Tekelec EAGLE® 5 Integrated Signaling System

Release 40.1

Feature Notice

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This product is covered by one or more of the following U.S. and foreign patents:

U.S. Patent Numbers:

5,732,213; 5,953,404; 6,115,746; 6,167,129; 6,324,183; 6,327,350; 6,456,845; 6,606,379; 6,639,981; 6,647,113; 6,662,017; 6,735,441; 6,745,041; 6,765,990; 6,795,546; 6,819,932; 6,836,477; 6,839,423; 6,885,872; 6,901,262; 6,914,973; 6,940,866; 6,944,184; 6,954,526;6,954,794; 6,959,076; 6,965,592; 6,967,956; 6,968,048; 6,970,542; 6,987,781; 6,987,849; 6,990,089; 6,990,347; 6,993,038; 7,002,988; 7,020,707; 7,031,340; 7,035,239; 7,035,387; 7,043,000; 7,043,001; 7,043,002; 7,046,667; 7,050,456; 7,050,562; 7,054,422; 7,068,773; 7,072,678; 7,075,331; 7,079,524; 7,088,728; 7,092,505; 7,108,468; 7,110,780; 7,113,581; 7,113,781; 7,117,411; 7,123,710; 7,127,057; 7,133,420; 7,136,477; 7,139,388; 7,145,875; 7,146,181; 7,155,206; 7,155,243; 7,155,505; 7,155,512; 7,181,194; 7,190,702; 7,190,772; 7,190,959; 7,197,036; 7,206,394; 7,215,748; 7,219,264; 7,222,192; 7,227,927; 7,231,024; 7,242,695; 7,254,391; 7,260,086; 7,260,207; 7,283,969; 7,286,516; 7,286,647; 7,286,839; 7,295,579; 7,299,050; 7,301,910; 7,304,957; 7,318,091; 7,319,857; 7,327,670

Foreign Patent Numbers:

EP1062792; EP1308054; EP1247378; EP1303994; EP1252788; EP1161819; EP1177660; EP1169829; EP1135905; EP1364520; EP1192758; EP1240772; EP1173969; CA2352246

Ordering Information

Your Tekelec Sales Representative can provide you with information about how to order additional discs.

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Feature Notice

Feature Content

Introduction

Feature notices are distributed to customers with each new release of software.

This *Feature Notice* includes a brief overview of each feature, lists new hardware required (if any), provides the hardware baseline for this release, and explains how to find the *Release Notice* and other customer documentation on the Customer Support Site.

Updates to the Feature Notice

The following updates have been made to the Feature Notice since Revision B:

- Update to the msutrace Command
  The Help text for the **msutrace** command is updated to display the requirement for a valid filter key before specifying the **chgfilter** parameter.
- Update to the rtrv-rte Command
  The format of the **rtrv-rte** command is revised to enhance readability.
- Update to the rtrv-rtx Command
  The format of the **rtrv-rtx** command is revised to enhance readability.
- Update to the rtrv-tbl-capacity Command
  The **rtrv-tbl-capacity** command is updated to display IP Host table information.
- Update to the sctp command
  The output for the **sctp** command is updated to enhance readability.
- Update to the tst-msg and tst-npp-msg Commands
  The section title and output formats are updated.
- The Commands section for the E5-OAM cards is updated.
- The Error Messages are updated.

New Features

The EAGLE 5 ISS Release 40.1 contains the following new features.

- E5-OAM Cards (E5-MASP and E5-MDAL)
  The existing EAGLE 5 ISS OA&M card set, consisting of GPSM-II, TDM, and MDAL cards, is replaced by an E5-OAM card set.

- EAGLE 5 ISS Fast Copy
  The EAGLE 5 ISS Fast Copy feature introduces a fast copy interface to the Integrated Message Feeder. This interface allows monitored SIGTRAN data to be transported while bypassing the IMT and network stack.

- GTT Loadsharing between ITU Network Types
  The GTT Loadsharing between ITU Network Types feature allows GTT loadsharing to occur between ITU-National (ITU-N), ITU-N spare, ITU-International (ITU-I), and ITU-I spare point codes within the same MAP or MRN set.

- GTT Loadsharing with Alternate Routing Indicator
  The GTT Loadsharing with Alternate Routing Indicator feature allows secondary mate searches to be performed in the MRN table if the point codes provisioned in the MAP set are unavailable and in the MAP table if the point codes in an MRN set are unavailable.

- MO SMS B-Party Routing
  The MO SMS B-Party Routing feature allows global translation type routing to be performed on IS41 MO SMDPP and GSM MO_FSM messages based on the SMS B-party digits from the MAP layer of the message.

- MO SMS NPP
  The MO SMS NPP feature applies comprehensive Numbering Plan Processor (NPP) number conditioning and service logic execution to existing short message service (SMS) features.

- MO SMS Prepaid Intercept on B-Party
  The MO SMS Prepaid Intercept on B-Party feature allows the existing Prepaid Intercept Phase 1 feature to redirect MO SMS messages based on whether the B-Party of the subscriber is prepaid. MO SMS messages for prepaid subscribers can also be redirected to a different short message service center (SMSC) than postpaid subscribers.

Other Changes

The EAGLE 5 ISS Release 40.1 contains the following enhancements:

- Addition of Incoming and Outgoing Linkset Name to SLAN report for ECAP
  A new message format is supported for transmission of an MSU report from the STPLAN to the ECAP. This format allows incoming and outgoing linkset names to be included in the MSU.

- Configurable Message Priority
  This enhancement allows the priority to be set for MTP-routed and GT-routed messages that cross to ITUI, ITUN, or ITUN-24 networks .

- NPP-AS and NPP-SRS Capacities
  The NPP-AS and NPP-SRS Capacities are reported in the output of the associated commands.

- Support for 125 IPGW Cards
  The EAGLE 5 ISS can support up to 125 SSEDCM cards, E5-ENET cards, or a mixture of SSEDCM and E5-ENET cards that are running the **ss7ipgw** or **ipgwi** application.

- Table Increase for NPFLGRST
  The NPFLGRST CSL table allows up to 1024 entries to be provisioned.

- Update to the chg/rtrv-ppsopts Commands

The **chg-ppsopts** command is enhanced to allow the subsystem number to be provisioned with point code and routing indicator information

- Update to the Prepaid SMS Intercept Ph1 Feature
  Support for a temporary FAK for the Prepaid SMS Intercept Ph1 feature is removed.

- Update to the rept-stat-sccp Command
  The **rept-stat-sccp** command is updated to display CPU usage details for the LNP subsystem.

- Update to the tst-msg and tst-npp-msg Commands
  The output formats of the **tst-msg** and **npp-tst-msg** commands are enhanced to provide increased clarity.

Operational Changes

The EAGLE 5 ISS Release 40.1 contains the following alarms and error messages:

- Unsolicited Alarm Messages
- Unsolicited Information Messages
- Error Messages

E5-OAM Cards (E5-MASP and E5-MDAL)

The existing set of EAGLE 5 ISS OA&M cards (GPSM-II, TDM, and MDAL cards) is replaced by an E5-OAM card set. This set contains an E5-MASP assembly (870-2903-01) and an E5-MDAL card (870-2900-01).

The E5-MASP assembly consists of an E5-MCAP card and an E5-TDM card. These cards are physically attached to each other and must always be used or replaced together. The E5-MASP assembly can be inserted into slots 1113/1114 or 1115/1116.

The E5-MDAL card can be inserted into slot 1117.

Two E5-MASP assemblies and an E5-MDAL card comprise an E5-OAM set.

Legacy GPSM-II, TDM, or MCAP cards cannot exist in the system with any of the new cards. All of the relevant cards must be legacy or all of the cards must be new. The only exception is during a hardware migration from a legacy system to a new system.

A new **blmcap** flash GPL is used to maintain a tar image of the code that is required for the E5-MCAP cards. A new **oamhc** GPL is used to perform OAM functions on the E5-MCAP cards.

The drive configuration for the E5-OAM card set significantly differs from the OAM card set. The E5-MDAL card does not contain an optical drive. The E5-TDM contains a hard drive. The E5-MCAP card contains two USB ports, a latched port, which replaces the existing MO drive as the removable drive, and a flush mount port. After the E5-OAM card set is introduced, activities for those cards can be performed on either the hard drive or the removable drives.

Feature Control Requirements

There are no requirements associated with the E5-OAM card set.

Hardware Requirements

The E5-MASP assemblies require HIPR cards to be installed in the 1109 and 1110 slots.

Commands

The following commands are added or enhanced to support the E5-OAM card set. For complete descriptions of these commands, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

- **act/chg/copy/rept-stat/rtrv-gpl**—Enhanced to support the **oamhc** and **blmcap** GPLs and to allow a USB drive to be used as the source. The output for the **copy-gpl** command is enhanced to increase readability.
  The following examples display output for the **copy-gpl** command. Example 1 displays the output when otput is copied from the removable cartridge to the fixed disk.

  copy-gpl:sloc=1117:dloc=1116

```
    rlghncxa03w 09-01-07 00:57:31 EST  EAGLE 40.1.0
    COPY GPL:  MASP B - COPY STARTS ON REMOVABLE DRIVE
;

    rlghncxa03w 09-01-07 01:01:27 EST  EAGLE 40.1.0
    COPY GPL:  MASP B - COPY TO STANDBY MASP COMPLETE
;
```

  Example 2 displays the output when the GPL is copied from the fixed disk to the USB drive.

  copy-gpl:sloc=1114:ddrv=usb

```
    e5oam 09-01-09 05:14:23 MST  EAGLE 40.1.0
    COPY GPL: MASP A - COPY STARTS ON ACTIVE MASP
;

    e5oam 09-01-09 05:22:30 MST  EAGLE 40.1.0
    COPY GPL: MASP A - COPY TO USB DRIVE COMPLETE
;
```

  The following examples display output for the **rept-stat-gpl** command when the E5-OAM card set is used. Example 1 displays the output then the status of all GPLs is requested.

  rept-stat-gpl

```
    e5oam 09-01-07 22:02:22 EST  EAGLE 40.1.0
    GPL Auditing  ON

    GPL        CARD      RUNNING           APPROVED      TRIAL

    OAMHC      1113      030-013-000       030-013-000   030-013-000  *
    OAMHC      1115      030-013-000       030-013-000   030-013-000  *
    IPS        1111      030-013-000       030-013-000   030-013-000

    Command Completed.

;
```

  Example 2 displays the output when the status for the **oamhc** GPL is requested.

  rept-stat-gpl:gpl=oamhc

```
    tekelecstp 09-01-06 13:24:56 EST  EAGLE 40.1.0
    GPL Auditing  ON

    GPL        CARD      RUNNING           APPROVED      TRIAL
    OAMHC      1113      030-013-000       030-013-000   030-013-000
    OAMHC      1117      030-013-000       030-013-000   030-013-000
    Command Completed.
;
```

The following examples display output for the **rtrv-gpl** command when the E5-OAM card set is used.

Example 1 displays partial output for the **rtrv-gpl** command when all of the GPLs are requested.

rtrv-gpl

```
e5oam 08-12-01 12:24:57 EST  EAGLE 40.1.0
GPL Auditing  ON

GPL       CARD  RELEASE      APPROVED         TRIAL        REMOVE TRIAL
EOAM      1114  030-010-000  030-010-000      030-010-000  030-010-000
EOAM      1116  030-010-000  030-010-000      030-010-000  030-010-000
EOAM      1115  -----------  -----------      -----------  030-010-000
SS7ANSI   1114  030-010-000  030-010-000      030-010-000  030-010-000
SS7ANSI   1116  030-010-000  030-010-000      030-010-000  030-010-000
SS7ANSI   1115  -----------  -----------      -----------  030-010-000
SCCP      1114  030-010-000  030-010-000      030-010-000  030-010-000
SCCP      1116  030-010-000  030-010-000      030-010-000  030-010-000
SCCP      1115  -----------  -----------      -----------  030-010-000
GLS       1114  030-010-000  030-010-000      030-010-000  030-010-000
GLS       1116  030-010-000  030-010-000      030-010-000  030-010-000
GLS       1115  -----------  -----------      -----------  030-010-000
OAMHC     1114  030-010-000  030-010-000      030-010-008  -----------
OAMHC     1116  030-010-000  030-010-000      030-010-008  030-010-008
OAMHC     1115  -----------  -----------      -----------  030-010-008
IPSG      1114  030-010-000  030-010-000      030-010-000  030-010-000
IPSG      1116  030-010-000  030-010-000      030-010-000  030-010-000
IPSG      1115  -----------  -----------      -----------  030-010-000
BLROM1    1114  030-010-000  030-010-000      030-010-000  030-010-000
BLROM1    1116  030-010-000  030-010-000      030-010-000  030-010-000
BLROM1    1115  -----------  -----------      -----------  030-010-000
```

Example 2 displays output when information for the **oamhc** GPL is requested.

rtrv-gpl:gpl=oamhc

```
e5oam 08-12-01 12:25:26 EST  EAGLE 40.1.0
GPL Auditing  ON

GPL       CARD  RELEASE      APPROVED         TRIAL        REMOVE TRIAL
OAMHC     1114  030-010-000  030-010-000      030-010-008  -----------
OAMHC     1116  030-010-000  030-010-000      030-010-008  030-010-008
OAMHC     1115  -----------  -----------      -----------  030-010-008

;
```

- **act/init-flash**—Enhanced to support the **blmcap** flash GPL.
- **act-upgrade**—Enhanced to allow a USB drive to be used to upgrade the system.
- **chg/rtrv-clkopts**—Added to change the set of primary or secondary clocks without pulling the E5-MASP. The **rtrv-clkopts** command displays the clock option settings. The following example displays output for the **rtrv-clkopts** command

rtrv-clkopts

```
e5oam 08-12-01 17:26:51 EST  EAGLE 40.1.0
CLK OPTIONS
-----------------------

PRIMARY
-----------------------
HSCLKSRC          rs422
HSCLKLL        longhaul

SECONDARY
-----------------------
HSCLKSRC          rs422
HSCLKLL       shorthaul

;
```

- **chg/rept-stat-db**—Enhanced to allow backup and restore from movable drives. The following examples display output for the **rept-stat-db** command when E5-OAM cards are used.
  Example 1 displays the output when the status of the active database is requested.

  rept-stat-db

```
e5oam 08-12-02 15:25:40 EST  EAGLE 40.1.0
DATABASE STATUS: >> OK <<
        TDM 1114 ( STDBY)                 TDM 1116 ( ACTV )
        C   LEVEL    TIME LAST BACKUP     C   LEVEL    TIME LAST BACKUP
        - -------- --------------------- - -------- ---------------------
FD BKUP Y       36 08-11-19 09:38:25 EST  Y       36 08-11-19 09:38:25 EST
FD CRNT Y       39                        Y       39
        MCAP 1113                         MCAP 1115
        - --------                        - --------
RD BKUP Y       36 08-11-19 09:27:17 EST  Y       36 08-11-19 09:27:17 EST
USB BKP -    -         -        -         Y        3 08-11-07 01:11:22 EST

;
```

  Example 2 displays the output when the status of all databases is requested.

  rept-stat-db:display=all

```
e5oam 08-12-02 15:26:27 EST  EAGLE 40.1.0
DATABASE STATUS: >> OK <<
        TDM 1114 ( STDBY)                 TDM 1116 ( ACTV )
        C   LEVEL    TIME LAST BACKUP     C   LEVEL    TIME LAST BACKUP
        - -------- --------------------- - -------- ---------------------
FD BKUP Y       36 08-11-19 09:38:25 EST  Y       36 08-11-19 09:38:25 EST
FD CRNT Y       39                        Y       39
        MCAP 1113                         MCAP 1115
        - --------                        - --------
RD BKUP Y       36 08-11-19 09:27:17 EST  Y       36 08-11-19 09:27:17 EST
USB BKP -    -         -        -         -    -         -        -

CARD/APPL  LOC   C  T  LEVEL       TIME LAST UPDATE   EXCEPTION
---------  ----  -  -  ----------  -----------------  --------------
MCP        1108  -  -      -           -         -          -
IPS        1111  Y  N  39          08-11-22 10:21:54       -
OAM-RMV    1113  Y  -  36          08-11-18 23:36:19  DIFF LEVEL
TDM-CRNT   1114  Y  N  39          08-11-22 10:21:54       -
TDM-BKUP   1114  Y  -  36          08-11-18 23:36:38  DIFF LEVEL
OAM-RMV    1115  Y  -  36          08-11-18 23:36:19  DIFF LEVEL
OAM-USB    1115  Y  -   3          08-11-07 01:11:22  DIFF LEVEL
TDM-CRNT   1116  Y  N  39          08-11-22 10:21:54       -
TDM-BKUP   1116  Y  -  36          08-11-18 23:36:38  DIFF LEVEL
```

- **chg/rtrv-secu-trm**—Enhanced to support the E5-OAM card set
- **chg/copy/disp/set-tbl**—Enhanced to support a USB drive.
- **copy/format/tst-disk**—Enhanced to support E5-OAM cards and a USB drive.
- **copy/dlt-fta**—Enhanced to allow copying to be performed from a removable disk.
- **copy-seculog**—Enhanced to support the E5-OAM card set
- **disp-dsk-dir**—Enhanced to support a USB drive.
- **disp-disk-stats**—Enhanced to support the E5-OAM card set.
- **disp-fta-dir**—Enhanced to support the E5-OAM card set.
- **ent/alw/init/rept-stat/rtrv-card**—Enhanced to support the E5-OAM card set. The following example displays output for the **rept-stat-card** command when the E5-OAM card set is used.

  rept-stat-card

```
e5oam 08-12-01 15:38:32 EST  EAGLE 40.1.0
CARD   VERSION      TYPE      GPL        PST            SST        AST
```

```
    1108   -----------  MCPM      MCP        OOS-MT-DSBLD   Manual     -----
    1109   030-009-000  HIPR      HIPR       IS-NR          Active     -----
    1110   030-009-000  HIPR      HIPR       IS-NR          Active     -----
    1111   030-010-000  IPSM      IPS        IS-NR          Active     -----
    1113   030-010-008  E5MCAP    OAMHC      IS-NR          Standby    -----
    1114   -----------  E5TDM                IS-NR          Active     -----
    1115   030-010-008  E5MCAP    OAMHC      IS-NR          Active     -----
    1116   -----------  E5TDM                IS-NR          Active     -----
    1117   -----------  E5MDAL               OOS-MT         Isolated   -----

    Command Completed.
;
```

- **pass**—Enhanced to support multiple processor types
- **rtrv-stp**—Enhanced to support the **oamhc** and **blmcap** GPLs.

Limitations

No limitations are associated with this feature.

EAGLE 5 ISS Fast Copy

The EAGLE Fast Copy (Fast Copy) feature uses a fast copy interface to the Integrated Message Feeder (IMF) to transport monitored SIGTRAN data while bypassing the Inter-Module Transport (IMT) and network stack. This ability allows data from the SIGTRAN network to be monitored in real time without impacting the EAGLE 5 ISS IMT bus, thereby eliminating EAGLE 5 ISS overhead.

The existing STC interface is used to transport configuration and link event data. Fast Copy architecture uses two separate networks for STC monitoring and Fast Copy monitoring.

The Fast Copy feature runs on E5-ENET cards that are running the **ipsg** application. The Fast Copy mode is a system-wide option. If the mode is set to fast copy, then all cards that are capable of supporting Fast Copy will switch to Fast Copy Monitoring.

NOTE: A card that can run the Fast Copy interface is referred to as an *FC-capable* card. After the Fast Copy feature is provisioned on an FC-capable card, the card is referred to as an *FC-enabled* card. Currently, E5-ENET cards running the ipsg application are the only supported FC-capable cards.

The E5-ENET physical interface supports two additional ports per card. These two additional ports are used as the Fast Copy interface. All Fast Copy operations are supported on both interfaces simultaneously.

Feature Control Requirements

The Fast Copy feature has the following feature control requirements.

- The E5IS feature bit must be turned on before the Fast Copy option or network parameters can be provisioned.
- The **chg-eisopts:eiscopy=on** command must be entered before the Fast Copy option can be provisioned.

Hardware Requirements

The Fast Copy feature has the following hardware requirements:

- FC-capable cards. Currently, the only supported FC-capable cards are E5-ENET cards running the **ipsg** application.
- The E5-ENET physical interface supports two additional ports per card via the same backplane connectors as the existing E5-ENET based IP links. Two new upper and lower port adapters (part numbers 830-1343-01 and 830-1343-02, respectively) are required to support the existing SSEDCM cables and the new port connection for the “Fast Copy” port.

Commands

The following commands are added or enhanced to support the Fast Copy feature. For complete descriptions of these commands, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

- **chg/rtrv-eisopts**—Enhanced to enable and disable the Fast Copy functions. The following example displays output for the **rtrv-eisopts** command when the Fast Copy mode is provisioned.
  rtrv-eisopts

```
    rlghncxa03w 08-12-11 10:07:58 EST  EAGLE 40.1.0
    rtrv-eisopts
    EIS OPTIONS
    ------------------
    EISCOPY = ON
    FCMODE  = FCOPY
;
```

- **chg/rtrv-netopts**—Enhanced to support the Fast Copy networks. The following example displays output for the **rtrv-netopts** command when the Fast Copy networks are provisioned.
  rtrv-netopts

```
    rlghncxa03w 08-12-11 16:35:57 IST  EAGLE 40.1.0
    rtrv-netopts
    NETWORK OPTIONS
    ------------------
    PVN        = 170.120.50.1
    PVNMASK    = 255.255.252.0
    FCNA       = 170.120.50.0
    FCNAMASK   = 255.255.254.0
    FCNB       = 170.121.50.0
    FCNBMASK   = 255.255.254.0
;
```

  NOTE: The FCNAMASK and FCNBMASK variables are not provisionable. They are supported by the rtrv-netopts command only.

- **ent/rept-stat-card**—Enhanced to support Fast Copy IP ports. The following example displays output for the **rept-stat-card** command when Fast Copy is provisioned on the card.
  rept-stat-card:loc=1105:mode=full

```
    stp9021503 08-12-11 05:14:58 EST  EAGLE5 40.1.0
    CARD   VERSION      TYPE      GPL        PST            SST        AST
    1105   055-016-012  E5ENET    IPSG       IS-NR          Active     -----
      ALARM STATUS       =  *  0581 Loss of Heartbeat
      IMTPCI  GPL version = 131-007-000
      BLVXW6  GPL version = 055-016-007
      BLDIAG6 GPL version = 055-016-006
      BLBEPM  GPL version = 055-016-006
      BLCPLD  GPL version = 055-016-006
      IMT BUS A           = Conn
      IMT BUS B           = Conn
      CLOCK A             = Active
      CLOCK B             = Idle
      CLOCK I             = Idle
      MBD BIP STATUS      = Valid
```

```
    MOTHER BOARD ID     = EPM A
    DBD STATUS          = Valid
    DBD TYPE            = 1G ENET
    DBD MEMORY SIZE     = 512M
    HW VERIFICATION CODE = ----
    CURRENT TEMPERATURE   =  56C (133F)
    PEAK TEMPERATURE:     =  58C (137F)     [03-12-22 18:06]
    SIGNALING LINK STATUS
        SLK    PST               LS            CLLI          E5IS
        A      OOS-MT-DSBLD      ls333         -----------   INACTIVE
        A1     OOS-MT-DSBLD      ls555         -----------   INACTIVE
    IPLNK STATUS
        IPLNK  IPADDR            STATUS     PST
        A      192.168.63.165    UP         IS-NR
        B      192.168.163.141   DOWN       OOS-MT
    FCLNK STATUS
        A1     172.21.48.245     UP         IS-NR
        B1     172.22.48.245     UP         IS-NR
    FASTCOPY STATUS: ONLINE
    ASSOCIATION STATUS
        ANAME             PST             SST
        assoc1            OOS-MT-DSBLD    OOS
        assoc5            OOS-MT-DSBLD    OOS
    TVG STATUS
        SNM     TVG RESULT   = 24 hr: ------, 5 min: ------
        SLAN    TVG RESULT   = 24 hr: ------, 5 min: ------
        SCCP    TVG RESULT   = 24 hr: ------, 5 min: ------
        EROUTE  TVG RESULT   = 24 hr: G-----, 5 min: G-----
        INM     TVG RESULT   = 24 hr: ------, 5 min: ------

    Command Completed.
;
```

- **rept-stat-mon**—Added to display the status of the Fast Copy and EROUTE subsystems. This command replaces the **rept-stat-eroute** command. The following examples display output for the **rept-stat-mon** command.

  Example 1 displays the output when all card and system level information is requested.

  rept-stat-mon

```
rlghncxa03w 08-12-11 16:35:57 IST  EAGLE 40.1.0
EROUTE SUBSYSTEM REPORT IS-NR          Active     -----
STC Cards Configured= 4  Cards IS-NR= 2
EISCOPY BIT = ON
System Threshold = 80% Total Capacity
System Peak EROUTE Load:           12991 Buffers/Sec
System Total EROUTE Capacity:      21000 Buffers/Sec

SYSTEM ALARM STATUS = No Alarms.

CARD   VERSION      PST           SST        AST       TVG   CPU
                                              USAGE USAGE
------------------------------------------------------------------
1101   052-008-000  IS-NR         Active     -----      63%    28%
1103   052-008-001  IS-NR         Active     -----      55%    28%
1105   255-255-255  OOS-MT        Isolated   -----       0%     0%
1205   255-255-255  OOS-MT        Isolated   -----       0%     0%
------------------------------------------------------------------
EROUTE Service Average TVG Capacity =  59%  Average CPU Capacity =  28%

CARDS DENIED EROUTE SERVICE: 1104, 1112, 1303, 1311

==================================================================

FAST COPY SUBSYSTEM REPORT IS-NR          Active     -----
FC Cards Configured= 3  Cards IS-NR= 3
FC MODE = FCOPY
SYSTEM ALARM STATUS = No Alarms.

CARD  PST          SST           CPU     CARD FCS
                                USAGE       STATUS
```

```
    ------------------------------------------------
    1201  IS-NR        Active        34%      ALLOWED
    1202  IS-NR        Active        55%      ALLOWED
    1203  IS-NR        Active        10%      ALLOWED
    ------------------------------------------------

    Command Completed.
;
```

Example 2 displays the output when card and system information for the EROUTE subsystem is requested.

rept-stat-mon:type=eroute

```
    rlghncxa03w 08-12-11 16:35:57 IST  EAGLE 40.1.0
    EROUTE SUBSYSTEM REPORT IS-NR          Active     -----
    STC Cards Configured= 4  Cards IS-NR= 2
    EISCOPY BIT = ON
    System Threshold = 80% Total Capacity
    System Peak EROUTE Load:            7080 Buffers/Sec
    System Total EROUTE Capacity:      12000 Buffers/Sec

    SYSTEM ALARM STATUS = No Alarms.

    CARD   VERSION      PST           SST        AST       TVG    CPU
                                                           USAGE  USAGE
    ------------------------------------------------------------------
    1101   052-008-000  IS-NR         Active     -----       63%    28%
    1103   052-008-001  IS-NR         Active     -----       55%    28%
    1203   255-255-255  OOS-MT        Isolated   -----        0%     0%
    1205   255-255-255  OOS-MT        Isolated   -----        0%     0%
    ------------------------------------------------------------------
    EROUTE Service Average TVG Capacity =  59%  Average CPU Capacity =  28%

    CARDS DENIED EROUTE SERVICE:

    Command Completed.
;
```

Example 3 displays the output when card and system information for the Fast Copy subsystem is requested.

rept-stat-mon:type=fcs

```
    rlghncxa03w 08-12-11 16:35:57 IST  EAGLE 40.1.0
    FAST COPY SUBSYSTEM REPORT IS-NR          Active     -----
    FC Cards Configured= 3  Cards IS-NR= 3
    FC MODE = FCOPY
    SYSTEM ALARM STATUS = No Alarms.

    CARD  PST          SST           CPU     CARD FCS
                                   USAGE       STATUS
    ------------------------------------------------
    1201  IS-NR        Active        34%      ALLOWED
    1202  IS-NR        Active        55%      ALLOWED
    1203  IS-NR        Active        10%      ALLOWED
    ------------------------------------------------

    Command Completed.
;
```

Example 4 displays the output when EROUTE subsystem information is requested for a specific card.

rept-stat-mon:type=eroute:loc=1101

```
    rlghncxa03w 08-12-11 16:35:57 IST  EAGLE 40.1.0
    CARD   VERSION      TYPE    PST           SST          AST
    1101   052-008-000  STC     IS-NR         Active       -----
    CARD ALARM STATUS = No Alarms.
    TOTAL CPU USAGE = 28%
    NTP broadcast = VALID
    STC IP PORT A:              IS-NR         Active       -----
          ALARM STATUS  = No Alarms.
    STC IP PORT B:              OOS-MT        Unavail      -----
          ALARM STATUS  = **  0084 IP Connection Unavailable
          ERROR STATUS  = DHCP Lease. Physical Link.
```

```
    Command Completed.
;
```

Example 5 displays the output when Fast Copy subsystem information is requested for a specific card.

