RTRV-LOG:NEXT=##" command:

- It can only be issued after the last Eagle RTRV-LOG command had been issued ON THAT SAME TERMINAL.
- It will only display elements up to the time the initial RTRV-LOG command was issued.
- When any terminal issues a RTRV-LOG it will make it such that it is the only terminal capable of issuing the "RTRV-LOG:NEXT=##".

20. The Event log only stores minimal information about an Alarm. Only a few Alarms support multiple-line formats. When a MODE of BRIEF is selected, output will be restricted to a single line summary.

Measurements Platform Filename with CLLI

21. Implementing Measurements Platform Filename with CLLI feature puts a hard limit of 13 characters on the report name subfield for schedule-entity type. Previously there was limited room for expansion since not all of the 39 characters allowed were used with the longest schedule-entity string. This

expansion space has now been consumed to include the CLLI in the filename. The 13-character limit is currently fully used by the gtwy-lsorigni, gtwy-lsdestni, gtwy-lsonismt, and gtwy-origninc report types.

22. Since the year is no longer incorporated in the file name, any files left on the FTP server for an entire year will be overwritten by new files as they are generated.

Customer Documentation

The documentation set for Eagle 31.3 (936-0056) comprises the following manuals and documents. The list is sorted by manual name and indicates the manual's part number. The list is followed by a brief description of each manual.

NOTE: The most current update of each manual can be found on Tekelec's Customer Support website.

- *Commands Manual* (910-4595)
  - *Commands Quick Reference* (910-4700)
  - *Commands Pocket Guide* (910-4701)
- *Commands Error Recovery Manual* (910-4596)
- *Database Administration Manual - Features* (910-4302)
- *Database Administration Manual - Gateway Screening* (910-4303)
- *Database Administration Manual - Global Title Translation* (910-4599)
- *Database Administration Manual - IP7 Secure Gateway* (910-4600)
- *Database Administration Manual - LNP* (910-4637)
- *Database Administration Manual - SEAS* (910-4638)
- *Database Administration Manual - SS7* (910-4304)
- *Database Administration Manual - System Management* (910-4305)
- *EPAP Administration Manual* - (910-4627)
- *ELAP Administration Manual* - (910-4307)
- *Feature Manual - EIR* (910-4702)
- *Feature Manual - G-Flex C7 Relay* (910-4310)
- *Feature Manual - G-Port* (910-4594)
- *Feature Manual - INP* (910-4311)
- *FTP-Based Table Retrieve Application (FTRA) User Guide* (910-4341)
- *Hardware Manual (Signaling Products)* (910-4625)
- *Hardware Manual (TekServer Services Platform)* (910-4221)
- *Installation Manual - Eagle* (910-4601)
- *Installation Manual - Integrated Applications* (910-4626)
- *LNP Feature Activation* (910-4355)
- *LNP Database Synchronization (LSMS 6.0/Eagle)* (910-4344)

- *Maintenance Manual* (910-4314)
  - *Maintenance Pocket Guide* (910-4703)
  - *Maintenance Emergency Recovery Pocket Guide* (910-4704)
- *MPS Platform Software and Maintenance* (910-4222)
- *Previously Released Features (*910-4318)
- *Provisioning Database Interface Manual (*910-4629*)*
- *Release Documentation (*911-0008-01)
  - *Cross-Reference Index* (909-1175)
  - *Documentation Bulletins* (909-1170)
  - *Feature Notice* (909-1167)
  - *Glossary* (909-1023)
  - *Release Notice* (909-1168)
  - *System Overview* (909-1021)
  - *Technical Bulletins* (909-1169)

Commands Manual

The *Commands Manual* contains procedures for logging into an Eagle STP system or an IP^7 Secure Gateway system, logging out of the system, a general description of the terminals, printers, the disk drive used on the system, and a description of all the commands used in the system.

Commands Error Recovery Manual

The *Commands Error Recovery Manual* contains the procedures to resolve error message conditions generated by the commands in the *Commands Manual*. These error messages are presented in numerical order.

Database Administration Manual – Features

The *Database Administration Manual – Features* contains procedural information required to configure an Eagle STP system or an IP^7 Secure Gateway system to implement these features: X.25 Gateway, STP LAN, Database Transport Access, GSM MAP Screening, and Eagle Support for Integrated Sentinel.

Database Administration Manual - Gateway Screening

The *Database Administration Manual - Gateway Screening* contains a description of the Gateway Screening (GWS) feature and the procedures necessary to configure the Eagle STP system or IP^7 Secure Gateway system to support this feature.

