Oracle® Communications EAGLE Database Administration - GWS User's Guide





Oracle Communications EAGLE Database Administration - GWS User's Guide, Release 46.9

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- For Non-technical issues such as registration or assistance with My Oracle Support, select **2**.
- For Hardware, Networking and Solaris Operating System Support, select 3.

You are connected to a live agent who can assist you with My Oracle Support registration and opening a support ticket.

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What's New in This Guide

Bug 33218933 - February 2022

 Updated the part number in Activating the Integrated GLS Feature under E5-OAM Integrated GLS Feature Activation Procedure.



1

Introduction

Chapter 1, Introduction, contains general information about the gateway screening feature, the database, and the organization of this manual.

Overview

The *Database Administration – GWS User's Guide* describes the procedures used to configure the EAGLE and its database to implement the Gateway Screening Feature.

The Gateway Screening (GWS) feature examines a Message Signaling Unit (MSU) attempting to enter the EAGLE against predefined criteria in the EAGLE database to determine whether the MSU should be allowed to enter. The screening functions are defined by using screening tables or screen sets containing a set of rules. Each screen set is uniquely identified by a screen set name. Each rule in the screen set is identified by a screening reference name. Each screening reference belongs to a specific category, which indicates the criteria used to either accept or reject an incoming MSU. Gateway screening tables provide screening of MTP messages on Link Interface Modules (LIMs) and SCCP messages on the service modules.

Note:

Database administration privileges are password restricted. Only those persons with access to the command class "Database Administration" can execute the administrative functions. Refer to *Commands User's Guide* for more information on command classes and commands allowed by those classes.

It is possible for two or more users to make changes to the same database element at any time during their database administration sessions. It is strongly recommended that only one user at a time make any changes to the database.

Starting with Release 46.6, throughout this manual, these terms are used to refer to either the EPM-B version or other replacement version of the card unless one of the card types is specifically required.

- E5-ENET the E5-ENET-B card
- E5-E1T1 the E5-E1T1-B card
- E5-ATM the E5-ATM-B card
- E5-IPSM the E5-ENET-B or SLIC card that is running the IPSHC GPL
- E5-SM4G the E5-SM8G-B card (not an EPM-B card)
- MCPM the original MCPM or the E5-MCPM-B card



Scope and Audience

This manual is intended for database administration personnel or translations personnel responsible for configuring the **EAGLE** and its database to implement the Gateway Screening feature.

Documentation Admonishments

Admonishments are icons and text throughout this manual that alert the reader to assure personal safety, to minimize possible service interruptions, and to warn of the potential for equipment damage.

Table 1-1 Admonishments

| Icon | Description |
|----------------|--|
| | Danger: |
| | (This icon and text indicate the possibility of personal injury.) |
| DANGER | |
| <u>^</u> . | Warning: |
| /4 \(\) | (This icon and text indicate the possibility of |
| WARNING | equipment damage.) |
| \wedge | Caution: |
| CAUTION | (This icon and text indicate the possibility of service interruption.) |
| CAUTION | Topple: |
| | Topple: (This icon and text indicate the possibility of |
| | personal injury and equipment damage.) |
| TOPPLE | |

Manual Organization

Throughout this document, the terms database and system software are used. Database refers to all data that can be administered by the user, including shelves, cards, links, routes, global title translation tables, and gateway screening tables. System software refers to data that cannot be administered by the user, including generic program loads (**GPLs**).

This document is organized into the following sections.

Introduction contains general information about the gateway screening feature, the database, and the organization of this manual.

Gateway Screening (GWS) Overview contains an overview of the Gateway screening feature and the procedures for provisioning the GLS card, gateway screening stop action sets, the threshold for gateway screening activity, and the maximum number of gateway screening rejected messages.



Allowed Affected Point Code (AFTPC) Screen Configuration contains the procedures necessary to configure allowed affected point code screens.

Allowed Called Party (CDPA) Screen Configuration contains the procedures necessary to configure allowed called party address screens.

Allowed Translation Type (TT) Screen Configuration contains the procedures necessary to configure allowed translation type screens.

Allowed Calling Party (CGPA) Screen Configuration contains the procedures necessary to configure allowed calling party address screens.

Allowed Affected Destination Field (DESTFLD) Screen Configuration contains the procedures necessary to configure allowed affected destination field screens.

Blocked Destination Point Code (BLKDPC) Screen Configuration contains the procedures necessary to configure blocked destination point code screens.

Allowed Destination Point Code (DPC) Screen Configuration contains the procedures necessary to configure allowed destination point code screens.

Allowed Signaling Information Octet (SIO) Screen Configuration contains the procedures necessary to configure allowed signaling information octet screens.

Blocked Originating Point Code (BLKOPC) Screen Configuration contains the procedures necessary to configure blocked originating point code screens.

Allowed Originating Point Code (OPC) Screen Configuration contains the procedures necessary to configure allowed originating point code screens.

Screen Set Configuration contains the procedures necessary to configure screen sets.

Calling Name Conversion Facility (CNCF) Configuration contains a description of the Calling Name Conversion Facility feature the procedure necessary to configure this feature.

Allowed ISUP Message Type Screen Configuration contains the procedures necessary to configure allowed ISUP message type screens.

Related Publications

For information about additional publications related to this document, refer to the Oracle Help Center site. See Locate Product Documentation on the Oracle Help Center Site for more information on related product publications.

Locate Product Documentation on the Oracle Help Center Site

Oracle Communications customer documentation is available on the web at the Oracle Help Center (OHC) site, http://docs.oracle.com. You do not have to register to access these documents. Viewing these files requires Adobe Acrobat Reader, which can be downloaded at http://www.adobe.com.

- 1. Access the Oracle Help Center site at http://docs.oracle.com.
- 2. Click Industries.
- 3. Under the Oracle Communications subheading, click the Oracle Communications documentation link.



The Communications Documentation page appears. Most products covered by these documentation sets will appear under the headings "Network Session Delivery and Control Infrastructure" or "Platforms."

4. Click on your Product and then the Release Number.

A list of the entire documentation set for the selected product and release appears.

5. To download a file to your location, right-click the PDF link, select Save target as (or similar command based on your browser), and save to a local folder.

Maintenance and Administration Subsystem

The Maintenance and Administration Subsystem (MAS) is the central management point for the EAGLE. The MAS provides user interface, maintenance communication, peripheral services, alarm processing, system disk interface, and measurements. Management and redundancy are provided by use of two separate subsystem processors.

The MAS resides on two separate sets of Maintenance and Administration Subsystem Processor (MASP) cards and a Maintenance Disk and Alarm card (collectively referred to as control cards). The control cards are located in slots 1113 through 1118 of the EAGLE control shelf. The control cards must be E5-based cards.

E5-based Control Cards

The E5-based set of EAGLE control cards consists of the following cards:

- Two Maintenance and Administration Subsystem Processor cards (E5-MASP) cards. Each dual-slot E5-MASP card is made up of the following two modules:
 - Maintenance Communication Application Processor (E5-MCAP) card
 - Terminal Disk Module (E5-TDM) card
- One Maintenance Disk and Alarm card (E5-MDAL card)

Maintenance Communication Application Processor (E5-MCAP) Card

The E5-MCAP card contains the Communications Processor and Applications Processor and provides connections to the IMT bus. The card controls the maintenance and database administration activity and performs both application and communication processing. E5-MCAP cards are located in slots 1113 and 1115 of the control shelf.

Each E5-MCAP card contains two USB ports. One latched USB port is used with removable flash media ("thumb drives"), and one flush-mounted USB port is used with a plug-in flash drive. The removable media drive in the latched USB port is used to install and back up customer data. The flush-mounted USB port is used for upgrade and could be used for disaster recovery.

Terminal Disk Module (E5-TDM) Card

The E5-TDM card provides the Terminal Processor for the 16 I/O ports, and interfaces to the Maintenance Disk and Alarm (E5-MDAL) card and fixed disk storage. The E5-TDM card also distributes Composite Clocks and High Speed Source clocks throughout the EAGLE, and distributes Shelf ID to the EAGLE. Each E5-TDM card contains one fixed SATA drive that is used to store primary and backup system databases, measurements, and Generic Program Loads (GPLs). E5-TDM cards are located in slots 1114 and 1116 of the control shelf.



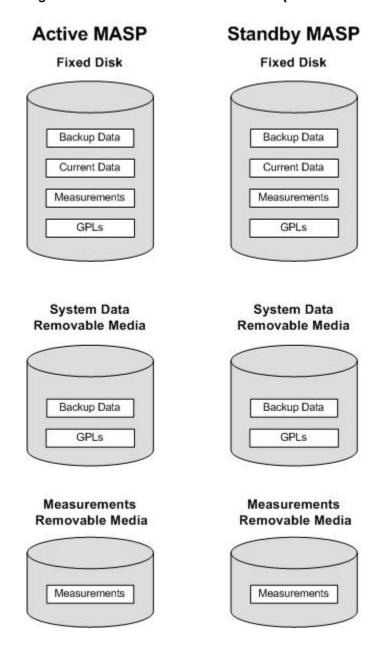
Maintenance Disk and Alarm (E5-MDAL) Card

The E5-MDAL card processes alarm requests and provides fan control. There is only one E5-MDAL card in a control card set. Critical, major, and minor system alarms are provided for up to 6 individual frames. In addition to the 3 system alarms, the E5-MDAL card provides the system audible alarm. The E5-MDAL card provides control of fans on a per-frame basis, and allows for each fan relay to be set individually. The E5-MDAL card is located in slots 1117 and 1118 of the control shelf.

EAGLE Database Partitions

The data that the **EAGLE** uses to perform its functions are stored in two separate areas: the fixed disk drives, and the removable media. The following sections describe these areas and data that is stored on them. These areas and their partitions are shown in Figure 1-1.

Figure 1-1 EAGLE Database Partitions (E5-Based Control Cards)





Fixed Disk Drive

There are two fixed disk drives on the **EAGLE**. The fixed disk drives contain the "primary" set of data and programs for the **EAGLE**. The two fixed disk drives are located on the terminal disk modules (**E5-TDM**s). Both disks have the same files. The data stored on the fixed disks is partially replicated on the various cards in the **EAGLE**. Changes made during database administration sessions are sent to the appropriate cards.

The data on the fixed disks can be viewed as four partitions.

- Current partition
- Backup partition
- Measurements partition
- Generic program loads (GPLs) partition

The data which can be administered by users is stored in two partitions on the fixed disk, a current database partition which has the tables which are changed by on-line administration, and a backup database partition which is a user-controlled copy of the current partition.

All of the on-line data administration commands affect the data in the current partition. The purpose of the backup partition is to provide the users with a means of rapidly restoring the database to a known good state if there has been a problem while changing the current partition.

A full set of **GPL**s is stored on the fixed disk, in the **GPL** partition. There is an approved **GPL** and a trial **GPL** for each type of **GPL** in this set and a utility **GPL**, which has only an approved version. Copies of these **GPL**s are downloaded to the **EAGLE** cards. The **GPL** provides each card with its functionality. For example, the ss7ansi **GPL** provides **MTP** functionality for link interface modules (**LIMs**).

Measurement tables are organized as a single partition on the fixed disk. These tables are used as holding areas for the measurement counts.

Removable Media

The removable media is used with the E5-MCAP card portion of the E5-MASP in card locations 1113 and 1115.

The removable media is used for two purposes.

- To hold an off-line backup copy of the administered data and system GPLs
- To hold a copy of the measurement tables

Because of the size of the data stored on the fixed disk drives on the **E5-TDMs**, a single removable media cannot store all of the data in the database, **GPL** and measurements partitions.

To use a removable media to hold the system data, it must be formatted for system data. To use a removable media to hold measurements data, it must be formatted for measurements data. The **EAGLE** provides the user the ability to format a removable media for either of these purposes. A removable media can be formatted on the **EAGLE** by using the format-disk command. More information on the format-disk command can be found in *Commands User's Guide*. More information on the removable media drives can be found in *Hardware Guide*.



Additional and preformatted removable media are available from the My Oracle Support (MOS).



2

Gateway Screening (GWS) Overview

Chapter 2, Gateway Screening (GWS) Overview, contains an overview of the Gateway Screening feature and the procedures for provisioning the GLS card, gateway screening stop action sets, the threshold for gateway screening activity, and the maximum number of gateway screening rejected messages.

Introduction

This chapter provides an overview of the gateway screening feature and procedures for provisioning these items in the database:

- GLS cards
- Gateway screening stop action sets
- The threshold for gateway screening activity
- Setting the maximum number of gateway screening rejected messages

The gateway screening tables are loaded onto Link Interface Modules (LIMs) or service modules. Service modules can be any of these cards:

EAGLE-Service Module 4 GB (E5-SM4G or E5-SM8G-B cards)

The use of the service modules in the EAGLE is dependent on the combination of global title translation features that are being used in the EAGLE. for more information on the global title translation features, go to *Database Administration - GTT User's Guide*.

The gateway screening tables provide screening of MTP (LIMs) and SCCP (service modules) messages.

MTP Screening consists of the following items:

- Allowed Originating Point Code (OPC)
- Blocked Originating Point Code (BLKOPC)
- Allowed Signaling Information Octet (SIO)
- Allowed Destination Point Code (DPC)
- Blocked Destination Point Code (BLKDPC)
- Allowed Affected Destination Field (DESTFLD)
- Allowed ISUP Message Type (ISUP) ISUP and TUP messages can be screened by the allowed ISUP message type screen.

SCCP Screening consists of the following items:

- Allowed Calling Party Address (CGPA)
- Allowed Translation Type (TT)
- Allowed Called Party Address (CDPA)
- Allowed Affected Point Code (AFTPC).



The procedures shown in this manual use a variety of commands. If more information than what is shown in these procedures is needed, go to *Commands User's Guide* to find the required information.

The EAGLE's role in the SS7 network is to provide SS7 message transport between originating and destination signaling points. EAGLEs that route messages to and from other networks also perform gateway screening. The screening process results in a message being accepted into the network or rejected. The criteria for message screening depends on the type of message received by the EAGLE, and the contents of the EAGLE screening tables.

Gateway screening functions on the EAGLE reside within the LIM and the service modules and are defined using screening tables or screen sets which contain a set of rules. Each screen set is uniquely identified by a screen set name. Each rule in the screen set is identified by a screening reference name. Each screening reference belongs to a specific category, which indicates the criteria that is used to either accept or reject an incoming MSU. For example, the category blkopc rejects all MSUs with the OPCs specified in the screening reference. The screening parameters (point codes, routing indicator, subsystem number, etc.) are used to match information in the SS7 message. The screening data is defined by the attributes discussed in the Gateway Screening Attributes section.

Each group of screening references is referred to as a screen set and is identified by a particular screen set name (scrn). The screen set is applied to a particular linkset. This allows the capability, for example, for specific OPCs with particular SIOs and DPCs to be allowed into the network.

With the SEAS interface, the screen set function is performed by a gateway linkset. A gateway linkset combines the functions of a gateway screening screen set and an SS7 linkset specifying the <code>gwsa=on</code> and <code>scrn</code> parameters. Like an EAGLE gateway screening screen set, a gateway linkset defines the screening references that are to be used to screen the messages on the linkset. It also defines the linkset whose messages are to be screened. A gateway linkset can only be configured from a SEAS terminal and not from an EAGLE terminal. The linkset attributes of a gateway linkset can be displayed on an EAGLE terminal with the <code>rtrv-ls</code> command. A gateway linkset is shown by the entry <code>SEAS</code> in the <code>scrn</code> field of the <code>rtrv-ls</code> command output. The gateway screening portion of the gateway linkset can only be displayed on the SEAS interface.

There are two basic functions, allow and block. In an allowed screen (for example, allowed DPC), if a match is found and the next screening function identifier (nsfi) is equal to anything but stop, the next screening reference (nsr) is identified and the screening process continues to the next screen identified by the nsfi and nsr parameters. If the next screening function identifier is stop, the message is processed and no further screening takes place. If no match is found, the message is rejected.

In a blocked screen (for example, blocked DPC), if a match is found and the next screening function identifier is fail, the message is rejected and no further screening takes place. If no match is found and the next screening function identifier is equal to anything but stop, the next screening reference is identified and the screening process continues to the next screen identified by the nsfi and nsr parameters. If the next screening function identifier is equal to stop, the message is processed and no further screening takes place.

When the screening process stops, other actions can be assigned to the screen set. These actions, called gateway screening stop actions, define the actions the EAGLE can perform on the MSU that passes gateway screening. For more information on



configuring gateway screening stop actions, go to the Configuring Gateway Screening Stop Action Sets procedure. The EAGLE currently uses these gateways screening stop actions.

- RDCT redirect the MSU for the DTA feature
- CNCF convert the PIP parameter with the GN parameter or the GN parameter with the PIP parameter in the ISUPIAM message for the Calling Name Conversion Facility feature.
- TLNP ISUPIAMs that pass gateway screening are processed either by the ISUPNP with EPAP feature (if the ISUPNP with EPAP feature is enabled and turned on) or by the Triggerless LNP feature (if the Triggerless LNP feature is turned on).
- TINP ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. This gateway screening stop action can be specified only if the TINP feature is enabled.

The allowed OPC and DPC screens are useful in the gateway screening process when specifying particular sets of point codes that are allowed to send messages to another network or receive messages from another network. The blocked OPC and DPC screens are useful in the gateway screening process specifying particular sets of point codes that are not allowed to send SS7 messages to another network or receive SS7 messages from another network.

TUP Message Screening

TUP messages are screened using the Allowed ISUP Message Type screen. The TUP protocol is an obsolete predecessor to the ISUP protocol that remains in use in some areas. To screen for TUP messages, a screen set must be defined to screen for messages containing the service indicator value of 4. This is accomplished by defining an allowed SIO screen in the screen set containing the si=4 parameter.

Since both ISUP and TUP messages are screened using the allowed ISUP message type screen, it is recommended that the screen set contain an allowed SIO screen to screen for ISUP messages, messages containing the service indicator value of 5. Each of these entries in the allowed SIO screen should have separate next screening functions. This allows the screening rules after the allowed SIO screen to have two separate streams, one that ends with screening ISUP messages, the other that ends with screening TUP messages.

The TUP messages can be screened for point codes before the allowed SIO screen with the allowed and blocked OPC screens, and after the SIO screen with the allowed and blocked DPC screens. However, if the screen set does not contain an allowed SIO screen that screens for TUP messages (messages with the service indicator value of 4), the message will be treated by the allowed ISUP message type screen as an ISUP message.