rept-stat-mon:type=fcs:loc=1104

```
    rlghncxa03w 08-12-11 16:35:57 IST  EAGLE 40.1.0
    CARD  PST          SST           CPU     CARD FCS
                                    USAGE       STATUS
    1203  IS-NR        Active        10%      ALLOWED
    ALARM STATUS = No Alarms.

    FCS IP PORT A1:        IS-NR        Active     -----
    ALARM STATUS = No Alarms.
    FCS IP PORT B1:        IS-NR        Active     -----
    ALARM STATUS = No Alarms.

    IMF CONNECTION STATUS TABLE
    ------------------------------------------------------------------------
    IPADDRESS           ALARM  ASSOCIATION     PACKET              SERVICE MODE
                        ID     NAME            COUNT
    ------------------------------------------------------------------------
    172.021.48.15   (A) 582    sg1203a21       100                 Copy Rx MSUs
    172.022.48.15   (B) 582    sg1203a22       200                 Copy Tx MSUs


    PORT ALARM STATUS
    ---------------------------------------------------------------
    PORT ID ALARM ID   REASON
    ---------------------------------------------------------------
    A       583        Mismatched Fast Copy Network Addresses

    Command Completed.
;
```

Example 6 displays the output when **mode=perf** is specified.

rept-stat-mon:type=eroute:mode=perf

```
    rlghncxa03w 08-12-11 16:35:57 IST  EAGLE 40.1.0
    EROUTE SUBSYSTEM REPORT IS-ANR         Ovrflw=1       -----
    STC Cards Configured= 2  Cards IS-NR= 2
    EISCOPY BIT = ON
    System Threshold = 80% Total Capacity
    System Peak EROUTE Load:           12200 Buffers/Sec
    System Total EROUTE Capacity:      12000 Buffers/Sec

    SYSTEM ALARM STATUS =  *  0482 Card(s) have been denied EROUTE service

    STATISTICS
    ================================================================
    CARD    CPU USAGE   TVG RATE
    ----------------------------------------------------------------
    1104     55%        6200
    1112     50%        6000
    ----------------------------------------------------------------
    AVERAGE TVG Capacity =  80%
    AVERAGE CPU USAGE =  27%
    TOTAL TVG RATE    = 12200

    CARDS DENIED EROUTE SERVICE:  1302, 1305

    Command Completed.
;
```

Example 7 displays the output when Fast Copy information is requested and the Fast Copy mode is turned off.

rept-stat-mon:type=fcs

```
    rlghncxa03w 08-12-11 16:35:57 IST  EAGLE 40.1.0
    FAST COPY SUBSYSTEM REPORT OOS-MA        Ueq       -----
    FC Cards Configured= 2  Cards IS-NR= 2
    FC MODE = OFF
```

```
    SYSTEM ALARM STATUS = No Alarms.

    CARD  PST          SST           CPU     CARD FCS
                                    USAGE       STATUS
    ------------------------------------------------
    1105  IS-NR        Active        10%      OFFLINE
    1106  IS-NR        Active        15%      OFFLINE
    ------------------------------------------------

    Command Completed.
;
```

- **rept-stat-sys**—Enhanced to display Fast Copy alarms. The following example displays output for the **rept-stat-sys** command when Fast Copy alarms are included.

rept-stat-sys

```
    tekelecstp 08-12-11 10:31:06 EST  EAGLE 40.1.0
    MAINTENANCE STATUS REPORT
       Maintenance Baseline established.
       Routing Baseline established.
       SCCP Baseline established.
       ALARMS:      CRIT=    2    MAJR=   2   MINR=   0     INH=    0
       OAM 1113     IS-NR         Active                    INH=    0
       OAM 1115     IS-NR         Standby                   INH=    0
       LIM     CARD IS-NR=   0    Other=        0           INH=    0
       X25     CARD IS-NR=   0    Other=        0           INH=    0
       SCCP    CARD IS-NR=   0    Other=        0           INH=    0
       GLS     CARD IS-NR=   0    Other=        0           INH=    0
       SLAN    CARD IS-NR=   0    Other=        0           INH=    0
       SS7IPGW CARD IS-NR=   0    Other=        0           INH=    0
       IPGWI   CARD IS-NR=   0    Other=        0           INH=    0
       IPLIM   CARD IS-NR=   0    Other=        0           INH=    0
       IPLIMI  CARD IS-NR=   0    Other=        0           INH=    0
       IPSG    CARD IS-NR=   2    Other=        0           INH=    0
       HMUX    CARD IS-NR=   0    Other=        0           INH=    0
       HIPR    CARD IS-NR=   2    Other=        0           INH=    0
       MCPM    CARD IS-NR=   0    Other=        0           INH=    0
       EROUTE  CARD IS-NR=   2    Other=        0           INH=    0
       CLOCK        IS-NR=   1    Other=        0           INH=    0
       HS CLOCK     IS-NR=   1    Other=        0           INH=    0
       IMT          IS-NR=   2    Other=        0
       SLK          IS-NR=   2    Other=        1           INH=    0
       DLK          IS-NR=   0    Other=        0           INH=    0
       LINK SET     IS-NR=   2    Other=        2           INH=    0
       DSM IP LK    IS-NR=   0    Other=        0           INH=    0
       MCPM IP LK   IS-NR=   0    Other=        0           INH=    0
       STC IP LK    IS-NR=   2    Other=        2           INH=    0
       ENET IP LK   IS-NR=   1    Other=        1           INH=    0
       APPLSOCK     IS-NR=   0    Other=        0           INH=    0
       SCTP ASSOC   IS-NR=   2    Other=        1           INH=    0
       APPL SERVER  IS-NR=   0    Other=        0           INH=    0
       SS7 DPC      IS-NR=   2    Other=        2           INH=    0
       X25 DPC      IS-NR=   0    Other=        0           INH=    0
       CLUST DPC    IS-NR=   0    Other=        0           INH=    0
       RTX          IS-NR=   0    Other=        0           INH=    0
       XLIST DPC    IS-NR=   0    Other=        0
       DPC  SS      Actv =   0    Other=        0
       SEAS SS      IS-NR=   0    Other=        0
       SEAS  X25    IS-NR=   0    Other=        0           INH=    0
       LSMS SS      IS-NR=   0    Other=        0
       LSMS Conn    IS-NR=   0    Other=        0           INH=    0
       TERMINAL     IS-NR=   1    Other=       15           INH=    0
       MPS          IS-NR=   0    Other=        0
       E1PORT       IS-NR=   0    Other=        0           INH=    0
       T1PORT       IS-NR=   0    Other=        0           INH=    0
       RTD SS       IS-NR=   1    Other=        0
       RSN          IS-NR=   0    Other=        0           INH=    0
       FCS          IS-NR=   1    Other=        0

;
```

- **rept-stat-trbl**—Enhanced to display Fast Copy device trouble notifications. The following example displays output for the **rept-stat-trbl** command when Fast Copy devices are included.

rept-stat-trbl

```
    tekelecstp 08-12-11 10:31:06 EST  EAGLE 40.1.0
    SEQN UAM  AL DEVICE    ELEMENT       TROUBLE TEXT
    0002.0143  * CARD 1113 EOAM          System release GPL(s) not approved
    3661.0048  * TERMINAL    1           Terminal failed
    3674.0155  * DLK 1107,A   STPLAN     STPLAN connection unavailable
    3677.0312  * DPC    001-115-001      DPC is restricted
    3678.0002  * GPL SYSTEM BPDCM        Card is not running approved GPL
    3683.0176  * SECULOG 1116            Stdby security log -- upload
    3690.0557  * RSN    RSF              RSN is restricted
    3684.0013 ** CARD 1305 SS7IPGW       Card is isolated from the system
    3688.0236 ** SLK 1203,A   lslg2      REPT-LKF: not aligned
    3692.0318 ** LSN e5e6                REPT-LKSTO: link set prohibited
    1088.0539  * DLK 1106,A1            Ethernet Interface Down
    1089.0579  * CARD 1106               FC Network Unavailable
    1090.0576 ** FCS                     ALL FC Network Unavailable
    3700.0536  * IP7 assoc1234567890     IP Connection Excess Retransmits
    0915.0541 *C RTD SYSTEM              MSU cksum error threshold exceeded
    3698.0539 ** ENET 1305,B             Ethernet Interface Down
    3699.0539 ** ENET 1307,B             Ethernet Interface Down
    3700.0536  * IP7 assoc1234567890     IP Connection Excess Retransmits
    0915.0541 *C RTD SYSTEM              MSU cksum error threshold exceeded
    Command Completed.
;
```

Limitations

When the Fast Copy option is enabled, all of the monitored connections that are hosted on FC-enabled cards are brought down in order to re-establish the session to perform Fast Copy.

GTT Loadsharing between ITU Network Types

The GTT Loadsharing between ITU Network Types feature allows GTT loadsharing to occur between ITU-National (ITU-N), ITU-N spare, ITU-International (ITU-I), and ITU-I spare point codes within the same MAP or MRN set.

This feature also allows different alias combinations to be provisioned, such as an ITU-N spare alias for an ITU-N destination point code. The feature supports the current maximum of two alias point codes per destination point code.

The feature adds support for provisioning additional alias combinations for ITU-I, ITU-N, ITU-I spare, and ITU-N spare true point codes and their spare types, including:

- ITU-N spare alias for ITU-N true point code
- ITU-N alias for ITU-N spare true point code
- ITU-I spare alias for ITU-I true point code
- ITU-I alias for ITU-I spare true point code
- the ability to provision an ITU-I and an ITU-I spare alias for an ITU-N/ITU-N spare point code
- the ability to provision an ITU-N and an ITU-N spare alias for an ITU-I/ITU-I spare point code.

These new alias combinations allow MTP-routed and GT-routed messages to cross spare-non spare network boundaries. SCCP conversion of CgPA point code, conversion of concerned point code (network management messages) and affected point code (SCMG messages) are also supported for the new alias combinations.

Feature Control Requirements

There are no feature control requirements identified for this feature.

Hardware Requirements

None.

Commands

The following commands are enhanced to support the GTT Loadsharing between ITU Network Types feature. For complete descriptions of these commands, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

- **ent/chg/rtrv-dstn**—Enhanced to support additional ITU destination point code and alias point code combinations. The following examples display output for the **rtrv-dstn** command.
  Example 1 displays the output when all destinations are requested.

  rtrv-dstn

```
eagle10115 08-12-09 10:00:37 EST  EAGLE 40.1.0

      DPCA          CLLI        BEI ELEI   ALIASI          ALIASN/N24    DMN
      001-001-000   stp1        no  ---  --------------   --------------   SS7
      003-001-000   mstp        no  ---  --------------   --------------   SS7
      004-001-000   stp4        no  ---  --------------   --------------   SS7
      007-001-000   stp7        no  ---  --------------   --------------   SS7
      002-101-001   ssp201      no  ---  --------------   --------------   SS7
      002-102-001   ssp202      no  ---  --------------   --------------   SS7
      001-101-001   ssp101      no  ---  --------------   --------------   SS7
      003-101-001   ssp301      no  ---  --------------   --------------   SS7
      004-101-001   ssp401      no  ---  --------------   --------------   SS7
      007-101-001   ssp701      no  ---  --------------   --------------   SS7
      100-100-*     cluster1    no  no   --------------   --------------   SS7
      100-100-001   ----------- no  ---  --------------   --------------   SS7
      200-200-*     cluster2    yes no   --------------   --------------   SS7
      005-006-001   ----------- no  ---  --------------      005-006-001   SS7
      001-001-001   dstn01      no  ---  --------------   --------------   SS7
    p-001-001-001   dstn01p     no  ---  --------------   --------------   SS7
      001-001-002   dstn02      no  ---     1-001-2       --------------   SS7
    p-001-001-002   dstn02p     no  ---     1-011-2       --------------   SS7
      001-001-003   dstn03      no  ---   s-1-001-3       --------------   SS7
    p-001-001-003   dstn03p     no  ---   s-1-011-3       --------------   SS7
      001-001-004   dstn04      no  ---  --------------      02060         SS7
    p-001-001-004   dstn04p     no  ---  --------------      01060         SS7
      001-070-001   tgtansi001  no  ---  --------------   --------------   SS7
      001-001-005   dstn05      no  ---  --------------    s-02061         SS7
    p-001-001-005   dstn05p     no  ---  --------------    s-01061         SS7
      001-001-006   dstn06      no  ---  --------------      001-001-006   SS7
    p-001-001-006   dstn06p     no  ---  --------------      001-011-006   SS7
      001-001-007   dstn07      no  ---     1-001-7         02063         SS7
    p-001-001-007   dstn07p     no  ---     1-011-7         01063         SS7
      001-002-000   dstn08      no  ---     1-002-0        s-02064         SS7
    p-001-002-000   dstn08p     no  ---     1-012-0        s-01064         SS7
      001-070-002   tgtansi002  no  ---  --------------   --------------   SS7
      001-002-001   dstn09      no  ---   s-1-002-1         02065         SS7
    p-001-002-001   dstn09p     no  ---   s-1-012-1         01065         SS7
      001-002-002   dstn10      no  ---   s-1-002-2        s-02066         SS7
    p-001-002-002   dstn10p     no  ---   s-1-012-2        s-01066         SS7
      001-002-003   dstn11      no  ---     1-002-3         001-002-003   SS7
    p-001-002-003   dstn11p     no  ---     1-012-3         001-012-003   SS7
      001-002-004   dstn12      no  ---   s-1-002-4         001-002-004   SS7
    p-001-002-004   dstn12p     no  ---   s-1-012-4         001-012-004   SS7
      001-070-003   tgtansi003  no  ---  --------------   --------------   SS7
      200-002-001   rtxroute001 no  ---  --------------   --------------   SS7
```

```
   001-015-001   gx25dstn001 no  ---  s-1-015-1         02169         SS7
   001-015-002   gx25dstn002 no  ---    1-015-2       --------------  SS7
   001-015-003   gx25dstn003 no  --- --------------    s-02171         SS7
   002-015-001   gx25dstn004 yes --- --------------   --------------  X25
   002-015-002   gx25dstn005 yes --- --------------   --------------  X25
   002-015-003   gx25dstn006 yes --- --------------   --------------  X25
   002-015-004   gx25dstn007 yes --- --------------   --------------  X25
   040-001-*     myncaibeno  no  no  --------------   --------------  SS7
   040-010-*     myncaibeno2 no  no  --------------   --------------  SS7

   DPCI          CLLI        BEI ELEI   ALIASA          ALIASN/N24    DMN
 s-4-002-0       ----------- no  ---    010-001-001    s-08228         SS7
   2-010-0       dstn13      no  --- --------------   --------------  SS7
 p-2-010-0       dstn13p     no  --- --------------   --------------  SS7
   2-010-1       dstn14      no  ---    002-010-001   --------------  SS7
 p-2-010-1       dstn14p     no  ---    002-100-001   --------------  SS7
   2-010-2       dstn15      no  --- --------------      04178         SS7
 p-2-010-2       dstn15p     no  --- --------------      08178         SS7
   2-010-3       dstn16      no  --- --------------    s-04179         SS7
 p-2-010-3       dstn16p     no  --- --------------    s-08179         SS7
   2-070-1       tgtitui001  no  --- --------------   --------------  SS7
   2-010-4       dstn17      no  --- --------------      002-010-004   SS7
 p-2-010-4       dstn17p     no  --- --------------      002-100-004   SS7
   2-010-5       dstn18      no  ---    002-010-005      04181         SS7
 p-2-010-5       dstn18p     no  ---    002-100-005      08181         SS7
   2-010-6       dstn19      no  ---    002-010-006    s-04182         SS7
 p-2-010-6       dstn19p     no  ---    002-100-006    s-08182         SS7
   2-010-7       dstn20      no  ---    002-010-007      002-010-007   SS7
 p-2-010-7       dstn20p     no  ---    002-100-007      002-100-007   SS7
   2-070-2       tgtitui002  no  --- --------------   --------------  SS7
 s-2-020-0       dstn21      no  --- --------------   --------------  SS7
ps-2-020-0       dstn21p     no  --- --------------   --------------  SS7
 s-2-020-1       dstn22      no  ---    002-020-001   --------------  SS7
ps-2-020-1       dstn22p     no  ---    002-200-001   --------------  SS7
 s-2-020-2       dstn23      no  --- --------------      04258         SS7
ps-2-020-2       dstn23p     no  --- --------------      08258         SS7
 s-2-020-3       dstn24      no  --- --------------    s-04259         SS7
ps-2-020-3       dstn24p     no  --- --------------    s-08259         SS7
 s-2-070-3       tgtitui003  no  --- --------------   --------------  SS7
 s-2-020-4       dstn25      no  --- --------------      002-020-004   SS7
ps-2-020-4       dstn25p     no  --- --------------      002-200-004   SS7
 s-2-020-5       dstn26      no  ---    002-020-005      04261         SS7
ps-2-020-5       dstn26p     no  --- --------------   --------------  SS7
 s-2-020-6       dstn27      no  ---    002-020-006    s-04262         SS7
ps-2-020-6       dstn27p     no  ---    002-200-005      08261         SS7
 s-2-020-7       dstn28      no  ---    002-020-007      002-020-007   SS7
ps-2-020-7       dstn28p     no  ---    002-200-007      002-200-007   SS7
 s-2-070-4       tgtitui004  no  --- --------------   --------------  SS7
 s-3-070-3       tgtitui007  no  --- --------------   --------------  SS7
 s-3-070-4       tgtitui008  no  --- --------------   --------------  SS7
 s-2-029-6       rtxroute002 no  ---    002-029-006    s-04269         SS7

   DPCI          CLLI        BEI ELEI   ALIASI          ALIASN/N24    DMN
   3-030-0       dstn29      no  ---  s-3-030-0       --------------  SS7
 p-3-030-0       dstn29p     no  ---  s-3-031-0       --------------  SS7
   3-030-1       dstn30      no  ---  s-3-030-1         06385         SS7
 p-3-030-1       dstn30p     no  ---  s-3-031-1         07385         SS7
   3-030-2       dstn31      no  ---  s-3-030-2        s-06386         SS7
 p-3-030-2       dstn31p     no  ---  s-3-031-2        s-07386         SS7
   3-070-1       tgtitui005  no  ---  s-3-070-1       --------------  SS7
   3-030-3       dstn32      no  ---  s-3-030-3         003-030-003   SS7
 p-3-030-3       dstn32p     no  ---  s-3-031-3         003-031-003   SS7
   3-070-2       tgtitui006  no  ---  s-3-070-2       --------------  SS7
 s-3-040-2       dstn35      no  ---    3-040-2       --------------  SS7
ps-3-040-2       dstn35p     no  ---    3-041-2       --------------  SS7
 s-3-040-3       dstn36      no  ---    3-040-3         06467         SS7
ps-3-040-3       dstn36p     no  ---    3-041-3         07467         SS7
 s-3-040-4       dstn37      no  ---    3-040-4        s-06468         SS7
ps-3-040-4       dstn37p     no  ---    3-041-4        s-07468         SS7
 s-3-040-5       dstn38      no  ---    3-040-5         003-040-005   SS7
ps-3-040-5       dstn38p     no  ---    3-041-5         003-041-005   SS7
```

```
   DPCI         CLLI        BEI ELEI   ALIASN          ALIASN        DMN
   3-030-4      dstn33      no  ---  s-06388           06388         SS7
 p-3-030-4      dstn33p     no  ---  s-07388           07388         SS7
   3-030-5      dstn34      no  ---    06389         s-06389         SS7
 p-3-030-5      dstn34p     no  ---    07389         s-07389         SS7
 s-3-040-6      dstn39      no  ---  s-06471           06471         SS7
ps-3-040-6      dstn39p     no  ---  s-07471           07471         SS7
 s-3-040-7      dstn40      no  ---    06472         s-06472         SS7
ps-3-040-7      dstn40p     no  ---    07472         s-07472         SS7

   DPCN         CLLI        BEI ELEI   ALIASA          ALIASI        DMN
   06157        ----------- no  ---    020-005-002   --------------  SS7
   08192        dstn41      no  --- --------------   --------------  SS7
 p-08192        dstn41p     no  --- --------------   --------------  SS7
   08193        dstn42      no  ---    004-000-001   --------------  SS7
 p-08193        dstn42p     no  ---    004-200-001   --------------  SS7
   08194        dstn43      no  --- --------------      4-000-2      SS7
 p-08194        dstn43p     no  --- --------------      4-040-2      SS7
   08195        dstn44      no  --- --------------    s-4-000-3      SS7
 p-08195        dstn44p     no  --- --------------    s-4-040-3      SS7
   08753        tgtitun001  no  --- --------------   --------------  SS7
   08196        dstn45      no  ---    004-000-004      4-000-4      SS7
 p-08196        dstn45p     no  ---    004-200-004      4-040-4      SS7
   08197        dstn46      no  ---    004-000-005    s-4-000-5      SS7
 p-08197        dstn46p     no  ---    004-200-005    s-4-040-5      SS7
   08754        tgtitun002  no  --- --------------   --------------  SS7
 s-08272        dstn49      no  --- --------------   --------------  SS7
ps-08272        dstn49p     no  --- --------------   --------------  SS7
 s-08273        dstn50      no  ---    004-010-001   --------------  SS7
ps-08273        dstn50p     no  ---    004-200-010   --------------  SS7
 s-08274        dstn51      no  --- --------------      4-010-2      SS7
ps-08274        dstn51p     no  --- --------------      4-050-2      SS7
 s-08275        dstn52      no  --- --------------    s-4-010-3      SS7
ps-08275        dstn52p     no  --- --------------    s-4-050-3      SS7
 s-08755        tgtitun003  no  --- --------------   --------------  SS7
 s-08276        dstn53      no  ---    004-010-004      4-010-4      SS7
ps-08276        dstn53p     no  ---    004-200-040      4-050-4      SS7
 s-08277        dstn54      no  ---    004-010-005    s-4-010-5      SS7
ps-08277        dstn54p     no  ---    004-200-050    s-4-050-5      SS7
 s-08756        tgtitun004  no  --- --------------   --------------  SS7
   08757        tgtitun005  no  --- --------------   --------------  SS7
 s-08758        tgtitun006  no  --- --------------   --------------  SS7

   DPCN         CLLI        BEI ELEI   ALIASI          ALIASI        DMN
   08198        dstn47      no  ---  s-4-000-6         4-000-6       SS7
 p-08198        dstn47p     no  ---  s-4-040-6         4-040-6       SS7
   08199        dstn48      no  ---    4-000-7       s-4-000-7       SS7
 p-08199        dstn48p     no  ---    4-040-7       s-4-040-7       SS7
 s-08278        dstn55      no  ---  s-4-010-6         4-010-6       SS7
ps-08278        dstn55p     no  ---  s-4-050-6         4-050-6       SS7
 s-08279        dstn56      no  ---    4-010-7       s-4-010-7       SS7
ps-08279        dstn56p     no  ---    4-050-7       s-4-050-7       SS7
 s-08379        rtxroute003 no  ---  s-4-058-7         4-058-7       SS7

   DPCN         CLLI        BEI ELEI   ALIASN          ALIASI        DMN
   12688        dstn57      no  ---  s-12688         --------------  SS7
 p-12688        dstn57p     no  ---  s-13688         --------------  SS7
   12689        dstn58      no  ---  s-12689           6-050-1       SS7
 p-12689        dstn58p     no  ---  s-13689           6-060-1       SS7
   12690        dstn59      no  ---  s-12690         s-6-050-2       SS7
 p-12690        dstn59p     no  ---  s-13690         s-6-060-2       SS7
 s-12691        dstn60      no  ---    12691         --------------  SS7
ps-12691        dstn60p     no  ---    13691         --------------  SS7
 s-12692        dstn61      no  ---    12692           6-050-4       SS7
ps-12692        dstn61p     no  ---    13692           6-060-4       SS7
 s-12693        dstn62      no  ---    12693         s-6-050-5       SS7
ps-12693        dstn62p     no  ---    13693         s-6-060-5       SS7

   DPCN24       CLLI        BEI ELEI   ALIASA          ALIASI        DMN
   003-003-004  ----------- no  ---    003-003-003     3-003-4       SS7
   006-005-001  dstn63      no  --- --------------   --------------  SS7
 p-006-005-001  dstn63p     no  --- --------------   --------------  SS7
```

```
   006-005-002   dstn64      no  ---    006-005-002   --------------   SS7
 p-006-005-002   dstn64p     no  ---    006-005-020   --------------   SS7
   006-005-003   dstn65      no  --- --------------      6-005-3       SS7
 p-006-005-003   dstn65p     no  --- --------------      6-050-3       SS7
   006-070-001   tgtitun24a  no  --- --------------   --------------   SS7
   006-005-004   dstn66      no  --- --------------    s-6-005-4       SS7
 p-006-005-004   dstn66p     no  --- --------------    s-6-050-4       SS7
   006-005-005   dstn67      no  ---    006-005-005     6-005-5        SS7
 p-006-005-005   dstn67p     no  ---    006-005-050     6-050-5        SS7
   006-070-002   tgtitun24b  no  --- --------------   --------------   SS7

DESTINATION ENTRIES ALLOCATED:   2000
    FULL DPC(s):                  178
    EXCEPTION DPC(s):              17
    NETWORK DPC(s):                 0
    CLUSTER DPC(s):                 4
    TOTAL DPC(s):                 199
    CAPACITY (% FULL):             10%
ALIASES ALLOCATED:               12000
    ALIASES USED:                 206
    CAPACITY (% FULL):              2%
X-LIST ENTRIES ALLOCATED:         500

;
```

Example 2 displays the output when information for a specific point code is requested.

rtrv-dstn:dpci=ps3-40-3

```
eagle10115 08-12-09 10:00:37 EST  EAGLE 40.1.0

   DPCI          CLLI        BEI ELEI   ALIASI          ALIASN/N24    DMN
ps-3-040-3       dstn36p     no  ---    3-041-3         07467-aa      SS7

   SPCI          NCAI
   -----------   ----

Destination table is (208 of 2000) 10% full
Alias table is (216 of 12000) 2% full

;
```

- **ent/chg/rtrv-rte**—Enhanced to allow up to 2 ITU alias point codes to be specified per destination point code. The following example displays output for the **rtrv-rte** command when mixed domains are used.