Database Administration Manual – Global Title Translation

The *Database Administration Manual – Global Title Translation* contains procedural information required to configure an Eagle STP system or an IP^7 Secure Gateway system to implement these features: Global Title Translation, Enhanced Global Title Translation, Variable Length Global Title Translation, Interim Global Title Modification, and Intermediate GTT Load Sharing.

Database Administration Manual - IP^7 Secure Gateway

This manual contains procedural information required to configure the system to implement the SS7-IP Gateway.

Database Administration Manual - LNP

The *Database Administration Manual – LNP* contains procedural information required to configure the system LNP and the database to implement the local number portability (LNP) feature.

Database Administration Manual - SEAS

The *Database Administration Manual – SEAS* contains the procedures that can be performed from the Signaling Engineering and Administration Center (SEAC) or a Signaling Network Control Center (SNCC) to configure the EAGLE. These procedures contain a brief description of the procedure, a reference to the procedure in either the *Database Administration Manual – SS7, Database Administration Manual – Features,* or *Database Administration Manual – Gateway Screening* that contains more information on that procedure, and a flowchart showing the order that the tasks must be performed.

Database Administration Manual – SS7

The *Database Administration Manual – SS7* contains procedural information required to configure an Eagle STP system or an IP^7 Secure Gateway system to implement the SS7 protocol.

Database Administration Manual – System Management

The *Database Administration Manual – System Management* contains procedural information required to manage the Eagle's database and GPLs, and to configure basic system requirements such as user names and passwords, system-wide security requirements, and terminal configurations.

EPAP Administration Manual

The *EPAP Administration Manual* describes how to administer to the Eagle Provisioning Application Processor on the MPS/EPAP platform. The manual defines the methods for accessing the user interface, menus, and screens available to the user and describes their impact. It provides the syntax and semantics of user input and defines the output the user receives, including messages, alarms, and status.

ELAP Administration Manual

The *ELAP Administration Manual* defines the user interface to the Eagle LNP Application Processor on the MPS/ELAP platform. The manual defines the methods for accessing the interface, menus, screens available to the user and describes their impact. It provides the syntax and semantics of user input, and defines the output the user receives, including information and error messages.

Feature Manual - EIR

The *Feature Manual - EIR* provides details of a feature providing network operators with the capability to prevent stolen or disallowed GSM mobile handsets from accessing the network. This manual gives the instructions and information on how to install, use, and maintain the EIR feature on the Multi-Purpose Server (MPS) platform of the Eagle System.

Feature Manual - G-Flex C7 Relay

The *Feature Manual - G-Flex C7 Relay* provides an overview of a feature supporting the efficient management of Home Location Registers in various networks. This manual gives the instructions and information on how to install, use, and maintain the G-Flex feature on the Multi-Purpose Server (MPS) platform of the Eagle System.

Feature Manual - G-Port

The *Feature Manual - G-Port* provides an overview of a feature providing the capability for mobile subscribers to change the GSM subscription network within a portability cluster while retaining their original MSISDNs. This manual gives the instructions and information on how to install, use, and maintain the G-Port feature on the Multi-Purpose Server (MPS) platform of the Eagle System.

Feature Manual - INP

Provides the user with information and instructions on how to implement, utilize, and maintain the INAP-based Number Portability (INP) feature on the Eagle Multi-Purpose Server (MPS) platform.

FTP-Based Table Retrieve Application (FTRA) User Guide

The *FTP-Based Table Retrieve Application (FTRA) User Guide* describes how to set up and use a PC to serve as the offline application for the Eagle FTP Retrieve and Replace feature.

Hardware Manual (Signaling Products)

The *Signaling Products Hardware Manual* contains hardware descriptions and specifications of Tekelec's Network Signaling Division (NSD) products. These include the Eagle STP system, the IP^7 Secure Gateway (SG) system, and OEM-based products which include the AS*i* 4000 Service Control Point (SCP), and the Integrated Sentinel with Extended Services Platform (ESP) subassembly.

Hardware Manual (TekServer Services Platform)

The *TekServer Services Platform Hardware Manual* provides general specifications and a description of the TekServer. This manual also includes site preparation, environmental and other requirements, procedures to physically install the TekServer, and troubleshooting and repair of Field Replacable Units (FRUs).

Installation Manual - Eagle

The *Installation Manual - Eagle* contains cabling requirements, schematics, and procedures for installing the Eagle systems along with LEDs, Connectors, Cables, and Power Cords to Peripherals. Refer to this manual to install components or the complete systems.