The following commands show how a screen set can be provisioned to screen for TUP and ISUP messages.

```
ent-scr-isup:sr=is01:isupmt=10:nsfi=stop
ent-scr-isup:sr=tu01:tupmt=1:nsfi=stop
ent-scr-dpc:sr=dpc4:ni=1:nc=2:ncm=3:nsfi=isup:nsr=tu01
ent-scr-dpc:sr=dpc5:ni=7:nc=1:ncm=0:nsfi=isup:nsr=is01
ent-scr-sio:sr=si02:nic=2:pri=0:si=4:nsfi=dpc:nsr=dpc4
ent-scr-sio:sr=si02:nic=2:pri=0:si=5:nsfi=dpc:nsr=dpc5
```



ent-scrset:scrn=ist2:nsr=si02:nsfi=sio

In this example screen set configuration, messages are screened by the allowed SIO screen $\pm i\,02$ for either ISUP or TUP messages. ISUP messages are further screened by the allowed DPC screen $\pm i\,02$ and TUP messages are screened by the allowed DPC screen $\pm i\,02$. The ISUP messages containing the ANSI point code 001-002-003 are passed onto the allowed ISUP screen $\pm i\,02$. The TUP messages containing the ANSI point code 007-001-000 are passed onto the allowed ISUP screen $\pm i\,02$.



The gateway screening rules are entered in reverse of the order that the screening process takes place.

Gateway Screening States

Gateway screening on a particular linkset can be set to function in one of four states:

NO SCREENING – Screening is not performed. All message signaling units (MSUs) are passed. This state is set by the <code>gwsa=off</code> and <code>gwsm=off</code> parameters of the <code>ent-ls</code> or <code>chq-ls</code> commands.

SCREEN AND REPORT – Screening is performed. When an MSU fails screening it is discarded, an output message is generated, and measurements are pegged. This state is set by the <code>gwsa=on</code> and <code>gwsm=on</code> parameters of the <code>ent-ls</code> or <code>chg-ls</code> commands.

SCREEN AND DON'T REPORT – Screening is performed. When an MSU fails screening it is discarded and measurements are pegged, but no output message is generated. This state is set by the <code>gwsa=on</code> and <code>gwsm=off</code> parameters of the <code>ent-ls</code> or <code>chg-ls</code> commands.

SCREEN TEST MODE – Screening is performed, but all MSUs are passed. When an MSU fails screening, an output message is generated, but the MSU is still passed. This state is set by the <code>gwsa=off</code> and <code>gwsm=on</code> parameters of the <code>ent-ls</code> or <code>chg-ls</code> commands.



Caution:

When Gateway Screening is in the screen test mode, any action in the gateway screening stop action set specified by the actname parameter at the end of the gateway screening process will be performed.

The gwsa and gwsm parameters are described in the Linkset Parameters section.

Linkset Parameters

Optional parameters of the enter linkset (ent-ls) command or the change linkset (chg-ls) command are used to set the screening state. These parameters are:



SCRN – the name of the gateway screening screen set that is associated with the linkset.

GWSA – Gateway screening action – The value on allows gateway screening to be performed on the linkset. The value off, does not allow gateway screening to be performed on the linkset. This parameter can only be specified if the scrn parameter is specified.

GWSM – Gateway screening messaging – The value on allows output messages to be generated. The value off does not allow output messages to be generated. This parameter can only be specified if the scrn parameter is specified.

GWSD – Gateway screening MSU discard – If gateway screening cannot be performed and the gwsd parameter is set to on, all MSUs on the linkset are discarded. These are two examples of why gateway screening could not be performed.

- No GLS cards are configured and installed in the EAGLE.
- The screen set is too big to be loaded onto the LIM or service module.

 The value off does not allow messages to be discarded. This parameter can only be specified if the scrn and gwsa=on parameters are specified.



Discarding all MSUs on a linkset will not allow any MSUs on the linkset to be routed. It is recommended that the value specified for the gwsd parameter is off. The gwsd parameter should only set to on if you wish screen MSUs for gateway screening rather than routing MSUs through the EAGLE.

Refer to Commands User's Guide for more information on the ent-ls or chg-ls commands.

Gateway Screening Attributes

Each screen has attributes which hold information required to perform a particular screening function. The following attributes are required in order to implement all of the screening functions.

The screen set name(scrn) is a four character (one alpha and up to three alphanumeric) value that specifies the name of the screen set.

The screening reference (sr) is a four character (one alpha and up to three alphanumeric) value. Combined with the next screening function identifier (nsfi), it uniquely defines a screening table.

The network identifier for ANSI point codes (ni) is an integer between 0 and 255, the asterisk "*", or the character "c".

The network cluster for ANSI point codes (nc) is an integer between 0 and 255, the asterisk "*", or the character "c".

The network cluster member for ANSI point codes (ncm) is an integer between 0 and 255, the asterisk "*", or the character "c".

The zone for ITU international point codes (zone) is an integer between 0 and 7, the asterisk "*", or the character "c".



The area for ITU international point codes (area) is an integer between 0 and 255, the asterisk "*", or the character "c".

The ID for ITU international point codes (id) is an integer between 0 and 7, the asterisk "*", or the character "c".

The 14-bit ITU national point code (npc) is an integer between 1 and 16383, the asterisk "*", or the character "c". The EAGLE supports different formats for 14-bit ITU national point codes as defined by the npcfmti parameter of the chg-stpopts command. No matter what format is defined by the npcfmti parameter, the 14-bit ITU national point code must be entered as an integer for gateway screening. If the format of the 14-bit ITU national point code that you wish to enter for gateway screening is not a single integer, the point code value must be converted into a single integer value. For more information on converting 14-bit ITU national point code values, see the 14-Bit ITU National Point Code Formats section. For more information on the different ITU national point code formats, see the 14-Bit ITU National Point Code Formats section in Chapter 2, Configuring Destination Tables in *Database Administration - SS7 User's Guide*.

Gateway Screening supports using ITU international spare point codes in addition to ITU international point codes, and 14-bit ITU national spare point codes in addition to 14-bit ITU national point codes. The pcst parameter is used to specify the whether or not the ITU international and 14-bit ITU national point codes are spare point codes (pcst=s parameter) or not (pcst=none parameter). For more information about ITU international and 14-bit ITU national spare point codes, see Chapter 2, Configuring Destination Tables in *Database Administration - SS7 User's Guide*. Gateway Screening does not support using private point codes.

The main signaling area value for 24-bit ITU national point codes (msa) is an integer between 0 and 255, the asterisk "*", or the character "c".

The sub-signaling area value for 24-bit ITU national point codes (ssa) is an integer between 0 and 255, the asterisk "*", or the character "c".

The signaling point value for 24-bit ITU national point codes (sp) is an integer between 0 and 255, the asterisk "*", or the character "c".

The ISUP message type (isupmt)/TUP message type (tupmt) is an integer between 0 and 255, or the character "*". This parameter specifies either an ISUP message type or a TUP message type for the ISUP screening reference specified in the sr parameter.

The service indicator (si) is an integer between 0 and 15. This parameter specifies a service indicator for the SIO screening reference specified in the sr parameter. The service indicator is the first 4 bits of an SIO.

The network indicator code (nic) is an integer between 0 and 3 or an "*" (asterisk). This parameter specifies a network indicator code for the SIO screening reference specified in the sr parameter. The network indicator code is the last 2 bits of an SIO.

The H0 heading code (h0) is an integer between 0 and 15, or an "*" (asterisk). This parameter specifies the first four bits of a message type for the SIO screening reference.

The H1 heading code (h1) is an integer between 0 and 15, or an "*" (asterisk). This parameter specifies last four bits of a message type for the SIO screening reference.



The message priority (pri) is an integer between 0 and 3. This parameter specifies the message priorities for the SIO screening reference.

The subsystem number (ssn) is an integer between 0 and 255 or an "*" (asterisk). This parameter identifies the SCP application that should receive the message.

The routing indicator (ri) is destination point code (DPC), global title translation (GT), or "*" (asterisk). This parameter indicates whether a subsequent global title translation is required.

- gt indicates that a subsequent translation is required.
- dpc indicates that no further translation is required.
- * (asterisk) indicates all possible values (DPC and GT).

The translation type (type) is an integer between 0 and 255 or a "*" (asterisk). Identifies the type of global title translation. It is the decimal representation of the 1-byte field used in SS7.

The SCCP message type (sccpmt) is an integer with the values 9 (UDT messages), 10 (UDTS messages), 17 (XUDT messages), 18 (XUDTS messages), or "*" (asterisk). This parameter specifies one of these message types and is part of the calling party address screen.

The SCCP management (SCMG) format ID (scmgfid) is an integer from 1 to 255 or "*" (asterisk). This parameter specifies the function and format of an SCMG message and is part of the called party address screen.

The next screening function identifier (nsfi) is the screen function that is required to continue processing the message. It is the next step in processing the message. The values for this attribute are: opc, blkopc, sio, dpc, blkdpc, destfld, isup cgpa, tt, cdpa, aftpc, stop, and fail.

The next screening reference (nsr) is a four character (one alpha and up to three alphanumeric) value. Combined with the next screening function identifier (nsfi), it uniquely defines the next screening table to be used in the gateway screening process.

The gateway screening stop action set name (actname) is a six character (one alpha and up to five alphanumeric characters) value. Specified only with the nsfi=stop parameter, the gateway screening stop action set defines the additional actions the EAGLE can perform on MSUs that pass gateway screening.

The asterisk, or "*", is a single entry that indicates all possible values for that parameter.

These attributes are not used on all screens. The following list shows which attributes are required for each screening function. There are two types of attributes, search keys and results. The search keys are used to match fields in the SS7 message in order to determine the screening function result. The result is determined by matching a search key with information in the current SS7 message. The result indicates the next step in the screening process.

- Screen Set screening function
 - Search Key SCRN
 - Result NSFI, NSR, ACTNAME
- Allowed OPC screening function
 - Search Key SR, NI, NC, NCM, ZONE, AREA, ID, NPC, MSA, SSA, SP, PCST
 - Result NSFI, NSR, ACTNAME



- Blocked OPC screening function
 - Search Key SR, NI, NC, NCM, ZONE, AREA, ID, NPC, MSA, SSA, SP, PCST
 - Result NSFI, NSR, ACTNAME
- Allowed SIO screening function
 - Search Key SR, NIC, SI, H0, H1, PRI
 - Result NSFI, NSR, ACTNAME
- Allowed DPC screening function
 - Search Key SR, NI, NC, NCM, ZONE, AREA, ID, NPC, MSA, SSA, SP, PCST
 - Result NSFI, NSR, ACTNAME
- Blocked Allowed DPC screening function
 - Search Key SR, NI, NC, NCM, ZONE, AREA, ID, NPC, MSA, SSA, SP, PCST
 - Result NSFI, NSR, ACTNAME
- Allowed DESTFLD screening function
 - Search Key SR, NI, NC, NCM, ZONE, AREA, ID, NPC, MSA, SSA, SP, PCST
 - Result NSFI, ACTNAME
- Allowed ISUP screening function
 - Search Key SR, ISUPMT, TUPMT
 - Result NSFI, ACTNAME

Note:

The Allowed ISUP Screening function table contains both the ISUP message type (ISUPMT) and TUP message type (TUPMT). Only one of these parameters can be specified for an allowed ISUP screen. The parameter value to be used is dependent on the service indicator (SI) value specified in the allowed SIO screen: SI=5 for an ISUP message type, SI=4 for a TUP message type.

- Allowed CGPA screening function
 - Search Key SR, NI, NC, NCM, ZONE, AREA, ID, NPC, MSA, SSA, SP, RI, SSN, SCCPMT, PCST
 - Result NSFI, NSR, ACTNAME
- Allowed TT screening function
 - Search Key SR, TYPE
 - Result NSFI, NSR, ACTNAME
- Allowed CDPA screening function
 - Search Key SR, NI, NC, NCM, ZONE, AREA, ID, NPC, MSA, SSA, SP, SSN, SCMGFID, PCST



- Result NSFI, NSR, ACTNAME
- Allowed AFTPC screening function
 - Search Key SR, NI, NC, NCM, ZONE, AREA, ID, NPC, MSA, SSA, SP, SSN, PCST
 - Result NSFI, ACTNAME



The NSR attribute can only be specified when the NSFI is not STOP. The NSR cannot be specified with the ACTNAME attribute. The ACTNAME attribute can only be specified when the NSFI is STOP. The ACTNAME parameter cannot be specified with the NSR parameter. NSFI and NSR can only be defined once per screening table.

Use of the Character "c" for the NI, NC, NCM, ZONE, AREA, ID, NPC, MSA, SSA, and SP Parameters

The character "c" is used in the blocked OPC or DPC screens (for parameters ni, nc, ncm, zone, area, id, npc, msa, ssa, and sp) to allow the screening process to continue for messages with point codes that do not match any point codes in the blocked OPC or DPC screens. The character "c" is used this way. When screening for a blocked OPC or DPC and the point code being screened does not match any of the point codes in the blocked OPC or DPC screens, the message is not rejected and the screening process continues. To allow the screening process to continue, the blocked OPC and blocked DPC screens must have at least one entry consisting of a screening reference, a point code, a next screening function identifier, and a next screening reference. The point code is in the form of ni=c, nc=c, ncm=c (for ANSI point codes), zone=c, area=c, id=c (for ITU international point codes), npc=c (for 14-bit ITU national point codes), and msa=c, ssa=c, sp=c (for 24-bit ITU national point codes). When the character "c" is specified, the next screening function identifier and next screening reference must be specified, unless the next screening function identifier is stop (nsfi=stop). Then the next screening reference cannot be specified.

When the point code does not match any entries in the blocked OPC or DPC screens, the screening process is directed to the screening reference with the point code c-c-c or npc=c. The next screening function identifier and next screening reference in this entry are examined to determine the next step in the screening process.

When a blocked OPC or DPC screen is created, the first entry for the ni-nc-ncm, zone-area-id, or msa-ssa-sp must be c-c-c, or the npc must "c." Subsequent entries can be specific point codes.

If the character "c" is specified for any parameters ni, nc, ncm, zone, area, id, msa, ssa, or sp, it must be specified for all three parameters. No other values can be used. For example, a point code c-c-255 is not allowed. The point code must be c-c-c. The "*" (asterisk) value cannot be used with the character "c" (for example, a point code c-c-* is not allowed).

ANSI, ITU international, or 24-bit ITU national point codes using the value "c" can be entered by specifying only the ni=c parameter (for ANSI point codes), zone=c parameter (for ITU international point codes), or msa=c parameter (for 24-bit ITU national point codes), and the nc, ncm, area, id, ssa, and sp parameters can be omitted.



The post and npost parameters, for specifying the ITU international and 14-bit ITU national spare point codes, cannot be used with point codes containing the character "c".

Specifying a Range of Values for Gateway Screening Parameters

The values of these gateway screening parameters can be specified as a range of values.

ni - the network identifier for an ANSI point code

nc - the network cluster for an ANSI point code

ncm - the network cluster member for an ANSI point code

pri – the message priority in the SIO field of an MSU

h0 - the H0 heading code in the SIF field of an MSU

h1 - the H1 heading code in the SIF field of an MSU

type - the translation type in the called party address field of an MSU

isupmt - the ISUP message type

tupmt - the TUP message type

A range of values is specified with the values that define the range separated by two ampersands (&&), for example, :ni=025&&100 specifies all network indicators for ANSI point codes from 25 to 100.

A range of values for an ANSI point code parameter can be specified with asterisks (*) or single values for other point code parameters. Table 2-1 shows the valid combinations of these parameter values.

Table 2-1 Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM |
|-----------------|-----------------|-----------------|
| Single Value | Single Value | Single Value |
| Single Value | Single Value | Range of Values |
| Single Value | Single Value | Asterisk |
| Single Value | Range of Values | Asterisk |
| Single Value | Asterisk | Asterisk |
| Range of Values | Asterisk | Asterisk |
| Asterisk | Asterisk | Asterisk |
| | | |

A range of values for the H0 and H1 heading codes can be specified with asterisks (*) or single values for other heading code parameter. Table 2-2 shows the valid combinations of these parameter values.

Table 2-2 Valid Value Combinations for H0 and H1 Parameters

| Н0 | H1 |
|--------------|--------------|
| Single Value | Single Value |



Table 2-2 (Cont.) Valid Value Combinations for H0 and H1 Parameters

| Н0 | H1 |
|-----------------|-----------------|
| Single Value | Range of Values |
| Single Value | Asterisk |
| Range of Values | Asterisk |
| Asterisk | Asterisk |

When changing or removing an existing gateway screening entry, the ANSI point code values, priority values, H0 and H1 heading code values, translation type, ISUP message type, or TUP message type values specified with the command must match the values configured in the database for the specified screening reference. If a command is specified with a parameter value that is part of a range of values for that parameter already configured for that screening reference, the command is rejected.

For example, the database contains a gateway screening entry for the range of allowed OPCs 010-010-010 to 010-010-100 in Allowed OPC screening reference <code>opc1</code>. If an attempt is made to remove or change Allowed OPC screening reference <code>opc1</code> and the ANSI point code 010-010-025 is specified. The command is rejected because point code 010-010-025 is a part of the point code range configured in the database. To remove or change Allowed OPC screening reference <code>opc1</code>, these point code parameters must be specified with the command, <code>ni=010</code>, <code>nc=010</code>, <code>ncm=010&&100</code>.

If the ANSI point code, priority value, H0 and H1 heading code values, or translation type values specified with an enter command is within the range of values already configured for the specified screening reference, the command is rejected. For example, the <code>ent-scr-opc</code> command is entered with the point code 010-010-050 assigned to screening reference <code>opc1</code>. If the database contains the range of point codes 010-010-010 to 010-010-100, specified as <code>ni=010, nc=010, ncm=010&&100</code>, the command is rejected. If the database contains an entry for all point codes with the network identifier of 010 and network cluster of 010, <code>ni=010, ncm=*</code>, the command is rejected.

A range of values can be specified when displaying gateway screening entries. The range of values does not have to match the values configured in the database. The range of values specified with a retrieve command is used to limit the number of entries to search for. There are some restrictions for using ANSI point code values with retrieve commands. Table 2-3 shows the valid combinations of the ANSI point code parameters.

Table 2-3 Valid Parameter Combinations for ANSI Point Code Parameters

| NI | NC | NCM |
|---|--|--|
| Single value | Single value | Single value, a range of values, an asterisk, or the NCM value not specified |
| Single value | A range of values, an asterisk, or the NC value is not specified | The NCM value is not specified |
| A range of NI values, an asterisk, or the NI value is not specified | The NC value is not specified | The NCM value is not specified |

The range of values are displayed in the output of the retrieve commands the same way as they were entered. The following are examples of outputs containing ranges of values.



```
rtrv-scr-blkdpc:sr=iec:ni=240:nc=001:ncm=010&&018
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = BLOCKED DPC
            NC
                    NCM NSFI
                                   NSR/ACT
                    010&&020 STOP
     240
             001
IEC
rtrv-scr-sio:sr=iec:nic=1:si=1
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED SIO
SR NIC PRI SI HO H1
                             NSFI
                                    NSR/ACT
IEC 2 0&&2 1 08&&11 * BLKDPC WDB2
IEC 2
         1 1 11 03&&07 DPC
                                   ABC2
rtrv-scr-tt:all=yes
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED TT
    TYPE NSFI NSR/ACT
IEC 005&&010 STOP -----
IEC 012 STOP -----
            CDPA IEC
IEC 016
WRD2 243 STOP
WRD4 *
           STOP
                   -----
```

Use of the Asterisk "*" for the ZONE, AREA, ID, MSA, SSA, and SP Parameters

A range of values for an ITU-I or 24-bit ITU-N point code parameter can be specified using a combination of asterisks (*) and single values for the point code parameters. Table 2-4 shows the valid combinations of the ITU-I parameter values.