rtrv-rte

```
eagle10115 08-12-09 10:00:37 EST  EAGLE 40.1.0

      DPCA            ALIASI          ALIASN/N24    RTX   CLLI
                                      LSN           RC    APCA
      001-001-000   --------------   --------------  No    stp1
                                      e2e1          10    001-001-000
      003-001-000   --------------   --------------  No    mstp
                                      e2e3          10    003-001-000
      004-001-000   --------------   --------------  No    stp4
                                      e2e4          10    004-001-000
      007-001-000   --------------   --------------  No    stp7
                                      e2e7          10    007-001-000
      002-101-001   --------------   --------------  No    ssp201
                                      e2m1s1        10    002-101-001
                                      e2e3          20    003-001-000
      002-102-001   --------------   --------------  No    ssp202
                                      e2m1s2        10    002-102-001
                                      e2e3          20    003-001-000
      001-101-001   --------------   --------------  No    ssp101
                                      e2e1          10    001-001-000
                                      e2e4          20    004-001-000
                                      e2e3          30    003-001-000
      003-101-001   --------------   --------------  No    ssp301
                                      e2m1s3        10    003-101-001
                                      e2e3          20    003-001-000
```

```
  004-101-001   --------------   --------------   No    ssp401
                                   e2e4          10    004-001-000
                                   e2e1          20    001-001-000
  007-101-001   --------------   --------------   No    ssp701
                                   e2e7          10    007-001-000
  100-100-*     --------------   --------------   No    cluster1
                                   e2e1          10    001-001-000
                                   e2e3          20    003-001-000
  100-100-001   --------------   --------------   No    -----------
                                   e2e1          10    001-001-000
  200-200-*     --------------   --------------   No    cluster2
  005-006-001   --------------      005-006-001   No    -----------
  001-001-001   --------------   --------------   No    dstn01
                                   lsn01         10    001-001-001
p-001-001-001   --------------   --------------   No    dstn01p
  001-001-002      1-001-2       --------------   No    dstn02
                                   lsn02         10    001-001-002
p-001-001-002      1-011-2       --------------   No    dstn02p
  001-001-003    s-1-001-3       --------------   No    dstn03
                                   lsn03         10    001-001-003
p-001-001-003    s-1-011-3       --------------   No    dstn03p
  001-001-004   --------------      02060-aa      No    dstn04
                                   lsn04         10    001-001-004
p-001-001-004   --------------      01060-aa      No    dstn04p
  001-070-001   --------------   --------------   No    tgtansi001
                                   lsn01         10    001-001-001
                                   lsn02         20    001-001-002
                                   lsn03         30    001-001-003
                                   lsn04         40    001-001-004
  001-001-005   --------------    s-02061-aa      No    dstn05
                                   lsn05         10    001-001-005
p-001-001-005   --------------    s-01061-aa      No    dstn05p
  001-001-006   --------------      001-001-006   No    dstn06
                                   lsn06         10    001-001-006
p-001-001-006   --------------      001-011-006   No    dstn06p
  001-001-007      1-001-7          02063-aa      No    dstn07
                                   lsn07         10    001-001-007
p-001-001-007      1-011-7          01063-aa      No    dstn07p
  001-002-000      1-002-0        s-02064-aa      No    dstn08
                                   lsn08         10    001-002-000
p-001-002-000      1-012-0        s-01064-aa      No    dstn08p
  001-070-002   --------------   --------------   No    tgtansi002
                                   lsn05         10    001-001-005
                                   lsn06         20    001-001-006
                                   lsn07         30    001-001-007
                                   lsn08         40    001-002-000
  001-002-001    s-1-002-1          02065-aa      No    dstn09
                                   lsn09         10    001-002-001
p-001-002-001    s-1-012-1          01065-aa      No    dstn09p
  001-002-002    s-1-002-2        s-02066-aa      No    dstn10
                                   lsn10         10    001-002-002
p-001-002-002    s-1-012-2        s-01066-aa      No    dstn10p
  001-002-003      1-002-3          001-002-003   No    dstn11
                                   lsn11         10    001-002-003
p-001-002-003      1-012-3          001-012-003   No    dstn11p
  001-002-004    s-1-002-4          001-002-004   No    dstn12
                                   lsn12         10    001-002-004
p-001-002-004    s-1-012-4          001-012-004   No    dstn12p
  001-070-003   --------------   --------------   No    tgtansi003
                                   lsn09         10    001-002-001
                                   lsn10         20    001-002-002
                                   lsn11         30    001-002-003
                                   lsn12         40    001-002-004
  200-002-001   --------------   --------------   Yes   rtxroute001
                                   lsn12         10    001-002-004
  001-015-001    s-1-015-1          02169-aa      No    gx25dstn001
  001-015-002      1-015-2       --------------   No    gx25dstn002
                                   lsngx25a01    10    001-015-001
  001-015-003   --------------    s-02171-aa      No    gx25dstn003
  002-015-001   --------------   --------------   No    gx25dstn004
  002-015-002   --------------   --------------   No    gx25dstn005
  002-015-003   --------------   --------------   No    gx25dstn006
```

```
   002-015-004   --------------   --------------   No    gx25dstn007
                                     lsngx25b01    10    002-015-002
   040-001-*     --------------   --------------   No    myncaibeno
   040-010-*     --------------   --------------   No    myncaibeno2
   010-*-*       --------------   --------------   No    -----------
   040-*-*       --------------   --------------   No    -----------
   040-001-001   --------------   --------------   No    noncluster1
   040-001-002   --------------   --------------   No    noncluster2

   DPCI             ALIASA           ALIASN/N24    RTX   CLLI
                                     LSN           RC    APCI
 s-4-002-0          010-001-001    s-08228-aa      No    -----------
   2-010-0        --------------   --------------   No    dstn13
                                     lsn13         10    2-010-0
 p-2-010-0        --------------   --------------   No    dstn13p
   2-010-1          002-010-001    --------------   No    dstn14
                                     lsn14         10    2-010-1
 p-2-010-1          002-100-001    --------------   No    dstn14p
   2-010-2        --------------      04178-aa      No    dstn15
                                     lsn15         10    2-010-2
 p-2-010-2        --------------      08178-aa      No    dstn15p
   2-010-3        --------------    s-04179-aa      No    dstn16
                                     lsn16         10    2-010-3
 p-2-010-3        --------------    s-08179-aa      No    dstn16p
   2-070-1        --------------   --------------   No    tgtitui001
                                     lsn13         10    2-010-0
                                     lsn14         20    2-010-1
                                     lsn15         30    2-010-2
                                     lsn16         40    2-010-3
   2-010-4        --------------      002-010-004   No    dstn17
                                     lsn17         10    2-010-4
 p-2-010-4        --------------      002-100-004   No    dstn17p
   2-010-5          002-010-005      04181-aa      No    dstn18
                                     lsn18         10    2-010-5
 p-2-010-5          002-100-005      08181-aa      No    dstn18p
   2-010-6          002-010-006    s-04182-aa      No    dstn19
                                     lsn19         10    2-010-6
 p-2-010-6          002-100-006    s-08182-aa      No    dstn19p
   2-010-7          002-010-007      002-010-007   No    dstn20
                                     lsn20         10    2-010-7
 p-2-010-7          002-100-007      002-100-007   No    dstn20p
   2-070-2        --------------   --------------   No    tgtitui002
                                     lsn17         10    2-010-4
                                     lsn18         20    2-010-5
                                     lsn19         30    2-010-6
                                     lsn20         40    2-010-7
 s-2-020-0        --------------   --------------   No    dstn21
                                     lsn21         10  s-2-020-0
ps-2-020-0        --------------   --------------   No    dstn21p
 s-2-020-1          002-020-001    --------------   No    dstn22
                                     lsn22         10  s-2-020-1
ps-2-020-1          002-200-001    --------------   No    dstn22p
 s-2-020-2        --------------      04258-aa      No    dstn23
                                     lsn23         10  s-2-020-2
ps-2-020-2        --------------      08258-aa      No    dstn23p
 s-2-020-3        --------------    s-04259-aa      No    dstn24
                                     lsn24         10  s-2-020-3
ps-2-020-3        --------------    s-08259-aa      No    dstn24p
 s-2-070-3        --------------   --------------   No    tgtitui003
                                     lsn21         10  s-2-020-0
                                     lsn22         20  s-2-020-1
                                     lsn23         30  s-2-020-2
                                     lsn24         40  s-2-020-3
 s-2-020-4        --------------      002-020-004   No    dstn25
                                     lsn25         10  s-2-020-4
ps-2-020-4        --------------      002-200-004   No    dstn25p
 s-2-020-5          002-020-005      04261-aa      No    dstn26
                                     lsn26         10  s-2-020-5
ps-2-020-5        --------------   --------------   No    dstn26p
 s-2-020-6          002-020-006    s-04262-aa      No    dstn27
                                     lsn27         10  s-2-020-6
ps-2-020-6          002-200-005      08261-aa      No    dstn27p
```

```
 s-2-020-7          002-020-007      002-020-007   No    dstn28
                                     lsn28         10  s-2-020-7
ps-2-020-7          002-200-007      002-200-007   No    dstn28p
 s-2-070-4       --------------   --------------   No    tgtitui004
                                     lsn25         10  s-2-020-4
                                     lsn26         20  s-2-020-5
                                     lsn27         30  s-2-020-6
                                     lsn28         40  s-2-020-7
 s-3-070-3       --------------   --------------   No    tgtitui007
                                     lsn35         10  s-3-040-2
                                     lsn36         20  s-3-040-3
                                     lsn37         30  s-3-040-4
 s-3-070-4       --------------   --------------   No    tgtitui008
                                     lsn38         10  s-3-040-5
                                     lsn39         20  s-3-040-6
                                     lsn40         30  s-3-040-7
 s-2-029-6          002-029-006    s-04269-aa      Yes   rtxroute002
                                     lsn26         5   s-2-020-5

   DPCI             ALIASI           ALIASN/N24    RTX   CLLI
                                     LSN           RC    APCI
   3-030-0         s-3-030-0       --------------   No    dstn29
                                     lsn29         10    3-030-0
 p-3-030-0         s-3-031-0       --------------   No    dstn29p
   3-030-1         s-3-030-1          06385-aa      No    dstn30
                                     lsn30         10    3-030-1
 p-3-030-1         s-3-031-1          07385-aa      No    dstn30p
   3-030-2         s-3-030-2        s-06386-aa      No    dstn31
                                     lsn31         10    3-030-2
 p-3-030-2         s-3-031-2        s-07386-aa      No    dstn31p
   3-070-1         s-3-070-1       --------------   No    tgtitui005
                                     lsn29         10    3-030-0
                                     lsn30         20    3-030-1
                                     lsn31         30    3-030-2
   3-030-3         s-3-030-3          003-030-003   No    dstn32
                                     lsn32         10    3-030-3
 p-3-030-3         s-3-031-3          003-031-003   No    dstn32p
   3-070-2         s-3-070-2       --------------   No    tgtitui006
                                     lsn32         10    3-030-3
                                     lsn33         20    3-030-4
                                     lsn34         30    3-030-5
 s-3-040-2           3-040-2       --------------   No    dstn35
                                     lsn35         10  s-3-040-2
ps-3-040-2           3-041-2       --------------   No    dstn35p
 s-3-040-3           3-040-3          06467-aa      No    dstn36
                                     lsn36         10  s-3-040-3
ps-3-040-3           3-041-3          07467-aa      No    dstn36p
 s-3-040-4           3-040-4        s-06468-aa      No    dstn37
                                     lsn37         10  s-3-040-4
ps-3-040-4           3-041-4        s-07468-aa      No    dstn37p
 s-3-040-5           3-040-5          003-040-005   No    dstn38
                                     lsn38         10  s-3-040-5
ps-3-040-5           3-041-5          003-041-005   No    dstn38p

   DPCI             ALIASN           ALIASN        RTX   CLLI
                                     LSN           RC    APCI
   3-030-4         s-06388-aa         06388-aa      No    dstn33
                                     lsn33         10    3-030-4
 p-3-030-4         s-07388-aa         07388-aa      No    dstn33p
   3-030-5           06389-aa       s-06389-aa      No    dstn34
                                     lsn34         10    3-030-5
 p-3-030-5           07389-aa       s-07389-aa      No    dstn34p
 s-3-040-6         s-06471-aa         06471-aa      No    dstn39
                                     lsn39         10  s-3-040-6
ps-3-040-6         s-07471-aa         07471-aa      No    dstn39p
 s-3-040-7           06472-aa       s-06472-aa      No    dstn40
                                     lsn40         10  s-3-040-7
ps-3-040-7           07472-aa       s-07472-aa      No    dstn40p

   DPCN             ALIASA           ALIASI        RTX   CLLI
                                     LSN           RC    APCN
   06157-aa        020-005-002     --------------   No    -----------
```

```
   08192-aa      --------------   --------------   No    dstn41
                                     lsn41         10    08192-aa
  p-08192-aa     --------------   --------------   No    dstn41p
   08193-aa        004-000-001   --------------   No    dstn42
                                     lsn42         10    08193-aa
  p-08193-aa        004-200-001   --------------   No    dstn42p
   08194-aa      --------------      4-000-2       No    dstn43
                                     lsn43         10    08194-aa
  p-08194-aa     --------------      4-040-2       No    dstn43p
   08195-aa      --------------    s-4-000-3       No    dstn44
                                     lsn44         10    08195-aa
  p-08195-aa     --------------    s-4-040-3       No    dstn44p
   08753-aa      --------------   --------------   No    tgtitun001
                                     lsn41         10    08192-aa
                                     lsn42         20    08193-aa
                                     lsn43         30    08194-aa
                                     lsn44         30    08195-aa
   08196-aa        004-000-004      4-000-4       No    dstn45
                                     lsn45         10    08196-aa
  p-08196-aa        004-200-004      4-040-4       No    dstn45p
   08197-aa        004-000-005    s-4-000-5       No    dstn46
                                     lsn46         10    08197-aa
  p-08197-aa        004-200-005    s-4-040-5       No    dstn46p
   08754-aa      --------------   --------------   No    tgtitun002
                                     lsn45         10    08196-aa
                                     lsn46         20    08197-aa
                                     lsn47         30    08198-aa
                                     lsn48         30    08199-aa
  s-08272-aa     --------------   --------------   No    dstn49
                                     lsn49         10  s-08272-aa
 ps-08272-aa     --------------   --------------   No    dstn49p
  s-08273-aa        004-010-001   --------------   No    dstn50
                                     lsn50         10  s-08273-aa
 ps-08273-aa        004-200-010   --------------   No    dstn50p
  s-08274-aa      --------------      4-010-2       No    dstn51
                                     lsn51         10  s-08274-aa
 ps-08274-aa      --------------      4-050-2       No    dstn51p
  s-08275-aa      --------------    s-4-010-3       No    dstn52
                                     lsn52         10  s-08275-aa
 ps-08275-aa      --------------    s-4-050-3       No    dstn52p
  s-08755-aa      --------------   --------------   No    tgtitun003
                                     lsn49         10  s-08272-aa
                                     lsn50         20  s-08273-aa
                                     lsn51         30  s-08274-aa
                                     lsn52         30  s-08275-aa
  s-08276-aa        004-010-004      4-010-4       No    dstn53
                                     lsn53         10  s-08276-aa
 ps-08276-aa        004-200-040      4-050-4       No    dstn53p
  s-08277-aa        004-010-005    s-4-010-5       No    dstn54
                                     lsn54         10  s-08277-aa
 ps-08277-aa        004-200-050    s-4-050-5       No    dstn54p
  s-08756-aa      --------------   --------------   No    tgtitun004
                                     lsn53         10  s-08276-aa
                                     lsn54         20  s-08277-aa
                                     lsn55         30  s-08278-aa
                                     lsn56         30  s-08279-aa
   08757-aa      --------------   --------------   No    tgtitun005
                                     lsn57         10    12688-aa
                                     lsn58         20    12689-aa
                                     lsn59         30    12690-aa
  s-08758-aa      --------------   --------------   No    tgtitun006
                                     lsn60         10  s-12691-aa
                                     lsn61         20  s-12692-aa
                                     lsn62         30  s-12693-aa
   08199-fr      --------------    s-4-006-1       No    dstn48dupfr
   08199-tk      --------------      4-006-2       No    dstn48duptk
   08198-nz      --------------   --------------   No    dstn47dupnz
  s-08273-fr      --------------      4-006-3       No    dstn50dupfr

   DPCN             ALIASI           ALIASI        RTX   CLLI
                                     LSN           RC    APCN
   08198-aa       s-4-000-6          4-000-6       No    dstn47
```

```
                                    lsn47         10    08198-aa
     p-08198-aa       s-4-040-6       4-040-6       No    dstn47p
       08199-aa         4-000-7      s-4-000-7      No    dstn48
                                    lsn48         10    08199-aa
     p-08199-aa         4-040-7      s-4-040-7      No    dstn48p
     s-08278-aa       s-4-010-6       4-010-6       No    dstn55
                                    lsn55         10  s-08278-aa
    ps-08278-aa       s-4-050-6       4-050-6       No    dstn55p
     s-08279-aa         4-010-7      s-4-010-7      No    dstn56
                                    lsn56         10  s-08279-aa
    ps-08279-aa         4-050-7      s-4-050-7      No    dstn56p
     s-08379-aa       s-4-058-7       4-058-7       Yes   rtxroute003
                                    lsn55         80  s-08278-aa
       08198-fr       s-4-005-7       4-005-7       No    dstn47dupfr
       08198-tk         4-006-0      s-4-006-0      No    dstn47duptk

       DPCN             ALIASN          ALIASI        RTX   CLLI
                                        LSN           RC    APCN
       12688-aa       s-12688-aa      --------------  No    dstn57
                                    lsn57         10    12688-aa
     p-12688-aa       s-13688-aa      --------------  No    dstn57p
       12689-aa       s-12689-aa      6-050-1       No    dstn58
                                    lsn58         10    12689-aa
     p-12689-aa       s-13689-aa      6-060-1       No    dstn58p
       12690-aa       s-12690-aa     s-6-050-2      No    dstn59
                                    lsn59         10    12690-aa
     p-12690-aa       s-13690-aa     s-6-060-2      No    dstn59p
     s-12691-aa         12691-aa      --------------  No    dstn60
                                    lsn60         10  s-12691-aa
    ps-12691-aa         13691-aa      --------------  No    dstn60p
     s-12692-aa         12692-aa      6-050-4       No    dstn61
                                    lsn61         10  s-12692-aa
    ps-12692-aa         13692-aa      6-060-4       No    dstn61p
     s-12693-aa         12693-aa     s-6-050-5      No    dstn62
                                    lsn62         10  s-12693-aa
    ps-12693-aa         13693-aa     s-6-060-5      No    dstn62p
     s-08272-fr         08300-fr      --------------  No    dstn49dupfr
     s-08272-tk         08300-tk      4-006-7       No    dstn49duptk

       DPCN24           ALIASA          ALIASI        RTX   CLLI
                                        LSN           RC    APCN24
       003-003-004      003-003-003     3-003-4       No    ----------
       006-005-001   --------------   --------------  No    dstn63
                                    lsn63         10    006-005-001
     p-006-005-001   --------------   --------------  No    dstn63p
       006-005-002      006-005-002   --------------  No    dstn64
                                    lsn64         10    006-005-002
     p-006-005-002      006-005-020   --------------  No    dstn64p
       006-005-003   --------------     6-005-3       No    dstn65
                                    lsn65         10    006-005-003
     p-006-005-003   --------------     6-050-3       No    dstn65p
       006-070-001   --------------   --------------  No    tgtitun24a
                                    lsn63         10    006-005-001
                                    lsn64         20    006-005-002
                                    lsn65         30    006-005-003
       006-005-004   --------------    s-6-005-4      No    dstn66
                                    lsn66         10    006-005-004
     p-006-005-004   --------------    s-6-050-4      No    dstn66p
       006-005-005      006-005-005     6-005-5       No    dstn67
                                    lsn67         10    006-005-005
     p-006-005-005      006-005-050     6-050-5       No    dstn67p
       006-070-002   --------------   --------------  No    tgtitun24b
                                    lsn66         10    006-005-004
                                    lsn67         20    006-005-005
```

;

- **ent/chg/rtrv-map**—Enhanced to support ITU point codes of different domains. The following examples display output for the **rtrv-map** command when mixed ITU domains are used.

NOTE: If different domains are not used, then the NET column does not appear. However, the output maintains the spacing that is used to accommodate the NET column.

Example 1 displays the output when the status of all map sets is requested.

rtrv-map

```
flexgttoff 08-12-09 12:05:28 EST  EAGLE 40.1.0
   PCI       NET  Mate PC       SSN RC MULT SRM MRC GRP NAME SSO
   1-109-0                       90 10  COM NO  NO  -------- OFF
             I    1-110-0        90 20  COM NO  NO  -------- OFF
             N    00123          90 20  COM NO  NO  -------- OFF
             N    01234          90 30  COM NO  NO  -------- OFF

   PCN            Mate PCN      SSN RC MULT SRM MRC GRP NAME SSO
   12345                          5 10  DOM NO  NO  -------- OFF
                  12347           5 20  DOM NO  NO  -------- OFF


MAP table is (6 of 1024) 1% full.
```

Example 2 displays the output when information for all MAP sets containing a specific point code is requested.

rtrv-map:pci=1-110-0

```
wgtonflxoff 08-12-03 12:03:44 EST  EAGLE 40.1.0
   PCI       NET  Mate PC       SSN RC MULT SRM MRC GRP NAME SSO WT %WT THR
   1-110-0                       90 20  COM NO  NO  -------- OFF 10  20  60
             I    1-109-0        90 20  COM NO  NO  -------- OFF 20  40  60
             N    00123          90 20  COM NO  NO  -------- OFF 20  40  60
             N    01234          90 30  COM NO  NO  -------- OFF 30 100  60

MAP table is (14 of 1024) 1% full.
```

- **ent/chg/rtrv-mrn**—Enhanced to support ITU point codes of different domains. The following example displays output for a mixed ITU MRN set.

  NOTE: If different domains are not used, then the NET column does not appear. However, the output maintains the spacing that is used to accommodate the NET column.

  rtrv-mrn:pci=1-55-1:mrnset=2

```
gflexon 08-12-03 11:35:12 EST  EAGLE 40.1.0

   MRNSET NET  PC             RC WT %WT THR
   2      N  s-1-1-1-0235-aa  30 20  20   1
          I    1-055-1        30 20  20   1
          I  s-2-002-1        30 20  20   1
          I  s-2-002-2        30 20  20   1
          N    1-1-1-0444-bb  30 20  20   1

MRN table is (28 of 6000) 1% full.
```

Limitations

No limitations are associated with this feature.

GTT Loadsharing with Alternate Routing Indicator

The GTT Loadsharing with Alternate Routing Indicator (GTT LS ARI) feature allows the routing indicator (RI) in the outgoing message to be provisioned without depending on whether the primary GT translation resulted in Final or Intermediary GTT. This feature provides a backup SCCP loadsharing mechanism if the primary SCCP loadsharing mechanism does not route the message.

This feature allows loadsharing relationships to be established between the MAP and MRN table in that the MAP set and MRN sets allow provisioning of MRN and MAP sets, respectively, as the Alternate Mate RI if the point codes in the MAP or MRN table are unavailable.

If the feature is enabled, then the MRN table allows access to the MAP table to perform a secondary mate search if all point codes in a given MRN set are unavailable. The MAP table also allows access to the MRN table to perform a secondary mate search if all point codes provisioned in a given MRN set are unavailable.

If a point code or a point code/subsystem number combination is specified, but an MRN set or MAP set is not specified, then the default MRN set or MAP set is used.

Only one secondary mate search can be performed per translation.

Feature Control Requirements

The GTT LS ARI feature has the following feature control requirements:

- FAK for Part Number 893-0274-01
- The feature cannot be enabled with a temporary FAK.
- The Intermediate GTT Loadsharing feature (893-0069-01) and the GTT feature bit must be turned on before the GTT LS ARI feature can be enabled.
- The feature can be turned on and off.

Hardware Requirements

None.

Commands

The following commands are enhanced to support the GTT LS ARI feature. For complete descriptions of these commands, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

- **enable/chg/rtrv-ctrl-feat**—Enhanced to enable, turn on, and display the status of the GTT LS ARI feature. The following example displays partial output for the **rtrv-ctrl-feat** command when the GTT LS ARI feature is enabled.

  rtrv-ctrl-feat

```
rlghncxa03w 08-12-09 16:40:40 EST  EAGLE 40.1.0

    The following features have been permanently enabled:
    Feature Name              Partnum    Status  Quantity
    HC-MIM SLK Capacity       893012707  on            64
    Command Class Management  893005801  on          ----
    LNP Short Message Service 893006601  on          ----
    Prepaid SMS Intercept Ph1 893006701  on          ----
    Intermed GTT Load Sharing 893006901  on          ----
    EAGLE5 Product            893007101  on          ----
    EAGLE Product             893007201  off         ----
    IP7 Product               893007301  off         ----
    Network Security Enhance  893009101  off         ----
    Telnet                    893005701  on          ----
    EAGLE OA&M IP Security    893400001  off         ----
    Spare Point Code Support  893013601  on          ----
    ITUN-ANSI SMS Conversion  893015301  on          ----
    Flexible GTT Load-Sharing 893015401  on          ----
```

```
    GTT LS ARI               893027401  on          ----
;
```

- **ent/chg/dlt/rtrv-map**—Enhanced to provision a mated point code in the MRN table. The following examples display output for the **rtrv-map** command.

  Example 1 displays the output when the Flexible GTT Loadsharing feature is enabled, and the Weighted GTT Loadsharing feature is turned off.

  rtrv-map

```
    tekelecstp 08-12-22 13:36:31 EST  EAGLE 40.1.0

       MAPSET ID=DFLT  MRNSET ID=DFLT  MRNPC=   001-001-004
       PCA            Mate PCA      SSN RC MULT SRM MRC GRP NAME SSO
       001-001-001                   11 10  SHR --- --- -------- OFF
                      001-001-002    12 10  SHR --- --- -------- OFF

       MAPSET ID=2      MRNSET ID=DFLT  MRNPC=   001-001-003
       PCA            Mate PCA      SSN RC MULT SRM MRC GRP NAME SSO
       001-001-005                   11 20  SHR --- --- -------- OFF
                      001-001-006    10 20  SHR --- --- -------- OFF

       MAPSET ID=DFLT  MRNSET ID=----  MRNPC=-----------
       PCI            Mate PCI      SSN RC MULT SRM MRC GRP NAME SSO
       1-101-1                       11 10  SHR --- --- itugrp   OFF
                      1-101-2        12 10  SHR --- --- itugrp   OFF

       MAPSET ID=5      MRNSET ID=DFLT  MRNPC=   1-101-3
       PCI       NET  Mate PC       SSN RC MULT SRM MRC GRP NAME SSO
       1-101-1                       11 10  SHR --- --- itugrp   OFF
                 I  s-2-202-1        12 10  SHR --- --- -------- OFF
                 N    01002          12 10  SHR --- --- -------- OFF

       MAPSET ID=3      MRNSET ID=1     MRNPC=   01003
       PCN            Mate PCN      SSN RC MULT SRM MRC GRP NAME SSO
       01001                         11 10  SHR --- --- -------- OFF
                      01002          12 10  SHR --- --- -------- OFF

       MAPSET ID=4      MRNSET ID=2     MRNPC= s-2-202-3
       PCI            Mate PCI      SSN RC MULT SRM MRC GRP NAME SSO
     s-2-202-1                       21 10  SHR --- --- -------- OFF
                    s-2-202-2        22 10  SHR --- --- -------- OFF

       MAPSET ID=1      MRNSET ID=----  MRNPC=-----------
       PCN            Mate PCN      SSN RC MULT SRM MRC GRP NAME SSO
     s-02001                         21 10  SHR --- --- -------- OFF
                    s-02002          22 10  SHR --- --- -------- OFF

    MAP table is (15 of 36000) 1% full.

;
```

  Example 2 displays the output when the Flexible GTT Loadsharing feature is enabled, and the Weighted GTT Loadsharing feature is turned on.

  rtrv-map

```
    eaglestp 08-12-22 18:43:29 EST  EAGLE 40.1.0

       MAPSET ID=DFLT  MRNSET ID=DFLT  MRNPC=   001-001-004
       PCA            Mate PCA      SSN RC MULT SRM MRC GRP NAME SSO WT %WT THR
       001-001-001                   11 10  SHR --- --- -------- OFF -- --- ---
                      001-001-002    12 10  SHR --- --- -------- OFF -- --- ---

       MAPSET ID=2      MRNSET ID=DFLT  MRNPC=   001-001-003
       PCA            Mate PCA      SSN RC MULT SRM MRC GRP NAME SSO WT %WT THR
       001-001-005                   11 20  SHR --- --- -------- OFF 20  67  50
                      001-001-006    10 20  SHR --- --- -------- OFF 10  33  50

       MAPSET ID=DFLT  MRNSET ID=----  MRNPC=-----------
       PCI            Mate PCI      SSN RC MULT SRM MRC GRP NAME SSO WT %WT THR
```

```
   1-101-1                      11 10  SHR --- --- itugrp   OFF -- --- ---
                  1-101-2       12 10  SHR --- --- itugrp   OFF -- --- ---

   MAPSET ID=5      MRNSET ID=DFLT  MRNPC=   1-101-3
   PCI       NET  Mate PC       SSN RC MULT SRM MRC GRP NAME SSO WT %WT THR
   1-101-1                      11 10  SHR --- --- itugrp   OFF 30  33   1
             I  s-2-202-1       12 10  SHR --- --- -------- OFF 30  33   1
             N    01002         12 10  SHR --- --- -------- OFF 30  33   1

   MAPSET ID=3      MRNSET ID=1     MRNPC=   01003
   PCN            Mate PCN      SSN RC MULT SRM MRC GRP NAME SSO WT %WT THR
   01001                        11 10  SHR --- --- -------- OFF 40  67   1
                  01002         12 10  SHR --- --- -------- OFF 20  33   1

   MAPSET ID=4      MRNSET ID=2     MRNPC= s-2-202-3
   PCI            Mate PCI      SSN RC MULT SRM MRC GRP NAME SSO WT %WT THR
 s-2-202-1                      21 10  SHR --- --- -------- OFF -- --- ---
                s-2-202-2       22 10  SHR --- --- -------- OFF -- --- ---

   MAPSET ID=1      MRNSET ID=----  MRNPC=-----------
   PCN            Mate PCN      SSN RC MULT SRM MRC GRP NAME SSO WT %WT THR
 s-02001                        21 10  SHR --- --- -------- OFF -- --- ---
                s-02002         22 10  SHR --- --- -------- OFF -- --- ---

  MAP table is (15 of 36000) 1% full.

;
```

Example 3 displays the output for a specific point code. The Flexible GTT Load Sharing feature is enabled, and the Weighted GTT Load Sharing feature is turned off.

rtrv-map:pcn=1001

```
  eaglestp 08-12-22 18:41:14 EST  EAGLE 40.1.0

   MAPSET ID=3      MRNSET ID=1     MRNPC=   01003
   PCN            Mate PCN      SSN RC MULT SRM MRC GRP NAME SSO
   01001                        11 10  SHR --- --- -------- OFF
                  01002         12 10  SHR --- --- -------- OFF

  MAP table is (15 of 36000) 1% full.

;
```

Example 4 displays the output for a specific point code. The Flexible GTT Load Sharing feature is enabled, and the Weighted GTT Load Sharing feature is turned on.

rtrv-map:pcn=1001

```
  eaglestp 08-12-22 18:43:34 EST  EAGLE 40.1.0

   MAPSET ID=3      MRNSET ID=1     MRNPC=   01003
   PCN            Mate PCN      SSN RC MULT SRM MRC GRP NAME SSO WT %WT THR
   01001                        11 10  SHR --- --- -------- OFF 40  67   1
                  01002         12 10  SHR --- --- -------- OFF 20  33   1

  MAP table is (15 of 36000) 1% full.

;
```

Example 5 displays the output for a specific point code and subsystem number. The Flexible GTT Load Sharing feature is enabled, and the Weighted GTT Load Sharing feature is turned off.

rtrv-map:pcn=1002:ssn=12

```
  eaglestp 08-12-22 18:41:20 EST  EAGLE 40.1.0

   MAPSET ID=3      MRNSET ID=1     MRNPC=   01003
   PCN            Mate PCN      SSN RC MULT SRM MRC GRP NAME SSO
   01001                        11 10  SHR --- --- -------- OFF
                  01002         12 10  SHR --- --- -------- OFF

   MAPSET ID=5      MRNSET ID=DFLT  MRNPC=   1-101-3
   PCN       NET  Mate PC       SSN RC MULT SRM MRC GRP NAME SSO
```

```
   1-101-1                      11 10  SHR --- --- itugrp   OFF
            I  s-2-202-1        12 10  SHR --- --- -------- OFF
            N    01002          12 10  SHR --- --- -------- OFF

MAP table is (15 of 36000) 1% full.

;
```

Example 6 displays the output for a specific point code and subsystem number. The Flexible GTT Load Sharing feature is enabled, and the Weighted GTT Load Sharing feature is turned on.

rtrv-map:pcn=1002:ssn=12

```
eaglestp 08-12-22 18:43:39 EST  EAGLE 40.1.0

   MAPSET ID=3      MRNSET ID=1     MRNPC=   01003
   PCN            Mate PCN      SSN RC MULT SRM MRC GRP NAME SSO WT %WT THR
   01001                         11 10  SHR --- --- -------- OFF 40  67   1
                  01002          12 10  SHR --- --- -------- OFF 20  33   1

   MAPSET ID=5      MRNSET ID=DFLT  MRNPC=   1-101-3
   PCN       NET  Mate PC       SSN RC MULT SRM MRC GRP NAME SSO WT %WT THR
   1-101-1                       11 10  SHR --- --- itugrp   OFF 30  33   1
            I  s-2-202-1         12 10  SHR --- --- -------- OFF 30  33   1
            N    01002           12 10  SHR --- --- -------- OFF 30  33   1

MAP table is (15 of 36000) 1% full.

;
```

- **ent/chg/dlt/rtrv-mrn**—Enhanced to provision a mated point code in the MAP table. The following examples display output for the **rtrv-mrn** command.