Installation Manual - Integrated Applications

The *Integrated Applications Installation Manual* provides the installation information on Frame Floors and Shelves for Integrated Applications Products such as MPS EPAP 4.0, AS*i* 4000 SCP, and VX*i* Media Gateway Controller, Integrated and Non-Integrated Sentinel, LEDs, Connectors, Cables, and Power Cords to Peripherals. Refer to this manual to install components or the complete systems.

LNP Feature Activation Guide

The *LNP Feature Activation Guide* contains the procedures necessary to activate the LNP 48 Million Number feature.

LNP Database Synchronization (LSMS 6.0/Eagle)

The *LNP Database Synchronization Manual* - LSMS 6.0 / Eagle describes how to keep the LNP databases at a Release 6.0 LSMS and at the network element (the Eagle is a network element) synchronized through the use of resynchronization, audits and reconciles, and bulk loads.

NOTE: LNP Database Synchronization Manuals for LSMS releases 5.0 and 4.0 can be ordered separately. Contact your sales representative for part number information.

Maintenance Manual

The *Maintenance Manual* contains procedural information required for maintaining the Eagle STP system and the IP^7 Secure Gateway system. The *Maintenance Manual* provides preventive and corrective maintenance procedures used in maintaining the different systems.

MPS Platform Software and Maintenance Manual (Eagle STP with TekServer IAS)

The *Eagle STP with TekServer IAS MPS Platform Software and Maintenance Manual* describes the TekServer core platform features and the MPS customization features that make up the Multi-Purpose Server (MPS) platform software. This manual also describes how to perform preventive and corrective maintenance for the MPS.

Previously Released Features

The Previously Released Features Manual briefly describes the features of previous Eagle and IP7 Secure Gateway releases, and it identifies the release number of their introduction.

Provisioning Database Interface Manual

The *Provisioning Database Interface Manual* defines the programming interface that populates the Provisioning Database (PDB) for the Eagle features supported on the MPS / EPAP platform. The manual defines the provisioning messages, usage rules, and informational and error messages of the interface. The customer uses the PDBI interface information to write his own client application to communicate with the MPS / EPAP platform.

Release Documentation

The *Release Documentation* is a release-specific compilation of the following documents.

Feature Notice - Describes the features contained in the specified release; also provides the hardware baseline, describes the customer documentation set, provides information about customer training, and explains how to access the Customer Support website.

Release Notice - Describes the changes made to the system during the lifecycle of a release. The initial Release Notice includes Generic Program Loads (GPLs) only. The final Release Notice provides a list of PRs resolved in a build and all known PRs.

NOTE: The *Release Notice* is maintained solely on Tekelec's Customer Support Website to provide you with instant access to the most up-to-date release information.

Technical Bulletins - Contains a compilation of updates to methods or procedures used to maintain the system (if applicable).

Documentation Bulletins - Contains a compilation of updates made to the technical content of user documentation (if applicable).

System Overview - Provides high-level information on SS7, the IP^7 Secure Gateway, system architecture, LNP, and EOAP.

Cross-Reference Index - Lists all first-level headings used throughout the documentation set.

Master Glossary - Contains an alphabetical listing of terms, acronyms, and abbreviations relevant to the system.

How to Find Customer Documentation on the Customer Support Site

Accessing Tekelec's Customer Support Site

The Customer Support site has been updated to allow a certificate-protected login as an alternate to the SecurID token login. The following procedures describe how to log in with a SecurID token and how to use the certificate-protected login. If you do not have a SecurID token, follow the procedure for the certificate-protected login to request access.

Log In with a SecurID Token

1 Go to Tekelec's SecurID PASSCODE Request login page at http://support.tekelec.com

2 Enter both your PIN and token number in the PASSCODE field, then click Send

NOTE: After 20 minutes of inactivity (no downloads or searching), you will be logged off, and you must repeat this step to regain access.

Log In with a Certificate

1 Go to Tekelec's new Customer Support login page at https://support.tekelec.com/index.asp

2 Enter your assigned username and chosen password, then click Login.

Or, if you do not have access to the Customer Support web site, click Request a Support Account. Follow instructions on the screen or preview the instructions by clicking the links next to the *Getting Started Guide*.

NOTE: After 20 minutes of inactivity, you will be logged off, and you must repeat this step to regain access.

Locating Documentation

After you have successfully logged in to the Customer Support web site, follow this procedure to locate customer documentation.

1 Click the Customer Documentation button to view individual manuals by product and release number.

NOTE: If you are prompted to select your certificate before you can access the documentation, click OK.

A list of products displays. To view the most current Feature or Release Notice, refer to Step 6.

2 Click the name of the product folder, for example, Eagle or Tekelec Signaling Products.

3 Click the name of the release number(s), for example, 29.0 or 29.0/7.0.

4 Click the name of a manual. The folder content displays the manual's part number and revision.

5 Click the Document icon to view the manual (PDF file) online or click the Zip Rendition icon to download the manual to your desk top.