Table 2-4 Valid Value Combinations for ITU-I Point Code Parameters

| ZONE | AREA | ID | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

Table 2-5 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 2-5 Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |



Table 2-5 (Cont.) Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP |
|----------|----------|----------|
| Asterisk | Asterisk | Asterisk |

Table 2-6 shows the valid combinations of the ITU-I point code parameters used with the retrieve commands when displaying ITU-I gateway screening entries.

Table 2-6 Valid Parameter Combinations for ITU-I Point Code Parameters

| ZONE | AREA | ID |
|---|---|--|
| Single value | Single value | Single value, an asterisk, or the ID value not specified |
| Single value | An asterisk, or the AREA value is not specified | The ID value is not specified |
| An asterisk, or the ZONE value is not specified | The AREA value is not specified | The ID value is not specified |

Table 2-7 shows the valid combinations of the 24-bit ITU-N point code parameters used with the retrieve commands when displaying 24-bit ITU-N gateway screening entries.

Table 2-7 Valid Parameter Combinations for 24-bit ITU-N Point Code Parameters

| MSA | SSA | SP |
|--|--|--|
| Single value | Single value | Single value, an asterisk, or the SP value not specified |
| Single value | An asterisk, or the SSA value is not specified | The SP value is not specified |
| An asterisk, or the MSA value is not specified | The SSA value is not specified | The SP value is not specified |

User Interface Requirements

A screening table is created, modified, displayed and removed using these on-line commands. For more information on these commands, go to *Commands User's Guide*.

- Screen Set ent-scrset, chg-scrset, dlt-scrset, rtrv-scrset
- Allowed Originating Point Code ent-scr-opc, chg-scr-opc, dlt-scr-opc, rtrv-scr-opc
- Blocked Originating Point Code ent-scr-blkopc, chg-scr-blkopc, dlt-scr-blkopc, rtrv-scr-blkopc
- Allowed Service Information Octet ent-scr-sio, chg-scr-sio, dlt-scr-sio, rtrv-scr-sio
- Allowed Destination Point Code ent-scr-dpc, chg-scr-dpc, dlt-scr-dpc, rtrv-scr-dpc
- Blocked Destination Point Code ent-scr-blkdpc, chg-scr-blkdpc, dlt-scr-blkdpc, rtrv-scr-blkdpc

- Allowed Affected Destination Field ent-scr-destfld, chg-scr-destfld, dlt-scr-destfld, rtrv-scr-destfld
- Allowed ISUP/TUP Message Type ent-scr-isup, chg-scr-isup, dlt-scr-isup, rtrv-scr-isup
- Allowed Calling Party Address ent-scr-cgpa, chg-scr-cgpa, dlt-scr-cgpa, rtrv-scr-cgpa
- Allowed Called Party Address ent-scr-cdpa, chg-scr-cdpa, dlt-scr-cdpa, rtrv-scr-cdpa
- Allowed Translation Type ent-scr-tt, chg-scr-tt, dlt-scr-tt, rtrv-scr-tt
- Allowed Affected Point Code ent-scr-aftpc, chg-scr-aftpc, dlt-scr-aftpc, rtrv-scr-aftpc
- Gateway Screening Stop Action Sets chg-gws-actset, rtrv-gws-actset

Command Summary

This section briefly describes each type of command used in this chapter. There are four commands for each screening function. One to enter the screening information (ent), one to change the screening information after it has been entered (chg), one to delete screening information (dlt), and one to display the screening information (rtrv).

If the command is not accepted, a "Command Rejected" message is displayed. If the command is accepted, a time stamp and a "Command Completed" message is displayed. For example:

```
E2361 Cmd Rej: Screen set name not defined

or

rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
ENT-SCR-OPC: MASP A - COMPLTD
```

Any time a screen set is affected by a command (for example, an entry is added to, removed from, or changed in the screen set) a "Screen Set Affected" message is displayed indicating the percentage of memory that screen set occupies (100% = the maximum space available). This information is useful in determining how "full" the screen set is at any given time. The percentages are calculated after the command is executed. For example, the output message, ENT-SCR-OPC: SCREEN SET AFFECTED - SS01 25% FULL, indicates that after an entry was added to screen set SS01 by the ent-scr-opc command, it occupied 25% of the maximum space available. The following is an example of the output that can be received when a screen set is affected.

```
Extended Processing Time Required -- Please Wait Notice: The number of screensets affected is 2. ENT-SCR-OPC: SCREEN SET AFFECTED - ss01 25% FULL ENT-SCR-OPC: SCREEN SET AFFECTED - ss04 35% FULL ENT-SCR-OPC: MASP A - COMPLTD
```



When a new screen set is created it immediately occupies space which may or may not be over the allowed limit. The user must know how much space has been occupied by the new screen set. For example, if the screen set SCR1 is created, the output of the ent-scrset command has the following format:

```
Extended Processing Time Required -- Please Wait Notice: The number of screensets affected is 1. ENT-SCRSET: SCREEN SET AFFECTED - scr1 95% FULL ENT-SCRSET: MASP A - COMPLTD
```

Note:

A screen set can be over 100% full, but it is not recommended that the screen set remain in this condition. The gateway screening process will not function properly using a screen set that is over 100% full. Some entries must be removed from the screen set to reduce the screen set capacity to 100% or below.

Enter Commands

All of the parameters in the enter command are mandatory. If the enter command contains a screening reference that does not exist, a new screening table is created. If the screening reference exists, and an entry that matches the specified parameters does not already exist, a new entry is added to the screening table. If an entry exists already, the command is rejected.

Change Commands

At least one parameter must be changed in the change commands. Parameters that are considered part of the search key must be specified in every chg command (for example, the ni, nc, ncm, zone, area, id, npc, msa, ssa, and sp parameters for the chg-scr-opc command). Each of these parameters has a corresponding "new" parameter (for example, nni, nnc, nncm, nzone, narea, nid, nnpc, nmsa, nssa, nsp) which may be specified in order to change the entry in the screening table. Parameters that are not part of the search key may be specified, but do not have "new" values. For example, the nsfi, nsr, ri, and actname parameters do not have "new" parameters (for example, nnsfi, nnsr, nri, or nactname). If a "new" parameter is not specified, it assumes the value of the corresponding search key parameter. For example, if the nni parameter is not specified, then the ni parameter does not change since the nni parameter assumes the value of the ni parameter. If, however, a "new" parameter is specified, it must follow the same rules as the search keys. For example, if the nni and nncm parameters are not specified, and the nnc parameter is specified as an "*" (asterisk), then the ncm parameter must be an "*" (asterisk). The new data must not already exist in the screening table. If an entry already exists which matches the new data, the command is rejected.

Delete Commands

The use of the asterisk value in a delete command implies the deletion of a specific entry containing that asterisk value, not the deletion of multiple entries whose values may be in the range implied by the asterisk. For example, entering dlt-scr-

opc:sr=opc1:ni=*:nc=*:ncm=* cannot be used to remove all entries in opc1.

When the last entry is deleted from a screening table, the entire table is deleted, unless it is referenced by another screening table. If a screening table is referenced and an attempt is made to delete the last entry in the screening table, an error message is displayed.

Retrieve Commands

The retrieve commands for each screening function have the same parameters as the enter commands with an additional parameter called all. The all parameter defaults to no, and can only be specified if no other parameters are specified. If the all parameter is specified and is yes, then a detailed output consisting of every entry in each rule of the indicated screening function type is displayed. There are no rules associated with parameter combinations (for example, if the nc parameter is equal to * then the ncm parameter must be "*"). If an entry is specified using a "*", then only the entries where that parameter is a "*" is output.

If the NSFI has a value other than STOP or FAIL, then the name of the screening reference to be used in the next step of the gateway screening process (NSR) must be specified. The value of the NSR is shown in the NSR/ACT field.

If the NSFI is STOP, no NSR value can be specified. The gateway screening stop action sets can be specified with the actname parameter if the NSFI is STOP. If a gateway screening stop set has been assigned to the screen, the NSR/ACT field shows the name of the gateway screening stop action set. for more information on the gateway screening stop action sets, go to the Configuring Gateway Screening Stop Action Sets procedure.

If the NSFI is FAIL or STOP and no NSR or ACTNAME value is assigned to the screen, the entry ----- is shown in the ${\tt NSR/ACT}$ field.

The following is an example of a detailed output using the rtrv-scr-opc command with the all=yes parameter specified.

| rlghno | cxa03w 06- | -10-25 15: | :25:30 GM | r EAGLE5 | 36.0.0 |
|----------------------|------------|------------|-----------|----------|---------|
| SCREEN = ALLOWED OPC | | | | | |
| SR | NI | NC | NCM | NSFI | NSR/ACT |
| IEC | 240 | 001 | 010&&200 | STOP | |
| IEC | 241 | * | * | CGPA | cg04 |
| SR | ZONE | AREA | ID | NSFI | NSR/ACT |
| IEC | 1 | 003 | 4 | BLKOPC | blk1 |
| IEC | 1 | 003 | 5 | STOP | COPY |
| SR | NPC | | | NSFI | NSR/ACT |
| IEC | 00235 | | | CGPA | cg04 |
| IEC | 00240 | | | CGPA | cg01 |
| SR | NI | NC | NCM | NSFI | NSR/ACT |
| WRD2 | 243 | 015&&075 | * | STOP | RDCT |
| WRD3 | 243 | 105 | 002 | CGPA | WRD4 |
| SR | NPC | | | NSFI | NSR/ACT |
| WRD4 | 00245 | | | BLKOPC | blk3 |
| WRD4 | 00247 | | | STOP | CR |
| | | | | | |

For the rtrv-scrset:all=yes command, the output consists of every screen set and every screening table in each screen set, in addition to the fields displayed from



the rtrv-scrset command with no parameters. The following is an example of the detailed output of the rtrv-scrset: all=yes command.

rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0

| SCRN | NSFI | NSR/ACT | RULES | DESTFLD |
|------|--------|---------|-------|---------|
| SS01 | OPC | IEC | 120 | Y |
| | DPC | GOOP | 33 | |
| | SIO | WRD1 | 5 | |
| SS02 | STOP | | 0 | Y |
| SS03 | DPC | WRD1 | 56 | Y |
| | SIO | WRD2 | 10 | |
| | BLKDPC | WRD5 | 30 | |

Parameters that are not specified default to "all possible values" for that parameter. If no parameters are specified (except for the rtrv-scrset command), a summary output is displayed. A summary output consists of three columns of information, the screening references for the specified screen (SR), and an indicator of whether the screen table is referenced or not (REF), and the number of entries in the screening reference (RULES). The following is an example of a summary output using the rtrv-scr-opc command with no parameters.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED OPC

SR REF RULES
IEC YES 2
WRD2 YES 1
WRD3 NO 4
WRD4 YES 9
```

For the rtrv-scrset command, if no parameters are specified, the output displays the following information.

- The capacity of the gateway screening database, as a percentage of the maximum capacity
- The percentage of the maximum number of the CDPA and AFTPC tables
- The total number of screen sets in the database with the percentage of the screen set capacity
- The number of SEAS and EAGLE screen sets being used
- The screen set name (SCRN)
- The next screening function that should be used in the gateway screening process (${\tt NSFI}$)
- The next screening reference or the gateway screening stop action set name (NSR/ACT)
- The memory capacity (percentage) of each screen set (FULL)
- The number of entries (rules) in the screen set (RULES)
- The number of tables in the screen set (TABLES)



 Whether the automatic allowed affected destination screening (DESTFLD) for network management messages is applied against the routing table, self point codes, and capability point codes. When this parameter is on, the automatic screening is applied at the end of the provisioned screen set.

The following is an example of the output of the rtrv-scrset command with no parameters.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
ENTIRE GWS DATABASE IS 1% FULL
CDPA + AFTPC TABLES ARE 1% FULL
SCREEN SET TABLE IS (7 OF 255) 2% FULL
THERE ARE 0 SEAS SCREEN SETS USED ( prefix 00nn )
THERE ARE 7 EAGLE SCREEN SETS USED
SCRN NSFI
                NSR/ACT FULL RULES TABLES DESTFLD
ss01 OPC opc1 51% 2075 22
                                                     Y
                            2% 75
ss02 OPC opc2
                                            22
                                                     Y

        ss02
        OPC
        Opc2

        ss03
        OPC
        opc3

        ss04
        OPC
        opc1

        ss07
        OPC
        opc1

                            2% 75
                                            22
                                                     Υ
                            51% 2075
                                            22
                                                     N
                            51% 2075
                                            22
                                                     Y
ss09 OPC opc1
ss28 OPC opc1
                          51% 2075
                                            22
                                                     N
                                            22
                             51% 2075
                                                     Y
```

The outputs of the retrieve commands contains the following fields. There are certain fields that are used with specific commands and these are noted in the description of the field.

AREA – The area value of an ITU international point code, expressed as zone-area-id. This field is used with all screening functions except screen set, allowed SIO, and allowed TT screening functions.

DESTFLD – Whether the automatic allowed affected destination screening for network management messages is applied against the routing table, self point codes, and capability point codes. When this parameter is on, the automatic screening is applied at the end of the provisioned screen set. This field is only used with the screen set function.

FULL – The capacity of allowed memory a given screen set occupies, expressed as percentage. This field is only used with the screen set function.

 ${
m H0}$ – The H0 heading code in the service information field. The H0 field shows the first four bits of the message type indicator in the SIO field. This field is only used with the allowed SIO screening function.

 ${
m H1}$ – The H1 heading code in the service information field. The H1 field shows the last four bits of the message type indicator in the SIO field. This field is only used with the allowed SIO screening function.

ID – The ID value of an ITU international point code, expressed as <code>zone-area-id</code>. This field is used with all screening functions except screen set, allowed SIO, and allowed TT screening functions.

ISUPMT/TUPMT – The ISUP message type (ISUPMT) in the service information field of an ISUP message or the TUP message type (TUPMT) in the service information field of a TUP message. This field is used only with allowed ISUP screening functions.



- MSA The main signaling area value of a 24-bit ITU national point code, expressed as msa-ssa-sp. This field is used with all screening functions except screen set, allowed SIO, and allowed TT screening functions.
- **NC** The network cluster of an ANSI point code, expressed as ni-nc-ncm. This field is used with all screening functions except screen set, allowed SIO, and allowed TT screening functions.
- **NCM** The network cluster member of an ANSI point code, expressed as ni-nc-ncm. This field is used with all screening functions except screen set, allowed SIO, and allowed TT screening functions.
- **NI** The network identifier of an ANSI point code, expressed as ni-nc-ncm. This field is used with all screening functions except screen set, allowed SIO, and allowed TT screening functions.
- **NIC** The network indicator code in the service information octet. This field is only used with the allowed SIO screening function.
- **NPC** The ITU national point code. This field is used with all screening functions except screen set, allowed SIO, and allowed TT screening functions.
- **NSFI** The next screening function identifier. The next screening function identifier specifies the next screening function that should be used in the gateway screening process. This field is used with all screening functions.
- NSR/ACT The next screening reference or the gateway screening stop action set name. The next screening reference is the name of the of the next gateway screening entity that should be used in the screening process. The gateway screening stop action set name is the name of the gateway screening stop action set assigned to the screen defining the additional action to be performed on the MSU that passes gateway screening. This field is used with all screening functions.
- **PRI** The priority of a message in the service information octet. This field is only used with the allowed SIO screening function.
- **REF** An indicator of whether the specified screening table is referenced by another screening table. This field is used with the summary outputs of all retrieve commands except the retrieve screen set (rtrv-scrset) command.
- **RI** The routing indicator in the called party address (CDPA). This field is only used with the allowed CGPA screening function.
- **RULES** The number of entries in the screen. This field is only used with the screen set function.
- **SCCPMT** The SCCP message type. This field is only used with the allowed calling party address function.
- **SCMGFID** The SCCP management (SCMG) format ID, which defines the function and format of each SCMG message. This field is only used with the allowed called party address function.
- **SCRN** The name of the screen set. This field is only used with the screen set function.
- **SI** The service indicator for the service information octet, which are the last two bits of the subservice field. This field is only used with the allowed SIO screening function.



SP – The signaling point value of a 24-bit ITU national point code, expressed as msa-ssa-sp. This field is used with all screening functions except screen set, allowed SIO, and allowed TT screening functions.

SR – The name of the screening reference. This field is used with all screening functions except the screen set screening function.

SSA – The sub-signaling area value of a 24-bit ITU national point code, expressed as msa-ssa-sp. This field is used with all screening functions except screen set, allowed SIO, and allowed TT screening functions.

SSN – The subsystem number of a given point code. This field is only used with the allowed CGPA, allowed CDPA, and allowed AFTPC screening functions.

TABLES – The number of tables in the screen. This field is only used with the screen set function.

TYPE – The translation type that is allowed for global title translation. This field is only used with the allowed TT screening function.

ZONE – The zone value of an ITU international point code, expressed as zone-area-id. This field is used with all screening functions except screen set, allowed SIO, and allowed TT screening functions.

The ITU international and 14-bit ITU national spare point codes are displayed in the output of the Gateway Screening retrieve commands with the spare point code subtype prefix "s-".

14-Bit ITU National Point Code Formats

Gateway screening only allows 14-bit ITU national point codes to be provisioned in the database by the enter, delete, or change gateway screening commands, and displayed by the gateway screening retrieve commands as a single number. If a format other than a single number (14-0-0-0) for the 14-bit ITU national point code has been defined by the npcfmti parameter of the chg-stpopts command, the 14-bit ITU national point code must be converted into a single number so that it can be used by gateway screening.

For example, the format of the 14-bit ITU national point code is 4-4-4-2 and the user would like to add point code value 7-7-7-1 into the allowed OPC screen. The point code value 7-7-7-1 would have to be converted to a single number so that the point code can be added to the allowed OPC screen. To determine what multiple part 14-bit ITU national point code is represented by the single number 14-bit ITU national point code in the gateway screening table, the single number point code must be converted to a multiple part point code.

To convert a single number 14-bit ITU national point code to a multiple part point code, perform the Converting Single Number 14-Bit ITU National Point Codes procedure.

To convert a multiple part 14-bit ITU national point code to a single number point code, perform the Converting Multiple Part 14-Bit ITU National Point Codes procedure.

For a definition of the different formats that can be used for 14-bit ITU national point codes, see the 14-Bit ITU National Point Code Formats section in Chapter 2, Configuring Destination Tables in the *Database Administration Manual - SS7*.



Converting Single Number 14-Bit ITU National Point Codes

To convert a single number 14-bit ITU national point code to a multiple part 14-bit ITU national point code, perform these steps. To make this conversion, you will need to know the format of the 14-bit ITU national point code. This can be verified in the NPCFMTI field of the rtrv-stpopts command output. For this example, the 14-bit ITU national point codes 14781 and 695 are converted to point codes using the 3-8-3-0 format.