  Example 1 displays the output when the Flexible GTT Loadsharing feature is enabled, and the Weighted GTT Loadsharing feature is turned off.

  rtrv-mrn

```
eaglestp 08-12-22 19:03:49 EST  EAGLE 40.1.0

   MRNSET MAPSET  MAPPCN         MAPSSN      PCN            RC
   DFLT   DFLT    01003             10      01002          10
                                            01001          10

   MRNSET MAPSET  MAPPC          MAPSSN      PC             RC
   1      -----   -----------       ---      001-001-002    10
                                            001-001-001    10

   MRNSET MAPSET  MAPPCI         MAPSSN      PCI            RC
   2      1       1-101-3           10      1-101-2        10
                                            1-101-1        10

   MRNSET MAPSET  MAPPCI         MAPSSN      PCI            RC
   3      2     s-2-202-3             *    s-2-202-2        10
                                           s-2-202-1        10

   MRNSET MAPSET  MAPPCN         MAPSSN      PCN            RC
   4      DFLT  s-02003                *    s-02002          20
                                           s-02001          20

   MRNSET MAPSET  MAPPCN         MAPSSN NET  PC             RC
   5      DFLT    01004             20 I    1-101-1        10
                                       N    01001          10
                                       I  s-2-202-1        30

MRN table is (13 of 6000) 1% full.

;
```

Example 2 displays the output when the Flexible GTT Loadsharing is enabled, and the Weighted GTT Loadsharing features is turned on.

rtrv-mrn

```
    eaglestp 08-12-22 19:04:42 EST  EAGLE 40.1.0

       MRNSET MAPSET  MAPPCN         MAPSSN      PCN            RC WT %WT THR
       DFLT   DFLT    01003             10      01002          10  5  50   1
                                              01001          10  5  50   1

       MRNSET MAPSET  MAPPC          MAPSSN      PC             RC WT %WT THR
       1      -----   -----------       ---      001-001-002    10 20  67  20
                                              001-001-001    10 10  33  20

       MRNSET MAPSET  MAPPCI         MAPSSN      PCI            RC WT %WT THR
       2      1       1-101-3           10      1-101-2        10 40  57   1
                                              1-101-1        10 30  43   1

       MRNSET MAPSET  MAPPCI         MAPSSN      PCI            RC WT %WT THR
       3      2     s-2-202-3            *    s-2-202-2        10 50  50   1
                                             s-2-202-1        10 50  50   1

       MRNSET MAPSET  MAPPCN         MAPSSN      PCN            RC WT %WT THR
       4      DFLT  s-02003              *    s-02002          20 -- --- ---
                                             s-02001          20 -- --- ---

       MRNSET MAPSET  MAPPCN         MAPSSN NET  PC             RC WT %WT THR
       5      DFLT    01004             20 I    1-101-1        10 20  50   1
                                           N    01001          10 20  50   1
                                           I  s-2-202-1        30 20 100   1

    MRN table is (13 of 6000) 1% full.

;
```

Example 3 displays the output for a specific point code and MRN Set. The Flexible GTT Loadsharing feature is enabled, and the Weighted GTT Loadsharing feature is turned off.

rtrv-mrn:pcn=1001:mrnset=dflt

```
    eaglestp 08-12-22 19:03:53 EST  EAGLE 40.1.0

       MRNSET MAPSET  MAPPCN         MAPSSN      PCN            RC
       DFLT   DFLT    01003             10      01002          10
                                              01001          10

    MRN table is (13 of 6000) 1% full.

;
```

Example 4 displays the output for a specifc point code and MRN Set. The Flexible GTT Loadsharing feature is enabled, and the Weighted GTT Loadsharing feature is turned on.

rtrv-mrn:pcn=1001:mrnset=dflt

```
    eaglestp 08-12-22 19:04:47 EST  EAGLE 40.1.0

       MRNSET MAPSET  MAPPCN         MAPSSN      PCN            RC WT %WT THR
       DFLT   DFLT    01003             10      01002          10  5  50   1
                                              01001          10  5  50   1

    MRN table is (13 of 6000) 1% full.

;
```

Limitations

The GTT LS ARI feature does not support local subsystem numbers (e.g., LNP, INP, EIR, V-Flex).

MO SMS B-Party Routing

The MO SMS B-Party Routing feature allows global translation type (GTT) routing to be performed on IS41 MO SMDPP and GSM MO_FSM messages based on the SMS B-party digits from the MAP layer of the message.

If the B number is a short code, then a short message service (SMS) can be directed to a specific short message service center (SMSC) based on the short code dialed by the SMS sender. If the B number is the MSISDN/MDN of the SMS recipient, then the SMS can be directed to a specific SMSC based on subscriber groupings or types.

Feature Control Requirements

The MO SMS B-Party Routing feature has the following feature control requirements:

- The Enhanced GTT (EGTT) feature must be turned on before the MO SMS B-Party Routing feature can be enabled.
- FAK for part number 893-0246-01
- A temporary FAK cannot be used to enable the feature.

Hardware Requirements

The MO SMS B-Party Routing feature requires Service Module cards.

The MO SMS B-Party Routing feature cannot be enabled if a TSM card running the SCCP application is provisioned. A TSM card running the SCCP application cannot be provisioned after the feature is enabled.

Commands

The following commands are enhanced for the MO SMS B-Party Routing feature. For complete descriptions of these commands, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

- **enable/chg/rtrv-ctrl-feat**—Enhanced to enable, turn on, and display the status of the the MO SMS B-Party Routing feature. The following example displays partial output for the **rtrv-ctrl-feat** command when the MO SMS B-Party Routing feature is enabled and turned on.
  rtrv-ctrl-feat

```
   rlghncxa03w 08-12-09 16:40:40 EST  EAGLE 40.1.0

    The following features have been permanently enabled:
    Feature Name              Partnum    Status  Quantity
    HC-MIM SLK Capacity       893012707  on            64
    MT-Based GSM SMS NP       893020001  on          ----
    MT-Based GSM MMS NP       893024101  on          ----
    MT-Based IS41 SMS NP      893019901  on          ----
    G-Flex MAP Layer Routing  893021701  on          ----
    G-Flex                    893021901  on          ----
    MO SMS B-Party Routing    893024601  on          ----
;
```

- **chg/rtrv-gsmsmsopts**—Enhanced to support messages that are modified by the MO SMS B-Party Routing feature. Example output for the **rtrv-gsmsmsopts** command is shown in the Commands section for MO SMS NPP.

- **chg/rtrv-is41smsopts**—Enhanced to support messages that are modified by the MO SMS B-Party Routing feature. Example output for the **rtrv-is41smsopts** comand is shown in the Commands section for MO SMS NPP.
- **dlt-gttset**—Enhanced to prevent deletion of a GTT set if it is referenced by a B-Party GTT set.
- **ent-card**—Enhanced to prevent TSM cards from being provisioned in the system if the MO SMS B-Party Routing feature is enabled.
- **ent/chg/dlt/rtrv-srvsel**—Enhanced to allow the **nserv=smsmr** parameter to be specified if the MO SMS B-Party Routing feature is enabled.

Limitations

The MO SMS B-Party Routing feature works with only non-segmented MO SMS messages.

MO SMS NPP

The MO SMS NPP feature applies comprehensive Numbering Plan Processor (NPP) number conditioning and service logic execution to the following existing features:

- MO SMS B-Party Routing
- MO SMS IS41-to-GSM Migration
- MO SMS Prepaid Intercept on B-Party
- MO-based GSM SMS NP
- MO-based IS41 SMS NP
- Portability Check for MO SMS
- Prepaid SMS Intercept Phase 1 (PPSMS)

The MO SMS NPP feature causes execution of all of the above features to be controlled by NPP, whether the feature is turned on or off.

This feature also adds new MO SMS ASD and MO SMS GRN features, which are used to support Additional Subscriber Data and Generic Routing Number information, respectively.

The MO SMS NPP feature supports GMS and IS41 protocols and IS41 SMDPP and GSM Forward SM Mobile Originated messages.

Feature Control Requirements

The MO SMS NPP feature has the following feature control requirements:

- The feature of interest must be enabled and turned on, using its current FAK.
- The GTT feature bit and EGTT feature bit must be turned on before any of the existing features can be enabled.
- The **mosmsgcdpn** or the **mosmsgcgpn** NPP service must be turned on before the MO SMS Prepaid Intercept on B-Party or the PPSMS feature can function.
- The **mosmsgcgpn** NPP service must be turned on before the Portability Check feature can function.

- The **mosmgcdpn** NPP service must be turned on before the MO-based GSM SMS NP feature can function.
- The **mosmsicdpn** NPP service must be turned on before the MO-based IS41 SMS NP feature can function.
- The MO SMS ASD feature requires a FAK for Part Number 893-0267-01.
- The MO SMS GRN feature requires a FAK for Part Number 893-0266-01.
- The **mosmsgcdpn**, **mosmsgcgpn**, **mosmsicdpn**, or **mosmsicgpn** NPP service must be turned on before the MO SMS ASD or MO SMS GRN feature can function.
- The MO SMS ASD and MO SMS GRN features can be turned on and off.
- A Temporary FAK cannot be used to turn on the MO SMS ASD or MO SMS GRN feature.

Hardware Requirements

None.

Commands

The following commands are added or enhanced to support the MO SMS NPP feature. For complete descriptions of these commands, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

- **chg/rtrv-gsm-msg**—Added to provision MO SMS GSM test messages. The following example displays output for the **rtrv-gsm-msg** command.

  rtrv-gsm-msg:msgn=1

```
tekelecstp 08-12-02 10:46:51 EST  EAGLE 40.1.0
MSG = 1               ACTIVE = YES

CGPA_GT = 2
CGPA_GT_NAI = 4      CGPA = 919818000001

CDPA_GT = 2
CDPA_GT_NAI = 4      CDPA = 919818000002

CGPN_NAI = 1
CGPN_NP  = 2         CGPN = 919818000007

CDPN_NAI = 1
CDPN_NP  = 2         CDPN = 919818000008
```

- **chg-gsmopts**—Enhanced to allow the **multcc** and **nmultcc** parameters to be provisioned if the MO-based GSM SMS NP, MO-based IS41 SMS NP or MO SMS IS41-to-GSM Migration features are not enabled.
- **chg/rtrv-gsmsmsopts**—Enhanced to add the **mosmsaclen** parameter and delete the **mosmsdnfmt** and **mosmsdnnai** parameters. The **rtrv-gsmsmsopts** command is also enhanced to display all of the parameters whether or not they are provisioned. If the parameters are not provisioned, then the system default values are displayed. The following example displays output for the **rtrv-gsmsmsopts** command.

  rtrv-gsmsmsopts

```
tekelecstp 09-02-20 11:46:51 EST  EAGLE 40.1.0
GSM SMS OPTIONS
----------------------
BPARTYGTTSN  = NONE          MOSMSGTTDIG  = SCCPCDPA
MOSMSTYPE    = ALL           MOSMSNAI     = NAT
MOSMSSA      = YES           MOSMSFWD     = YES
MOSMSACLEN   = 0             MOSMSGTA     = ABCDEF1234567890EF
MOSMSTCAPSEG = OFF           MOSMSDIGMAT  = EXACT

MTSMSIMSI    = MCCRNDN       MTSMSNNI     = RN
MTSMSTYPE    = RN            MTSMSACKN    = ACK
```

```
    MTSMSDLTR    = NO            MTSMSDLTRV   = NONE
    MTSMSNAKERR  = 1             MTSMSCHKSRC  = NO
    MTMMSTYPE    = RN            MTMMSGTA     = NONE
    MTMMSACKN    = ACK

;
```

- **chg/rtrv-is41-msg**—Added to provision MO SMS IS41 test messages. The following example displays output for the **rtrv-is41-msg** command.

  rtrv-is41-msg:msgn=1

```
    tekelecstp 08-12-02 10:46:51 EST  EAGLE 40.1.0
    MSG = 1                ACTIVE = YES

    CGPA_GT = 2
    CGPA_GT_NAI = 4      CGPA = 919818000001

    CDPA_GT = 2
    CDPA_GT_NAI = 4      CDPA = 919818000002

    CGPN_NAI = 1         CGPN_NP = 2
    CGPN_ES  = 1         CGPN = 919818000007

    CDPN_NAI = 1         CDPN_NP = 2
    CDPN_ES  = 1         CDPN = 919818000008
```

- **chg/rtrv-is41smsopts**—Enhanced to add the **mosmsaclen** parameter and delete the **mosmsdnnai** parameter. The **rtrv-is41smsopts** command is also enhanced to display all of the parameters whether or not they are provisioned. If the parameters are not provisioned, then the system default values are displayed. The following example displays output for the **rtrv-is41msopts** command.

  rtrv-is41smsopts

```
    tekelecstp 09-02-20 11:49:00 EST  EAGLE 40.1.0
    IS41 SMS OPTIONS
    -----------------------
    BPARTYGTTSN   = NONE         MODAPARAM     = DA
    MOIGMPFX      = IS412GSM     MOSMSACLEN    = 0
    MOSMSDIGMAT   = EXACT        MOSMSNAI      = NAT
    MOSMSGTTDIG   = SCCPCDPA     MOSMSTYPE     = ALL

    MTSMSACKN     = ACK          MTSMSCHKSRC   = NO
    MTSMSDNFMT    = RN           MTSMSDLTR     = NO
    MTSMSDLTRV    = NONE         MTSMSDIGTYPE  = 6
    MTSMSNAKERR   = 5            MTSMSPARM     = DIGIT
    MTSMSESN      = NO           MTSMSSSN      = 6
    MTSMSTYPE     = RN

;
```

- **chg/rtrv-npp-serv**—Enhanced to provision services that support MO SMS NPP.
- **chg-stpopts**—Enhanced to allow the **defcc** and **defndc** parameters to be provisioned without any feature dependencies.
- **enable/chg/rtrv-ctrl-feat**—Enhanced to provision and display the status of the MO SMS GRN and MO SMS ASD features. The following example displays partial output for the **rtrv-ctrl-feat** command when the MO SMS GRN and MO SMS ASD features are turned on.

  rtrv-ctrl-feat

```
rlghncxa03w 09-01-09 16:40:40 EST  EAGLE 40.1.0

    The following features have been permanently enabled:
    Feature Name             Partnum    Status  Quantity
    HC-MIM SLK Capacity      893012707  on            64
    Command Class Management 893005801  on          ----
    LNP Short Message Service 893006601  on          ----
```

```
Prepaid SMS Intercept Ph1 893006701  on          ----
Intermed GTT Load Sharing 893006901  on          ----
GPORT                     893017201  on          ----
APORT                     893016601  on          ----
IS41 GSM Migration        893017301  off         ----
MTP Msgs for SCC Apps     893017401  off         ----
INP                       893017901  on          ----
ANSI-41 INP Query         893017801  on          ----
TIF Number Portability    893018901  on          ----
TIF SCS Forwarding        893022201  on          ----
TIF Simple Number Subst.  893024001  on          ----
MO SMS IS41-to-GSM Migr   893026201  on          ----
TIF Number Portability    893018901  on          ----
TIF SCS Forwarding        893022201  on          ----
TIF Simple Number Subst.  893024001  on          ----
ATINP                     893022101  off         ----
MO SMS ASD                893026701  on          ----
MO SMS GRN                893026601  on          ----

;
```

- **`ent/chg/dlt/rtrv-csl`**—Enhanced to remove the **delpfx** list. This functionality is now handled by NPP.
- **`ent/chg/dlt/rtrv-npp-as`** —Enhanced to provision Formatting Actions and Service Actions that support MO SMS NPP.
- **`ent/chg/dlt/rtrv-npp-srs`**—Enhanced to provision services that support MO SMS NPP.
- **`ent/chg/dlt-srvsel`**—Enhanced to support the MO SMS ASD and MO SMS GRN features.
- **`tst-msg`**—Enhanced to support the MOSMSNPP variable.

Limitations

The MO SMS NPP feature has the following limitations:

- If both **migrate** and **cdpnnp** Service Actions are provisioned, then the outgoing number format can only have a single format. For example, a migrated subscriber cannot be formatted with RN+DN while a ported subscriber is formatted with CC+RN+DN
- If a sub-address is present and needs to be stripped off before executing an RTDB lookup and restored with DN after the RTDB lookup, then the NPP final Formatting Action must be **dn**.

.

MO SMS Prepaid Intercept on B-Party

The MO SMS Prepaid Intercept on B-Party feature allows the existing Prepaid Intercept Phase 1 feature to redirect MO SMS messages based on whether the B-Party of the subscriber is prepaid. This enhancement allows MO SMS messages for prepaid subscribers to be redirected to a different short message service center (SMSC) than postpaid subscribers.

NOTE: The B-party is checked only if the A-party is not a prepaid subscriber.

This feature also allows the Prepaid Intercept Phase 1 feature to support ANSI MTP/SCCP messages.

Feature Control Requirements

The MO SMS Prepaid Intercept on B-Party feature has the following feature control requirements:

- The Prepaid Intercept Phase 1 feature must be enabled before the MO SMS Prepaid Intercept on B-Party option can be provisioned.
- The **chg-ppsopts:bpartychk=on** command must be specified before the option can be provisioned.

Hardware Requirements

None.

Commands

The **chg/rtrv-ppsopts** commands are enhanced to provision and display MO SMS Prepaid Intercept on B-Party information and to support ANSI point codes. Output examples for the **rtrv-ppsopts** command are shown in the Update to the chg/rtrv-ppsopts Commands section. For complete descriptions of these commands, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

Limitations

The MO SMS Prepaid Intercept on B-Party feature has the following limitations:

- The feature works with only non-segmented MO SMS messages.
- The feature does not support IS41 protocol processing.

Other Changes

The following core enhancements are included in Release 40.1:

Addition of Incoming and Outgoing Linkset Name to SLAN report for ECAP

A new message format is supported for transmission of an MSU report from the STPLAN to the ECAP. This format allows the incoming and outgoing linkset names to be included in the MSU. If this format is not provisioned, then the original message format is transferred to the ECAP.

The **chg/rtrv-ss7opts** commands are enhanced to indicate whether the incoming and outgoing linkset names are added to the MSU. For additional information, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

The following example displays output for the **rtrv-ss7opts** command when use of the new message format is provisioned.

rtrv-ss7opts

```
    tekelecstp 09-01-05 01:29:25 EST  EAGLE 40.1.0

    SS7 OPTIONS
    -----------------------
    LSRESTRICT   off
    DISCARDTFCI  off
    DISCARDTFCN  off
    SLSREPLACE    no
    SLANCPORGOPC off
    SLANLSN       on

;
```

Configurable Message Priority

This enhancement allows message priority to be set for messages that cross to ITUI, ITUN, or ITUN-24 networks. The priority applies to both MTP-routed and GT-routed messages that cross to the designated networks.

The message can originate from an ANSI or ITU network, as long as the message crosses a network. This enhancement does not apply to messages that remain within the same network or that cross from spare to non-spare within the same network.

The **chg-ss7opts** command is enhanced to allow provisioning of the message priority for ITU networks. The **rtrv-ss7opts** command is enhanced to display the message priority options. For complete descriptions of these commands, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

The following example displays output for the **rtrv-ss7opts** command when the message priority options are provisioned.

rtrv-ss7opts

```
    tekelecstp 09-01-10 03:59:31 EST  EAGLE 40.1.0

    SS7 OPTIONS
    -----------------------
    LSRESTRICT   off
    DISCARDTFCI  off
    DISCARDTFCN  off
    SLSREPLACE   yes
    SLANCPORGOPC off
    MSGPRI2ITUI    3
    MSGPRI2ITUN    0

;
```

NPP-AS and NPP-SRS Capacities

The **ent/chg/dlt/rtrv-npp-as** and **ent/chg/dlt/rtrv-npp-srs** commands are enhanced to report the NPP-AS and NPP-SRS capacities in the output. The output for the **rtrv-tbl-capacity** command is also enhanced to display NPP-AS and NPP-SRS capacities. For complete descriptions of these commands, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

The following examples display output for the commands.

Example 1 displays output for the **ent-npp-as** command.

ent-npp-as:asn=asn6:fa1=sn:ca1=ac3:ca2=sn8:ca3=cc3:fa2=ac:fa3=cc:sa1=rtdbtrn:sa2=rtdbtsp:sa3=r tdbtrnsp:sa4=cdial

```
    tekelecstp 09-02-19 13:57:07 EST  EAGLE 40.1.0
    NPP-AS   table is (5 of 1024) 1% full.

    ENT-NPP-AS: MASP A - COMPLTD
;
```

Example 2 displays output for the **chg-npp-as** command.

chg-npp-as:asn=asn7:ca1=cc1:ca2=dn1:fa1=cc:fa2=dn

```
    tekelecstp 09-02-19 13:57:06 EST  EAGLE 40.1.0
    NPP-AS   table is (5 of 1024) 1% full.

    CHG-NPP-AS: MASP A - COMPLTD
;
```

Example 3 displays output for the **dlt-npp-as** command.

dlt-npp-as:asn=asn1

```
    tekelecstp 09-02-19 13:57:06 EST  EAGLE 40.1.0
    NPP-AS   table is (4 of 1024) 1% full.

    DLT-NPP-AS: MASP A - COMPLTD
;
```

Example 4 displays output for the **rtrv-npp-as** command.

rtrv-npp-as

```
    tekelecstp 09-02-19 13:57:06 EST  EAGLE 40.1.0

    ASN         CA          SA          FA          OFNAI   REFS
    ------------------------------------------------------------
    asn1        znx         asdlkup     asd         inc     0

    asn2        znx         grnlkup     grn         inc     0

    asn3        znx         cgpnasdrqd  zn          inc     0
                            nprls

    asn4        znx         cgpnasdrqd  grn         inc     0
                            cgpngrnrqd
                            nprelay

    asn5        ac8         rtdbtrn     sn          inc     0
                sn8         rtdbtsp     ac
                cc3         rtdbtrnsp   cc
                            cdial


    NPP-AS   table is (5 of 1024) 1% full.


;
```

Example 5 displays output for the **ent-npp-srs** command.

ent-npp-srs:srvn=nppt:fpfx=abc:fdl=16:fnai=intl:asn=asn3

```
    tekelecstp 09-02-19 13:57:09 EST  EAGLE 40.1.0
    NPP-SRS  table is (1 of 8192) 1% full.

    ENT-NPP-SRS: MASP A - COMPLTD
;
```

Example 6 displays output for the **chg-npp-srs** command.

chg-npp-srs:srvn=nppt:fpfx=a:fdl=16:fnai=intl:asn=asn3

```
    tekelecstp 09-02-19 13:58:06 EST  EAGLE 40.1.0
    NPP-SRS  table is (1 of 8192) 1% full.

    CHG-NPP-SRS: MASP A - COMPLTD
;
```

Example 7 displays output for the **dlt-npp-srs** command.

dlt-npp-srs:srvn=nppt:fpfx=abc:fdl=16:fnai=intl

```
    tekelecstp 09-02-19 13:57:01 EST  EAGLE 40.1.0
    NPP-SRS  table is (0 of 8192) 0% full.

    DLT-NPP-SRS: MASP A - COMPLTD
;
```

Example 8 displays output for the **rtrv-npp-srs** command.

rtrv-npp-srs

```
    tekelecstp 09-02-19 13:57:06 EST  EAGLE 40.1.0

    Command entered at terminal #4.
    SRVN        FPFX              FDIGLEN  FNAI  ASN
    ____________________________________________________
    nppt        a                 10       intl  asn2
```

```
    nppt        a                16       intl  asn3
    tif2        b                12       natl  asn5

    NPP-SRS  table is (3 of 8192) 1% full.


;
```

Example 9 displays output for the **rtrv-tbl-capacity** command.

rtrv-tbl-capacity

```
   tekelecstp 09-02-19 13:57:06 EST  EAGLE 40.1.0

    DSTN     table is (      200 of      2000)  10% full
    XLIST    table is (        0 of       500)   0% full
    X25-DSTN table is (        0 of      1024)   0% full
    SPC      table is (        0 of        40)   0% full
    LS       table is (      512 of      1024)  50% full
    SLK      table is (       48 of      1200)   4% full
    X25-SLK  table is (        0 of       256)   0% full
    IP-LNK   table is (       10 of       500)   2% full
    IP-HOST  table is (       58 of      2048)   3% full
    MAP      table is (      256 of      1025)  25% full
    GTT      table is (     2700 of    270000)   1% full
    SCRSET   table is (       50 of       255)  20% full
    AS       table is (        5 of       250)   2% full
    ASP      table is (        5 of      4000)   2% full
    RTEKEY   table is (        2 of      2500)   1% full
    IPAPSOCK table is (      324 of      4000)   8% full
    VFLXRN   table is (        1 of     10000)   1% full
    VFLXCD   table is (        1 of      4950)   1% full
    VFLXVID  table is (        1 of      1000)   1% full
    NPP-AS   table is (        6 of      1024)   1% full
    NPP-SRS  table is (        0 of      8192)   0% full

;
```

Support for 125 IPGW Cards

The Support for 125 IPGW Cards enhancement allows the EAGLE 5 ISS to support up to 125 SSEDCM cards, E5-ENET cards, or a mixture of SSEDCM and E5-ENET cards that are running the **ss7ipgw** or **ipgwi** application.

The **ent/init/rept-stat-card** commands are enhanced to support 125 IPGW cards. For complete descriptions of these commands, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

Table Increase for NPFLGRST

The NPFLGRST CSL table is increased to allow 1024 entries.