6 Locate the most current Feature or Release Notice using either of these two methods:

a. Locate the Release Documentation folder and click on its name. Scroll to the desired document

or

b. Click the site's Feature Notice or Release Notice button.

- Select the product name from the Product(s) drop-down list and click the Search button. The search result displays the most current Feature or Release Notices.
- Locate your Feature or Release Notice by scrolling to the applicable part number or description.

Customer Training

Tekelec offers a variety of technical training courses designed to provide the knowledge and experience required to properly provision, administer, operate and maintain the Eagle. To enroll in any of the courses or for schedule information, contact the Tekelec Training Center at (919) 460-5591 or E-mail **eagletrain@tekelec.com**.

A complete list and schedule of open enrollment can be found at **www.tekelec.com**.

Tekelec Technical Services

The Tekelec Technical Services department offers a point of contact through which customers can receive support for problems that may be encountered during the use of Tekelec's products. The Tekelec Technical Services department is staffed with highly trained engineers to provide solutions to your technical questions and issues seven days a week, twenty-four hours a day. A variety of service programs are available through the Tekelec Technical Services department to maximize the performance of Tekelec products that meet and exceed customer needs.

Technical Assistance

To receive technical assistance, call the Tekelec Technical Services department at one of the following locations:

- Tekelec, Europe

  Phone +44 7071 232453 *or* +44 1784 437067

- Tekelec, UK

  Phone (within the UK) 07071232453 or 07071 2 EAGLE.
  (outside the UK) +44 7071232453 *or* +44 7084 43 7067.

In case this number does not work, there is a secondary number:

Phone (within the UK) 01784 467 804
(outside the UK) +44 1784 467 804

- Tekelec, USA

  Phone (within the continental US) 800-432-8919.
  (outside the continental US) +1 919-460-2150.

Or you can request assistance by way of electronic mail at **eaglets@tekelec.com**.

When your call is received, Technical Services issues a Customer Service Report (CSR). Each CSR includes an individual tracking number. When a CSR is issued, Technical Services determines the classification of the trouble. The CSR contains the serial number of the system, problem symptoms, and messages. Technical Services assigns the CSR to a primary engineer, who will work to solve the problem. Technical Services closes the CSR when the problem is resolved.

If a critical problem exists, Technical Services initiates emergency procedures (see the following topic, "Emergency Response").

Emergency Response

If a critical service situation occurs, Tekelec Technical Services offers emergency response twenty-four hours a day, seven days a week. The emergency response provides immediate coverage, automatic escalation, and other features to ensure a rapid resolution to the problem.

A critical situation is defined as an Eagle problem that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical problems affect service or system operation, resulting in:

- Failure in the system that prevents transaction processing
- Reduction in system capacity or in system traffic-handling capability
- Inability to restart the system
- Corruption of the database
- Inability to perform maintenance or recovery operations
- Inability to provide any required critical or major trouble notification
- Any other problem severely affecting service, capacity, traffic, and billing. Maintenance capabilities may be defined as critical by prior discussion and agreement with Tekelec Technical Services.

Acronyms and Terminology

Table FN-6 contains acronyms and terminology used in this document.

Table FN-6. Acronyms and Terminology

Acronym	Description
APC	Adjacent Point Code
AS	Application Server
ASM	Application Services Module
ASP	Application Server Process
BL	Black List - Indicates the IMEI is "invalid" and registration should not be allowed for this handset.
CCITT	International Telephone and Telegraph Consultative Committee
CD	Check Digit
CDPA	Called Party Address
CEIR	Central Equipment Identity Register
CIC	Circuit Identification Code
CLASS	Custom Local Area Signaling Service
CPC	Capability Point Code
CPC	Capability point code. The code used by the SS7 protocol to identify a group of functionally related STPs in the signaling network to which the STP belongs.
CPC	Capability Point Code
DCM	Data Communications Module
DPC	Destination Point Code
E1	European Digital Signal Level-1 (2.048 Mbits / sec)
EGTT	Enhanced Global Title Translation
EIR	Equipment Identity Register
ELAP	Eagle LNP Application Processor
EPAP	Eagle Provisioning and Applications Processor - Defined as the software suite needed to provision EAGLE's application databases, including EIR, G-Flex, G-Port, and INP
ESP	Eagle Sentinel Platform
FK	Foreign Key
FRU	Field Replacable Unit

Table FN-6. Acronyms and Terminology (Cont'd)