1. The point code is converted to a binary number.

This can be done with most scientific calculators.

- a. The number 14781 converts to the binary number 11100110111101.
- b. The number 695 converts to the binary number 1010110111.



Make sure the binary number contains 14 digits. If it does not, add leading zeros to the binary number to bring the total number of digits in the number to 14.

In this example, the binary equivalent for the decimal number 695 (1010110111) contains 10 digits, so four zeros must be added to the beginning of the binary number. The resulting binary number is now 00001010110111.

Divide the binary number into the number of parts required by the format of the 14-bit ITU national point code.

For this example, the format is 3-8-3-0. Since the last part of the point code format is 0, the point code format contains only three parts. Divide the point code into three parts, the first part of the point code contains the first three digits of the 14-digit binary number, the second part of the point code contains the next eight digits of the 14-digit binary number, and the third part of the point code contains the last three digits of the 14-digit binary number.

For this example, the binary numbers would be divided like this:

- a. 11100110111101 = 111 00110111 101
- **b.** 00001010110111 = 000 01010110 111
- 3. Convert each part of the point code into a decimal number using the same scientific calculator used in step 1 and separate each part of the point code with dashes.

The results are as follows.

- a. 111 00110111 101 = 7-55-5
- **b.** 000 01010110 111 = 0-86-7

When the 14-bit ITU national point codes are converted from single numbers to multiple part point codes, the resulting value of the multiple part point code depends on the point code format specified by the npcfmti parameter of the chg-stpopts command. When converting the single number point code 14781 to the point code format 3-8-3-0, the resulting point code value is 7-55-5. If point code 14781 is converted to the point code format 4-4-4-2, the resulting point code value is 14-6-15-1.



Converting Multiple Part 14-Bit ITU National Point Codes

To convert multiple part 14-bit ITU national point codes to a single number, perform these steps. To make this conversion, you will need to know the format of the 14-bit ITU national point code. This can be verified in the NPCFMTI field of the rtrv-stpopts command output. For this example, the 14-bit ITU national point codes 7-55-5 and 0-86-7, using the 3-8-3-0 point code format, are converted into a single number.

 Convert each part of the point code into a binary number using a scientific calculator.

The results are as follows.

- a. 7-55-5 = 111 00110111 101
- **b.** 0-86-7 = 000 01010110 111
- 2. Combine each part of the point code into a single binary number as follows.
 - a. 111 00110111 101 = 11100110111101
 - **b.** 000 01010110 111 = 00001010110111

Note:

If the binary number has any zeros at the beginning of the number, remove these zeros as they are not necessary. In this example, the binary equivalent for the point code 0-86-7 (000010101111) contains four zeros at the beginning of the binary number. When the leading zeros are removed from the binary number, the resulting binary number is now 1010110111.

- 3. Convert the binary number to a decimal number using the same scientific calculator used in step 1.
 - The binary number 11100110111101 converts to the decimal number 14781.
 - **b.** The binary number 1010110111 converts to the decimal number 695.

Gateway Screening Using Duplicate ITU National Point Codes



The Duplicate ITU National Point Code feature applies only to 14-bit ITU national point codes.

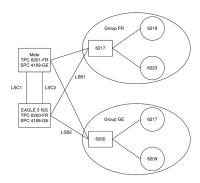
Gateway screening does not support the Duplicate ITU National Point Code Support feature. The point code value specified with the npc parameter can only be a 5-digit number and cannot contain any group code values. However, by assigning a different screenset to the linksets that have different group codes, you can screen on ITU



national point codes that have group codes assigned to them. The screenset is assigned to the linkset with the scrn parameter of either the ent-ls or chg-ls command.

For example, in the network in Figure 2-1, if you want to screen out MSUs coming from OPC 6217 in group GE, but allow MSUs coming from OPC 6217 in group FR, you could assign different screensets to linksets LSB1 and LSB2. The screenset assigned to linkset LSB1 would allow MSUs from OPC 6217. The screenset assigned to linkset LSB2 would block MSUs from OPC 6217.

Figure 2-1 Sample Network Showing Gateway Screening Using Duplicate ITU National Point Codes



Gateway Screening Configuration

Gateway screening can be configured in a variety of ways, depending on the criteria you wish to screen the messages for. The examples used in these procedures are based on seven example configurations (Figure 2-3 through Figure 2-9). Each example configuration shows the screening order used by the EAGLE, with the screening criteria for each screen, and the order that these screens are added to the database to achieve the screening order, with the command entry required to enter the screening criteria into the database.

Each procedure adding a gateway screening entity to the database contains a table showing the parameters and the data used for the command examples.



The gateway screening rules table can contain a maximum of 362,700 rules. The EAGLE can contain a maximum of 255 screen sets.

Each screen set can contain a maximum of 4,000 rules, however the total number of rules contained in all the screen sets cannot exceed 362,700.

These general rules apply to configuring gateway screening entities in the database. Each procedure contains any rules that are specific to that procedure.

1. The gateway screening feature must be turned on before gateway screening entities can be added to the database.

Verify this by entering the rtrv-feat command. If the gateway screening feature is off, it can be turned on by entering the chg-feat:gws=on command.

Note:

Once the gateway screening feature is turned on with thechg-feat command, it cannot be turned off

2. A TSM running the GLS application GPL must be configured in the database with the ent-card:type=tsm:appl=qls:loc=<TSM Card Location> command.

Verify this with the rtrv-card command.

- 3. Changing or removing an existing gateway screening entity will change the screening order for the messages on the linkset.
 - Verify the new screening order before changing or removing any gateway screening entities.
- 4. If the screen set being added to the database includes existing screening references, messages in the linkset being screened will be screened against all entries in those screening references.
 - This could allow a message into the EAGLE that was not supposed to be allowed in, or a message blocked from the EAGLE that is supposed to be allowed in. Verify the contents of existing screening references to make sure that you want all messages in the linkset screened against all entries in the existing screening references.
- 5. The gateway screening entity specified by the nsfi and nsr parameters must be in the database.
- 6. If the nsfi and nsr parameters do not reference an existing screening entity, the nsfi parameter must be set to stop and the nsr parameter cannot be specified.
 - When the nsfi parameter is set to stop, the gateway screening process stops at the specified screen.
- 7. The actname parameter, specifying the gateway screening stop action set assigned to the screen, can only be specified with the nsfi=stop parameter.

Caution:

When Gateway Screening is in the screen test mode, as defined by the linkset parametersqwsa=off andqwsm=on, any action in the gateway screening stop action set specified by theactname parameter at the end of the gateway screening process will be performed.

- 8. The word SEAS cannot be used as a value for the scrn parameter of the entscrset, dlt-scrset, and chg-scrset commands.
 - The word SEAS is used in the rtrv-ls command output, in the SCRN field, to show gateway linksets created on the SEAS interface. A gateway linkset can only be configured from a SEAS terminal and not from an EAGLE terminal. Gateway linksets can only be displayed from the SEAS interface.
- 9. When removing gateway screening entities from the database, the specified entity cannot be removed if it is referenced by other gateway screening entities.



If it is referenced by other gateway screening entities, either the nsfi parameter in those gateway screening entities must be changed to stop, or the nsfi and nsr parameters in the those gateway screening entities must be changed to reference other gateway screening entities.

- **10.** Point code values containing all zeros, shown in the following list, cannot be specified for any gateway screening command:
 - ANSI Point Code 000-000-000
 - ITU-I Point Code 0-000-0
- **11.** A screening reference may contain both 14-bit and 24-bit ITU national point codes, only if the internal values of these point codes are not the same.

For example, the 14-bit ITU national point code 1 (npc=1) and the 24-bit ITU national point code 000-000-001 (msa=0, sp=1) cannot be specified for the same screening reference as both of these point codes have the same internal value. This would also apply to using the asterisk as a point code value. The npc=* and the msa=*, ssa=*, sp=* parameters cannot be specified in the same screening reference.

12. If the last entry in the specified screening reference is removed from the database, the screening reference is removed from the database.

If an attempt is made to display that specified screening reference name (for example, entering the rtrv-scr-opc:sr=iec command after removing the last entry in the allowed OPC screen IEC), the output shows that the specified screening reference name is not in the database, as shown in this example. the following error message is displayed showing that the specified screening reference name could not be found in the database.

E2573 Cmd Rej: SR or NSR does not reference an existing SR

13. The EAGLE screens messages in a hierarchical fashion.

For example, allowed OPC screens are checked before blocked OPC screens; blocked OPC screens are checked before allowed SIO screens, and so on. The gateway screening entities must be entered in reverse of the order that the screening process takes place (see Figure 2-2). To add gateway screening entities into the database, the first entity to be entered must be the entity that you want to stop screening the message on. The other entities follow in the proper order and the screen set is the last entity to be added into the database. The screen set entity must be in the database for gateway screening to take place. Table 2-8 The following lists shows the order of the MTP gateway screening process and the SCCP gateway screening process and the order that these gateway screening entities must be entered into the database.



Table 2-8 Gateway Screening Process and Provisioning Order

| SCCP Gateway Screening Order | | |
|----------------------------------|--|--|
| Order of Entry into the Database | | |
| owed AFTPC | | |
| owed CDPA | | |
| owed TT | | |
| owed CGPA | | |
| cked DPC | | |
| owed DPC | | |
| owed SIO | | |
| cked OPC | | |
| owed OPC | | |
| creen Set | | |
|) | | |

^{*} The allowed ISUP screen can contain ISUP and TUP message types.

Using the <code>ent-ls</code> or <code>chg-ls</code> commands, the screen set can then be assigned to a linkset and all messages on that linkset are screened for acceptance into the network.

When the copy-disk or copy-tbl commands are issued, the database on disk is locked. A DB Timeout alarm is generated due to the LIM cards inability to download GWS data. Once the command completes, the LIM card is able to download the dataset.



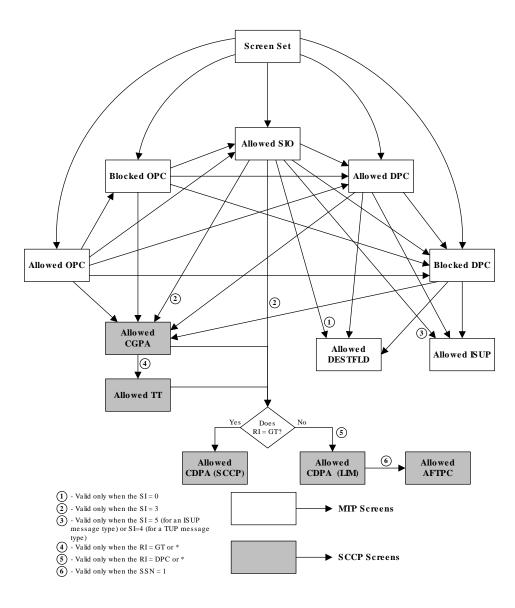


Figure 2-2 The Gateway Screening Process

Gateway Screening Configuration Examples

Example 1 screens the messages in a linkset for the following criteria. Figure 2-3 shows the screening order the EAGLE uses and the order that the screens must be entered into the database.

Allow into the EAGLE messages containing the following items
 The OPC 001-001

The DPC 003-003-003

The calling party address (CGPA) 006-006, with the subsystem number of 253 and the routing indicator (ri) of dpc and the SCCP message type of UDT

The called party address (CDPA) 003-003-003 with the subsystem number of 001, and the SCMG format ID of 050

The allowed affected point code (AFTPC) of 008-008-008 with the subsystem number of 250

Block from the EAGLE messages containing these items
 The OPC 001-002-002

The DPC 004-004-004



Screening Order for Order that these screens must be Example #1 entered into the database Screen Set Allowed AFTPC Screen Screen Set Name = GWS1 ent-scr-aftpc:sr=gw20:ni=008 NSFI = Allowed OPC :nc=008:ncm=008:ssn=250 NSR = GWS4 :nsfi=stop:actname=copy Automatic Affected Destination Screening Off Allowed OPC Screen Allowed CDPA Screen Screening Reference - GWS4 ent-scr-cdpa:sr=gw17:ni=003 Allow OPC - 001-001-001 :nc=003:ncm=003:ssn=001:scmgfid=050 NSFI = Blocked OPC :nsfi=aftpc:nsr=gw20 NSR = GWS7 Blocked OPC Screen Allowed CGPA Screen Screening Reference - GWS7 Block OPC 001-002-002 ent-scr-cgpa:sr=gw14:ni=006 :nc=006:ncm=006:ssn=253 NSFI = Allowed DPC :ri=dpc:sccpmt=9:nsfi=cdpa:nsr=gw17 NSR = GWS9 Blocked DPC Screen Allowed DPC Screen ent-scr-blkdpc:sr=gw12:ni=c Screening Reference = GWS9 :nc=c:ncm=c:nsfi=cgpa:nsr=gw14 Allow DPC - 003-003-003 NSFI = Blocked DPC ent-scr-blkdpc:sr=gw12 NSR = GW12 :ni=004:nc=004:ncm=004 :nsfi=fail Blocked DPC Screen Screening Reference = GW12 Block DPC - 004-004-004 Allowed DPC Screen NSFI = Allowed Calling Party Address ent-scr-dpc:sr=gws9:ni=003:nc=003 NSR = GW14 :ncm=003:nsfi=blkdpc:nsr=gw12 Allowed CGPA Screen Screening Reference = GW14 Blocked OPC Screen Allow Calling Party Address - 006-006-006 ent-scr-blkopc:sr=gws3:ni=c SSN - 253, RI = DPC, SCCP Message Type = 9 :nc=c:ncm=c:nsfi=dpc:nsr=gws9 NSFI = Allowed Called Party Address NSR = GW17 ent-scr-blkopc:sr=gws3 :ni=001:nc=002:ncm=002 :nsfi=fail Allowed CDPA Screen Screening Reference = GW17 Allow Called Party Address - 003-003-003 Allowed OPC Screen SSN - 001, SCMG Format ID - 050, ent-scr-opc:sr=gws4:ni=001:nc=001 NSFI = Allowed Affected Point Code :ncm=001:nsfi=blkopc:nsr=gws3 NSR = GW20 Allowed AFTPC Screen Screening Reference = GW20 Screen Set Allow Affected Point Code ent-scrset:scrn=gws1:nsfi=opc 008-008-008, SSN - 250 :nsr=gws4:destfld=no Screening Stops Copy the MSU for the STPLAN feature

Figure 2-3 Gateway Screening Configuration - Example 1



Example 2 screens the messages in a linkset for the following criteria. Figure 2-4 shows the screening order the EAGLE uses and the order that the screens must be entered into the database.

- Allow messages containing the following items into the EAGLE The following SIO information:
 - The network indicator code of 2 (nic=2)
 - The service indicator of 3 (si=3)
 - Message priorities ranging from 1 to 3 (:pri=1&&3)

The calling party address (CGPA) 7-100-4, with the subsystem number of 254 and the routing indicator (ri) of \star , and the SCCP message type of UDTS

The called party address (CDPA) 5-117-2 with the subsystem number of 254

Block messages containing the OPC 4-250-3 from the EAGLE



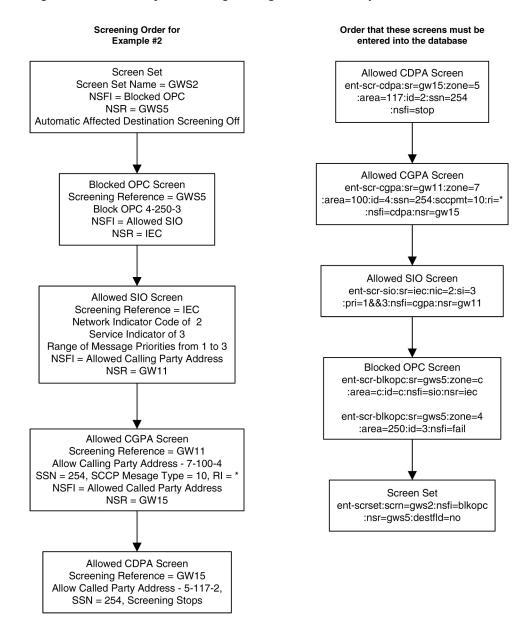


Figure 2-4 Gateway Screening Configuration - Example 2

Example 3 screens the messages in a linkset for the following criteria. Figure 2-5 shows the screening order the EAGLE uses and the order that the screens must be entered into the database.

Allow into the EAGLE messages containing the following items
 The DPCs from 070-070-025 to 070-070-135

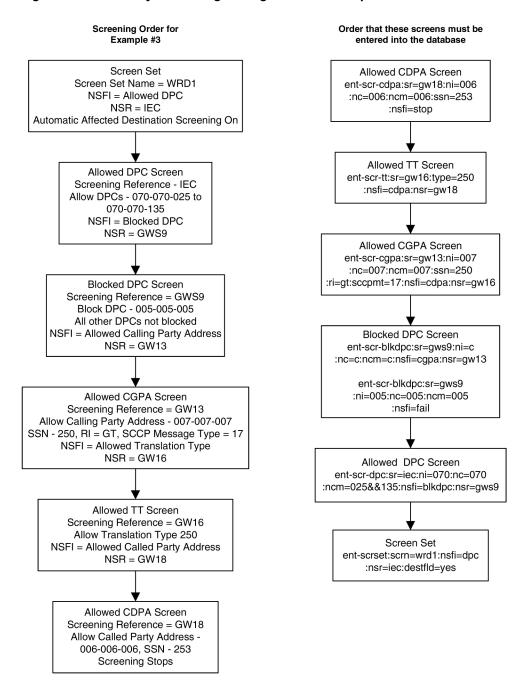
The calling party address (CGPA) 007-007-007, with the subsystem number of 250 and the routing indicator (ri) of qt and the SCCP Message type of XUDT

The translation type (TT) 250

The called party address (CDPA) 006-006-006 with the subsystem number of 253

- Block messages containing the DPC 005-005-005 from the EAGLE
- Automatic Destination Field screening is on.

Figure 2-5 Gateway Screening Configuration - Example 3



Example 4 screens the messages in a linkset for the following criteria. Figure 2-6 shows the screening order the EAGLE uses and the order that the screens must be entered into the database.

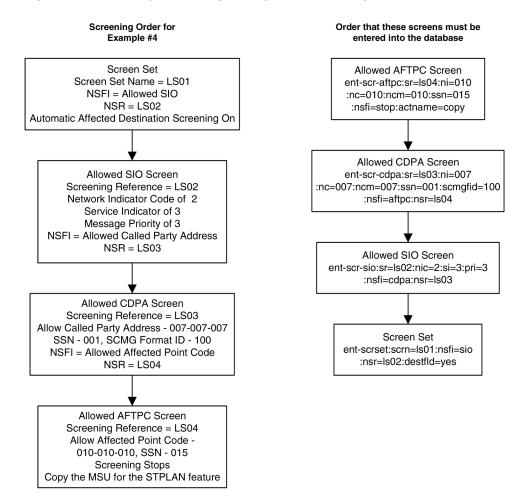
- Allow messages containing the following items into the EAGLE The following SIO information:
 - The network indicator code of 2 (nic=2)
 - The service indicator of 3 (si=3)
 - Message priority of 3 (pri=3)

The called party address (CDPA) 007-007-007 with the subsystem number of 001 and SCMG format ID of 100

The allowed affected point code (AFTPC) of 010-010-010 with the subsystem number of 015

· Automatic Destination Field screening is on.