Update to the chg/rtrv-ppsopts Commands

The **chg-ppsopts** command is enhanced to allow the subsystem number to be provisioned with point code and routing indicator information. This enhancement allows a full global title translation to be provisioned for the connected Prepaid SMS (PPSMS) nodes. The **rtrv-ppsopts** command is enhanced to display the subsystem number. For complete descriptions of these commands, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

The following examples display output for the **rtrv-ppsopts** command. Example 1 displays the output when PPSMS options for all prepaid types are requested.

rtrv-ppsopts

```
tekelecstp 08-12-17 15:11:22 EST  EAGLE 40.1.0

    Prepaid SMS Options
    -------------------
    BPARTYCHK     = ON
    PPT       PCA/PCI/PCN             SSN    RI
    ---       --------------------    ----   ---
    1         PCI:    1-001-1         1      GT
    2         PCI:    1-001-2         1      SSN
    3         --------------------    NONE   GT
    4         --------------------    NONE   GT
    5         --------------------    NONE   GT
    6         --------------------    NONE   GT
    7         --------------------    NONE   GT
    8         --------------------    NONE   GT
    9         --------------------    NONE   GT
    10        --------------------    NONE   GT
    11        --------------------    NONE   GT
    12        --------------------    NONE   GT
    13        --------------------    NONE   GT
    14        --------------------    NONE   GT
    15        --------------------    NONE   GT
    16        --------------------    NONE   GT
    17        --------------------    NONE   GT
    18        --------------------    NONE   GT
    19        --------------------    NONE   GT
    20        --------------------    NONE   GT
    21        --------------------    NONE   GT
    22        --------------------    NONE   GT
    23        --------------------    NONE   GT
    24        --------------------    NONE   GT
    25        --------------------    NONE   GT
    26        --------------------    NONE   GT
    27        --------------------    NONE   GT
    28        --------------------    NONE   GT
    29        --------------------    NONE   GT
    30        --------------------    NONE   GT
    31        --------------------    NONE   GT
    32        --------------------    NONE   GT

    GTA
    ---
    1110
    1111
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
```

```
    NONE
    NONE

;
```

Example 2 displays the output when PPSMS options for all types are requested, and the Flexible GTT Loadsharing (FGTTLS) feature is enabled.

rtrv-ppsopts

```
    tekelecstp 08-12-17 15:26:17 EST  EAGLE 40.1.0

    Prepaid SMS Options
    -------------------
    BPARTYCHK     = ON
    PPT       PCI/PCN                SSN    RI        Set ID
    ---       -------------------    ----   ---       ------
    1         PCI:    1-001-1        1      SSN       DFLT
    2         --------------------   NONE   GT        DFLT
    3         --------------------   NONE   GT        DFLT
    4         --------------------   NONE   GT        DFLT
    5         --------------------   NONE   GT        DFLT
    6         --------------------   NONE   GT        DFLT
    7         --------------------   NONE   GT        DFLT
    8         --------------------   NONE   GT        DFLT
    9         --------------------   NONE   GT        DFLT
    10        --------------------   NONE   GT        DFLT
    11        --------------------   NONE   GT        DFLT
    12        --------------------   NONE   GT        DFLT
    13        --------------------   NONE   GT        DFLT
    14        --------------------   NONE   GT        DFLT
    15        --------------------   NONE   GT        DFLT
    16        --------------------   NONE   GT        DFLT
    17        --------------------   NONE   GT        DFLT
    18        --------------------   NONE   GT        DFLT
    19        --------------------   NONE   GT        DFLT
    20        --------------------   NONE   GT        DFLT
    21        --------------------   NONE   GT        DFLT
    22        --------------------   NONE   GT        DFLT
    23        --------------------   NONE   GT        DFLT
    24        --------------------   NONE   GT        DFLT
    25        --------------------   NONE   GT        DFLT
    26        --------------------   NONE   GT        DFLT
    27        --------------------   NONE   GT        DFLT
    28        --------------------   NONE   GT        DFLT
    29        --------------------   NONE   GT        DFLT
    30        --------------------   NONE   GT        DFLT
    31        --------------------   NONE   GT        DFLT
    32        --------------------   NONE   GT        DFLT

    GTA
    ---
    1122
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
```

```
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE
    NONE

;
```

Example 3 displays the output when PPSMS options are requested for a specific type.

rtrv-ppsopts:ppt=1

```
    tekelecstp 08-12-17 15:07:01 EST  EAGLE 40.1.0

    Prepaid SMS Options
    -------------------
    BPARTYCHK     = ON
    PPT       PCA/PCI/PCN            SSN    RI
    ---       --------------------   ----   ---
    1         PCI:    1-001-1        1      GT

;
```

Example 4 displays the output when PPSMS options are requested for a specific type, and the FGTTLS feature is enabled.

rtrv-ppsopts:ppt=2

```
    tekelecstp 08-12-17 15:07:01 EST  EAGLE 40.1.0

    Prepaid SMS Options
    -------------------
    BPARTYCHK     = ON
    PPT       PCA/PCI/PCN            SSN    RI        Set ID
    ---       --------------------   ---    ---       ------
    2         PCI:    1-001-1        1      SSN       DFLT

;
```

Update to the **msutrace** *Command*

The help text for the **msutrace** command is enhanced to indicate that a valid filter key must be specified before the **msutrace -a chgfilter -m** command is accepted. For a complete description of this command, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

The following examples display help text output for the **msutrace** command.

Example 1 displays the output in brief mode.

pass:loc=1105:cmd="msutrace -h"

```
Command Accepted - Processing

;
    tekelecstp 08-12-11 10:31:06 EST  EAGLE 40.1.0
    pass:loc=1105:cmd="msutrace -h"
    Command entered at terminal #1.
;
    tekelecstp 08-12-11 10:31:06 EST  EAGLE 40.1.0
    PASS: Command sent to card
;
    tekelecstp 08-12-11 10:31:06 EST  EAGLE 40.1.0

    Usage: msutrace [-a action_cmd] [-g get_cmd]
                    [ [-x rc] | [-k [rtkey] [-p pctype] [-t keytype]] ]
```

```
                [-m mode] [-h [full]]

    Options:
        -a    action_cmd: an Action Command
        -g    get_cmd: a Get Command
        -x    routing key report using routing context
        -k    routing key report using MTP3 parameters
              rtkey :: ([dpc][:si][:opc | :ssn][:cics][:cice])
        -p    pctype :: (ANSI, ITUI, ITUN, ITUN24, ITUIS, ITUNS)
        -t    routing key type
              keytype :: (<full>, partial, default)
        -m    mode: mode for qualifying MSUs captured=[normerr | all]
        -h    displays this message (brief or full)

    get_cmd:        [config | trace]
        config      config
        trace       trace

    action_cmd:     [acttrace | chgfilter | clrtrace | dacttrace]
        acttrace    acttrace
        chgfilter   chgfilter [<fltrkey>] | [-m mode] (at least 1 required)
                              (valid fltrkey should be present either before
                               specifying mode or in the same command)
        clrtrace    clrtrace
        dacttrace   dacttrace

    <fltrkey>:      [ [-x rc] | [-k [rtkey] [-p pctype] [-t keytype]] ]
                    (see 'msutrace -h full' for complete description)

    MSUTRACE command complete
;
```

Example 2 displays the output in full mode.

pass:loc=1105:cmd="msutrace –h full"

```
Command Accepted - Processing

;
    tekelecstp 08-12-11 10:31:06 EST  EAGLE 40.1.0
    pass:loc=1105:cmd="msutrace –h full"
    Command entered at terminal #1.
;
    tekelecstp 08-12-11 10:31:06 EST  EAGLE 40.1.0
    PASS: Command sent to card
;
    tekelecstp 08-12-11 10:31:06 EST  EAGLE 40.1.0

    Usage: msutrace [-a action_cmd] [-g get_cmd]
                    [ [-x rc] | [-k [rtkey] [-p pctype] [-t keytype]] ]
                    [-m mode] [-h [full]]

    Options:
        -a    action_cmd: an Action Command
        -g    get_cmd: a Get Command
        -x    routing key report using routing context
        -k    routing key report using MTP3 parameters
              rtkey :: ([dpc][:si][:opc | :ssn][:cics][:cice])
        -p    pctype :: (ANSI, ITUI, ITUN, ITUN24, ITUIS, ITUNS)
        -t    routing key type
              keytype :: (<full>, partial, default)
        -m    mode: mode for qualifying MSUs captured=[normerr | all]
        -h    displays this message (brief or full)


     get_cmd:       [config | trace]
        config      Display the current MSUTRACE settings:
                    trace On/Off status, filter settings, and
                    trace buffers used/available.
                    ex:  msutrace -g config

        trace       Display content of trace buffers containing captured
```

```
                MSU data
                ex:  msutrace -g trace

action_cmd:     [acttrace | chgfilter | clrtrace | dacttrace]
    acttrace    Activate (turn-on) MSU-tracing.
                ex:  msutrace -a acttrace

    chgfilter   chgfilter [<fltrkey>] | [-m mode] (at least 1 required)
                          (valid fltrkey should be present either before
                           specifying mode or in the same command)
                Change filter used to qualify which MSUs are placed in
                trace buffers:
                Flow of command should be
                Either entering filter key before specifying mode:
                ex: To trace MSUs based on MSU content:
                    msutrace -a chgfilter <fltrkey>
                ex: To only trace MSUs with Normalization errors:
                    msutrace -a chgfilter -m normerr
                ex: To trace all MSUs regardless of error conditions:
                    msutrace -a chgfilter -m all
                Or entering filter key along with mode:
                ex: To trace MSUs based on MSU content
                       with Normalization errors:
                    msutrace -a chgfilter <fltrkey> -m normerr
                ex: To trace MSUs based on MSU content
                       regardless of error conditions:
                    msutrace -a chgfilter <fltrkey> -m all


    clrtrace    Clear all data from trace buffers.
                ex:  msutrace -a clrtrace

    dacttrace   Deactivate (turn-off) MSU-tracing.
                ex:  msutrace -a dacttrace

    -k option details:

    Use the -p option along with -k to specify the SS7 network
    domain and point code format for the network. The SS7IPGW
    default pctype is ANSI. The IPGWI default pctype is ITUI.

        Network  PC Format Notes
        -------  --------- ---------------------------------------
        ANSI     N-C-M
        ITUN     N         Non-Spare ITU National, no group code
        ITUN     N-GC      Non-Spare ITU National with group code
        ITUI     Z-A-I     Non-Spare ITU International
        ITUN24   N-C-M     Non-Spare ITU National, 24-bits
        ITUNS    N         Spare ITU National, no group code
        ITUNS    N-GC      Spare ITU National with group code
        ITUIS    Z-A-I     Spare ITU International

    Use the -t option along with -k to specify certain MTP3 and
    user part MSU fields as wildcards for the routing key.

    SS7 Traffic Partition              RTKEY Parameter Example
    ---------------------------------  ---------------------------
    Any User Part to DPC 1-1-1         -k 1-1-1    -t partial
    SCCP to DPC 1-1-1                  -k 1-1-1:3  -t partial
    ISUP to DPC 1-1-1                  -k 1-1-1:5  -t partial
    TUP to DPC 1-1-1                   -k 1-1-1:4  -t partial
    QBICC to DPC 1-1-1                 -k 1-1-1:13 -t partial
    SI [0-2,6-12,14,15] to DPC 1-1-1   -k 1-1-1:SI
    SCCP SSN 5 to DPC 1-1-1            -k 1-1-1:3:5
    ISUP to DPC 1-1-1 from OPC 2-2-2   -k 1-1-1:5:2-2-2  -t partial
    TUP to DPC 1-1-1 from OPC 2-2-2    -k 1-1-1:4:2-2-2  -t partial
    QBICC to DPC 1-1-1 from OPC 2-2-2  -k 1-1-1:13:2-2-2 -t partial
    ISUP CIC 1 to 1-1-1 from 2-2-2     -k 1-1-1:5:2-2-2:1
    TUP CIC 1 to 1-1-1 from 2-2-2      -k 1-1-1:4:2-2-2:1
    QBICC CIC 1 to 1-1-1 from 2-2-2    -k 1-1-1:13:2-2-2:1
    ISUP CIC 0-5 to 1-1-1 from 2-2-2   -k 1-1-1:5:2-2-2:0:5
    TUP CIC 0-5 to 1-1-1 from 2-2-2    -k 1-1-1:4:2-2-2:0:5
```

```
    QBICC CIC 0-5 to 1-1-1 from 2-2-2  -k 1-1-1:13:2-2-2:0:5
    Default Routing Key                -k                 -t default


tekelecstp 08-12-11 10:31:06 EST  EAGLE 40.1.0

MSUTRACE command complete
```

Update to the Prepaid SMS Intercept Ph1 Feature

Support for a temporary FAK for the Prepaid SMS Intercept Ph1 feature is removed. The FAK for part number 893-0067-01 is the only supported FAK.

Update to the **`rept-stat-sccp`** *Command*

The **`rept-stat-sccp`** command is updated to display CPU usage details for the LNP subsystem when an LNP feature is enabled. For a complete description of this command, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

The following example displays output for the **`rept-stat-sccp`** command when the LNP, PLNP, TLNP, and WNP features are turned on.

`rept-stat-sccp`

```
tklc1190601 09-01-08 16:31:14 EST  EAGLE5 40.1.0
SCCP SUBSYSTEM REPORT IS-NR          Active     -----
     SCCP ALARM STATUS = No Alarms
LNP SUBSYSTEM REPORT  IS-NR          Active     -----
     ASSUMING MATE'S LOAD
     LNP:  SSN STATUS = Allowed      MATE SSN STATUS = Prohibited
     LNP ALARM STATUS = No Alarms

SCCP Cards Configured= 7      Cards IS-NR= 7
System Daily Peak SCCP Load       0      TPS 08-05-18 00:00:17
System Overall Peak SCCP Load     2908   TPS 08-05-07 13:28:36
System Total SCCP Capacity        11900  TPS (11900  max SCCP Capacity)
System SCCP Capacity Calc. Method (N)
System TPS Alarm Threshold        9520   TPS ( 80% System   N SCCP Capacity)

CARD   VERSION      PST           SST        AST       MSU   CPU
                                                       USAGE USAGE
------------------------------------------------------------------
1205 P 126-027-000  IS-NR         Active     -----       0%    5%
1317   126-027-000  IS-NR         Active     -----       0%    5%
2213   126-027-000  IS-NR         Active     -----       0%    5%
2215   126-027-000  IS-NR         Active     -----       0%    6%
2217   126-027-000  IS-NR         Active     -----       0%    5%
2317   126-027-000  IS-NR         Active     -----       0%    5%
1105   126-027-000  IS-NR         Active     -----       0%    6%
------------------------------------------------------------------
SCCP Service Average MSU Capacity =   0%   Average CPU Capacity =   5%

AVERAGE CPU USAGE PER SERVICE:
  GTT   =   0%
  LNPMR =   0%  LNPQS =   0%
  WNPQS =   0%
  TLNP  =   0%
  PLNPQS=   0%

TOTAL SERVICE STATISTICS:
                                FAIL     REROUTE\      FORWARD
  SERVICE    SUCCESS    ERRORS  RATIO    WARNINGS        TO GTT     TOTAL
  GTT:             0         0     0%           -             -         0
  LNPMR:           0         0     0%           -             -         0
  LNPQS:           0         0     0%           -             -         0
  WNPQS:           0         0     0%           -             -         0
  TLNP:            0         0     0%           -             -         0
```

```
      PLNPQS:          0         0      0%            -            -         0

    Command Completed.
;
```

Update to the `rtrv-ls` Command

The format for the **rtv-ls** command when an ANSI linkset is used and the Incoming SLS Bit Roation feature is enabled is enhanced for greater readability. For a complete description of this command, refer to the Commands Manual for the EAGLE 5 ISS Release 40.1 documentation set. The following output example displays the format for the **rtrv-ls** command.

rtrv-ls:lsn=ls6

```
    rlghncxa03w 09-02-27 11:43:04 GMT  EAGLE 40.1.0

                                 L3T SLT              GWS GWS GWS
    LSN         APCA   (SS7)  SCRN SET SET BEI LST LNKS ACT MES DIS SLSCI NIS
    ls06        002-007-008   scr4 1   4   no  a   0    on  off off no    on

                SPCA          CLLI         TFATCABMLQ MTPRSE ASL8
              ---------------- ls06clli     1          no     no

              RANDSLS
              off

              ISLSRSB
              1

              IPSG  IPGWAPC  GTTMODE           CGGTMOD
              no    no       CdPA               no

    Link set table is ( 20 of 1024)  2% full

;
```

Update to the `rtrv-rte` Command

The output of the **rtrv-rte** command updated to increase readability. These updates include:

- Displaying the linkset in the ALIASN/N24 column
- Displaying the Exception Route and relative cost in the same column
- Reversing the order in which the adjacent point code and CLLI information is displayed.

An example showing the updated output format when all routes are requested is shown in the Commands section for the GTT LS ITU feature. Additonal examples are shown below. For a complete description of this command, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

Example 1 displays the output when a destination code is requested.

rtrv-rte:dpc=40-1-**

```
    eagle10115 08-12-09 10:00:37 EST  EAGLE 40.1.0

       DPCA             ALIASI           ALIASN/N24    RTX   CLLI
                                         LSN           RC    APCA
       040-001-001   --------------   --------------   No    noncluster1
                                         lsn01         10    001-001-001
       040-001-002   --------------   --------------   No    noncluster2
                                         lsn01         10    001-001-001

;
```

Example 2 displays the output when a linkset is requested.

rtrv-rte:lsn=e2e1

```
    eagle10115 08-12-09 10:00:37 EST  EAGLE 40.1.0
    LSN           DPCA          RC
    e2e1          001-001-000   10
                  001-101-001   10
                  004-101-001   20
                  100-100-*     10
                  100-100-001   10
;
```

Example 3 displays the output when ANSI point codes are requested.

rtrv-rte:pctype=ansi

```
    eagle10115 08-12-09 10:00:37 EST  EAGLE 40.1.0

       DPCA             ALIASI          ALIASN/N24    RTX   CLLI
                                        LSN           RC    APCA
       001-001-000   --------------   --------------   No    stp1
                                        e2e1          10    001-001-000
       003-001-000   --------------   --------------   No    mstp
                                        e2e3          10    003-001-000
       004-001-000   --------------   --------------   No    stp4
                                        e2e4          10    004-001-000
       007-001-000   --------------   --------------   No    stp7
                                        e2e7          10    007-001-000
       002-101-001   --------------   --------------   No    ssp201
                                        e2m1s1        10    002-101-001
                                        e2e3          20    003-001-000
       002-102-001   --------------   --------------   No    ssp202
                                        e2m1s2        10    002-102-001
                                        e2e3          20    003-001-000
       001-101-001   --------------   --------------   No    ssp101
                                        e2e1          10    001-001-000
                                        e2e4          20    004-001-000
                                        e2e3          30    003-001-000
       003-101-001   --------------   --------------   No    ssp301
                                        e2m1s3        10    003-101-001
                                        e2e3          20    003-001-000
       004-101-001   --------------   --------------   No    ssp401
                                        e2e4          10    004-001-000
                                        e2e1          20    001-001-000
       007-101-001   --------------   --------------   No    ssp701
                                        e2e7          10    007-001-000
       100-100-*     --------------   --------------   No    cluster1
                                        e2e1          10    001-001-000
                                        e2e3          20    003-001-000
       100-100-001   --------------   --------------   No    -----------
                                        e2e1          10    001-001-000
       200-200-*     --------------   --------------   No    cluster2
       005-006-001   --------------      005-006-001   No    -----------
       001-001-001   --------------   --------------   No    dstn01
                                        lsn01         10    001-001-001
     p-001-001-001   --------------   --------------   No    dstn01p
       001-001-002      1-001-2       --------------   No    dstn02
                                        lsn02         10    001-001-002
     p-001-001-002      1-011-2       --------------   No    dstn02p
       001-001-003    s-1-001-3       --------------   No    dstn03
                                        lsn03         10    001-001-003
     p-001-001-003    s-1-011-3       --------------   No    dstn03p
       001-001-004   --------------      0257-1-0-0-aa No    dstn04
                                        lsn04         10    001-001-004
     p-001-001-004   --------------      0132-1-0-0-aa No    dstn04p
       001-070-001   --------------   --------------   No    tgtansi001
                                        lsn01         10    001-001-001
                                        lsn02         20    001-001-002
                                        lsn03         30    001-001-003
                                        lsn04         40    001-001-004
       001-001-005   --------------    s-0257-1-0-1-aa No    dstn05
                                        lsn05         10    001-001-005
```

```
    p-001-001-005   --------------    s-0132-1-0-1-aa No    dstn05p
      001-001-006   --------------      001-001-006   No    dstn06
                                        lsn06         10    001-001-006
    p-001-001-006   --------------      001-011-006   No    dstn06p
      001-001-007      1-001-7          0257-1-1-1-aa No    dstn07
                                        lsn07         10    001-001-007
    p-001-001-007      1-011-7          0132-1-1-1-aa No    dstn07p
      001-002-000      1-002-0        s-0258-0-0-0-aa No    dstn08
                                        lsn08         10    001-002-000
    p-001-002-000      1-012-0        s-0133-0-0-0-aa No    dstn08p
      001-070-002   --------------    --------------   No    tgtansi002
                                        lsn05         10    001-001-005
                                        lsn06         20    001-001-006
                                        lsn07         30    001-001-007
                                        lsn08         40    001-002-000
      001-002-001    s-1-002-1          0258-0-0-1-aa No    dstn09
                                        lsn09         10    001-002-001
    p-001-002-001    s-1-012-1          0133-0-0-1-aa No    dstn09p
      001-002-002    s-1-002-2        s-0258-0-1-0-aa No    dstn10
                                        lsn10         10    001-002-002
    p-001-002-002    s-1-012-2        s-0133-0-1-0-aa No    dstn10p
      001-002-003      1-002-3          001-002-003   No    dstn11
                                        lsn11         10    001-002-003
    p-001-002-003      1-012-3          001-012-003   No    dstn11p
      001-002-004    s-1-002-4          001-002-004   No    dstn12
                                        lsn12         10    001-002-004
    p-001-002-004    s-1-012-4          001-012-004   No    dstn12p
      001-070-003   --------------    --------------   No    tgtansi003
                                        lsn09         10    001-002-001
                                        lsn10         20    001-002-002
                                        lsn11         30    001-002-003
                                        lsn12         40    001-002-004
      200-002-001   --------------    --------------   Yes   rtxroute001
                                        lsn12         10    001-002-004
      001-015-001    s-1-015-1          0271-0-0-1-aa No    gx25dstn001
      001-015-002      1-015-2        --------------   No    gx25dstn002
                                        lsngx25a01    10    001-015-001
      001-015-003   --------------     s-0271-0-1-1-aa No    gx25dstn003
      002-015-001   --------------    --------------   No    gx25dstn004
      002-015-002   --------------    --------------   No    gx25dstn005
      002-015-003   --------------    --------------   No    gx25dstn006
      002-015-004   --------------    --------------   No    gx25dstn007
                                        lsngx25b01    10    002-015-002
      040-001-*     --------------    --------------   No    myncaibeno
      040-010-*     --------------    --------------   No    myncaibeno2
      010-*-*       --------------    --------------   No    -----------
      040-*-*       --------------    --------------   No    -----------
      040-001-001   --------------    --------------   No    noncluster1
      040-001-002   --------------    --------------   No    noncluster2

;
```

Example 4 displays the output when the **full** mode is requested.