Acronym	Description
FTP	File Transfer Protocol
FTRA	FTP-based Table Retrieve Application
GL	Grey List - Indicates the IMEI is "questionable". Registration should be allowed, but the event is logged in the EIR log, and a special measurement peg is incremented.
GPL	Generic Program Load
GPSM	General Purpose Service Module
GSM	Global System for Mobile Telecommunication
GTA	Global Title Address
GTT	Global Title Translation
GWS	Gateway Screening
HMUX	High-Speed Multiplexer
IGTT	Intermediate Global Title Load Sharing
IMEI	International Mobile Equipment Identity
IMEISV	International Mobile Equipment Identity Software Version Number
IMSI	International Mobile Subscriber Identity
INP	INAP-based Number Portability
Intermediate GTT	When the Eagle routes a Global Title message on Global Title
IP	Internet Protocol
ITU	International Telecommunications Union
ITU-I	ITU-international
ITU-N	ITU-national
LAN	Local Area Network
LIM	Link Interface Module
LOG	This is an event that occurs when an IMEI is found on the black or gray lists. This provides information to the operator as to what list the IMEI is found on and it's IMSI (if available).
LOG Entry	This is a LOG that is stored in a table.
LOG File	This is a file that contains multiple LOG entries.
LSMS	Local Service Management System
M2PA	SS7 MTP2-User Peer-to-Peer Adaptation Layer

Table FN-6. Acronyms and Terminology (Cont'd)

Acronym	Description
M3UA	SS7 MTP3-User Adaptation Layer
MAC	Message Authentication Code
MAP	Mobile Application Part
MB	Maintenance Block
MIM	Multi-Channel Interface Module
MNPSMS	Portability Check for Mobile Originated SMS
MPS	Multi-Purpose Server - Defined as the hardware platform on which the EPAP application runs for provisioning of application databases. NOTE: the term "MPS" does not refer to specific pieces of hardware (e.g. MPS can refer to EPAP running on SUN Netras as well as EPAP running on TekServer).
MPS System	Two MPS servers and associated hardware at a single Eagle location.
MRN	Message Reference Number
MS	Mobile Station / Handset
MSA	Main Signaling Area (24-bit ITU-N)
MSU	Message Signal Unit
MTP	Message Transfer Part
MTP3	MTP Level 3, the signaling network layer of SS7
MTP3-User	Any protocol normally using the services of the SS7 MTP3 (e.g., ISUP, SCCP, TUP, etc.).
NE	Network Element
Network Appearance	The Network Appearance is a M3UA local reference shared by SG and AS (typically an integer) that together with an Signaling Point Code uniquely identifies an SS7 node by indicating the specific SS7 network it belongs to. It can be used to distinguish between signaling traffic associated with different networks being sent between the SG and the ASP over a common SCTP association. An example scenario is where an SG appears as an element in multiple separate national SS7 networks and the same Signaling Point Code value may be reused in different networks.
OPC	Origination Point Code
Overridden	This term is used to indicate that a particular IMEI was found on the black list; however, due to additional checks (ie imsi_check) it was determined to be an allowed handset.

Table FN-6. Acronyms and Terminology (Cont'd)

Acronym	Description
PC	Point Code
PDB	Provisioning Database
PDBI	Provisioning Database Interface
PK	Primary Key
PRC	People's Republic of China
RTDB	Real-time Database
SAPC	Secondary Adjacent Point Code
SCCP	Signaling Connection Control Part
SCP	Secure Copy; also Signaling Control Point
SCTP	Stream Control Transmission Protocol
SEAS	Signaling Engineering and Administration System
SFTP	Secure File Transfer Protocol
SG	Secure Gateway
SI	Service Indicator
SLS	Signaling Link Selection
SLT	Signaling Link Test
SMSMR	Short Message Service Message Relay
SP	Signaling Point (24-bit ITU-N)
SPC	Secondary Point Code
SS7	Signaling System #7
SSA	Sub Signaling Area (24-bit ITU-N)
SSH	Secure Shell - Used for network access to the server
SSN	Subsystem Number
SSP	Signaling Switching Point
STP	Signaling Transfer Point
SVN	Software Version Number
T1	North America
TCAP	Transaction Capabilities Application Part
TDM	Terminal Disk Module
TFR	Transfer Restricted
TSM	Translation Services Module

Table FN-6. Acronyms and Terminology (Cont'd)

Acronym	Description
TT	Translation Type
UA	IETF User Adaptation Layers
UAM	Unsolicited Alarm Message
UIM	Unsolicited Information Message
VGTT	Variable Length Global Title translation
WL	White List - Indicates the IMEI is "valid" and registration should be allowed for this handset.