Figure 2-6 Gateway Screening Configuration - Example 4



Example 5

Example 5 screens the messages in a linkset for the following criteria. Figure 2-7 shows the screening order the EAGLE uses and the order that the screens must be entered into the database.

Allow into the EAGLE messages containing the following items
 The OPC 010-010-010

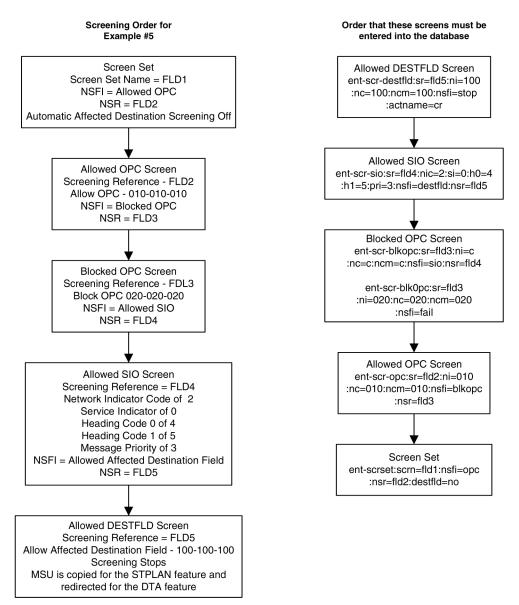
The following SIO information:

- The network indicator code of 2 (nic=2)
- The service indicator of 0 (si=0)
- Heading code 0 of 4 (h0=4)
- Heading code 1 of 5 (h1=5)
- Message priority of 3 (pri=3)

The allowed affected destination field (DESTFLD) of 100-100-100

Block messages containing the OPC 020-020-020 from the EAGLE

Figure 2-7 Gateway Screening Configuration - Example 5





Example 6 screens the messages in a linkset for the following criteria. Figure 2-8 shows the screening order the EAGLE uses and the order that the screens must be entered into the database.

Allow into the EAGLE messages containing the following items
 The OPC 015-015-015

The following SIO information:

- The network indicator code of 2 (nic=2)
- The service indicator of 5 (si=5)
- Message priority of 3 (pri=3)

The allowed ISUP message type (ISUP) of 135

• Block messages containing the OPC 025-025-025 from the EAGLE



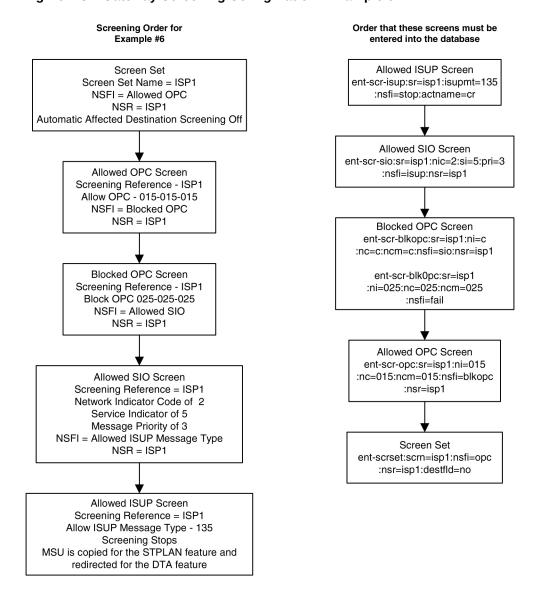


Figure 2-8 Gateway Screening Configuration - Example 6

Example 7 screens the messages in a linkset for the following criteria. Figure 2-9 shows the screening order the EAGLE uses and the order that the screens must be entered into the database.

- Allow into the EAGLE messages containing the following items:
 - TUP messages containing these items:
 The OPC 017-017

The DPC 050-034-049

The following SIO information:

- * The network indicator code of 2 (nic=2)
- The service indicator of 4 (si=4)

* Message priority of 3 (pri=3)

The allowed TUP message type of 100

 ISUP messages containing these items: The OPC 017-017-017

The DPC 073-200-059

The following SIO information:

- * The network indicator code of 2 (nic=2)
- * The service indicator of 5 (si=5)
- * Message priority of 3 (pri=3)

The allowed ISUP message type of 139



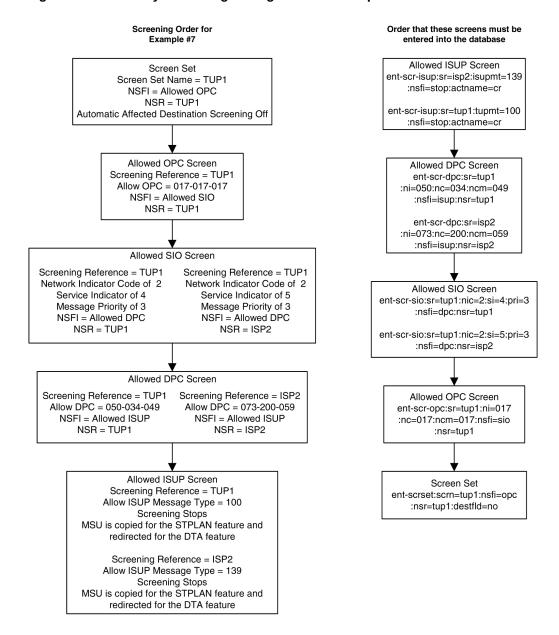


Figure 2-9 Gateway Screening Configuration - Example 7

Adding a GLS Card

This procedure is used to add a card to support the gateway screening feature (a GLS card), shown in Table 2-9, using the ent-card command.

Table 2-9 GLS Card Types

| Card Type | Part Number |
|-----------|-------------|
| SLIC | 7094646 |

The ent-card command uses these parameters.

:loc - The location of the card being added to the database.

: type – The type of card being added to the database. For this procedure, the value of this parameter is tsm.

: appl – The application software that is assigned to the card. For this procedure, the value of this parameter is gls.

 $: \verb|force| - Allow the LIM to be added to the database even if there are not enough service modules to support the number of LIMs in the EAGLE. This parameter is obsolete and is no longer used.$

The shelf to which the card is to be added, must already be in the database. This can be verified with the rtrv-shlf command. If the shelf is not in the database, see the Adding a Shelf procedure in *Database Administration – System Management User's Guide*.

The card cannot be added to the database if the specified card location already has a card assigned to it.

Before the card can be configured in the database for the gateway screening feature, the gateway screening feature must be turned on with the chg-feat command. The rtrv-feat command can verify that the gateway screening feature is on.



After the Gateway Screening feature is turned on with the chg-feat command, the feature cannot be turned off.

The EAGLE can contain a maximum of eight GLS cards. The examples in this procedure are used to add a GLS card in card slot 1212 to the database.

Adding a GLS Card

1. Display the cards in the EAGLE using the rtrv-card command.

This is an example of the possible output. Cards should be distributed throughout the EAGLE for proper power distribution. Refer to *Installation Guide* for the shelf power distribution. This is an example of the possible output.

| rlghnc | xa03w 13-0 | 6-17 09:58 | :31 GMT EAGLES | 45.0 | .0 | | | | |
|--------|------------|------------|----------------|------|-----|------|------|------|-----|
| CARD | TYPE | APPL | LSET NAME | LINK | SLC | LSET | NAME | LINK | SLC |
| 1101 | DSM | VSCCP | | | | | | | |
| 1102 | TSM | GLS | | | | | | | |
| 1113 | E5MCAP | OAMHC | | | | | | | |
| 1114 | E5TDM-A | | | | | | | | |
| 1115 | E5MCAP | OAMHC | | | | | | | |
| 1116 | E5TDM-B | | | | | | | | |
| 1117 | E5MDAL | | | | | | | | |
| 1201 | LIMDS0 | SS7ANSI | sp2 | A | 0 | sp1 | | В | 0 |
| 1203 | LIMDS0 | SS7ANSI | sp3 | A | 0 | | | | |
| 1204 | LIMDS0 | SS7ANSI | sp3 | A | 1 | | | | |
| 1206 | LIMDS0 | SS7ANSI | nsp3 | A | 1 | nsp4 | | В | 1 |
| 1211 | TSM | GLS | | | | | | | |
| 1308 | LIMDS0 | SS7ANSI | sp6 | A | 1 | sp7 | | В | 0 |
| 1314 | LIMDS0 | SS7ANSI | sp7 | A | 1 | sp5 | | В | 1 |



If the \mathtt{APPL} field of the $\mathtt{rtrv-card}$ command output shows no cards assigned to the \mathtt{GLS} application continue the procedure with 2.

2. Verify that the gateway screening feature is on, by entering the rtrv-feat command.

If the gateway screening feature is on, the GWS field should be set to on. For this example, the gateway screening feature is off.



Thertry-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by thertry-feat command, see thertry-feat command description in *Commands User's Guide*.

If the Gateway Screening feature is on, continue the procedure with ${\bf 4}$

If the Gateway Screening feature is not on, continue the procedure with 3.

3. If the gateway screening feature is not on, shown by the GWS = off entry in the rtrv-feat command output in 2, turn the gateway screening feature on by entering this command.

```
chq-feat: gws=on
```



After the Gateway Screening feature is turned on with the chg-feat command, it cannot be turned off.

When the chq-feat has successfully completed, this message should appear.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

Continue the procedure with 4.

4. Display the GLS cards that are in the database by entering this command.

```
rept-stat-card:appl=gls
```

This is an example of the possible output.

| 1211 | 131-010-000 | SLIC | GLSHC | IS-NR | Active |
|---------|---------------|------------|-----------|--------------|--------|
| | | | | | |
| 1102 | 131-010-000 | SLIC | GLS | IS-NR | Active |
| AST | | | | | |
| CARD | VERSION | TYPE | GPL | PST | SST |
| rlghncz | ka03w 08-11-0 | 1 16:07:48 | GMT EAGLE | 5 46.6.0.0.0 | |

Command Completed.



SLICs are shown by the entry GLSHC in the GPL column of the rept-stat-gpl output. SLICs are shown by the entry GLS in the GPL column of the rept-stat-qpl output. Continue the procedure by performing one of these actions.

5. Verify that the GLS card has been physically installed into the proper location.

If the GLS card is in the required card location, continue the procedure with 6.

If the GLS card is not in the required card location, continue with 6.



Caution:

If the versions of the flash GPLs on the SLIC do not match the flash GPL versions in the database when the SLIC is inserted into the card slot, UAM 0002 is generated indicating that these GPL versions do not match. If UAM 0002 has been generated, perform the alarm clearing procedure for UAM 0002 in Unsolicited Alarm and Information Messages Reference before proceeding with this procedure.

6. Add the GLS card to the database using the ent-card command.

For this example, enter this command.

```
ent-card:loc=1212:type=slic:appl=gls
```

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
ENT-CARD: MASP A - COMPLTD
```

7. Verify the changes using the rtrv-card command with the card location specified.

For this example, enter this command.

```
rtrv-card:loc=1212
```

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0
CARD TYPE
                                   LINK SLC LSET NAME
              APPL
                       LSET NAME
                                                          LINK SLC
1212
      SLIC
               GLS
```

8. Put the card in service using the rst-card command with the card location specified in 6. For this example, enter this command.

```
rst-card:loc=1212
```

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-28 08:21:07 GMT EAGLE5 36.0.0
Card has been allowed.
```

9. Backup the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED): MASP A - Backup on active MASP to fixed disk complete.
```



BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.



Enter the rtrv-card command Does the output Yes show any cards running the GLS application? No Enter the *rtrv-feat* command Is the Yes gateway screening feature turned on? No Enter the To chg-feat:gws=onSheet 2 command

Figure 2-10 Add a GLS Card to the Database - Sheet 1 of 5



Enter the From rept-stat-card:appl=gls Sheet 1 command Is an E5-TSM No To being installed? Sheet 5 Yes Are E5-TSMs No shown in the rept-stat-card output? $Ye\,s$ Is the new E5-TSM being provisioned in the same No To shelf that contains any Sheet 3 E5-TS Ms? Yes To Sheet 4

Figure 2-11 Add a GLS Card to the Database - Sheet 2 of 5



Is an No From To E5-TSM card being Sheet 2 Sheet 5 installed? Yes Enter the rept-stat-gpl:gpl=hipr commandAre HIPR cards installed in both the card No Yes locations 9 and 10 of the shelf in which the E5-TSM will be installed? Enter the rept-stat-gpl:gpl=hipr2command Are HIPR2 cards installed in both the card No Yes locations 9 and 10 of the shelf in which the E5-TSM will be installed? Refer to the Installation Manual - EAGLE 5 ISS To and install the required Sheet 4 HIPR or HIPR2 cards

Figure 2-12 Add a GLS Card to the Database - Sheet 3 of 5

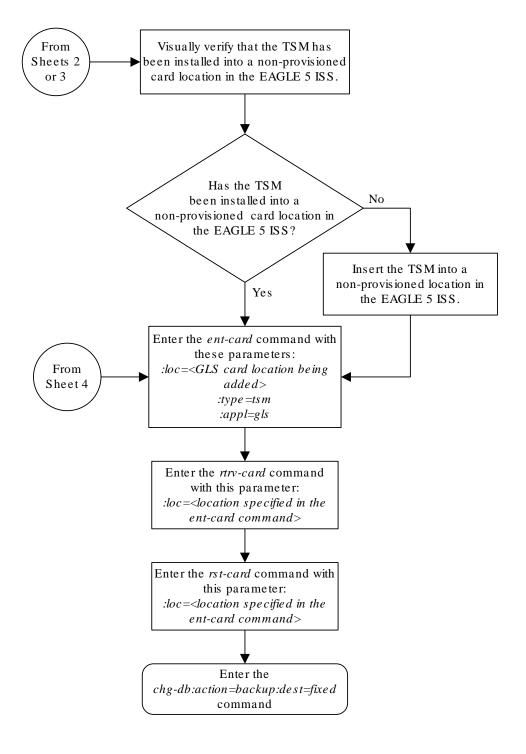


From Visually verify that the E5-TSM has Sheets 2 been installed into a non-provisioned card location in the EAGLE 5 ISS. or 3 Has the E5-TSM No been installed into a non-provisioned card location in the EAGLE 5 ISS? Yes Insert the E5-TSM into a non-provisioned location in the EAGLE 5 ISS. Has UAM 0002 No been generated? Yes Perform the alarm clearing procedure for UAM 0002 in To the Unsolicited Alarm and Sheet 5 Information Messages Manual to clear the alarm.

Figure 2-13 Add a GLS Card to the Database - Sheet 4 of 5



Figure 2-14 Add a GLS Card to the Database - Sheet 5 of 5



Removing a GLS Card

This procedure is used to remove GLS cards, used by gateway screening, from the database using the dlt-card command. The card cannot be removed if it does not exist in the database.



Caution:

If the GLS card is the last GLS card in service, removing this card from the database will disable the Gateway Screening feature.

The examples in this procedure are used to remove the GLS card in card location 1205.

Canceling the REPT-STAT-CARD Command

Because the rept-stat-card command used in this procedure can output information for a long period of time, the rept-stat-card command can be canceled and the output to the terminal stopped. There are three ways that the reptstat-card command can be canceled.

- Press the F9 function key on the keyboard at the terminal where the rept-statcard command was entered.
- Enter the canc-cmd without the trm parameter at the terminal where the reptstat-card command was entered.
- Enter the canc-cmd: trm=<xx>, where <xx> is the terminal where the reptstat-card command was entered, from another terminal other that the terminal where the rept-stat-card command was entered. To enter the canccmd:trm=<xx> command, the terminal must allow Security Administration commands to be entered from it and the user must be allowed to enter Security Administration commands. The terminal's permissions can be verified with the rtrv-secu-trm command. The user's permissions can be verified with the rtrv-user or rtrv-secu-user commands.

For more information about the canc-cmd command, go to Commands User's Guide.

1. Display the cards in the database using the rtrv-card command.

This is an example of the possible output.

```
rlghncxa03w 13-06-17 09:58:31 GMT EAGLE5 45.0.0
CARD
      TYPE
               APPL
                     LSET NAME LINK SLC LSET NAME
LINK SLC
1101 DSM
               VSCCP
1102 TSM
               GLS
1113 E5MCAP
               OAMHC
1114 E5TDM-A
1115 E5MCAP
               OAMHC
1116 E5TDM-B
1117 E5MDAL
1201 LIMDS0
               SS7ANSI
                        lsn1
                                             lsn2
```



| В 3 | 1 | | | | | | | |
|------|--------|---------|------|---|---|------|---|---|
| 1203 | LIMDS0 | SS7ANSI | lsn2 | A | 0 | lsn1 | В | 1 |
| 1205 | TSM | GLS | | | | | | |

2. Display the cards that are in service with the rept-stat-card: stat=nr command.

```
rept-stat-card:stat=nr
```

This is an example of the possible output.

| rlghn | cxa03w 09-05- | 25 15:26 | :30 GMT | EAGLE5 41.0.0 | | |
|-------|---------------|----------|---------|---------------|---------|-----|
| CARD | VERSION | TYPE | GPL | PST | SST | AST |
| 1101 | 110-003-000 | DSM | VSCCP | IS-NR | Active | |
| 1102 | 110-003-000 | TSM | GLS | IS-NR | Active | |
| 1109 | 109-003-000 | HMUX | BPHMUX | IS-NR | Active | |
| 1110 | 109-003-000 | HMUX | BPHMUX | IS-NR | Active | |
| 1113 | 110-003-000 | E5MCAP | OAMHC | IS-NR | Active | |
| 1114 | | E5TDM | | IS-NR | Active | |
| 1115 | 110-003-000 | E5MCAP | OAMHC | IS-NR | Standby | |
| 1116 | | E5TDM | | IS-NR | Active | |
| 1117 | | E5MDAL | | IS-NR | Active | |
| 1201 | 110-003-000 | LIMDS0 | SS7ANSI | IS-NR | Active | |
| 1203 | 110-003-000 | LIMDS0 | SS7ANSI | IS-NR | Active | |
| 1205 | 110-003-000 | TSM | GLS | IS-NR | Active | |
| 1209 | 109-003-000 | HMUX | BPHMUX | IS-NR | Active | |
| 1210 | 109-003-000 | HMUX | BPHMUX | IS-NR | Active | |
| | | | | | | |

3. An GLS card is identified by the entry GLS in the APPL fields in the outputs in steps 1 and 2.

Remove the card from service using the rmv-card command and specifying the card location. If the GLS card to be inhibited is the only GLS card in service, shown in step 2, the force=yes parameter must also be specified. For this example, enter this command.

```
rmv-card:loc=1205
```

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0 Card has been inhibited.
```

4. Remove the card from the database using the dlt-card command.

The dlt-card command has only one parameter, loc, which is the location of the card. For this example, enter this command.