rtrv-rte:mode=full

```
  eagle10115 08-12-09 10:00:37 EST  EAGLE 40.1.0

      DPCA             ALIASI           ALIASN/N24    RTX   CLLI
                                        LSN           RC    APCA
      001-001-000   --------------    --------------   No    stp1
                                        e2e1          10    001-001-000
      003-001-000   --------------    --------------   No    mstp
                                        e2e3          10    003-001-000
      004-001-000   --------------    --------------   No    stp4
                                        e2e4          10    004-001-000
      007-001-000   --------------    --------------   No    stp7
                                        e2e7          10    007-001-000
      002-101-001   --------------    --------------   No    ssp201
                                        e2m1s1        10    002-101-001
                                        e2e3          20    003-001-000
      002-102-001   --------------    --------------   No    ssp202
                                        e2m1s2        10    002-102-001
```

```
                                  e2e3          20    003-001-000
  001-101-001   --------------    --------------  No    ssp101
                                  e2e1          10    001-001-000
                                  e2e4          20    004-001-000
                                  e2e3          30    003-001-000
  003-101-001   --------------    --------------  No    ssp301
                                  e2m1s3        10    003-101-001
                                  e2e3          20    003-001-000
  004-101-001   --------------    --------------  No    ssp401
                                  e2e4          10    004-001-000
                                  e2e1          20    001-001-000
  007-101-001   --------------    --------------  No    ssp701
                                  e2e7          10    007-001-000
  100-100-*     --------------    --------------  No    cluster1
                                  e2e1          10    001-001-000
                                  e2e3          20    003-001-000
  100-100-001   --------------    --------------  No    -----------
                                  e2e1          10    001-001-000
  200-200-*     --------------    --------------  No    cluster2
  005-006-001   --------------      005-006-001   No    -----------
  001-001-001   --------------    --------------  No    dstn01
                                  lsn01         10    001-001-001
p-001-001-001   --------------    --------------  No    dstn01p
  001-001-002     1-001-2         --------------  No    dstn02
                                  lsn02         10    001-001-002
p-001-001-002     1-011-2         --------------  No    dstn02p
  001-001-003    s-1-001-3        --------------  No    dstn03
                                  lsn03         10    001-001-003
p-001-001-003    s-1-011-3        --------------  No    dstn03p
  001-001-004   --------------      02060-aa      No    dstn04
                                  lsn04         10    001-001-004
p-001-001-004   --------------      01060-aa      No    dstn04p
  001-070-001   --------------    --------------  No    tgtansi001
                                  lsn01         10    001-001-001
                                  lsn02         20    001-001-002
                                  lsn03         30    001-001-003
                                  lsn04         40    001-001-004
  001-001-005   --------------     s-02061-aa     No    dstn05
                                  lsn05         10    001-001-005
p-001-001-005   --------------     s-01061-aa     No    dstn05p
  001-001-006   --------------      001-001-006   No    dstn06
                                  lsn06         10    001-001-006
p-001-001-006   --------------      001-011-006   No    dstn06p
  001-001-007     1-001-7           02063-aa      No    dstn07
                                  lsn07         10    001-001-007
p-001-001-007     1-011-7           01063-aa      No    dstn07p
  001-002-000     1-002-0         s-02064-aa      No    dstn08
                                  lsn08         10    001-002-000
p-001-002-000     1-012-0         s-01064-aa      No    dstn08p
  001-070-002   --------------    --------------  No    tgtansi002
                                  lsn05         10    001-001-005
                                  lsn06         20    001-001-006
                                  lsn07         30    001-001-007
                                  lsn08         40    001-002-000
  001-002-001    s-1-002-1          02065-aa      No    dstn09
                                  lsn09         10    001-002-001
p-001-002-001    s-1-012-1          01065-aa      No    dstn09p
  001-002-002    s-1-002-2        s-02066-aa      No    dstn10
                                  lsn10         10    001-002-002
p-001-002-002    s-1-012-2        s-01066-aa      No    dstn10p
  001-002-003      1-002-3          001-002-003   No    dstn11
                                  lsn11         10    001-002-003
p-001-002-003      1-012-3          001-012-003   No    dstn11p
  001-002-004    s-1-002-4          001-002-004   No    dstn12
                                  lsn12         10    001-002-004
p-001-002-004    s-1-012-4          001-012-004   No    dstn12p
  001-070-003   --------------    --------------  No    tgtansi003
                                  lsn09         10    001-002-001
                                  lsn10         20    001-002-002
                                  lsn11         30    001-002-003
                                  lsn12         40    001-002-004
  200-002-001   --------------    --------------  Yes   rtxroute001
```

```
                                    lsn12         10    001-002-004

                  OPCA
                  001-001-001       lsn11         15    001-002-003
                  001-002-001       lsn10         99    001-002-002

                  CIC - ECIC
                  0     9           lsn10         1     001-002-002
                  10    16383       lsn10         2     001-002-002

                  SI
                  3                 lsn12         1     001-002-004
                  9                 lsn12         21    001-002-004
                  11                lsn12         9     001-002-004

  001-015-001    s-1-015-1          02169-aa      No    gx25dstn001
  001-015-002      1-015-2       --------------   No    gx25dstn002
                                    lsngx25a01    10    001-015-001
  001-015-003   --------------     s-02171-aa     No    gx25dstn003
  002-015-001   --------------    --------------  No    gx25dstn004
  002-015-002   --------------    --------------  No    gx25dstn005
  002-015-003   --------------    --------------  No    gx25dstn006
  002-015-004   --------------    --------------  No    gx25dstn007
                                    lsngx25b01    10    002-015-002
  040-001-*     --------------    --------------  No    myncaibeno
                                    lsn01         10    001-001-001
  040-010-*     --------------    --------------  No    myncaibeno2
  010-*-*       --------------    --------------  No    -----------
  040-*-*       --------------    --------------  No    -----------
                                    lsn02         15    001-001-002
  040-001-001   --------------    --------------  No    noncluster1
                                    lsn01         10    001-001-001
  040-001-002   --------------    --------------  No    noncluster2
                                    lsn01         10    001-001-001

  DPCI             ALIASA           ALIASN/N24    RTX   CLLI
                                    LSN           RC    APCI
s-4-002-0          010-001-001     s-08228-aa     No    -----------
  2-010-0       --------------    --------------  No    dstn13
                                    lsn13         10    2-010-0
p-2-010-0       --------------    --------------  No    dstn13p
  2-010-1          002-010-001    --------------  No    dstn14
                                    lsn14         10    2-010-1
p-2-010-1          002-100-001    --------------  No    dstn14p
  2-010-2       --------------      04178-aa      No    dstn15
                                    lsn15         10    2-010-2
p-2-010-2       --------------      08178-aa      No    dstn15p
  2-010-3       --------------     s-04179-aa     No    dstn16
                                    lsn16         10    2-010-3
p-2-010-3       --------------     s-08179-aa     No    dstn16p
  2-070-1       --------------    --------------  No    tgtitui001
                                    lsn13         10    2-010-0
                                    lsn14         20    2-010-1
                                    lsn15         30    2-010-2
                                    lsn16         40    2-010-3
  2-010-4       --------------      002-010-004   No    dstn17
                                    lsn17         10    2-010-4
p-2-010-4       --------------      002-100-004   No    dstn17p
  2-010-5          002-010-005      04181-aa      No    dstn18
                                    lsn18         10    2-010-5
p-2-010-5          002-100-005      08181-aa      No    dstn18p
  2-010-6          002-010-006     s-04182-aa     No    dstn19
                                    lsn19         10    2-010-6
p-2-010-6          002-100-006     s-08182-aa     No    dstn19p
  2-010-7          002-010-007      002-010-007   No    dstn20
                                    lsn20         10    2-010-7
p-2-010-7          002-100-007      002-100-007   No    dstn20p
  2-070-2       --------------    --------------  No    tgtitui002
                                    lsn17         10    2-010-4
                                    lsn18         20    2-010-5
                                    lsn19         30    2-010-6
                                    lsn20         40    2-010-7
```

```
 s-2-020-0       --------------   --------------   No    dstn21
                                     lsn21         10  s-2-020-0
ps-2-020-0       --------------   --------------   No    dstn21p
 s-2-020-1          002-020-001   --------------   No    dstn22
                                     lsn22         10  s-2-020-1
ps-2-020-1          002-200-001   --------------   No    dstn22p
 s-2-020-2       --------------      04258-aa      No    dstn23
                                     lsn23         10  s-2-020-2
ps-2-020-2       --------------      08258-aa      No    dstn23p
 s-2-020-3       --------------     s-04259-aa     No    dstn24
                                     lsn24         10  s-2-020-3
ps-2-020-3       --------------     s-08259-aa     No    dstn24p
 s-2-070-3       --------------   --------------   No    tgtitui003
                                     lsn21         10  s-2-020-0
                                     lsn22         20  s-2-020-1
                                     lsn23         30  s-2-020-2
                                     lsn24         40  s-2-020-3
 s-2-020-4       --------------      002-020-004   No    dstn25
                                     lsn25         10  s-2-020-4
ps-2-020-4       --------------      002-200-004   No    dstn25p
 s-2-020-5          002-020-005      04261-aa      No    dstn26
                                     lsn26         10  s-2-020-5
ps-2-020-5       --------------   --------------   No    dstn26p
 s-2-020-6          002-020-006     s-04262-aa     No    dstn27
                                     lsn27         10  s-2-020-6
ps-2-020-6          002-200-005      08261-aa      No    dstn27p
 s-2-020-7          002-020-007      002-020-007   No    dstn28
                                     lsn28         10  s-2-020-7
ps-2-020-7          002-200-007      002-200-007   No    dstn28p
 s-2-070-4       --------------   --------------   No    tgtitui004
                                     lsn25         10  s-2-020-4
                                     lsn26         20  s-2-020-5
                                     lsn27         30  s-2-020-6
                                     lsn28         40  s-2-020-7
 s-3-070-3       --------------   --------------   No    tgtitui007
                                     lsn35         10  s-3-040-2
                                     lsn36         20  s-3-040-3
                                     lsn37         30  s-3-040-4
 s-3-070-4       --------------   --------------   No    tgtitui008
                                     lsn38         10  s-3-040-5
                                     lsn39         20  s-3-040-6
                                     lsn40         30  s-3-040-7
 s-2-029-6          002-029-006     s-04269-aa     Yes   rtxroute002
                                     lsn26         5   s-2-020-5

                    OPCI
                    3-030-0          lsn27         28  s-2-020-6

                    CIC - ECIC
                    34    44         lsn27         6   s-2-020-6
                    45    55         lsn27         16  s-2-020-6

                    SI
                    3                lsn27         7   s-2-020-6
                    15               lsn27         14  s-2-020-6


   DPCI             ALIASI           ALIASN/N24    RTX   CLLI
                                     LSN           RC    APCI
   3-030-0        s-3-030-0       --------------   No    dstn29
                                     lsn29         10    3-030-0
 p-3-030-0        s-3-031-0       --------------   No    dstn29p
   3-030-1        s-3-030-1          06385-aa      No    dstn30
                                     lsn30         10    3-030-1
 p-3-030-1        s-3-031-1          07385-aa      No    dstn30p
   3-030-2        s-3-030-2        s-06386-aa      No    dstn31
                                     lsn31         10    3-030-2
 p-3-030-2        s-3-031-2        s-07386-aa      No    dstn31p
   3-070-1        s-3-070-1       --------------   No    tgtitui005
                                     lsn29         10    3-030-0
                                     lsn30         20    3-030-1
                                     lsn31         30    3-030-2
```

```
   3-030-3       s-3-030-3          003-030-003   No    dstn32
                                    lsn32         10    3-030-3
 p-3-030-3       s-3-031-3          003-031-003   No    dstn32p
   3-070-2       s-3-070-2         --------------  No    tgtitui006
                                    lsn32         10    3-030-3
                                    lsn33         20    3-030-4
                                    lsn34         30    3-030-5
 s-3-040-2         3-040-2         --------------  No    dstn35
                                    lsn35         10  s-3-040-2
ps-3-040-2         3-041-2         --------------  No    dstn35p
 s-3-040-3         3-040-3           06467-aa      No    dstn36
                                    lsn36         10  s-3-040-3
ps-3-040-3         3-041-3           07467-aa      No    dstn36p
 s-3-040-4         3-040-4          s-06468-aa     No    dstn37
                                    lsn37         10  s-3-040-4
ps-3-040-4         3-041-4          s-07468-aa     No    dstn37p
 s-3-040-5         3-040-5           003-040-005   No    dstn38
                                    lsn38         10  s-3-040-5
ps-3-040-5         3-041-5           003-041-005   No    dstn38p

   DPCI            ALIASN            ALIASN        RTX   CLLI
                                     LSN           RC    APCI
   3-030-4       s-06388-aa          06388-aa      No    dstn33
                                     lsn33         10    3-030-4
 p-3-030-4       s-07388-aa          07388-aa      No    dstn33p
   3-030-5         06389-aa         s-06389-aa     No    dstn34
                                     lsn34         10    3-030-5
 p-3-030-5         07389-aa         s-07389-aa     No    dstn34p
 s-3-040-6       s-06471-aa          06471-aa      No    dstn39
                                     lsn39         10  s-3-040-6
ps-3-040-6       s-07471-aa          07471-aa      No    dstn39p
 s-3-040-7         06472-aa         s-06472-aa     No    dstn40
                                     lsn40         10  s-3-040-7
ps-3-040-7         07472-aa         s-07472-aa     No    dstn40p

   DPCN            ALIASA            ALIASI        RTX   CLLI
                                     LSN           RC    APCN
   06157-aa        020-005-002      --------------  No    -----------
   08192-aa       --------------    --------------  No    dstn41
                                     lsn41         10    08192-aa
 p-08192-aa       --------------    --------------  No    dstn41p
   08193-aa          004-000-001    --------------  No    dstn42
                                     lsn42         10    08193-aa
 p-08193-aa          004-200-001    --------------  No    dstn42p
   08194-aa       --------------       4-000-2     No    dstn43
                                     lsn43         10    08194-aa
 p-08194-aa       --------------       4-040-2     No    dstn43p
   08195-aa       --------------     s-4-000-3     No    dstn44
                                     lsn44         10    08195-aa
 p-08195-aa       --------------     s-4-040-3     No    dstn44p
   08753-aa       --------------    --------------  No    tgtitun001
                                     lsn41         10    08192-aa
                                     lsn42         20    08193-aa
                                     lsn43         30    08194-aa
                                     lsn44         30    08195-aa
   08196-aa          004-000-004       4-000-4     No    dstn45
                                     lsn45         10    08196-aa
 p-08196-aa          004-200-004       4-040-4     No    dstn45p
   08197-aa          004-000-005     s-4-000-5     No    dstn46
                                     lsn46         10    08197-aa
 p-08197-aa          004-200-005     s-4-040-5     No    dstn46p
   08754-aa       --------------    --------------  No    tgtitun002
                                     lsn45         10    08196-aa
                                     lsn46         20    08197-aa
                                     lsn47         30    08198-aa
                                     lsn48         30    08199-aa
 s-08272-aa       --------------    --------------  No    dstn49
                                     lsn49         10  s-08272-aa
ps-08272-aa       --------------    --------------  No    dstn49p
 s-08273-aa          004-010-001    --------------  No    dstn50
                                     lsn50         10  s-08273-aa
ps-08273-aa          004-200-010    --------------  No    dstn50p
```

```
 s-08274-aa      --------------      4-010-2       No    dstn51
                                     lsn51         10  s-08274-aa
ps-08274-aa      --------------      4-050-2       No    dstn51p
 s-08275-aa      --------------    s-4-010-3       No    dstn52
                                     lsn52         10  s-08275-aa
ps-08275-aa      --------------    s-4-050-3       No    dstn52p
 s-08755-aa      --------------    --------------  No    tgtitun003
                                     lsn49         10  s-08272-aa
                                     lsn50         20  s-08273-aa
                                     lsn51         30  s-08274-aa
                                     lsn52         30  s-08275-aa
 s-08276-aa         004-010-004      4-010-4       No    dstn53
                                     lsn53         10  s-08276-aa
ps-08276-aa         004-200-040      4-050-4       No    dstn53p
 s-08277-aa         004-010-005    s-4-010-5       No    dstn54
                                     lsn54         10  s-08277-aa
ps-08277-aa         004-200-050    s-4-050-5       No    dstn54p
 s-08756-aa      --------------    --------------  No    tgtitun004
                                     lsn53         10  s-08276-aa
                                     lsn54         20  s-08277-aa
                                     lsn55         30  s-08278-aa
                                     lsn56         30  s-08279-aa
   08757-aa      --------------    --------------  No    tgtitun005
                                     lsn57         10    12688-aa
                                     lsn58         20    12689-aa
                                     lsn59         30    12690-aa
 s-08758-aa      --------------    --------------  No    tgtitun006
                                     lsn60         10  s-12691-aa
                                     lsn61         20  s-12692-aa
                                     lsn62         30  s-12693-aa
   08199-fr      --------------    s-4-006-1       No    dstn48dupfr
   08199-tk      --------------      4-006-2       No    dstn48duptk
   08198-nz      --------------    --------------  No    dstn47dupnz
 s-08273-fr      --------------      4-006-3       No    dstn50dupfr

   DPCN             ALIASI           ALIASI        RTX   CLLI
                                     LSN           RC    APCN
   08198-aa       s-4-000-6          4-000-6       No    dstn47
                                     lsn47         10    08198-aa
 p-08198-aa       s-4-040-6          4-040-6       No    dstn47p
   08199-aa         4-000-7        s-4-000-7       No    dstn48
                                     lsn48         10    08199-aa
 p-08199-aa         4-040-7        s-4-040-7       No    dstn48p
 s-08278-aa       s-4-010-6          4-010-6       No    dstn55
                                     lsn55         10  s-08278-aa
ps-08278-aa       s-4-050-6          4-050-6       No    dstn55p
 s-08279-aa         4-010-7        s-4-010-7       No    dstn56
                                     lsn56         10  s-08279-aa
ps-08279-aa         4-050-7        s-4-050-7       No    dstn56p
 s-08379-aa       s-4-058-7          4-058-7       Yes   rtxroute003
                                     lsn55         80  s-08278-aa

                    OPCN
                  s-08278-aa         lsn62         8   s-12693-aa

                    CIC - ECIC
                    99    100        lsn62         9   s-12693-aa
                    999   1989       lsn62         99  s-12693-aa

                    SI
                    4                lsn56         29  s-08279-aa
                    14               lsn56         44  s-08279-aa

   08198-fr       s-4-005-7          4-005-7       No    dstn47dupfr
   08198-tk         4-006-0        s-4-006-0       No    dstn47duptk

   DPCN             ALIASN           ALIASI        RTX   CLLI
                                     LSN           RC    APCN
   12688-aa       s-12688-aa       --------------  No    dstn57
                                     lsn57         10    12688-aa
 p-12688-aa       s-13688-aa       --------------  No    dstn57p
   12689-aa       s-12689-aa         6-050-1       No    dstn58
```

```
                                        lsn58         10    12689-aa
     p-12689-aa       s-13689-aa        6-060-1       No    dstn58p
       12690-aa       s-12690-aa       s-6-050-2      No    dstn59
                                        lsn59         10    12690-aa
     p-12690-aa       s-13690-aa       s-6-060-2      No    dstn59p
     s-12691-aa         12691-aa      --------------  No    dstn60
                                        lsn60         10  s-12691-aa
    ps-12691-aa         13691-aa      --------------  No    dstn60p
     s-12692-aa         12692-aa        6-050-4      No    dstn61
                                        lsn61         10  s-12692-aa
    ps-12692-aa         13692-aa        6-060-4      No    dstn61p
     s-12693-aa         12693-aa       s-6-050-5      No    dstn62
                                        lsn62         10  s-12693-aa
    ps-12693-aa         13693-aa       s-6-060-5      No    dstn62p
     s-08272-fr         08300-fr      --------------  No    dstn49dupfr
     s-08272-tk         08300-tk        4-006-7      No    dstn49duptk

       DPCN24           ALIASA          ALIASI        RTX   CLLI
                                        LSN           RC    APCN24
       003-003-004      003-003-003     3-003-4       No    -----------
       006-005-001   --------------   --------------  No    dstn63
                                        lsn63         10    006-005-001
     p-006-005-001   --------------   --------------  No    dstn63p
       006-005-002      006-005-002   --------------  No    dstn64
                                        lsn64         10    006-005-002
     p-006-005-002      006-005-020   --------------  No    dstn64p
       006-005-003   --------------     6-005-3       No    dstn65
                                        lsn65         10    006-005-003
     p-006-005-003   --------------     6-050-3       No    dstn65p
       006-070-001   --------------   --------------  No    tgtitun24a
                                        lsn63         10    006-005-001
                                        lsn64         20    006-005-002
                                        lsn65         30    006-005-003
       006-005-004   --------------    s-6-005-4      No    dstn66
                                        lsn66         10    006-005-004
     p-006-005-004   --------------    s-6-050-4      No    dstn66p
       006-005-005      006-005-005     6-005-5       No    dstn67
                                        lsn67         10    006-005-005
     p-006-005-005      006-005-050     6-050-5       No    dstn67p
       006-070-002   --------------   --------------  No    tgtitun24b
                                        lsn66         10    006-005-004
                                        lsn67         20    006-005-005

;
```

Update to the rtrv-rtx Command

The output for the **rtrv-rtx** command is updated to adjust the spacing between the columns. The following examples display output for the **rtrv-rtx** command. For a complete description of this command, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

Example 1 displays all provisioned exception routes.

rtrv-rtx

```
    eagle10115 08-12-09 10:00:37 EST  EAGLE 40.1.0

       DPCA             RTX-CRITERIA     LSN           RC    APC

       200-002-001      OPCA
                        001-001-001      lsn11         15    001-002-003
                        001-002-001      lsn10         99    001-002-002

                        CIC - ECIC
                        0     9          lsn10         1     001-002-002
                        10    16383      lsn10         2     001-002-002

                        SI
                        3                lsn12         1     001-002-004
                        9                lsn12         21    001-002-004
```

```
                    11              lsn12         9     001-002-004

      DPCI          RTX-CRITERIA    LSN           RC    APC

     s-2-029-6      OPCI
                    3-030-0         lsn27         28  s-2-020-6

                    CIC - ECIC
                    34    44        lsn27         6   s-2-020-6
                    45    55        lsn27         16  s-2-020-6

                    SI
                    3               lsn27         7   s-2-020-6
                    15              lsn27         14  s-2-020-6

      DPCN          RTX-CRITERIA    LSN           RC    APC

     s-08379-aa     OPCN
                  s-08278-aa        lsn62         8   s-12693-aa

                    CIC - ECIC
                    99    100       lsn62         9   s-12693-aa
                    999   1989      lsn62         99  s-12693-aa

                    SI
                    4               lsn56         29  s-08279-aa
                    14              lsn56         44  s-08279-aa

  DESTINATION ENTRIES ALLOCATED:   2000
      FULL DPC(s):                  188
      EXCEPTION DPC(s):              17
      NETWORK DPC(s):                 2
      CLUSTER DPC(s):                 4
      TOTAL DPC(s):                 211
      CAPACITY (% FULL):             11%
  ALIASES ALLOCATED:               12000
      ALIASES USED:                 216
      CAPACITY (% FULL):              2%
  X-LIST ENTRIES ALLOCATED:         500

;
```

Example 2 displays the output when a destination point code is requested.

rtrv-rtx:dpcn=s-08379-aa

```
  eagle10115 08-12-09 10:00:37 EST  EAGLE 40.1.0

      DPCN          RTX-CRITERIA    LSN           RC    APC

     s-08379-aa     OPCN
                  s-08278-aa        lsn62         8   s-12693-aa

                    CIC - ECIC
                    99    100       lsn62         9   s-12693-aa
                    999   1989      lsn62         99  s-12693-aa

                    SI
                    4               lsn56         29  s-08279-aa
                    14              lsn56         44  s-08279-aa

  DESTINATION ENTRIES ALLOCATED:   2000
      FULL DPC(s):                  188
      EXCEPTION DPC(s):              17
      NETWORK DPC(s):                 2
      CLUSTER DPC(s):                 4
      TOTAL DPC(s):                 211
      CAPACITY (% FULL):             11%
  ALIASES ALLOCATED:               12000
      ALIASES USED:                 216
      CAPACITY (% FULL):              2%
  X-LIST ENTRIES ALLOCATED:         500
```

```
;
```

Update to the ***rtrv-tbl-capacity*** *Command*

The **rtrv-tbl-capacity** command is updated to display IP-Host table information. An example for the **rtrv-tbl-capacity** command is shown in NPP-AS and NPP-SRS Capacities . For a complete description of this command, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

Update to the ***sctp*** *command*

The **sctp -a aname** command is updated to revise the format of the header string "Send/Rev Buffer Size=" and "UNKNOWN". For a complete description of this command, refer to the Commands Manual for the EAGLE 5 ISS Release 40.1 documentation set. The following example displays the revised output.

pas:loc=1307:cmd="sctp -a assoc1"

```
Command Accepted - Processing

    e1090203 09-03-03 12:52:56 EST  EAGLE 40.1.0
    4546.1083    SYSTEM       INFO    REPT COND: system alive
                 Report Date:09-03-02  Time:12:49:02
;

    e1090203 09-03-03 12:52:56 EST  EAGLE 40.1.0
    pass:loc=1307:cmd="sctp -a assoc1"
    Command entered at terminal #1.
;

    e1090203 09-03-03 12:52:56 EST  EAGLE 40.1.0
    PASS: Command sent to card
;

    e1090203 09-03-03 12:52:56 EST  EAGLE 40.1.0
    Aname       Local              Local   Remote             Remote
                Address            Port    Address            Port
    assoc1      192.168.110.12     2222    192.168.112.4      5555
                192.168.112.12

              Configuration                        State
           Retransmission Mode = LIN          State = OPEN
    Min. Retransmission Timeout = 10          ULP association id = 18
    Max. Retransmission Timeout = 800         Number of nets = 2
         Max. Number of Retries = 10          Inbound Streams = 1
        Min. Congestion Window  = 3000        Outbound Streams = 2
                Inbound Streams = 2
               Outbound Streams = 2
             Checksum Algorithm = crc32c
           Send/Rcv Buffer Size = 204800

                                Nets Data

         IP Address     192.168.112.4           State     Reachable
               Port     5555                  Primary     YES
                MTU     1500                     cwnd     16384
          ssthresh      16384                     RTO     120

         IP Address     192.168.112.5           State     Reachable
               Port     7777                  Primary     NO
                MTU     1500                     cwnd     16384
          ssthresh      16384                     RTO     120

                        Last Net Sent To = 192.168.112.4
                     Last Net Rcvd From = 192.168.112.4
                    Over All Eror Count = 0
                             Peers Rwnd = 13880
```

```
                                My Rwnd = 16384
                             Max Window = 16384
                     Initial Seq Number = 24130
                 Next Sending Seq Number = 124686
                   Last Acked Seq Number = 124669
            Maximum Outbound Char Count = 16384
            Current Outbound Char Count = 2112
               Number Unsent Char Count = 0
              Outbound Data Chunk Count = 16
                           Number Unsent = 0
                Number To Retransmit = 0


                    ip datagrams rcvd = 155402
     ip datagrams with data chunks rcvd = 120844
                       data chunks rcvd = 367908
                       data chunks read = 367900
                          dup tsns rcvd = 8
                             sacks rcvd = 38734
                  gap ack blocks rcvd = 3
               heartbeat requests rcvd = 135
                   heartbeat acks rcvd = 52
               heartbeat requests sent = 52
                     ip datagrams sent = 129254
     ip datagrams with data chunks sent = 73084
                       data chunks sent = 396330
            retransmit data chunks sent = 135
                             sacks sent = 64872
                           send failed = 0
                retransmit timer count = 0
          consecutive retransmit timeouts = 0
     RTT between RMIN and RMAX inclusive = 6
                  RTT greater than RMAX = 0
                  fast retransmit count = 135
                       recv timer count = 0
                  heartbeat timer count = 244
                       none left tosend = 0
                    none left rwnd gate = 5
                    none left cwnd gate = 8
                                UNKNOWN = 0


;

    e1090203 09-03-03 12:52:56 EST  EAGLE 40.1.0

    SCTP command complete

;
```

Update to the **`tst-msg`** *and* **`tst-npp-msg`** *Commands*

The output for the **`tst-msg`** and the **`tst-npp-msg`** commands is updated as follows:

- The FORMAT fields display "FORMAT" only and are used to indicate whether formatting actions are executed.
- If no formatting actions are executed, then the OUTG DIGITS field displays UNMODIFIED.
- If any of the digit strings are blank, then EMPTY is displayed in the output for the string.

NOTE: These updates apply to only the `mode=full` and `mode=debug` versions of these commands.

For complete descriptions of these commands, refer to the *Commands Manual* for the EAGLE 5 ISS Release 40.1 documentation set.

The following examples display output for the **`tst-msg`** command.

Example 1 displays the output for the **full** mode of the command for the TTR protocol is used.

tst-msg:feat=ttr:prot=ttr:msgn=1:mode=full

```
    tekelecstp 09-01-05 18:20:46 EST  EAGLE 40.1.0
;

    TST-MSG-RESULT
    ==============

    MSG = 1         TCAP_TYPE = INAP

    SCCP
     CGPA_GT = 2
     CGPA_GT_NAI = 4       CGPA = 9111111111
     CDPA_GT = 2
     CDPA_GT_NAI = 4       CDPA = 9818555001

    TCAP
     SK = 6ba1b1c1         BCSM = 02
     CGPN_NAI = 4          CGPN = 919818000005
     CDPN_NAI = 4          CDPN = 919818000001

    CDPN NPP PROCESSING

    SERVICE NAME = idprcdpn SERVICE STATUS = ON
         INC DIGITS = 919818000001
         NAI = 4 FNAI = intl FDIGLEN = 12

    MATCHING RULE
         FNAI = intl FDIGLEN = 0 FPFX = *
         ACTION SET NAME = cdpnintl

    CONDITIONING RESULT
         CA1 = cc2        EXECUTED = Y RESULT = PASS
         CA2 = ac2        EXECUTED = Y RESULT = PASS
         CA3 = snx        EXECUTED = Y RESULT = PASS
         INC DIGITS = 919818000001
         COND DIGITS = 919818000001

    SERVICE APPLICATION
         SA1 = ccncchk    EXECUTED = Y FORMAT = Y
         SA2 = cdpnnp     EXECUTED = Y FORMAT = Y
         SA3 = cgpnnprqd  EXECUTED = Y FORMAT = Y

    FORMATING RESULT
         FA1 = dlma       EXECUTED = Y RESULT = PASS
         FA2 = cc         EXECUTED = Y RESULT = PASS
         FA3 = rn         EXECUTED = Y RESULT = PASS
         FA4 = ac         EXECUTED = Y RESULT = PASS
         FA5 = sn         EXECUTED = Y RESULT = PASS
         OUTG DIGITS = 00910123459818000001
         OUTG FNAI = intl
;

    tekelecstp 09-01-05 18:20:46 EST  EAGLE 40.1.0

    CGPN NPP PROCESSING

    SERVICE NAME = idprcgpn SERVICE STATUS = ON
         INC DIGITS = 919818000005
         NAI = 4 FNAI = intl FDIGLEN = 12

    MATCHING RULE
         FNAI = intl FDIGLEN = 12 FPFX = *
         ACTION SET NAME = cgpn1

    CONDITIONING RESULT
         CA1 = cc2        EXECUTED = Y RESULT = PASS
         CA2 = ac2        EXECUTED = Y RESULT = PASS
         CA3 = sn8        EXECUTED = Y RESULT = PASS
         INC DIGITS = 919818000005
```

```
          COND DIGITS = 919818000005

     SERVICE APPLICATION
          SA1 = cgpnnp     EXECUTED = Y FORMAT = Y

     FORMATING RESULT
          FA1 = dlma       EXECUTED = Y RESULT = PASS
          FA2 = cc         EXECUTED = Y RESULT = PASS
          FA3 = rn         EXECUTED = Y RESULT = PASS
          FA4 = ac         EXECUTED = Y RESULT = PASS
          FA5 = sn         EXECUTED = Y RESULT = PASS
          OUTG DIGITS = 00915432109818000005
          OUTG FNAI = intl
;
```

Example 2 displays output for the **debug** mode of the command when the TTR protocol is used.

tst-msg:feat=ttr:prot=ttr:msgn=1:mode=debug

```
     tekelecstp 09-01-05 18:20:46 EST  EAGLE 40.1.0
;

     TST-MSG-RESULT
     ==============

     MSG = 2         TCAP_TYPE = INAP

     SCCP
      CGPA_GT = 4
      CGPA_GT_NAI = 4       CGPA = 9111111111
      CDPA_GT = 4
      CDPA_GT_NAI = 4       CDPA = 9818555001

     TCAP
      SK = 6ba1b1c1         BCSM = 02
      CGPN_NAI = 4          CGPN = 919818000005
      CDPN_NAI = 4          CDPN = 009090919818000001

     CDPN NPP PROCESSING

     SERVICE NAME = idprcdpn SERVICE STATUS = ON
          INC DIGITS = 009090919818000001
          NAI = 4 FNAI = intl FDIGLEN = 18

     MATCHING RULE
          FNAI = intl FDIGLEN = 18 FPFX = 00
          ACTION SET NAME = cdpn6

     CONDITIONING RESULT
          CA1 = fpfx       EXECUTED = Y RESULT = PASS
          CA2 = pfxa4      EXECUTED = Y RESULT = PASS
          CA3 = cc2        EXECUTED = Y RESULT = PASS
          CA4 = ac2        EXECUTED = Y RESULT = PASS
          CA5 = sn8        EXECUTED = Y RESULT = PASS
          INC DIGITS = 009090919818000001
          COND DIGITS = 919818000001

     SERVICE APPLICATION
          SA1 = ccncchk    EXECUTED = Y FORMAT = Y
          CCNC Check Passed
          SA2 = cdpnnp     EXECUTED = Y FORMAT = Y
          RTDB LKPSUCC Entity=1 Cdpn=919818000001
          SA3 = lacck      EXECUTED = Y FORMAT = Y
          FPFX & PFXA FAs set to None
          SA4 = cgpnnprqd  EXECUTED = Y FORMAT = Y

     FORMATING RESULT
          FA1 = fpfx       EXECUTED = Y RESULT = PASS
          FA2 = pfxa       EXECUTED = Y RESULT = PASS
          FA3 = dlma       EXECUTED = Y RESULT = PASS
          FA4 = cc         EXECUTED = Y RESULT = PASS
          FA5 = rn         EXECUTED = Y RESULT = PASS
          FA6 = ac         EXECUTED = Y RESULT = PASS
```

```
          FA7 = sn         EXECUTED = Y RESULT = PASS
          OUTG DIGITS = 00910123459818000001
          OUTG FNAI = intl
;

    tekelecstp 09-01-05 18:20:46 EST  EAGLE 40.1.0

    CGPN NPP PROCESSING

    SERVICE NAME = idprcgpn SERVICE STATUS = ON
          INC DIGITS = 919818000005
          NAI = 4 FNAI = intl FDIGLEN = 12

    MATCHING RULE
          FNAI = intl FDIGLEN = 12 FPFX = *
          ACTION SET NAME = cgpn1

    CONDITIONING RESULT
          CA1 = cc2        EXECUTED = Y RESULT = PASS
          CA2 = ac2        EXECUTED = Y RESULT = PASS
          CA3 = sn8        EXECUTED = Y RESULT = PASS
          INC DIGITS = 919818000005
          COND DIGITS = 919818000005

    SERVICE APPLICATION
          SA1 = cgpnnp     EXECUTED = Y FORMAT = Y
          RTDB LKPSUCC Entity=1 Cgpn=919818000005

    FORMATING RESULT
          FA1 = dlma       EXECUTED = Y RESULT = PASS
          FA2 = cc         EXECUTED = Y RESULT = PASS

;
```

Example 3 displays the output in debug mode when the ISUP protocol is used.

tst-msg:msgn=1:loc=2217:prot=isup:feat=tif3:mode=debug

```
    tklc1191001 09-01-08 08:06:03 EST  EAGLE5 40.1.0

    SERVICE NAME = tif3 SERVICE STATUS = ON
          INC DIGITS = 1970442001
          NAI = 4 FNAI = intl FDIGLEN = 10

    MATCHING RULE
          FNAI = intl FDIGLEN = 0 FPFX = 1970
          ACTION SET NAME = temp3

    CONDITIONING RESULT
          CA1 = cc1        EXECUTED = Y RESULT = PASS
          CA2 = dnx        EXECUTED = Y RESULT = PASS
          INC DIGITS = 1970442001
          COND DIGITS = 1970442001

    SERVICE APPLICATION
          SA1 = nprls      EXECUTED = Y FORMAT = Y
          INDIV RLS redir=1 cause=np(0) RN=ffffff SP=dd02001

    FORMATING RESULT
          FA1 = rn         EXECUTED = Y RESULT = PASS
          FA2 = cc         EXECUTED = Y RESULT = PASS
          OUTG DIGITS = ffffff1
          OUTG FNAI = intl

;
```

The following examples display output for the **tst-npp-msg** command. Example 1 displays the output when an international FNAI is used.

tst-npp-msg:loc=1101:digs=9090920292252645:nai=7:mode=full

```
    tekelecstp 09-01-07 14:48:17 EST  EAGLE 40.1.0
```

```
SERVICE NAME = nppt SERVICE STATUS = ON
     INC DIGITS = 9090920292252645
     NAI = 7 FNAI = intl FDIGLEN = 16

MATCHING RULE
     FNAI = intl FDIGLEN = 16 FPFX = 9090
     ACTION SET NAME = set1

CONDITIONING RESULT
     CA1 = ign4       EXECUTED = Y RESULT = PASS
     CA2 = cc2        EXECUTED = Y RESULT = PASS
     CA3 = dn10       EXECUTED = Y RESULT = PASS
     INC DIGITS = 9090920292252645
     COND DIGITS = 920292252645

SERVICE APPLICATION
     SA1 = rtdbtrn    EXECUTED = Y FORMAT = Y

FORMATING RESULT
     FA1 = cc         EXECUTED = Y RESULT = PASS
     FA2 = rn         EXECUTED = Y RESULT = PASS
     FA3 = dn         EXECUTED = Y RESULT = PASS
     OUTG DIGITS = 92abcd0292252645
     OUTG FNAI = intl
```

Example 2 displays the output when a National FNAI is used.

`tst-npp-msg:loc=1101:digs=0609192252645:nai=5:mode=full`

```
tekelecstp 09-01-07 14:48:17 EST  EAGLE 40.1.0

SERVICE NAME = nppt SERVICE STATUS = ON
     INC DIGITS = 0609192252645
     NAI = 5 FNAI = natl FDIGLEN = 13

MATCHING RULE
     FNAI = natl FDIGLEN = 13 FPFX = 060
     ACTION SET NAME = set2

CONDITIONING RESULT
     CA1 = ccdef      EXECUTED = Y RESULT = PASS
     CA2 = ign3       EXECUTED = Y RESULT = PASS
     CA3 = dn7        EXECUTED = Y RESULT = PASS
     INC DIGITS = 0609192252645
     COND DIGITS = 989192252

SERVICE APPLICATION
     SA1 = rtdbtrnsp  EXECUTED = Y FORMAT = Y

FORMATING RESULT
     FA1 = rn         EXECUTED = Y RESULT = PASS
     FA2 = sp         EXECUTED = Y RESULT = PASS
     FA3 = orig       EXECUTED = Y RESULT = PASS
     OUTG DIGITS = 1bce0609192252645
     OUTG FNAI = natl
```

Operational Changes

The following operational changes are generated for the features and other changes in Release 40.1.

Unsolicited Alarm Messages

New unsolicited alarm messages (UAMs) that are available in Release 40.1 are shown below.

Fast Copy

Table 1-1. New UAMs - Fast Copy

UAM	576	Format	Output Group
Action	Added for 40.1		
Old data			
New data	All FC Network Unavailable	FCS	MON
UAM	577	Format	Output Group
Action	Added for 40.1		
Old data			
New data	All FC cards removed	FCS	MON
UAM	578	Format	Output Group
Action	Added for 40.1		
Old data			
New data	FC System is available	FCS	MON
UAM	579	Format	Output Group
Action	Added for 40.1		
Old data			
New data	FC Network Unavailable	CARD	MON
UAM	580	Format	Output Group
Action	Added for 40.1		
Old data			
New data	FC Network available	CARD	MON
UAM	581	Format	Output Group
Action	Added for 40.1		
Old data			
New data	Loss of heartbeat	CARD	MON
UAM	582	Format	Output Group
Action	Added for 40.1		
Old data			
New data	Available heartbeat	CARD	MON
UAM	583	Format	Output Group
Action	Added for 40.1		
Old data			
New data	Unexpected SAM received	SLK	MON
UAM	584	Format	Output Group
Action	Added for 40.1		
Old data			
New data	Expected SAM Received	SLK	MON
UAM	588	Format	Output Group
Action	Added for 40.1		
Old data			
New data	FC Port De-activated	DLK	MON
UAM	589	Format	Output Group

Action	Added for 40.1		
Old data			
New data	FC Port Activated	DLK	MON
UAM	590	Format	Output Group
Action	Added for 40.1		
Old data			
New data	Fast Copy Applicaion De-activated	CARD	MON
UAM	591	Format	Output Group
Action	Added for 40.1		
Old data			
New data	Fast Copy Application Activated	CARD	MON

UAM Format Changes

The following UAM formats are enhanced to support EAGLE 5 ISS Release 40.1:

CARD

```
        1         2         3         4         5         6         7         8
12345678901234567890123456789012345678901234567890123456789012345678901234567890
    xxxx.yyyy zz CARD cccc [device]      text
                 ASSY SN:  nnnnnnnnnnnnn(optional field)
                 HW VERIFICATION CODE: ###(optional field)
                 INFO:  ########  ######(optional field)
                 REASON: ************************************* (optional fld)
                 ALARM INHIBIT LEVEL: XXXX
                 ALARM INHIBIT LEVEL: XXXX       Expires:      yy/mm/dd hh:mm (optional field)
```

DLK

```
        1         2         3         4         5         6         7         8
12345678901234567890123456789012345678901234567890123456789012345678901234567890
    xxxx.yyyy zz DLK cccc,ppp [device]   text
                 Failed Channels:  XXXX  XXXX  XXXX    (Optional)
                 ERROR STATUS: axxxxxxxxx. axxxxxxxxxx.     (Optional)
                 REASON: ************************************* (Optional)
                 ALARM INHIBIT LEVEL:   XXXX                 (Optional)
                 ALARM INHIBIT LEVEL:   XXXX       Expires:      yy/mm/dd hh:mm (optional field)
```

SLK

```
        1         2         3         4         5         6         7         8
12345678901234567890123456789012345678901234567890123456789012345678901234567890
    xxxx.yyyy zz SLK cccc,ppp [lnkset]   text
```

```
SLC=##   FECLLI=@*************            CLASS=@@@@(optional)

Restart Delay(sec)=#######            (optional)

REASON: ************************************ (optional)

ALARM INHIBIT LEVEL:   XXXX        (optional)

ALARM INHIBIT LEVEL:   XXXX       Expires:      yy/mm/dd hh:mm (optional field)
```

Unsolicited Information Messages

New or changed unsolicited information messages (UIMs) that are available in Release 40.1 are shown below:

MO SMS B-Party Routing

Table 1-2. Enhanced UIMs - MO SMS B-Party Routing

UIM	1374	Format	Output Group
Action	Updated for MO SMS B-Party Routing		
Old data	SMS NP Destination address decode failed		
New data	SMS B-Party Address decode failed	I13	APSS
UIM	1375		
Action	Updated for MO SMS B-Party Routing		
Old data	SMS NP failed to modify TCAP message		
New data	SMS Failed to modify TCAP MSU	I13	APSS
UIM	1376	Format	Output Group
Action	Updated for MO SMS B-Party Routing		
Old data	SMS NP outbound digits length exceeds limit		
New data	SMS Failed to modify B-Party digits	I13	APSS

MO SMS NPP

Table 1-3. New UIMs - MO SMS NPP

UIM	1410	Format	Output Group
Action	Added for MO SMS NPP		
Old data			
New data	MOSMS:Migrated Subscriber with no entity	I13	APSS
UIM	1416	Format	Output Group
Action	Added for MO SMS NPP		
Old data			
New data	MAP Missing Mandatory Parameters	I13	APSS
UIM	1425	Format	Output Group
Action	Added for MO SMS NPP		
Old data			
New data	SMS A-party Address decode failed	I13	APSS

Non-feature Related

Table 1-4. Enhanced UIMs - Non-feature Related

UIM	1150	Format	Output Group
Action	Enhanced for 40.1		
Old data	SLK Inhibit denied		
New data		I81	LINK MAINTENANCE

UIM Format Changes

UIM format I81 is added to Release 40.1.

```
        1         2         3         4         5         6         7         8
12345678901234567890123456789012345678901234567890123456789012345678901234567890
    xxxx.xxxx    CARD cccc,ppp INFO      'text'
                 Source : ************************************
                 Reason : ************************************
```

Error Messages

Error Messages - E5-OAM Card Set

Table 1-5. Error Messages - E5-OAM Card Set

Response ID Code	Error Message	New?	Used by Command
E2014	Unrecognized parameter identifier	Y	**rtrv-clkopts**
E2131	Parameters not valid for card type	N	**chg-clkopts**
E2144	Location invalid for hardware configuration	N	**copy-fta** **copy/disp-gpl** **disp-disk-dir** **disp-tbl**
E2157	Source parameter invalid for upgrade action	Y	**act-upgrade**
E2165	Removable drive not inserted	N	**act-upgrade**
E2314	Invalid filename entered	N	**chg-db**
E2395	Removable drive levels must match	N	**chg-db**
E2399	Removable drive not allowed for upgrade	N	**act-upgrade**
E2729	TDM does not support Global Timing Interface	N	**chg-clkopts**
E2738	Can not inhibit IMT bus - alternate bus is in abnormal state	N	**act-upgrade**
E2852	Failed reading STP Options table	N	**chg-clkopts**
E2945	Source database version is not compatible	N	**act-upgrade**
E3084	Both OAM cards must be of the same type	N	**copy/dlt-fta** **copy-seculog** **disp-disk-stats**

Response ID Code	Error Message	New?	Used by Command
			disp-fta-dir
E3200	TST-DISK command prevented	N	**tst-disk**
E3202	TST-DISK not allowed on active TDM	N	**tst-disk**
E3444	Upgrade prevented due to auto-inhibited card	N	**act-upgrade**
E3681	Source and destination combination is not allowed	N	**act-upgrade**
E3725	Removable drive database level is not compatible	N	**act-upgrade**
E3799	FORCE=YES must be specified	N	**chg-clkopts**
E3908	Invalid OAM HW config or an HMUX card is out of service	N	**act-upgrade**
E3950	Standby MASP is inhibited	N	**chg-db**
E4851	Removable cartridge can not be inserted	N	**act-upgrade**
E4911	Disk invalid for hardware configuration	Y	**chg/copy-gpl** **chg/copy-tbl** **disp-disk-dir** **format/tst-disk**
E4912	Disk invalid for specified Location	Y	**copy-gpl** **copy-tbl** **format-disk**
E4913	Disk parameter required	Y	**disp-disk-dir**
E4914	Src invalid for hardware configuration	Y	**act-upgrade** **chg-db**
E4915	Dest invalid for hardware configuration	Y	**chg-db**
E4916	Command invalid for hardware configuration	Y	**disp/set-lba**
E4918	Could not access USB disk	Y	**act-upgrade** **chg-db** **chg/copy-gpl**
E4919	Could not access RAM disk	Y	**act-upgrade**
E4920	Cannot copy table onto itself	Y	**copy-tbl**
E4921	Type invalid for hardware configuration	Y	**format-disk**

EAGLE Fast Copy

Table 1-6. Error Messages - EAGLE Fast Copy

Response ID Code	Error Message	New?	Used by Command
E2368	System busy - try again later	N	**rept-stat-mon**
E2964	PVN/FCNA/FCNB conflicts with IPRTE or IPLNK network	N	**act-upgrade**
E3093	EROUTE not Configured	N	**rept-stat-mon**
E3967	E5IS must be on	N	**chg/rtrv-netopts**
E4332	The specified network address is assigned to PVN/FCNA/FCNB	N	**chg-ip-lnk**
E4333	The specified IP route is assigned to PVN/FCNA/FCNB	N	**ent-ip-rte**

Response ID Code	Error Message	New?	Used by Command
E4766	FCMODE must not be FCOPY	Y	**chg-netopts**
E4800	EISCOPY must be ON	Y	**chg-eisopts**
E4840	Fast Copy capable card is required	Y	**rept-stat-mon**
E4878	Invalid FCNA	Y	**chg-netopts**
E4946	Invalid FCNB	Y	**chg-netopts**
E4974	FCNA and FCNAMASK must not be identical	Y	**chg-netopts**
E5012	FCNB and FCNBMASK must not be identical	Y	**chg-netopts**
E5013	PVN, FCNA and FCNB must not be identical	Y	**chg-netopts**
E5014	EISCOPY must be turned OFF	Y	**chg-netopts**
E5015	FCMODE must be turned OFF	Y	**chg-eisopts**
E5016	TYPE parameter is required	Y	**rept-stat-mon**
E5017	Command Obsolete. Please use rept-stat-mon	Y	**rept-stat-eroute**
E5018	MODE can be specified only when TYPE is eroute	Y	**rept-stat-mon**
E5019	Either LOC or MODE can be specified	Y	**rept-stat-mon**
E5028	Eroute or Fast Copy card is required	Y	**rept-stat-mon**
E5045	At least one Fast Copy capable card must be IS-NR	Y	**chg-eisopts**

GTT LS ARI

Table 1-7. Error Messages - GTT LS ARI

Response ID Code	Error Message	New?	Used by Command
E2155	Invalid parameter combination specified	N	**dlt-map** **dlt-mrn**
E2996	Intermed GTT Load Sharing feature must be ON	N	**enable-ctrl-feat**
E2999	Failed reading the MRN table	N	**ent/chg/dlt-map**
E4480	Specified MRNSET does not exist	N	**ent/chg-map**
E4483	PC does not exist in specified MRNSET	Y	**ent/chg-map**
E4524	Failed reading MAP table	N	**ent/chg/dlt-mrn**
E4527	Specified MAPSET does not exist	N	**ent/chg-mrn**
E5040	Alternate RI Mate PC must be a full PC	Y	**ent/chg-map** **ent/chg-mrn**
E5041	GTT LS ARI feature must be enabled	Y	**ent/chg/dlt-map** **ent/chg/dlt-mrn**
E5042	PC and Alternate RI Mate PC network types don't match	Y	**ent/chg-map** **ent/chg-mrn**
E5043	MRNPC must be specified when MRNSET is specified	Y	**ent-map**
E5044	MRNPC does not exist in specified MRNSET	Y	**ent/chg-map**
E5046	SSN must be specified to update Alternate RI Mate	Y	**dlt-map**
E5047	Incorrect Alternate RI Mate Set specified	Y	**dlt-map** **dlt-mrn**

Response ID Code	Error Message	New?	Used by Command
E5048	MAPPC/MAPSSN must be specified when MAPSET is specified	Y	**ent-mrn**
E5049	MAPPC and MAPSSN must be specified together	Y	**ent-mrn**
E5051	MAPPC/MAPSSN does not exist in MAPSET	Y	**ent/chg-mrn**
E5052	MAPSET/MAPPC does not exist in MAP table	Y	**ent/chg-mrn**
E5054	PC must be given if MRNSET=dflt and MAPSET is specified	Y	**dlt-mrn**
E5055	Flexible GTT Load Sharing feature must be enabled	Y	**enable-ctrl-feat**
E5082	GTT LS ARI feature must be turned OFF	Y	**chg-ctrl-feat**
E5083	MAPPC can't be TPC or Mate of TPC	Y	**ent/chg-mrn**
E5084	To provision Alternate RI Mate, specify MRNPC	Y	**chg-map**
E5085	To provision Alternate RI Mate, specify MAPPC/MAPSSN	Y	**chg-mrn**
E5086	Alternate RI Mate already provisioned	Y	**ent-mrn**
E5087	ESWT, GRPWT and THR can not be specified with ARI Mate PC	Y	**chg-map**
E5088	ARI Mate can't be provisioned for a MAPSET having TPC	Y	**ent/chg-map**

Error Messages - GTT Loadsharing between ITU Network Types

Table 1-8. Error Messages - GTT Loadsharing between ITU Network Types

Response ID Code	Error Message	New?	Used by Command
E2417	Point code does not exist in the routing table	N	**ent-cspc**
E4985	Destination does not support same ITU ntwk alias combination	Y	**ent/chg-dstn**
E5001	Up to two alias PCs are supported per DPC	Y	**ent/chg-dstn**
E5072	PC has no allowed route	Y	**ent-cspc**
E5074	ITU destination does not support ANSI/ITU alias combination	Y	**ent/chg-dstn**

Error Messages - MO SMS B-Party Routing

Table 1-9. Error Messages MO SMS B-Party Routing

Response ID Code	Error Message	New?	Used by Command
E3544	Failed Reading GTT Set Table	N	**chg-gsmsmsopts** **chg-is41smsopts**
E3561	GTT Set specified by GTT Set Name does not exist	N	**chg-gsmsmsopts** **chg-is41smsopts**
E3631	Incompatible Feature/Option status	N	**ent-chg-srvsel**
E4562	MOSMSGTTDIG option must be SCCPCdPA	Y	**chg-gsmsmsopts** **chg-is41smsopts**
E4820	Failure reading EGLEOPTS table	N	**dlt-gttset**
E4995	GTT Set is being referenced in GSM/IS41 SMSOPTS	Y	**dlt-gttset**
E4996	MO SMS B-Party Routing feature must be Enabled	Y	**chg-gsmsmsopts** **chg-is41smsopts**
E4997	SETTYPE of specified GTTSET must be CdGTA	Y	**chg-gsmsmsopts** **chg-is41smsopts**

Response ID Code	Error Message	New?	Used by Command
E4998	BPARTYGTTSN must not be NONE	Y	**chg-gsmsmsopts** **chg-is41smsopts**

Error Messages - MO-SMS NPP

Table 1-10. Error Messages - MO-SMS NPP

Response ID Code	Error Message	New?	Used by Command
E3474	Prepaid SMS Intercept Ph1 feature must be enabled	N	**ent/chg-npp-srs**
E3479	Port Check for MO SMS feature must be enabled	N	**ent/chg-npp-srs**
E4143	GPORT/IGM must be enabled or VFLEX must be ON	N	chg-gsmopts
E4446	MO-based GSM SMS NP or MO SMS ASD/GRN must be enabled	N	**chg-gsmsmsopts**
E4793	The parameter value can't be changed back to NONE	Y	**chg-gsmsmsopts**
E4819	Failure reading TSTMSG Table	Y	**chg/rtrv-gsm-msg** **chg/rtrv-is41-msg**
E4841	MNPSMS or MO SMS GSM NP feature must be enabled	N	**chg-gsmsmsopts**
E4855	MO SMS IS41 NP or MO SMS IS41-to-GSM Migr must be enabled	Y	**chg-is41smsopts**
E4949	TEST MSG protocol does not match with the FEAT specified	Y	**tst-msg**
E4953	RESET is mutually exclusive with any other parameter	Y	**chg-gsm-msg** **chg-is41-msg**
E4957	MO SMS IS41-to-GSM Migration feature must be enabled	N	**ent/chg-npp-srs** **chg-is41smsopts**
E5002	MOSMS IS41 features must be enabled	Y	**chg-is41smsopts** **tst-msg**
E5003	MOSMS GSM features must be enabled	Y	**tst-msg**
E5026	ASDLKUP and CGPNASDRQD SAs are mutually exclusive	Y	**ent/chg-npp-srs**
E5027	GRNLKUP and CGPNASDRQD SAs are mutually exclusive	Y	**ent/chg-npp-srs**
E5030	MO SMS ASD Feature must be enabled	Y	**ent/chg-npp-srs**
E5031	MO SMS GRN Feature must be enabled	Y	**ent/chg-npp-srs**
E5115	MO-based IS41 SMS NP must be enabled	Y	**ent/chg-npp-srs** **chg-gsmsmsopts** **chg-is41smsopts**
E5116	MO-based GSM SMS NP must be enabled	Y	**ent/chg-npp-srs**
E5118	MO SMS GSM NP, PPSMS or MO SMS ASD/GRN must be enabled	Y	**chg-gsmsmsopts**

MO SMS Prepaid Intercept on B-Party

Table 1-11. Error Messages - MO SMS Prepaid Intercept on B-Party

Response ID Code	Error Message	New?	Used by Command
E3368	PPT must not be specified without PC/PCA/PCI/PCN/RI/SETID	N	**chg-ppsopts**
E3480	PPT must be specified with PC/PCA/PCI/PCN/RI/SETID	N	**chg-ppsopts**

Response ID Code	Error Message	New?	Used by Command
E4629	RI/SETID must not be specified when PC/PCA/PCI/PCN=none	N	`chg-ppsopts`
E4707	PRX using DPC not allowed in GTT, MAP, MRN, PPSOPTS tables	N	`chg-ppsopts`

Non-feature PRs

Table 1-12. Error Messages - Non-feature

Response ID Code	Error Message	New?	Used by Command
E2417	Point code does not exist in the routing table	N	`ent-cspc`
E3266	Only 6 message relay services can be assigned	N	`chg-lnp-serv`
E3338	PC/SETID/SSN does not exist in MAP table	N	`chg-ppsopts`
E3368	PPT can be specified only with PC/PCA/PCI/PCN/RI/SETID/SSN	N	`chg-ppsopts`
E3480	PPT must be specified with PC/PCA/PCI/PCN/RI/SETID/SSN	N	`chg-ppsopts`
E4239	At least one other optional parameter is required	N	`chg-lnp-serv`
E4719	Either SERV or TT must be specified	Y	`chg-lnp-serv`
E4842	Cannot set DefCC to NONE, if IDPR feature is ON	Y	`chg-stpopts`
E5072	Point code does not exist in the routing table	Y	`ent-cspc`
E5102	PC/PCA/PCI/PCN must be specified if SSN is specified	Y	`chg-ppsopts`
E5117	ALW option invalid for IPSG-M3UA associations	Y	`chg-assoc`
E5133	Interchanging IPLIMx/IPGWx Assoc to IPSG Assoc not supported	Y	`chg-assoc`
E5134	DV, NDV, SERV, or NSERV would create invalid SERV and DV	Y	`chg-lnp-serv`

Related Publications

For information about additional publications that are related to this document, refer to the *Related Publications* document. The *Related Publications* document is published as a part of the *Release Documentation* and is also published as a separate document on the Tekelec Customer Support Site.

Locate Product Documentation on the Customer Support Site

Access to Tekelec's Customer Support site is restricted to current Tekelec customers only. This section describes how to log into the Tekelec Customer Support site and locate a document. Viewing the document requires Adobe Acrobat Reader, which can be downloaded at www.adobe.com.

1. Log into the Tekelec **new** Customer Support site at support.tekelec.com .

   NOTE: If you have not registered for this new site, click the Register Here link. Have your customer number available. The response time for registration requests is 24 to 48 hours.

2. Click the **Product Support** tab.
3. Use the Search field to locate a document by its part number, release number, document name, or document type. The Search field accepts both full and partial entries.
4. Click a subject folder to browse through a list of related files.
5. To download a file to your location, right-click the file name and select **Save Target As**.

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 5 ISS. To enroll in any of the courses or for schedule information, contact the Tekelec Training Center at (919) 460-3064 or E-mail **eagletrain@tekelec.com**.

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

Customer Care Center

The Tekelec Customer Care Center is your initial point of contact for all product support needs. A representative takes your call or email, creates a Customer Service Request (CSR) and directs your requests to the Tekelec Technical Assistance Center (TAC). Each CSR includes an individual tracking number. Together with TAC Engineers, the representative will help you resolve your request.

The Customer Care Center is available 24 hours a day, 7 days a week, 365 days a year, and is linked to TAC Engineers around the globe.

Tekelec TAC Engineers are available to provide solutions to your technical questions and issues 7 days a week, 24 hours a day. After a CSR is issued, the TAC Engineer determines the classification of the trouble. If a critical problem exists, emergency procedures are initiated. If the problem is not critical, normal support procedures apply. A primary Technical Engineer is assigned to work on the CSR and provide a solution to the problem. The CSR is closed when the problem is resolved.

Tekelec Technical Assistance Centers are located around the globe in the following locations:

Tekelec - Global

Email (All Regions): support@tekelec.com

- **USA and Canada**

  Phone:

  1-888-FOR-TKLC or 1-888-367-8552 (toll-free, within continental USA and Canada)

  1-919-460-2150 (outside continental USA and Canada)

  TAC Regional Support Office Hours:

  8:00 a.m. through 5:00 p.m. (GMT minus 5 hours), Monday through Friday, excluding holidays

- **Central and Latin America (CALA)**

  Phone:

  USA access code +1-800-658-5454, then 1-888-FOR-TKLC or 1-888-367-8552 (toll-free)

  TAC Regional Support Office Hours (except Brazil):

  10:00 a.m. through 7:00 p.m. (GMT minus 6 hours), Monday through Friday, excluding holidays

  — **Argentina**

    Phone:

0-800-555-5246 (toll-free)

— **Brazil**

Phone:

0-800-891-4341 (toll-free)

TAC Regional Support Office Hours:

8:30 a.m. through 6:30 p.m. (GMT minus 3 hours), Monday through Friday, excluding holidays

— **Chile**

Phone:

1230-020-555-5468

— **Columbia**

Phone:

01-800-912-0537

— **Dominican Republic**

Phone:

1-888-367-8552

— **Mexico**

Phone:

001-888-367-8552

— **Peru**

Phone:

0800-53-087

— **Puerto Rico**

Phone:

1-888-367-8552 (1-888-FOR-TKLC)

— **Venezuela**

Phone:

0800-176-6497

• **Europe, Middle East, and Africa**

— **Signaling**

Phone:

+44 1784 467 804 (within UK)

TAC Regional Support Office Hours:

8:00 a.m. through 7:00 p.m. (GMT), Monday through Friday, excluding holidays

— **Software Solutions**

Phone:

+33 3 89 33 54 00

TAC Regional Support Office Hours:

8:00 a.m. through 7:00 p.m. (GMT), Monday through Friday, excluding holidays

- **Asia**

— **India**

Phone:

+91 124 436 8552 or +91 124 436 8553

TAC Regional Support Office Hours:

10:00 a.m. through 7:00 p.m. (GMT plus 5 1/2 hours), Monday through Saturday, excluding holidays

— **Singapore**

Phone:

+65 6796 2288

TAC Regional Support Office Hours:

9:00 a.m. through 6:00 p.m. (GMT plus 8 hours), Monday through Friday, excluding holidays

EAGLE 5 ISS Card Overview Table

The EAGLE 5 ISS Card Overview table is a resource table that provides an overview of information for cards that can be provisioned in the EAGLE 5 ISS. For a detailed description of supported hardware, see the Hardware Baseline .