```
dlt-card:loc=1205
```

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0 DLT-CARD: MASP A - COMPLTD
```

5. Verify the changes using the rtrv-card command specifying the card that was removed in step 4.

For this example, enter this command.



rtrv-card:loc=1205

When this command has successfully completed, this message should appear.

E2144 Cmd Rej: Location invalid for hardware configuration

6. Backup the new changes using the <code>chg-db:action=backup:dest=fixed command.</code>

These messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

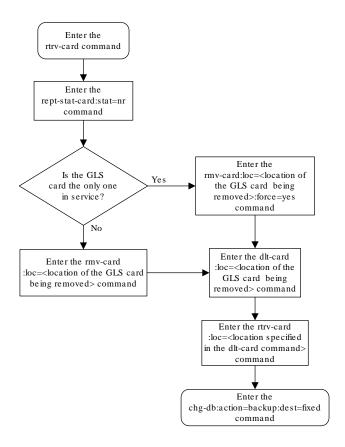
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Figure 2-15 Remove a GLS Card



E5-OAM Integrated GLS Feature Activation Procedure

This procedure is used to activate the integrated generic loading services (GLS) feature.

Before this feature can be enabled, the Eagle must have an E5 maintenance and administration subsystem processor (MASP) and the GWS feature must be activated. The GWS feature is unaffected by this feature being enabled and turned on.

The integrated GLS feature can be turned off after the feature is turned on; however, it cannot be disabled once the feature is enabled.

The Integrated GLS feature cannot be enabled with a temporary Feature Access Key (FAK).

For details about the commands used in this procedure, refer to Commands User's Guide.

When the integrated GLS feature is turned on:

- The E5-MASPs support GLS functionality. That means the E5-MASPs are able to
 accept the binding requests for GWS screen sets from network cards, bind the
 requested screen sets successfully, and load the screen sets to the requested
 network cards.
- The GLS cards shall remain in IS-NR state but will not serve any new binding requests from network cards.
- When Eagle is running in duplex mode, both active and standby E5-MASPs handle the binding request. The screenset binding load is dynamically distributed between Active and Standby E5 MASP. In simplex mode, active E5-MASP handles all binding requests from network cards.

When the integrated GLS feature is turned off (enabled or not), the E5-MASPs will not serve requests for binding screen sets. The GLS cards will handle new screenset binding requests.

When the integrated GLS feature activation procedure is completed, all GLS functionality automatically migrates from E5-TSM cards to E5-MASPs.

Activating the Integrated GLS Feature

Complete these steps to activate the integrated GLS feature.

- 1. Verify that the GWS feature activated using the rtrv-feat command.
- If the GWS feature is not activated, activate the GWS feature using the instructions provided in Gateway Screening Configuration before proceeding.
- 3. Enter the enable-ctrl-feat command to enable the integrated GLS feature: enable-ctrl-feat:partnum=893038901:fak=<Feature Access Key>.
- 4. Enter chg-ctrl-feat:partnum=893038901:status=on

Configuring Gateway Screening Stop Action Sets

This procedure is used to add a gateway screening stop action set to the database or change an existing gateway screening stop action set using the <code>chg-gws-actset</code> command.

The gateway screening stop action sets define the actions that are performed on the MSU when the gateway screening process has stopped. These gateway screening stop action sets replace the copy and redirect parameters that have been used with the gateway screening commands when the gateway screening process stops.



The database can contain a maximum of 16 gateway screening stop action sets, with each set containing a maximum of 10 gateway screening stop actions. These are the current gateway screening stop actions.

- RDCT redirect the MSU for the DTA feature
- CNCF convert the PIP parameter with the GN parameter or the GN parameter with the PIP parameter in the ISUP IAM message for the Calling Name Conversion Facility feature.
- TLNP ISUP IAMs that pass gateway screening are processed either by the ISUP NP with EPAP feature or by the Triggerless LNP feature. This gateway screening stop action is discussed in more detail in the Configuring TLNP Gateway Screening Stop Action Sets procedure.
- TINP ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. This gateway screening stop action can be specified only if the TINP stop action is assigned to a stop action set. If the TINP feature is enabled and turned on, the ISUP NP with EPAP feature (if the ISUP NP with EPAP feature is enabled) is overridden.
- TIF, TIF2, TIF3 TIF processing is applied to the messages that pass Gateway Screening. These gateway screening stop actions can be specified only if the tinp, tif, tif2, or tif3 stop action is already assigned to a gateway screening stop action set, or if any of these features are enabled.
 - TIF Number Portability
 - TIF SCS Forwarding
 - TIF Simple Number Substitution
 - TIF Selective Screening
- SCCP This gateway screening stop action is associated with the MTP Routed GWS
 Stop Action feature (part number 893035601) and can be specified only if this feature is
 enabled. If this stop action is configured and the MTP Routed GWS Stop Action feature is
 turned on, MTP routed SCCP UDT/XUDT messages that pass Gateway Screening are
 forwarded to the service modules for further processing.

Note:

The MTP Msgs for SCCP Apps feature (part number 893017401) takes precedence over the MTP Routed GWS Stop Action feature. If the MTP Msgs for SCCP Apps feature is enabled and turned on, all MTP routed SCCP messages are forwarded to the service modules for further processing whether or not the SCCP gateway screening stop action is specified.

- NONE no action is performed on the MSU.
- DUP This gateway screening stop action is used to duplicate the incoming MSU without
 affecting the processing of the original MSU. The duplicated MSU will be routed to a point
 code specified in the STPOPTS table under the GDPC parameter. The duplicated MSU is
 a priority 0 message.
- STRIP This gateway screening stop action is used to de-capsulate the MSU that was encapsulated by the REDIRECT stop action.



\blacksquare

Caution:

When Gateway Screening is in the screen test mode, as defined by the linkset parameters <code>gwsa=off</code> and <code>gwsm=on</code>, any action in the gateway screening stop action sets created in this procedure will be performed.

The chg-gws-actset command uses these parameters.

:actid – The ID number of the gateway screening stop action set. The value of this parameter is from 4 to 16.

:actname – The name of the gateway screening stop action set consisting of 1 alphabetic character followed by up to 5 alphanumeric characters.

: force – The force=yes parameter must be specified when changing the gateway screening stop actions of an existing gateway screening stop action set.

:all=none - sets the value of each gateway screening stop action in the gateway screening stop action set to none. Refer to the procedure Removing Gateway Screening Stop Action Sets for information about using this parameter.

:actl to :actl0 – The ten gateway screening stop actions for each gateway screening stop action set. Gateway screening stop action 1 (actl) is the first stop action to be performed and gateway screening stop action 10 (actl0) is the last stop action to be performed on the MSU.

The first three gateway screening stop action sets (actid=1, actid=2, and actid=3) are already defined with the existing gateway screening stop actions shown in Table 2-10.

Table 2-10 Gateway Screening Stop Action Definitions If the CNCF Feature Is Off

| Gateway Screening Stop Action ID | Gateway Screening Stop Action Set Name | Stop Action 1 | Stop Action 2 | Action Performed by the EAGLE |
|--|---|---------------|---------------|--|
| 2 | rdct | rdct | _ | redirect the MSU for the DTA feature |

The word none cannot be used for the actname parameter.

The force=yes parameter must be specified when changing an existing gateway screening stop action set.

If the copy gateway screening action is specified with the chg-gws-actset command, it must be specified with the act1 parameter.

A specific gateway screening stop action can only be specified once in a specific gateway screening stop action set. For example, the chg-gws-actset command cannot be executed if the copy gateway screening stop action is specified for gateway screening stop action parameters act1 and act2 as shown in this command example.



chg-gws-actset:actid=4:act1=copy:act2=copy

The value of the actname parameter must be unique. The value of this parameter is used by the actname parameter in the gateway screening commands and is shown in the NSR/ACT field of the outputs of the retrieve gateway screening commands to define the action that is performed on the MSU that passes gateway screening.

When a gateway screening stop action set is being entered in to the database for the first time, the name of the gateway screening stop action set (actname) must be added to the database before any gateway screening stop actions are assigned to the gateway screening stop action set.

Table 2-11 shows the combinations of parameter values that can be specified for act1, act2, and act3 parameters for gateway screening stop action sets 4 through 16.

Table 2-11 Gateway Screening Stop Action Set Parameter Combinations

| ACT1 | ACT2 | ACT3 | |
|------|------|------|--|
| cncf | | | |
| сору | cncf | | |
| сору | cncf | rdct | |
| cncf | rdct | | |
| tinp | | | |
| сору | tinp | | |
| tif | | | |
| сору | tif | | |
| сору | cncf | tif | |
| cncf | tif | | |
| tif2 | | | |
| сору | tif2 | | |
| сору | cncf | tif2 | |
| cncf | tif2 | | |
| tif3 | | | |
| сору | tif3 | | |
| сору | cncf | tif3 | |
| cncf | tif3 | | |
| sccp | | | |
| сору | sccp | | |

A blank entry in this table means that the ACT2 or ACT3 parameter has no value.

The cncf stop action can be specified only if the CNCF feature is turned on.

The tinp stop action can be specified only if the tinp stop action is assigned to a stop action set.

The tif, tif2, or tif3 stop actions can be specified only if one or more of these features are enabled.

- TIF Number Portability
- TIF SCS Forwarding
- TIF Simple Number Substitution
- TIF Selective Screening

The SCCP stop action can be specified only if the MTP Routed GWS Stop Action feature is enabled.

1. Verify that the gateway screening feature is turned on, by entering the rtrv-feat command.



If the gateway screening feature is turned on, the ${\tt GWS}$ field should be set to ${\tt on}$. In this example, the gateway screening feature is off.



The rtrv-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-feat command, see the rtrv-feat command description in Commands User's Guide.

If the gateway screening feature is turned on, go to 3.

2. If the gateway screening feature is not turned on, shown by the GWS = off entry in the rtrv-feat command output in 1, turn it on by entering this command.

```
chg-feat:gws=on
```



Once the gateway screening feature is turned on with the chg-feat command, it cannot be turned off.

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

3. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

Action IDs 1, 2, and 3 are predefined and cannot be changed. Action ID 1 contains only the COPY stop action. Action ID 2 contains the RDCT stop action. Action ID 3 contains the COPY and the RDCT stop action as shown in this output example.

Continue the procedure by performing one of these steps.

 The TINP stop action can be specified only if a gateway screening stop action set containing the TINP stop action must be shown in the rtrv-gws-actset output. Only two gateway screening stop action sets can contain the TINP stop action.



- If only one gateway screening stop action contains the TINP stop action, continue the procedure with 7 to specify the TINP stop action for a gateway screening stop action set.
- If no gateway screening stop action sets contain the TINP stop action, or two gateway screening stop action sets contain the TINP stop action, the TINP stop action cannot be specified for a gateway screening stop action set. Continue the procedure by specifying another stop action.
- The SCCP stop action can be specified if the MTP Routed GWS Stop Action feature is enabled, or if the SCCP stop action is shown in the rtrv-gws-actset output.
 - If only one gateway screening stop action contains the SCCP stop action, continue the procedure with 7 to specify the SCCP stop action for a gateway screening stop action set.
 - If no gateway screening stop action sets contain the SCCP stop action, continue the procedure with 4 to verify that the MTP Routed GWS Stop Action feature is enabled.
 - Only two gateway screening stop action sets can contain the SCCP stop action.
 If two gateway screening stop action sets contain the SCCP stop action, the SCCP stop action cannot be specified for a gateway screening stop action set.
 Continue the procedure by specifying another stop action.
- The CNCF, TIF, TIF2, or TIF3 stop actions or combinations of these stop actions can be specified for a gateway screening stop action set. Refer to Table 2-11 for the combinations that can be used. If the CNCF stop action will be specified for a gateway screening stop action set, continue the procedure with 5. If only the TIF, TIF2, or TIF3 stop actions will be specified for a gateway screening stop action set, continue the procedure with 6.
- 4. Enter this command to verify whether or not the MTP Routed GWS Stop Action feature is enabled.

```
rtrv-ctrl-feat:partnum=893035601
```

This is an example of the possible output.

```
rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0 The following features have been permanently enabled:
```

```
Feature Name Partnum Status Quantity MTPRTD GWS Stop Action 893035601 on ----
```

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period

Left

Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum

Zero entries found.

If the MTP Routed GWS Stop Action feature is not enabled, perform the Activating the MTP Routed GWS Stop Action Feature procedure to enable the MTP Routed GWS Stop Action feature.



- After the Activating the MTP Routed GWS Stop Action Feature procedure has been performed, or if the rtrv-ctrl-feat output shows that the MTP Routed GWS Stop Action feature is enabled, continue the procedure with 7.
- 5. To specify the CNCF gateway screening stop action, the Calling Name Conversion Facility (CNCF) feature must be turned on. If the CNCF gateway screening stop action is shown in 3, or if the rtrv-feat output in 1 shows that the CNCF feature is on, continue the procedure with 6. If the CNCF feature is not turned on, shown by the CNCF = off entry in the rtrv-feat command output in 1, turn it on by entering this command.

chg-feat:cncf=on



Once the calling name conversion facility feature is turned on with thechg-feat command, it cannot be turned off.

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

Continue this procedure by performing one of these steps.

- If the TIF, TIF2, or TIF3 stop actions will not be specified for the gateway screening stop action set, continue the procedure with 7.
- If the TIF, TIF2, or TIF3 stop actions will be specified for the gateway screening stop action set, and either the TIF, TIF2, or TIF3 stop actions are shown the rtrv-ctrl-feat output in 3, continue the procedure with 7.
- If the TIF, TIF2, or TIF3 stop actions will be specified for the gateway screening stop action set, and either the TIF, TIF2, or TIF3 stop actions are not shown the rtrv-ctrl-feat output in 3, continue the procedure with 6.
- 6. Display the features that are enabled by entering the rtrv-ctrl-feat command. The following is an example of the possible output.

rlghncxa03w 07-05-30 21:15:37 GMT EAGLE5 37.2.0 The following features have been permanently enabled:

| Feature Name | Partnum | Status | Quantity |
|---------------------------|-----------|--------|----------|
| Command Class Management | 893005801 | off | |
| Intermed GTT Load Sharing | 893006901 | off | |
| XGTT Table Expansion | 893006101 | off | |
| XMAP Table Expansion | 893007710 | on | 3000 |
| Large System # Links | 893005910 | on | 2000 |
| Routesets | 893006401 | on | 6000 |
| GSM MAP SRI Redirect | 893014001 | on | |
| ISUP NP with EPAP | 893013801 | on | |
| HC-MIM SLK Capacity | 893012707 | on | 64 |

The following features have been temporarily enabled:



```
Feature Name Partnum Status Quantity Trial Period Left Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum
Zero entries found.
```

If you wish to specify the TIF, TIF2, or TIF3 stop actions, one or more of these features must be enabled.

- TIF Number Portability
- TIF SCS Forwarding
- TIF Simple Number Substitution
- TIF Selective Screening

If the TIF Number Portability, TIF SCS Forwarding, or TIF Simple Number Substitution features are enabled, the TIF, TIF2, and TIF3 stop actions can be specified. Continue the procedure with 7.

The TIF Number Portability, TIF SCS Forwarding, or TIF Simple Number Substitution features must be enabled. If these features are not enabled, perform the procedures in *Number Plan Processor Guide* to enable at least one of these features. After the TIF Number Portability, TIF SCS Forwarding, or TIF Simple Number Substitution features have been enabled, continue the procedure with 7.

7. Add the gateway screening stop action to the database by using the chg-gws-actset command.

Table 2-11 shows the parameter combinations that can be used for the stop action parameters (act1 - act10).

```
chg-gws-actset:actid=4:actname=cncf:act1=cncf
chg-gws-actset:actid=5:actname=cpcncf:act1=copy:act2=cncf
chg-gws-actset:actid=6:actname=cncfrd:act1=cncf:act2=rdct
chg-gws-
actset:actid=7:actname=cpcfrd:act1=copy:act2=cncf:act3=rdct
chg-gws-actset:actid=8:actname=cptinp:act1=copy:act2=tinp
chg-gws-actset:actid=9:actname=tinp:act1=tinp
chg-gws-actset:actid=10:actname=tif1:act1=tif
chg-gws-actset:actid=11:actname=tif2:act1=copy:act2=tif2
chg-gws-actset:actid=12:actname=tif3:act1=copy:act2=tif3
chg-gws-actset:actid=13:actname=sccpa:act1=sccp
chg-gws-actset:actid=14:actname=sccpb:act1=copy:act2=sccp
```

If an existing gateway screening stop action set is being changed, the force=yes parameter must be specified with the chg-gws-actset command.

The force=yes parameter can be specified with the chg-gws-actset command if a new GWS stop action set is being created, but is not necessary.



The actname parameter must be specified for a new GWS stop action set. The actname parameter is not required, but can be specified, if an existing stop action set is being changed.

If the actname parameter value is different from what is shown in the rtrv-gwsactset output for the GWS stop action set being changed, the name of the GWS stop action set will be changed to the new actname parameter value (see the first Caution).

Caution:

Changing the name of an existing GWS stop action set will prevent the actions defined in the GWS stop action set from being used to process the MSUs that pass gateway screening. If the name of the GWS stop action set is changed, enter the gateway screening retrieve commands (rtrv-scrset, rtrv-scr-opc, rtrv-scr-blkopc, rtrv-scr-sio, rtrv-scr-dpc, rtrv-scr-blkdpc, rtrv-scr-destfld, rtrvscr-isup, rtrv-scr-cqpa, rtrv-scr-tt, rtrv-scr-cdpa, and rtrv-scr-aftpc) with the actname parameter and the old GWS stop action set name to identify the screens that need to be changed to use the new GWS stop action set name. To change these screens, perform the appropriate procedures in this user's guide.

Caution:

Caution must be used when changing the stop actions in existing gateway screening stop action sets because these gateway screening stop action sets may be used by one or more gateway screening rules. Changes in the existing gateway screening stop action sets will change how MSUs that pass gateway screening are processed.

Caution:

Caution must be used when specifying the RDCT stop action in an existing GWS stop action set. Specifying the RDCT stop action for Allowed OPC screens containing the adjacent point code of a linkset, for Allowed SIO screens containing the service indicator values 1 (SI=1) or 2 (SI=2), or for Allowed DPC screens containing the EAGLE's point code can cause signaling link failures. To verify whether or not the GWS stop action set name used in this procedure is referenced by these screens, enter the rtrv-scr-opc, rtrv-scr-sio, or rtrv-scr-dpc commands, with the actname parameter and the GWS stop action set name used in this procedure.



When each of these commands have successfully completed, this message should appear.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0 CAUTION: GWS action set may be referenced by one or more GWS rules CHG-GWS-ACTSET: MASP A - COMPLTD
```

8. Verify the changes using the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 09-07-25 15:31:30 GMT EAGLE5 41.1.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT ACT
   NAME 1
                                7 8 9
ID
                3 4 5 6
1
   сору сору
2
   rdct rdct
3
   cr
         copy rdct
4
  cncf cncf
5 cpcncf copy cncf
6 cncfrd cncf rdct
7
   cpcfrd copy cncf rdct
8
  cptinp copy tinp
9
   tinp tinp
10 tif1 tif
11 tif2 copy tif2
12 tif3 copy tif3
13 sccpa sccp
14 sccpb copy sccp
GWS action set table is (14 of 16) 88% full
```

9. Backup the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED): MASP A - Backup starts on active MASP.

BACKUP (FIXED): MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED): MASP A - Backup starts on standby MASP.

BACKUP (FIXED): MASP A - Backup on standby MASP to fixed disk complete.
```



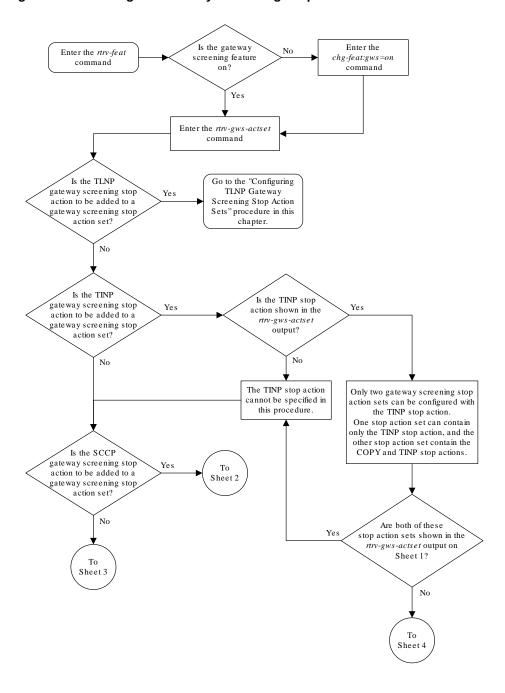


Figure 2-16 Configure Gateway Screening Stop Action Sets - Sheet 1 of 4



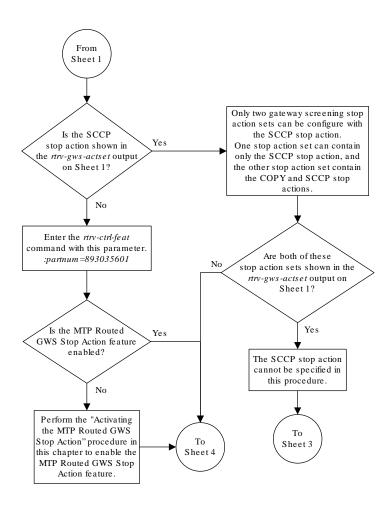
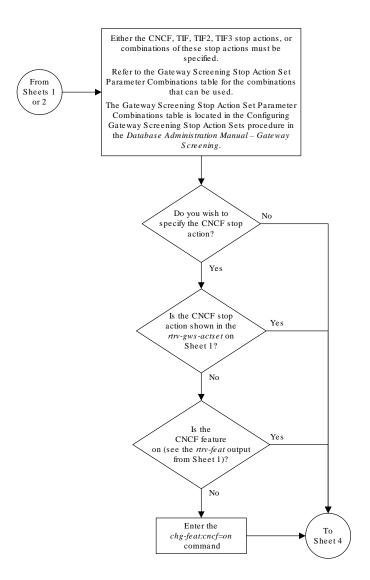


Figure 2-17 Configure Gateway Screening Stop Action Sets - Sheet 2 of 4



Figure 2-18 Configure Gateway Screening Stop Action Sets - Sheet 3 of 4





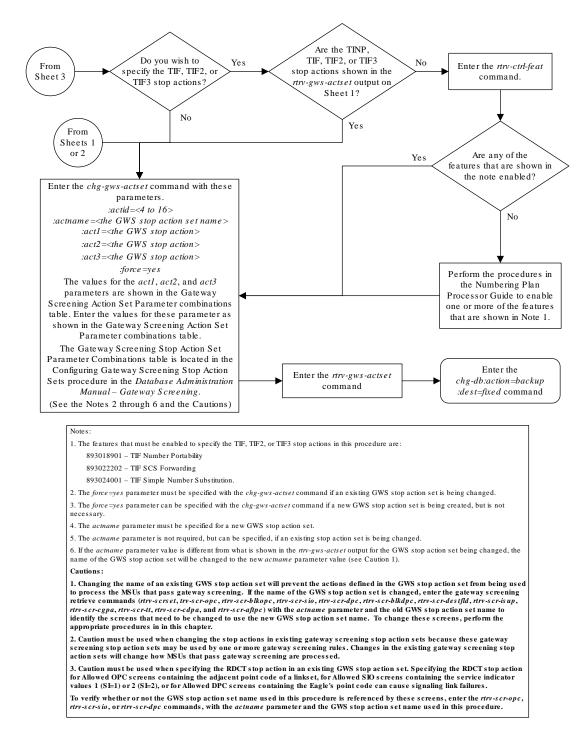


Figure 2-19 Configure Gateway Screening Stop Action Sets - Sheet 4 of 4

Configuring TLNP Gateway Screening Stop Action Sets

This procedure is used to add a gateway screening stop action set containing the TLNP gateway screening stop action to the database using the chg-gws-actset command.

The gateway screening stop action sets define the actions that are performed on the MSU when the gateway screening process has stopped.

The database can contain a maximum of 16 gateway screening stop action sets, with each set containing a maximum of 10 gateway screening stop actions. For this procedure only two gateway screening stop actions can be used.

TLNP – ISUP IAMs that pass gateway screening are processed either by the ISUP NP with EPAP feature (if the ISUP NP with EPAP feature is enabled and turned on) or by the Triggerless LNP feature (if the LNP feature is enabled and the Triggerless LNP feature is turned on). The ISUP NP with EPAP feature is discussed in more detail in G-Port User's Guide. The Triggerless LNP feature is discussed in more detail in ELAP Administration and LNP Feature Activation Guide.

The status of the ISUP NP with EPAP feature can be verified with the rtrv-ctrl-feat command. The ISUP NP with EPAP feature also requires that the G-Port feature is enabled and that Gateway Screening feature is turned on. The status of the G-Port feature can be verified with the rtrv-ctrl-feat command. The status of the Gateway Screening feature can be verified with the rtrv-feat command. Enabling the G-Port feature is discussed in more detail in *G-Port User's Guide*.



Caution:

When Gateway Screening is in the screen test mode, as defined by the linkset parametersgwsa=off andgwsm=on, any action in the gateway screening stop action sets created in this procedure will be performed.

The chg-gws-actset command in this procedure uses these parameters.

:actid – The ID number of the gateway screening stop action set. The value of this parameter is from 4 to 16.

: actname — The name of the gateway screening stop action set consisting of 1 alphabetic character followed by up to 5 alphanumeric characters. The word none cannot be used for the actname parameter.

:force – The force=yes parameter must be specified when changing the gateway screening stop actions of an existing gateway screening stop action set.

:act1 and :act2 - Only two gateway screening stop action sets can be defined with the TLNP gateway screening stop action:

- One set with only the TLNP gateway Screening stop action (defined with the act1=tlnp parameter).
- Another set with the COPY and TLNP gateway screening stop action (defined by the act1=copy and act2=tlnp parameters).

The value of the actname parameter must be unique. The value of this parameter is used by the actname parameter in the gateway screening commands and is shown in the NSR/ACT field of the outputs of the retrieve gateway screening commands to define the action that is performed on the MSU that passes gateway screening.

When a gateway screening stop action set is being entered into the database for the first time, the name of the gateway screening stop action set (actname) must be



added to the database before any gateway screening stop actions are assigned to the gateway screening stop action set.

The tlnp gateway screening stop action cannot be specified with either the cncf (calling name conversion facility) or rdct (redirect) gateway screening actions in the same gateway screening action set.

Table 2-12 Sample TLNP Gateway Screening Stop Action Set Configuration

| ACTID | ACTNAME | ACT1 | ACT2 | АСТ3 | |
|-------|---------|------|------|------|--|
| 4 | TLNP | tlnp | _ | _ | |
| 5 | CPNP | сору | tlnp | _ | |

1. Verify that the gateway screening feature is turned on, by entering the rtrv-feat command.

If the gateway screening feature is turned on, the GWS field should be set to on. In this example, the gateway screening feature is off.



Thertry-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by thertry-feat command, see thertry-feat command description in *Commands User's Guide*.

If the gateway screening feature is turned on, go to step 3.

2. If the gateway screening feature is not turned on, shown by the GWS = off entry in the rtrv-feat command output in step 1, turn it on by entering this command.

chg-feat:gws=on



Once the gateway screening feature is turned on with the chg-feat command, it cannot be turned off.

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

3. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.



Action IDs 1, 2, and 3 are predefined and cannot be changed. Action ID 1 contains only the COPY stop action. Action ID 2 contains the RDCT stop action. Action ID 3 contains the COPY and the RDCT stop actions as shown in the following output example.

If the rtrv-gws-actset output shows that these gateway screening stop action sets: one with ACT1=tlnp and the other with ACT1=copy and ACT2=tlnp, this procedure cannot be performed.

If only one of these gateway screening stop action sets are shown, skip steps 4 through 11, and go to step 12.

If neither of these gateway screening stop action sets are shown, go to step 4.

4. Verify whether or not the LNP or ISUP NP with EPAP features are enabled, using the rtrv-ctrl-feat command.

If the LNP feature is enabled, the LNP TNs field with a telephone number quantity greater than zero is shown in the rtrv-ctrl-feat output. If the ISUP NP with EPAP feature is enabled, the ISUP NP with EPAP Active field is shown in the rtrv-ctrl-feat output.

This is an example of the possible output.

rlghncxa03w 06-10-30 21:15:37 GMT EAGLE5 36.0.0 The following features have been permanently enabled:

| Feature Name | Partnum | Status | Quantity |
|---------------------------|-----------|--------|----------|
| Command Class Management | 893005801 | off | |
| Intermed GTT Load Sharing | 893006901 | off | |
| XGTT Table Expansion | 893006101 | off | |
| XMAP Table Expansion | 893007710 | on | 3000 |
| Large System # Links | 893005910 | on | 2000 |
| Routesets | 893006401 | on | 6000 |
| GSM MAP SRI Redirect | 893014001 | on | |
| ISUP NP with EPAP Active | 893013801 | on | |
| HC-MIM SLK Capacity | 893012707 | on | 64 |

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period Left Zero entries found.

The following features have expired temporary keys:



Feature Name Zero entries found.

Partnum

If the ISUP NP with EPAP feature is enabled, skip steps 5 through 10, and go to step 11.

If the LNP feature is enabled, perform the "Configuring the Triggerless LNP Feature" procedure in *ELAP Administration and LNP Feature Activation Guide*.

If neither the ISUP NP with EPAP or the LNP features are enabled, perform the "Configuring the Triggerless LNP Feature" procedure in *ELAP Administration and LNP Feature Activation Guide* to use the tlnp gateway screening stop action for the Triggerless LNP feature.

To use the tlnp gateway screening stop action for the ISUP NP with EPAP feature, and neither the ISUP NP with EPAP or the LNP features are enabled, verify that the G-Port feature is enabled. If the G-Port feature is enabled, the entry GPORT is shown in the rtrv-ctrl-feat output. If the G-Port feature is not enabled, go to *G-Port User's Guide* and enable the G-Port feature. Then go to step 5.

If the G-Port feature is enabled, go to step 5.



If thertry-ctrl-feat output in step 4 shows any controlled features, skip steps 5, 6, 7, and 8, and go to step 9.

Note:

If thertry-ctrl-feat output shows only the HC-MIM SLK Capacity feature with a quantity of 64, then no other features are enabled. Steps 5, 6, 7, and 8 must be performed.

5. Display the serial number in the database with the rtrv-serial-num command.

This is an example of the possible output.

```
rlghncxa03w 06-10-30 21:15:37 GMT EAGLE5 36.0.0
System serial number = ntxxxxxxxxxxx
System serial number is not locked.
rlghncxa03w 06-10-30 21:15:37 GMT EAGLE5 36.0.0
Command Completed
```



If the serial number is locked, skip step 6 and go to step 7.





If the serial number is correct and locked, skip steps 6, 7, and 8, and go to step 9. If the serial number is correct but not locked, skip steps 6 and 7, and go to step 8. If the serial number is not correct, but is locked, the ISUP NP with EPAP feature cannot be enabled and the remainder of this procedure cannot be performed. Contact the Customer Care Center to get an incorrect and locked serial number changed. Refer to My Oracle Support (MOS) for the contact information. The serial number can be found on a label affixed to the control shelf (shelf 1100).

6. Enter the correct serial number into the database using the ent-serial-num command with the serial parameter.

For this example, enter this command.

```
ent-serial-num:serial=<EAGLE's correct serial number>
```

When this command has successfully completed, the following message should appear.

```
rlghncxa03w 06-10-28 21:15:37 GMT EAGLE5 36.0.0 ENT-SERIAL-NUM: MASP A - COMPLTD
```

 Verify that the serial number entered into step 6 was entered correctly using the rtrv-serial-num command.

This is an example of the possible output.

```
rlghncxa03w 06-10-28 21:15:37 GMT EAGLE5 36.0.0
System serial number = nt00001231

System serial number is not locked.
rlghncxa03w 06-10-28 21:15:37 GMT EAGLE5 36.0.0
Command Completed
```

If the serial number was not entered correctly, repeat steps 6 and 7 and re-enter the correct serial number.

8. Lock the serial number in the database by entering the ent-serial-num command with the serial number shown in step 5, if the serial number shown in step 5 is correct, or with the serial number shown in step 7, if the serial number was changed in step 6, and with the lock=yes parameter.

For this example, enter this command.

```
ent-serial-num:serial=<EAGLE's serial number>:lock=yes
```

When this command has successfully completed, the following message should appear.

```
rlghncxa03w 06-10-28 21:15:37 GMT EAGLE5 36.0.0 ENT-SERIAL-NUM: MASP A - COMPLTD
```

Enable the ISUP NP with EPAP feature by entering the enable-ctrl-feat command.



For this example, enter this command.

enable-ctrl-feat:partnum=893013801:fak=<feature access key>



The values for the feature access key (the fak parameter) are provided by Oracle. If you do not have the controlled feature part number or the feature access key for the feature you wish to enable, contact your Oracle Sales Representative or Account Representative.

When the <code>enable-ctrl-feat</code> command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-30 21:15:37 GMT EAGLE5 36.0.0 ENABLE-CTRL-FEAT: MASP B - COMPLTD
```

10. Verify the changes by entering the rtrv-ctrl-feat command with the part number specified in step 9.

```
rtrv-ctrl-feat:partnum=893013801
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-30 21:16:37 GMT EAGLE5 36.0.0 The following features have been permanently enabled:
```

| Feature Name | Partnum | Status | Quantity |
|-------------------|-----------|--------|----------|
| ISUP NP with EPAP | 893013801 | off | |



If the TLNP feature is on, shown in thertrv-feat output in step 1, skip this step and step 12, and go to step 13.

11. Turn the TLNP feature on by entering this command.

```
chg-feat:tlnp=on
```



Once the TLNP feature is turned on with the chg-feat command, it cannot be turned off.

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```



12. Add the TLNP gateway screening stop action to the database by using the ${\tt chg-gws-actset}$ command.

For this example, enter these commands based on the sample configuration shown in Table 2-12.

```
chg-gws-actset:actid=4:actname=tlnp:act1=tlnp
chg-gws-actset:actid=5:actname=cpnp:act1=copy:act2=tlnp
```

If an existing gateway screening stop action set is being changed, the force=yes parameter must be specified with the chg-gws-actset command.

The force=yes parameter can be specified with the chg-gws-actset command if a new GWS stop action set is being created, but is not necessary.

The actname parameter must be specified for a new GWS stop action set.

The actname parameter is not required, but can be specified, if an existing stop action set is being changed.

If the actname parameter value is different from what is shown in the rtrv-gws-actset output for the GWS stop action set being changed, the name of the GWS stop action set will be changed to the new actname parameter value (see the first Caution).



Caution:

Changing the name of an existing GWS stop action set will prevent the actions defined in the GWS stop action set from being used to process the MSUs that pass gateway screening. If the name of GWS stop action set is changed, enter the gateway screening retrieve commands shown in Table 2-13 with the actname parameter and the old GWS stop action set name to identify the screens that need to be changed to use the new GWS stop action set name. To change these screens, perform the appropriate procedures in this manual.

Table 2-13 Gateway Screening Retrieve Commands

| rtrv-scrset | rtrv-scr-opc | rtrv-scr-blkopc | rtrv-scr-sio |
|---------------|-----------------|------------------|----------------|
| rtrv-scr-dpc | rtrv-scr-blkdpc | rtrv-scr-destfld | rtrv-scr-isup |
| rtrv-scr-cgpa | rtrv-scr-tt | rtrv-scr-cdpa | rtrv-scr-aftpc |



Caution:

Caution must be used when changing the stop actions in existing gateway screening stop action sets because these gateway screening stop action sets may be used by one or more gateway screening rules. Changes in the existing gateway screening stop action sets will change how MSUs that pass gateway screening are processed.