This table lists the following card information:

- The name of the card on the card label
- The card part number
- The provisioned card type
- The number of shelf slots that the card occupies (1 or 2)
- The number of physical ports on the card
- The maximum number of links that can be assigned to the card

- The GPLs and applications that can run on the card

Table 1-13. EAGLE 5 ISS Card Overview Table

Card Name as shown on card label	Part Number	Provisioned Card Type	Per Card Slots/Ports		Links per Card	Card GPLs	Card Applications
ACM	870-1008-02 870-1008-03 870-1008-04 870-1008-05	acmenet	2	1	1 IP Service	stplan imt	stplan
DCM	870-1945-01 870-1945-02 870-1945-03 870-1984-01 (DCMX)	dcm	2	2	1 IP Service	bpdcm vwxslan	stplan
				2	2	bpdcm iplim iplimi	iplim iplimi
				2	1	bpdcm ss7ipgw ipgwi	ss7ipgw ipgwi
		stc	2	2	2 IP Service	bpdcm eroute	eroute
EDCM (SSEDCM)	870-2372-01 870-2372-08 870-2372-13^	dcm	1	2	1 IP Service	bpdcm vwxslan	stplan
					8	bpdcm iplim iplimi	iplim iplimi
					1	bpdcm ss7ipgw ipgwi	ss7ipgw ipgwi
	870-2372-01	stc	1	2	2 IP Service	bpdcm eroute	eroute
EDCM-A (SSEDCM)	870-2508-01 870-2508-02^	dcm	1	2	1 IP Service	bpdcm vwxslan	stplan
		stc	1	2	2 IP Service	bpdcm eroute	eroute
DSM†	1 GB MEM 870-1984-02	dsm	2	2	2 IP service	bpdcm vsccp	vsccp

Card Name as shown on card label	Part Number	Provisioned Card Type	Per Card Slots/Ports		Links per Card	Card GPLs	Card Applications
	870-1984-08 870-1984-09 870-1984-15^ 870-1984-17^ 2 GB MEM 870-1984-03 4 GB MEM 870-1984-05 870-1984-06 870-1984-07 870-1984-13^ 870-1984-16^					gls	
DSM-1G	870-2371-02 870-2371-06 870-2371-08 870-2371-13^	ipsm	1	2 (use only A)	1 IP service	bpdcm ips	ips
EDSM-2G*	870-2372-03 870-2372-07 870-2372-09 870-2372-14^ 870-2372-15^	mcpm	1	2 (use only A)	1 IP service	bpdcm bpdcm2 mcp	mcp
E1/T1 MIM††	870-2198-01 870-2198-02 870-2198-03 870-2198-04 870-2198-07^	lime1 limt1 limch	1	2	8	ss7ml bpmplt	ss7ansi ccs7itu
E1-ATM	870-2455-01 870-2455-02 870-2455-03 870-2455-05^	lime1atm	1	2	1	atmitu bphcap bphcapt	atmitu
E5-ATM	870-1872-01^	limatm	2	2	2	atmhc blbepm blcpld bldiag6	atmansi

Card Name as shown on card label	Part Number	Provisioned Card Type	Per Card Slots/Ports		Links per Card	Card GPLs	Card Applications
	870-1872-02^	lime1atm				blvxw6 imtpci	atmitu
E5-E1T1	870-1873-02 870-1873-03^ 870-1873-04^	lime1 limt1	1	8	32	ss7hc blbepm bldiag6 blvxw6 imtpci pldpmc1 blcpld	ss7ansi ccs7itu
		lime1 (for SE-HSL)	1	8	1		ccs7itu
E5-ENET	870-2212-02 870-2212-03^ 870-2212-04^ 870-2212-05^	dcm	1	2	16	bldiag6 blbepm iplhc imtpci blvxw6 blcpld	iplim iplimi
			1	2	1	bldiag6 blbepm ipghc imtpci blvxw6 blcpld	ss7ipgw ipgwi
			1	2	2 IP Service	slanhc bldiag6 blbepm blvxw6 blcpld imtpci	stplan
			1	2	32	ipsg bldiag6 blbepm blvxw6 blcpld imtpci	ipsg

Card Name as shown on card label	Part Number	Provisioned Card Type	Per Card Slots/Ports		Links per Card	Card GPLs	Card Applications
		stc	1	2	2 IP Service	erthc bldiag6 blbepm blvxw6 imtpci blcpld	eroute
		enet	1	2	32	ipsg bidiag6 blbepm blvxw6 blcpld imtpci	ipsg
E5-IPSM	870-2877-01^ 870-2877-02^	ipsm	1	2 (use only A)	1 IP service	ipshc imtpci blcpld blvxw6 bldiag6 blbepm	ips
E5-MASP	870-2903-01^	N/A	2	2	N/A	oamhc blmcap	oam
E5-MDAL	870-2900-01^	N/A	2	N/A	N/A	N/A	N/A
E5-SM4G	870-2860-01^ 870-2860-02^	dsm	2	2	2 IP Service	sccphc imtpci blcpld blvxw6 bldiag6 bpbsmg	vsccp
E5-TSM	870-2943-03^	tsm	1	1	N/A	glshc blbepm blcpld bldiags6 blvxw6 imtpci	gls

Card Name as shown on card label	Part Number	Provisioned Card Type	Per Card Slots/Ports		Links per Card	Card GPLs	Card Applications
EILA	870-2049-01 870-2049-02	limds0 limocu limv35	1	2	2	ss7ansi ss7gx25 ccs7itu imt	ss7ansi ss7gx25 ccs7itu
EILA-T	870-2049-03	limds0 limocu limv35	1	2	2	ss7ansi ss7gx25 ccs7itu imt	ss7ansi ss7gx25 ccs7itu
GPSM-II	870-2360-01 870-2360-05 870-2360-06 870-2360-08^ 870-2360-09^	N/A	1	N/A	N/A	eoam bpdcm bpdcm2	oam
HC-MIM††	870-2671-01 870-2671-02 870-2671-03^	lime1 limt1	2	8	64	ss7hc blbios blcpld blvxw6 bldiag6 pldpmc1 imtpci	ss7ansi ccs7itu
		lime1 (for SE-HSL)		8	2		ccs7itu
HIPR	870-2574-01 870-2574-02^	N/A	1	N/A	N/A	hipr	hipr
HMUX	870-1965-01 870-1965-03^	N/A	1	N/A	N/A	bphmux	bphmux
LIM-AINF**	870-1014-01 870-1014-02 870-1014-03 870-1014-04 870-1014-05 870-1014-06 870-1488-01 870-1488-02 870-1488-03 870-1488-04	limds0 limocu	1	2	1	ss7ansi ss7gx25 ccs7itu	ss7ansi ss7gx25

Card Name as shown on card label	Part Number	Provisioned Card Type	Per Card Slots/Ports		Links per Card	Card GPLs	Card Applications
	870-1488-05 870-1488-06	limv35				imt	ccs7itu
LIM-ATM	870-1293-02 870-1293-03 870-1293-06 870-1293-07 870-1293-08 870-1293-10 870-1293-13^	limatm	1	2	1	atmansi bphcap bphcapt	atmansi
LIM-DS0	870-1009-02 870-1009-03 870-1009-04 870-1485-01 870-1485-02 870-1485-03	limds0	1	2	2 1 2	ss7ansi ss7gx25 ccs7itu imt	ss7ansi ss7gx25 ccs7itu
LIM-E1††	870-1379-01	lime1 limch	1	2	2	ss7ansi ccs7itu imt	ss7ansi, ccs7itu
LIM-ILA	870-1484-01 870-1484-02	limds0 limocu limv35	1	2	1	ss7ansi ss7gx25 ccs7itu imt	ss7ansi ss7gx25 ccs7itu
LIM-OCU	870-1010-03 870-1010-04 870-1010-05 870-1486-02 870-1486-03 870-1486-04	limocu	1	2	2	ss7ansi ss7gx25 ccs7itu imt	ss7ansi ss7gx25 ccs7itu
LIM-V.35	870-1012-02 870-1012-03 870-1012-04 870-1487-01 870-1487-02	limv35	1	2	2	ss7ansi ss7gx25 ccs7itu	ss7ansi ss7gx25

Card Name as shown on card label	Part Number	Provisioned Card Type	Per Card Slots/Ports		Links per Card	Card GPLs	Card Applications
	870-1487-03					imt	ccs7itu
MDAL	870-0773-04 870-0773-05 870-0773-06 870-0773-08 870-0773-09^	N/A	2	N/A	N/A	N/A	N/A
MPL	870-2061-01 870-2061-03 870-2061-04 870-2061-06^	limds0	1	2	8	bpmpl ss7ml	ss7ansi
TDM	870-0774-10 870-0774-11	N/A	1	N/A	N/A	N/A	N/A
TDM-GTI	870-0774-15 870-0774-18^	N/A	1	N/A	N/A	N/A	N/A
TSM-256	870-1289-02 870-1289-03 870-1289-04 870-1289-06^ 870-1289-07^	tsm	1	N/A	N/A	sccp gls imt	sccp gls
TSM-512	870-1290-02 870-1290-03 870-1290-04	tsm	1	N/A	N/A	sccp gls imt	sccp gls
TSM-768	870-1291-02 870-1291-03 870-1291-04	tsm	1	N/A	N/A	sccp gls imt	sccp gls
TSM-1024	870-1292-02 870-1292-03 870-1292-04	tsm	1	N/A	N/A	sccp gls imt	sccp gls

*Though the system allows 250 MCPM cards, practical usage is 2.

**A LIM, EILA, or ILA is a link interface module using the AINF interface and can be installed in place of the LIM-DS0A, LIM-OCU, or LIM-V.35. It is configured in the database as either a LIM-DS0A, LIM-OCU, or LIM-V.35 card.

†DSMs are required for the LNP, 50,000 GTT, G-Port, G-Flex, EIR, or INP feature. For more information about turning these features on, refer to the appropriate manual.

††For the E1 or T1 interface, SS7 application (SS7ANSI or CCS7ITU) can be assigned to these cards.

Card Name as shown on card label	Part Number	Provisioned Card Type	Per Card Slots/Ports	Links per Card	Card GPLs	Card Applications
For more information on the E1 or T1 interface go to Chapter 3 “System Administration Procedures” in the Database Administration Manual - SS7. ^This part number is the ROHS equivalent of the immediately preceding part number.						

Feature Restrictions

The following table lists features that are not supported on certain cards. The cards are listed by the name that appears on the card label. For more information on the cards, such as card type, associated GPLs, etc, please see the EAGLE 5 ISS Card Overview Table .

NOTE: For the purposes of this table, the following conventions apply:

- **The TSM-256, TSM-268, TSM-512, and TSM-1024 cards are collectively referred to as TSM cards.**
- **Restrictions on TSM cards apply only to TSM cards that are running the sccp application. There are no restrictions on TSM cards running the gls application.**
- **The 2-port EILA, EILA-T, ILA, LIM-AINF, LIM-DS0, LIM-E1, LIM-OCU, and LIM-V.35 cards are collectively referred to as 2-port LIM cards.**

Table 1-14. Feature Restrictions

Feature Name	Part Number	Restricted on Card...
120 Million EPAP DN/IMSI Entries	N/A	DSM (less than 4G), TSM
384 Million LNP Records	893-0110-24 - 893-0110-36	DSM, TSM
AINPQ	893-0178-01	DSM (less than 4G), TSM
A-Port	893-0166-01	DSM (less than 4G), TSM
ATINP	893-0221-01	TSM
EIR	893-0123-01	TSM
Flexible GTT Loadsharing	893-0154-01	TSM
G-Flex	893-0219-01	TSM
G-Flex MLR	893-0217-01	TSM
G-Port	893-0172-01	TSM
GTT Loadsharing to 32 Destinations	N/A	TSM
Hex Digit Support for GTT	893-0185-01	TSM
IDP Screening for Prepaid	893-0155-01	TSM
INP	893-0179-01	TSM
IS41 GSM Migration	893-0173-01	DSM (less than 4G), TSM
ITU TCAP LRN Query	893-0263-01	TSM
Large System # Links, Quantity 2000	893-0059-01	2-port LIM
LNP Ported TNs (204 million, 216 million, 228 million)	893-0110-21 - 893-0110-23	DSM (less than 4G), TSM, E5-SM4G
MO SMS ASD	893-0267-01	DSM (less than 4G), TSM
MO SMS B-Party Routing	893-0246-01	DSM (less than 4G), TSM
MO SMS GRN	893-0266-01	DSM (less than 4G), TSM
MO-based GSM SMS NP	893-0194-01	DSM (less than 4G), TSM

Feature Name	Part Number	Restricted on Card...
MO-based IS41 SMS NP	893-0195-01	DSM (less than 4G), TSM
MO SMS IS41-to-GSM Migration	893-0262-01	DSM (less than 4G), TSM
MT-Based GSM SMS NP	893-0200-01	TSM
MT-Based GSM MMS NP	893-0241-01	TSM
MT-Based IS41 SMS NP	893-0199-01	DSM (less than 4G), TSM
MTP Messages for SCCP Apps	893-0174-01	DSM (less than 4G), TSM
Multiple Linkset to Single APC	893-0181-01	2-port LIM
Origin Based MTP Routing	893-0142-01	2-port LIM
Origin Based SCCP Routing	893-0143-01	TSM
Prepaid IDP Query Relay	893-0160-01	TSM
Prepaid SMS Intercept Ph1	893-0067-01	DSM (less than 4G), TSM
Proxy Point Code	893-0187-01 - 893-0187-10	2-port LIM
SCCP Loop Detection	893-0165-01	TSM
SCCP Service Re-route	N/A	TSM
TIF Number Portability	893-0189-01	TSM
TIF SCS Forwarding	893-0222-01	TSM
TIF Simple Number Substitution	893-0240-01	TSM
Transaction-based GTT Loadsharing	893-0171-01	TSM
V-Flex	893-0167-001	TSM
Weighted GTT Loadsharing	893-0170-01	TSM

Hardware Baseline

The Hardware Baseline for EAGLE 5 ISS Release 40.1 is shown in the following table.

Table 1-15. Hardware Baseline

Component	Part Number	ROHS Number (if applicable)	Required for
Control Shelf	870-2321-02 Rev A	870-2321-08 Rev A	HMUX
	870-2321-04 Rev A		HMUX, Standard Frame
	870-2377-01 Rev A	870-2377-02 Rev A	HMUX, Heavy Duty Frame
Control Shelf Backplane	870-0775-03 Rev E		
Extension Shelf	870-2378-01 Rev A	870-2378-02 Rev A	Heavy Duty Frame
	870-0776-02 Rev C		Standard Frame
	870-0776-03 Rev D		
	870-0776-06 Rev A		
	870-0776-07 Rev A		
	870-0776-08 Rev A or		
	870-0776-11 Rev A		
ACM	870-1008-02 Rev D or		
	870-1008-03 Rev A or		
	870-1008-04 Rev A or		

Component	Part Number	ROHS Number (if applicable)	Required for
	870-1008-05 Rev A		
Air Management Card	870-1824-01 Rev A	870-1824-02 Rev A	Shelves with Fan Assembly
DCM	870-1945-01 Rev A or		
	870-1945-02 Rev A or		
	870-1945-03 Rev A		
DCMX	870-1984-01 Rev A		
EDCM (single slot)	870-2372-01 Rev E or		
	870-2372-08 Rev A	870-2372-13 Rev A	
EDCM-A (single slot)	870-2508-01 Rev A	870-2508-02 Rev A	
DSM, 1GB MEM	870-1984-02 Rev A or		
	870-1984-08 Rev A or		
	870-1984-09 Rev A	870-1984-15 Rev A 870-1984-17 Rev A	
DSM, 2GB MEM	870-1984-03 Rev A		
DSM, 4GB MEM	870-1984-05 Rev A		Heavy Duty Frame
	870-1984-06 Rev A or		
	870-1984-07 Rev A	870-1984-13 Rev A 870-1984-16 Rev A	
DSM-1G	870-2371-02 Rev A		
	870-2371-06 Rev A		
	870-2371-08 Rev A or	870-2371-13 Rev A	
EDSM-2G (MCPM)	870-2372-03 Rev A		
	870-2372-07 Rev A		
	870-2372-09 Rev A or	870-2372-14 Rev A	
		870-2372-15 Rev A	
E1/T1 MIM	870-2198-01 Rev G or		
	870-2198-02 Rev A or		
	870-2198-03 Rev A or		
	870-2198-04 Rev A	870-2198-07 Rev A	
E1-ATM	870-2455-01 Rev B		
	870-2455-02 Rev B		
	870-2455-03 Rev A	87-02455-05 Rev A	
E5-ATM		870-1872-01 Rev A	
		870-1872-02 Rev A	
E5-ATM Adapter		830-1342-05	
E5-E1T1	870-1873-02 Rev A	870-1873-03 Rev A	
		870-1873-04 Rev A	
E5-ENET	870-2212-02 Rev A	870-2212-03 Rev A	
		870-2212-04 Rev A	
		870-2212-05 Rev A	
E5-IPSM		870-2877-01 Rev A	
		870-2877-02 Rev A	

Component	Part Number	ROHS Number (if applicable)	Required for
E5-MASP		870-2903-01 Rev C	
E5-MDAL		870-2900-01 Rev A	
E5-SM4G		870-2860-01 Rev F	
		870-2860-02 Rev A	
E5-TSM		870-2943-03 Rev A	
EILA	870-2049-01 Rev A		
EILA w/ DIMM	870-2049-02 Rev A		
EILA-T	870-2049-03 Rev A		
FAP	870-1606-01 Rev A or		Standard frame or standard frame with HC-MIMs
	870-1606-02 Rev A	870-1606-05 Rev A	
	870-2320-01 Rev A	870-2320-03 Rev A	Heavy duty frame or heavy duty frame with HC-MIMs
	870-1823-01 Rev B		
		870-2804-01 Rev B	
FAP-CF/EF	870-0243-08 Rev C		
FAP-MISC	870-0243-09 Rev C		
FAP Fuse and Alarm Panel	870-2804-01 Rev A		
Fast Copy Adapter Upper		830-1343-01 Rev A	
Fast Copy Adapter Lower		830-1343-02 Rev A	
GPSM-II	870-2360-01 Rev E		
	870-2360-05 Rev A		
	870-2360-06 Rev A	870-2360-08 Rev A	
		870-2360-09 Rev A	
HC-MIM	870-2671-01 Rev P or		
	870-2671-02 Rev B	870-2671-03 Rev A	
HIPR	870-2574-01 Rev D	870-2574-02 Rev A	
HMUX	870-1965-01 Rev A	870-1965-03 Rev A	
LIM-AINF	870-1014-01 Rev D or		
	870-1014-02 Rev A or		
	870-1014-03 Rev B or		
	870-1014-04 Rev A or		
	870-1014-05 Rev A or		
	870-1014-06 Rev A		
LIM-AINF w/ DIMM	870-1488-01 Rev A or		
	870-1488-02 Rev A or		
	870-1488-03 Rev A or		
	870-1488-04 Rev A or		
	870-1488-05 Rev A or		
	870-1488-06 Rev A		
LIM-ATM	870-1293-02 Rev A or		
	870-1293-03 Rev A or		
	870-1293-06 Rev A or		
	870-1293-07 Rev A or		
	870-1293-08 Rev B or		

Component	Part Number	ROHS Number (if applicable)	Required for
	870-1293-10 Rev A or	870-1293-13 Rev A	
LIM-DS0 or	870-1009-02 Rev D or		
	870-1009-03 Rev A or		
	870-1009-04 Rev A		
LIM-DS0 w/ DIMM	870-1485-01 Rev A or		
	870-1485-02 Rev A or		
	870-1485-03 Rev A		
LIM-E1	870-1379-01 Rev A		
LIM-ILA or	870-1484-01 Rev E		
LIM-ILA w/ DIMM	870-1484-02 Rev C		
LIM-OCU or	870-1010-03 Rev D or		
	870-1010-04 Rev A or		
	870-1010-05 Rev A or		
LIM-OCU w/ DIMM	870-1486-02 Rev A or		
	870-1486-03 Rev A or		
	870-1486-04 Rev A		
LIM-V.35 or	870-1012-02 Rev D or		
	870-1012-03 Rev A or		
	870-1012-04 Rev A		
LIM-V.35 w/ DIMM	870-1487-01 Rev A or		
	870-1487-02 Rev A or		
	870-1487-03 Rev A		
MDAL	870-0773-04 Rev B or		
	870-0773-05 Rev A or		
	870-0773-06 Rev A or		
	870-0773-08 Rev A	870-0773-09 Rev A	
MPL	870-2061-01 Rev A or		
	870-2061-03 Rev A or		
	870-2061-04 Rev A	870-2061-06 Rev A	
MPS DC Frame Assembly	890-1843-01 Rev C	890-1843-02 Rev A	
MPS in Heavy Duty Frame	890-1801-01 Rev E	890-1801-02 Rev A	
TDM	870-0774-10 Rev A or		
	870-0774-11 Rev A		Rev C required if installed in a system with more than 11 shelves
TDM GTI	870-0774-15 Rev B	870-0774-18 Rev A	
TSM-256	870-1289-02 Rev A or		
	870-1289-03 Rev A or		
	870-1289-04 Rev A	870-1289-06 Rev A 870-1289-07 Rev A	
TSM-512	870-1290-02 Rev A or		
	870-1290-03 Rev A or		
	870-1290-04 Rev A		

Component	Part Number	ROHS Number (if applicable)	Required for
TSM-768	870-1291-02 Rev A or		
	870-1291-03 Rev A or		
	870-1291-04 Rev A		
TSM-1024	870-1292-02 Rev A or		
	870-1292-03 Rev A or		
	870-1292-04 Rev A		
Single EOAP	890-1050-03 Rev H		
Dual EOAP	890-1050-01 Rev K		
Kit, E1	890-1037-01 Rev A	890-1037-06 Rev A	
Kit, Holdover Clock Assy	890-1013-01 Rev A		
Fan Assy (Standard Frame)	890-1038-01 Rev D		
Fan Assy (Shelves with HC-MIM cards)	890-0001-01 Rev A or		
	890-0001-02 Rev A	890-0001-04 Rev A	
T1000 Application Server	870-2640-01 Rev F	870-2640-03 Rev A	
Dual Port G-Bit E-Net Card	870-2706-02 Rev B	870-2706-04 Rev A	
Modem Card	870-2707-01 Rev B	870-2707-02 Rev A	
Quad Serial Exp. Card	870-2708-01 Rev B	870-2708-02 Rev A	
120 GB Hard Drive Assy	870-2721-02 Rev B	870-2721-04 Rev A	
T1100 (Application Server - DC)	870-2754-01 Rev P or	870-1893-03 Rev A	
	870-2807-01 Rev A		
Dual Port Ethernet	870-2706-02 Rev A	870-2706-04 Rev A	
Hard Disc Drive - 250 GB SATA	870-2787-01 Rev B	870-2787-02 Rev A	
2 GB RAM Kit	870-2833-01 Rev C	870-2833-02 Rev A	

Glossary

A

ACM — Address Complete Message

Application Communications Module

A card in the EAGLE 5 ISS that provides a communications interface to a remote host across an Ethernet LAN.

AINF — Application Interface Appliqué

An integrated appliqué that supports the DS0A, DSCS and V.35 interfaces on the same appliqué. The AINF appliqué can be configured as either a DS0A, OCU, or V.35 interface from the user terminal.

ATM — Asynchronous Transfer Mode

A packet-oriented transfer mode that uses an asynchronous time division multiplexing technique to multiplex information flow in fixed blocks, called cells.
A high-bandwidth, low-delay switching, and multiplexing technology to support applications that include high-speed data, local area network interconnection, multimedia application and imaging, and residential applications such as video telephony and other information-based services.

C

CCS7ITU — The generic program load and application for the ITU SS7 signaling links that is used with card types **`limds0, limch, limocu, limv35, lime1, and limt1`**.

D

Database — All data that can be administered by the user, including cards, destination point codes, gateway screening tables, global title translation tables, links, LNP services, LNP service providers, location routing numbers, routes, shelves, subsystem applications, and 10 digit telephone numbers.

DCM — Database Communication Module

The DCM provides IP connectivity for applications. Connection to a host is achieved through an ethernet LAN using the TCP/IP protocol.

DS0A — Digital Signal Level - 0

The interface used with the LIMDS0 card.

DSM — Database Service Module.

The DSM provides large capacity SCCP/database functionality. The DSM is an application card that supports network specific functions such as EAGLE Provisioning Application Processor (EPAP), Global System for Mobile Communications (GSM), EAGLE Local Number Portability (ELAP), and interface to Local Service Management System (LSMS).

E

E1 — The European equivalent of T1 that transmits digital data over a telephone network at 2.048 Mbps.

E5-E1T1	EPM-based E1/T1 Multi-Channel Interface Module An EPM-based card that provides E1 and T1 connectivity. The E5 indicates the card is for existing EAGLE 5 control and extension shelves. E1T1 is an abbreviation for the ITU E1 and ANSI T1 interfaces. Thus the nomenclature defines the shelves where the card can be used and the physical interface that it provides.
E5-MCAP card	The module contains the Communications Processor and Applications Processor and provides connections to the IMT bus. Controls the maintenance and database administration activity and performs both application and communication processing. Runs the OAM application and OAMHC GPL. Occupies slot 1113 and slot 1115 in an EAGLE 5 ISS control shelf. Used when the E5-MDAL card is used. Contains two USB ports.
E5-MDAL card	The E5 MDAL card processes alarm requests, provides general purpose relays, and provides fan control. Occupies slots 1117 and 1118 in an EAGLE 5 ISS Control Shelf. Used with E5-MASP cards. Does NOT contain a drive for removable cartridges.
E5-ENET	EPM-based Ethernet card A high capacity single-slot IP signaling card (EPM card plus Gig Ethernet PMC cards).
E5-IPSM	Ethernet Card w/ 2GB of main memory
E5-TDM card	The E5-TDM card provides the EAGLE 5 ISS with 16 ports for user terminals, contains fixed disk storage and distributes Composite Clocks and High Speed Master clocks throughout the EAGLE 5 ISS. Occupies slot 1114 and slot 1116 in an EAGLE 5 ISS Control Shelf. Used when the E5-MDAL card is used.
EDCM	Enhanced DCM Enhanced Database Communication Module
EILA	Enhanced Integrated LIM Appliqué
EIR	Equipment Identity Register A network entity used in GSM networks, as defined in the 3GPP Specifications for mobile networks. The entity stores lists of International Mobile Equipment Identity (IMEI) numbers, which correspond to physical handsets (not subscribers). Use of the EIR can prevent the use of stolen handsets because the network operator can enter the IMEI of these handsets into a 'blacklist' and prevent them from being registered on the network, thus making them useless.

G

GB	Gigabyte — 1,073,741,824 bytes
G-Flex	GSM Flexible numbering A feature that allows the operator to flexibly assign individual subscribers across multiple HLRs and route signaling messages, based on subscriber numbering, accordingly.
G-Port	GSM Mobile Number Portability A feature that provides mobile subscribers the ability to change the GSM subscription network within a portability cluster, while retaining their original MSISDN(s).
GTT	Global Title Translation A feature of the signaling connection control part (SCCP) of the SS7 protocol that the EAGLE 5 ISS uses to determine which service database to send the query message when an MSU enters the EAGLE 5 ISS and more information is needed to route the MSU. These service databases also verify calling card numbers and credit card numbers. The service databases are identified in the SS7 network by a point code and a subsystem number.

H

HC-MIM	High Capacity Multi-Channel Interface Module A card that provides access to eight E1/T1 ports residing on backplane connectors A and B. Each data stream consists of 24 T1 or 31 E1 DS0 signaling links assigned in a time-division multiplex (TDM) manner. Each channel occupies a unique timeslot in the data stream and can be selected as a local signaling link on the interface card. Each card has 8 E1 or 8 T1 port interfaces with a maximum of 64 signaling links provisioned among the 8 E1/T1 ports.
HIPR	High-Speed IMT Packet Router A card that provides increased system throughput and traffic capacity. HIPR moves EAGLE from an intra-shelf ring topology to an intra-shelf switch topology. HIPR acts as a gateway between the intra-shelf IMT BUS, running at 125Mbps, and the inter-shelf operating at 1.0625Gbps. The HIPR card will seat in the same slot as an HMUX card (slots xx09 & xx10 of each shelf).
HMUX	High-Speed Multiplexer A card that supports the requirements for up to 1500 links, allowing communication on IMT buses between cards, shelves and frames. HMUX cards interface to 16 serial links, creating a ring from a series of point to point links. Each HMUX card provides a bypass multiplexer to maintain the ring's integrity as cards are removed and inserted into an operational shelf. High-Speed IMT Multiplexer, a replacement card for the IPMX.

I

ILA	Integrated LIM Appliqué
IMF	Integrated Message Feeder The IMF sits on the EAGLE and replicates the signaling data that is processed through the EAGLE to send to an off-board processor (the IXP in the case of IAS). Because it replicates the data (and doesn't introduce a new element in the path) it does not introduce any delay to the signaling and it does not create a separate footprint for a "probe" system.
IMT	Inter-Module-Transport The communication software that operates the inter-module-transport bus on all cards except the LIMATM, DCM, DSM, and HMUX.
INP	INAP-based Number Portability Tekelec's INP can be deployed as a stand-alone or an integrated signal transfer point/number portability solution. With Tekelec's stand-alone NP server, no network reconfiguration is required to implement number portability. The NP server delivers a much greater signaling capability than the conventional SCP-based approach. Intelligent Network (IN) Portability
IP	Intelligent Peripheral Internet Protocol IP specifies the format of packets, also called datagrams, and the addressing scheme. The network layer for the TCP/IP protocol suite widely used on Ethernet networks, defined in STD 5, RFC 791. IP is a connectionless, best-effort packet switching protocol. It provides packet routing, fragmentation and re-assembly through the data link layer.
IP^7	Tekelec's Internet Protocol to SS7 Interface
ISS	Integrated Signaling System

L

LIM	Link Interface Module

	Provides access to remote SS7, X.25, IP and other network elements, such as a Signaling Control Point (SCP) through a variety of signaling interfaces (V.35, OCU, DS0, MPL, E1/T1 MIM, LIM-ATM, E1-ATM, IPLIMx, IPGWx). The LIMs consist of a main assembly and possibly, an interface appliqué board. These appliqués provide level one and some level two functionality on SS7 signaling links.
LIM-AINF	A link interface module (LIM) with the AINF interface.
LIM-ATM	A link interface module (LIM) with the ATM interface.
LIM-DS0	A link interface module (LIM) with the DS0A Appliqué.
LIM-E1	A link interface module (LIM) with the E1 Appliqué.
LIM-OCU	A link interface module (LIM) with the OCU Appliqué.
LIM-OCU	LIM-Office Channel Unit Applique
LNP	Local Number Portability
	The ability of subscribers to switch local or wireless carriers and still retain the same phone number.

M

MCPM	Measurement Collection and Polling Module
	The Measurement Collection and Polling Module (MCPM) provides comma delimited core STP measurement data to a remote server for processing. The MCPM is an EDSM with 2 GB of memory running the MCP application.
MDAL	Maintenance Disk and Alarm
MIM	Multi-Channel Interface Module
MPL	Multi-port LIM

N

NPP	Numbering Plan Processor
	Provides the flexible service application behavior that satisfies the needs of customers resident in complex signaling networks. It is used for number conditioning, RTDB lookup, and outgoing number formatting.

S

SE-HSL	Synchronous E1 High Speed Link
	Format for E1 high-speed signaling links where time-slot 0 is used for framing and error control. The remainder of bandwidth, equivalent to 31 channels of 64Kbps data, is used as a single data link yielding a total capacity of 1.984 Mbps. Also known as Unchannelized E1.
SMSC	Short Message Service Center
	A network element in the mobile telephone network which delivers SMS messages.
SS7	Signaling System #7
	A communications protocol that allows signaling points in a network to send messages to each other so that voice and data connections can be set up between these signaling points. These messages are sent over its own network and not over the revenue producing voice and data paths. The EAGLE 5 ISS is an STP, which is a device that routes these messages through the network.
SS7ANSI	SS7 ANSI

	An application used by the LIM cards and the E1/T1 MIM card for the MTP functionality.
SSEDCM	Single Slot Enhanced Data Communications Module

T

T1	Transmission Level 1 A T1 interface terminates or distributes T1 facility signals for the purpose of processing the SS7 signaling links carried by the E1 carrier. A leased-line connection capable of carrying data at 1,544,000 bits-per-second.
TDM	Terminal Disk Module Time Division Multiplexing Data transmissions within individual connections follow a pre-defined multiplex scheme where a fixed time slot is available for each channel.
TDM-GTI	TDM Global Timing Interface
TSM	Translation Services Module Provides SCCP functionality or GLS functionality for Local Number Portability (LNP)/ SCCP (GTT). The SCCP software allows the TSM to be used as a memory board for Global Title Translation (GTT).

V

V.35	ITU Interface Recommendation, V.35 The interface used with the LIMV35 card.