When each of these commands have successfully completed, this message should appear.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0 CAUTION: GWS action set may be referenced by one or more GWS rules CHG-GWS-ACTSET: MASP A - COMPLTD
```

13. Verify the changes using the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:31:30 GMT EAGLE5 36.0.0
       ACT ACT ACT ACT ACT ACT ACT ACT
   NAME 1
               3
                  4 5 6
                              7 8 9
ID
1
   сору сору
2
   rdct rdct
3
   cr
        copy rdct
4 tlnp tlnp
5 cpnp copy tlnp
GWS action set table is (5 of 16) 31% full
```

0.00 0.001011 0.00 0.0010 10 (0 01 10) 010 1011

14. Backup the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

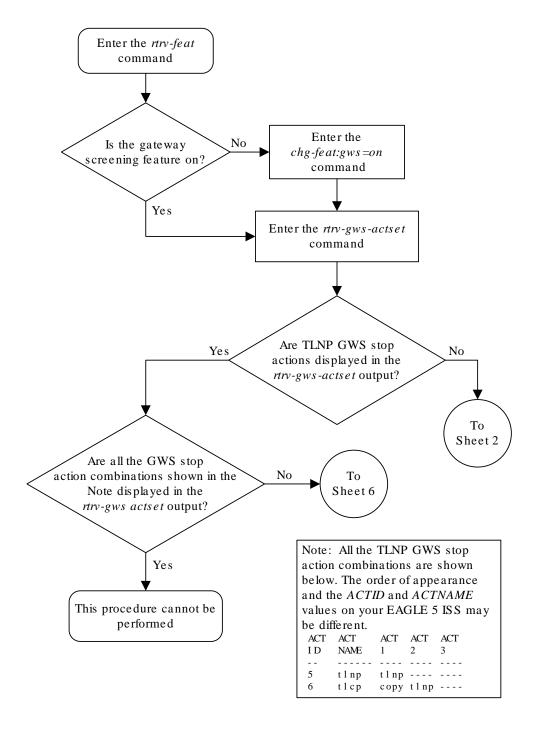
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Figure 2-20 Configure TLNP Gateway Screening Stop Action Sets - Sheet 1 of 7





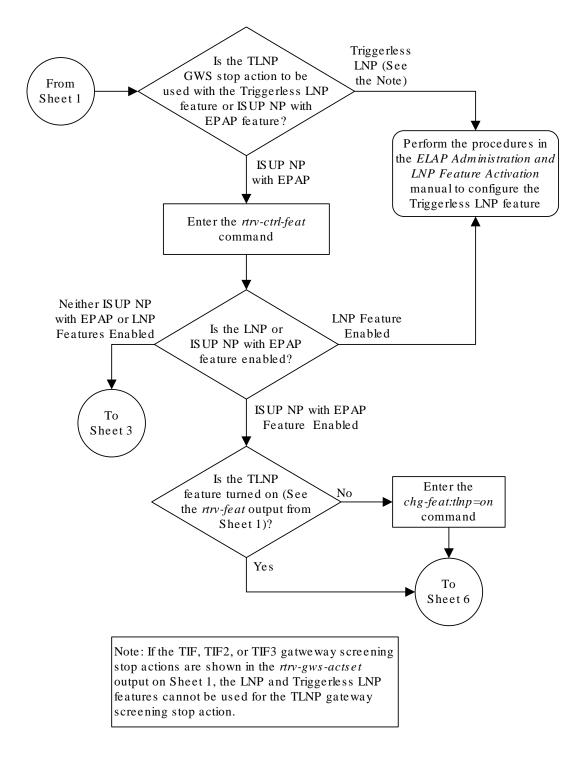


Figure 2-21 Configure TLNP Gateway Screening Stop Action Sets - Sheet 2 of 7



From Sheet 2 Is the TLNP Triggerless GWS stop action to be LNP used with the Triggerless LNP feature or ISUP NP with EPAP feature? (See the Note) Perform the procedures in the ELAP Administration and LNP Feature Activation IS UP NP manual to configure the with EPAP Triggerless LNP feature. Is the G-Port Perform the procedures in feature enabled No the Feature Manual - G-Port (See the rtrv-ctrl-feat output to enable the G-Port feature on Sheet 2)? Yes To Sheet 4

Figure 2-22 Configure TLNP Gateway Screening Stop Action Sets - Sheet 3 of 7

Note: If the TIF Number Portability, TIF SCS Forwarding, or TIF Simple Number Substitution features are shown in the *rtv-ctrl-feat* output on Sheet 2 as enabled, the LNP and Triggerless LNP features cannot be used for the TLNP gateway screening stop action.



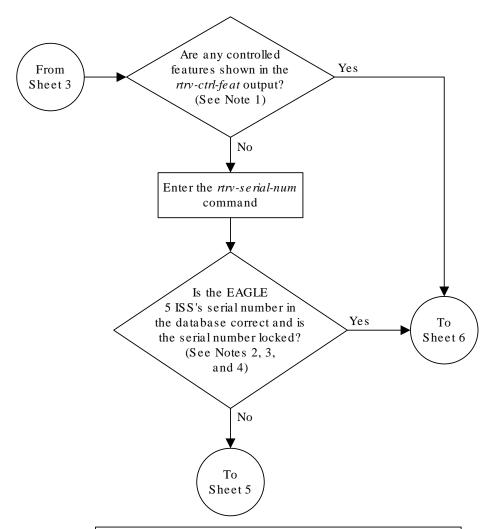


Figure 2-23 Configure TLNP Gateway Screening Stop Action Sets - Sheet 4 of 7

Notes:

- 1. If the *rtv-ctrl-feat* output shows only the HC-MIM SLK Capacity feature with a quantity of 64, the answer to this question is no and the Eagle 5 ISS's serial number must be verified. This is the default entry for the *rtv-ctrl-feat* output. This entry is shown whether or not the Eagle 5 ISS's serial number is in the database.
- 2. If the serial number is locked, it cannot be changed.
- 3. If the serial number is not locked, the controlled feature cannot be enabled
- 4. The serial number can be found on a label affixed to the control shelf (shelf 1100).



Enter the ent-serial-num Is the EAGLE command with these parameters: 5 ISS's serial number Yes From :serial=<EAGLE 5 ISS's serial Sheet 4 in the database number> correct? :lock=yes No То Sheet 6 Is the EAGLE 5 ISS's Yes serial number locked? This feature cannot be enabled No without the correct serial number in the database. Contact the Customer Care Enter the ent-serial-num command with this parameter: Center to get the correct serial :serial=<EAGLE 5 ISS's correct number entered into the serial number> database. Refer to the 'Customer Care Center" section in Chapter 1 for the contact information. Enter the rtrv-serial-num command Enter the ent-serial-num Is the EAGLE command with these parameters: 5 ISS's serial number No Yes :serial=<EAGLE 5 ISS's serial in the database number> correct? :lock=yes To Sheet 6

Figure 2-24 Configure TLNP Gateway Screening Stop Action Sets - Sheet 5 of 7



Figure 2-25 Configure TLNP Gateway Screening Stop Action Sets - Sheet 6 of 7

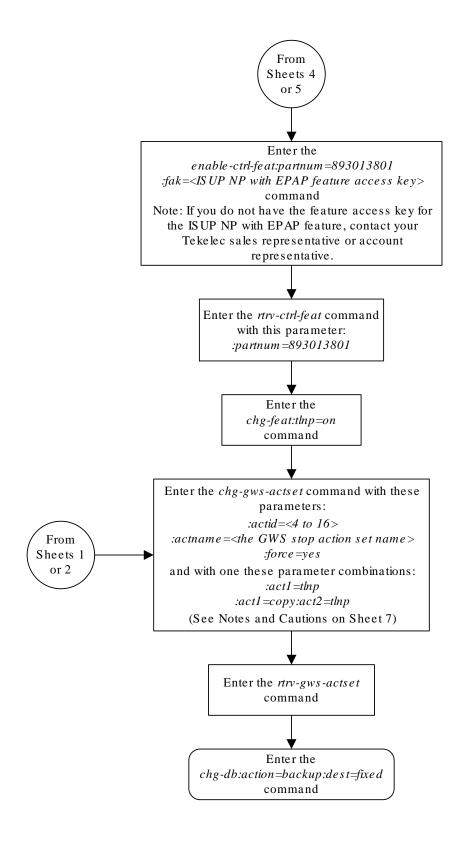


Figure 2-26 Configure TLNP Gateway Screening Stop Action Sets - Sheet 7 of 7

Notes:

- 1. The force = yes parameter must be specified with the chg-gws-actset command if an existing GWS stop action set is being changed.
- 2. The *force*=yes parameter can be specified with the *chg-gws-actset* command if a new GWS stop action set is being created, but is not necessary.
- 3. The TLNP GWS stop action cannot be in the same GWS stop action set with either the CNCF or RDCT GWS stop actions.
- 4. The actname parameter must be specified for a new GWS stop action set.
- 5. The actname parameter is not required, but can be specified, if an existing stop action set is being changed.
- 6. If the *actname* parameter value is different from what is shown in the *rtrv-gws-actset* output for the GWS stop action set being changed, the name of the GWS stop action set will be changed to the new *actname* parameter value (see Caution 1).

Cautions:

- 1. Changing the name of an existing GWS stop action set will prevent the actions defined in the GWS stop action set from being used to process the MSUs that pass gateway screening. If the name of the GWS stop action set is changed, enter the gateway screening retrieve commands (rtrv-scrset, rtrv-scr-opc, rtrv-scr-blkopc, rtrv-scr-sio, rtrv-scr-dpc, rtrv-scr-blkdpc, rtrv-scr-destfld, rtrv-scr-isup, rtrv-scr-cgpa, rtrv-scr-tt, rtrv-scr-cdpa, and rtrv-scr-aftpc) with the actname parameter and the old GWS stop action set name to identify the screens that need to be changed to use the new GWS stop action set name. To change these screens, perform the appropriate procedures in Chapters 3 through 15 in this manual.
- 2. Caution must be used when changing the stop actions in existing gateway screening stop action sets because these gateway screening stop action sets may be used by one or more gateway screening rules. Changes in the existing gateway screening stop action sets will change how MSUs that pass gateway screening are processed.



Removing Gateway Screening Stop Action Sets

This procedure is used to remove a gateway screening stop action set from the database or a gateway screening stop action from a gateway screening stop action set from the database using the <code>chg-gws-actset</code> command.

The database can contain a maximum of 16 gateway screening stop action sets, with each set containing a maximum of 10 gateway screening stop actions. Five gateway screening stop actions have been defined.

The chg-gws-actset command uses these parameters in this procedure.

:actid – The ID number of the gateway screening stop action set. The value of this parameter is from 4 to 16.

: force – The force=yes parameter must be specified when changing the gateway screening stop actions of an existing gateway screening stop action set.

:all=none - Sets the value of each gateway screening stop action in the gateway screening stop action set to none.

:act1 to :act10 - One of ten gateway screening stop actions being removed from the gateway screening stop action set.

The first three gateway screening stop action sets (actid=1, actid=2, and actid=3) cannot be changed or removed.

No other optional parameters can be specified all=none parameter.

The force=yes parameter must be specified when changing an existing gateway screening stop action set.

1. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT ACT
ID NAME 1 2 3 4 5 6
                           7 8 9
  1
   сору сору
2
  rdct rdct
3 cr copy rdct
4
  cncf cncf
5
  cpnf copy cncf
6 cfrd copy cncf rdct
7
  cnrd cncf rdct
8
   tlnp
       tlnp
  tlcp copy tlnp
GWS action set table is (9 of 16) 56% full
```

2. Either remove a gateway screening stop action set from the database or remove a gateway screening stop action from a gateway screening stop action set from the database by entering the chg-gws-actset command.

If you wish to remove the gateway screening stop actions from an existing gateway screening stop action set (stop action sets 4 through 16), enter the chggws-actset command with the all=none, actid, and force=yes parameters, as shown in this command example.

```
chg-gws-actset:actid=4:all=none:force=yes
```

If you wish to remove individual gateway screening stop actions from an existing gateway screening stop action set (stop action sets 4 through 16), enter the chggws-actset command with the stop action parameter (act1 through act10) value equal to none and the force=yes parameter, as shown in this command example.

chg-gws-actset:actid=5:act2=none:force=yes



Caution:

Caution must be used when changing the stop actions in existing gateway screening stop action sets because these gateway screening stop action sets may be used by one or more gateway screening rules. Changes in the existing gateway screening stop action sets will change how MSUs that pass gateway screening are processed.

When each of these commands have successfully completed, this message should appear.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0
CAUTION: GWS action set may be referenced by one or more GWS rules
CHG-GWS-ACTSET: MASP A - COMPLTD
```

3. Verify the changes using the rtrv-gws-actset command.

This is an example of the possible output.

GWS action set table is (8 of 16) 50% full

```
rlghncxa03w 06-10-25 15:31:30 GMT EAGLE5 36.0.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT ACT
ID NAME 1 2 3 4 5 6 7 8 9 10
1
   copy copy
2
   rdct rdct
3
   cr copy rdct
4
5 cpcncf copy
6 cncfrd cncf rdct
7
   cpcfrd copy cncf rdct
8 tlnp tlnp
   cpnp copy tlnp
```

4. Backup the new changes using the chg-db:action=backup:dest=fixed command.



These messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

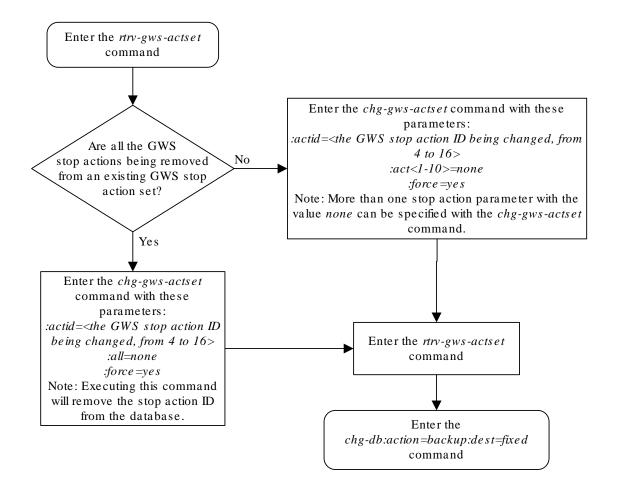
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Figure 2-27 Remove Gateway Screening Stop Action Sets





Setting the Threshold for Reporting Gateway Screening Activity

This procedure is used to set the threshold for reporting these gateway screening activities using the set-gtwy-acthresh command.

- The threshold for MSUs received on a gateway link set.
- The threshold for MSUs rejected on a gateway link set because of screening.

These thresholds are set on a linkset basis. These gateway screening activities are reported only if the threshold is set and only if the threshold is reached.

The set-gtwy-acthresh command uses these parameters.

:intrvl - The examination period, in minutes, during which the gateway screening activity thresholds are to be tested.

:lsn - The name of the linkset that the thresholds are assigned to.

: recv - The threshold for MSUs received on the gateway link set.

: rej - The threshold for MSUs rejected on the gateway link set because of screening.

Canceling the RTRV-LS Command

Because the rtrv-ls command used in this procedure can output information for a long period of time, the rtrv-ls command can be canceled and the output to the terminal stopped. There are three ways that the rtrv-ls command can be canceled.

- Press the F9 function key on the keyboard at the terminal where the rtrv-ls command was entered.
- Enter the canc-cmd without the trm parameter at the terminal where the rtrv-ls command was entered.
- Enter the canc-cmd:trm=<xx>, where <xx> is the terminal where the rtrv-ls command was entered, from another terminal other that the terminal where the rtrv-ls command was entered. To enter the canc-cmd:trm=<xx> command, the terminal must allow Security Administration commands to be entered from it and the user must be allowed to enter Security Administration commands. The terminal's permissions can be verified with the rtrv-secu-trm command. The user's permissions can be verified with the rtrv-user or rtrv-secu-user commands.

For more information about the canc-cmd command, go to Commands User's Guide.

1. Display the gateway screening thresholds in the database using the rtrv-gtwy-acthresh command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 LSN REJ RECV INTRVL WY644368 10 1000 10 WY234456 25 2000 20 LN123556 25 2500 30 OP239900 - 5 5
```

2. Display the current linkset configuration using the rtrv-ls command.



The following is an example of the possible output.

| rlghncxa03w | 09-05-25 | 5 15:26 | :30 GM | T EAG | GLE5 | 41.0 | 0.0 | | | | |
|---|--|---|--|--------------------------------|--------------------------------|-------------------------|-------------------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|
| | | | | L3T | SLT | | | | GWS | GWS | GWS |
| LSN | APCA | (SS7) | SCRN | SET | SET | BEI | LST | LNKS | ACT | MES | DIS |
| SLSCI NIS | | | | | | | | | | | |
| lsa1 | 240-020 | 0-000 | ss01 | 1 | 1 | yes | Α | 1 | off | off | off |
| no off | | | | | | | | | | | |
| lsa2 | 240-030 | 0-000 | ss02 | 1 | 2 | no | С | 3 | on | on | on |
| yes off | | | | | _ | | | | | | |
| lsa3 | 240-040 | 0-000 | ss03 | 1 | 3 | yes | С | 5 | off | off | off |
| yes off | 040 050 | 0.00 | 0.1 | 1 | 0 | | ~ | _ | | | |
| ln123556 | 240-050 |)-000 | ss01 | 1 | 8 | yes | C | 5 | on | on | on |
| yes off | 240-060 | 000 | ss01 | 1 | 7 | | ~ | 5 | | | |
| op239900 yes off | 240-000 | J-000 | 5501 | Τ | / | yes | C | 5 | on | on | on |
| yes off wy234456 | 240-070 | 1-000 | ss01 | 1 | 6 | yes | C | 5 | on | on | on |
| yes off | 240 070 | 000 | 3301 | 1 | O | yes | C | J | OII | OII | OII |
| wy644368 | 240-080 | 0-000 | ss01 | 1 | 5 | yes | С | 5 | on | on | on |
| yes off | 210 00 | , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 2201 | _ | Ü | 100 | Ü | ŭ | 011 | 011 | 011 |
| 100 0 | | | | | | | | | | | |
| | | | | L3T | SLT | | | | GWS | GWS | GWS |
| | | | | | | | | | | | |
| LSN | APCI | (SS7) | SCRN | SET | SET | BEI | LST | LNKS | ACT | MES | DIS |
| LSN SLSCI NIS | APCI | (SS7) | SCRN | SET | SET | BEI | LST | LNKS | ACT | MES | DIS |
| | APCI 1-111-1 | | SCRN ss01 | SET | SET | BEI yes | | LNKS | | MES off | |
| SLSCI NIS | | | | | | | | | | | |
| SLSCI NIS lsi1 | | L | | | | | | | | | |
| SLSCI NIS lsi1 | 1-111-1 | L | ss01 | 1 | 1 2 | yes | A | 1 | off | off | off |
| SLSCI NIS lsi1 lsi2 | 1-111-1 | L 2 | ss01 | 1 | 1 | yes | A C | 1 | off on | off | off on |
| SLSCI NIS lsi1 lsi2 | 1-111-2 | L 2 | ss01 ss02 | 1 | 1 2 | yes no | A C | 1 | off on | off on | off on |
| SLSCI NIS lsi1 lsi2 lsi3 | 1-111-2 | L 2 | ss01 ss02 | 1 1 1 | 1 2 3 | yes no | A C | 1 | off on off | off on off | off on off |
| SLSCI NIS lsi1 lsi2 lsi3 | 1-111-3 1-111-3 | L 2 3 | ss01 ss02 ss03 | 1 1 1 L3T | 1 2 3 SLT | yes no yes | A C C | 1 3 5 | off on off GWS | off on off GWS | off on off GWS |
| SLSCI NIS lsi1 lsi2 lsi3 | 1-111-2 | L 2 | ss01 ss02 | 1 1 1 L3T | 1 2 3 SLT | yes no yes | A C C | 1 | off on off GWS | off on off GWS | off on off GWS |
| SLSCI NIS lsi1 lsi2 lsi3 LSN SLSCI NIS | 1-111-2 1-111-3 1-111-3 | L 2 3 | ss01 ss02 ss03 | 1 1 1 L3T SET | 1 2 3 SLT SET | yes no yes BEI | A C C | 1 3 5 LNKS | off on off GWS ACT | off on off GWS MES | off on off GWS DIS |
| SLSCI NIS lsi1 lsi2 lsi3 LSN SLSCI NIS lsn1 | 1-111-3 1-111-3 | L 2 3 | ss01 ss02 ss03 | 1 1 1 L3T | 1 2 3 SLT | yes no yes | A C C | 1 3 5 | off on off GWS ACT | off on off GWS | off on off GWS DIS |
| SLSCI NIS lsi1 lsi2 lsi3 LSN SLSCI NIS lsn1 off | 1-111-2 1-111-3 1-111-3 APCN 11111 | L 2 3 | ss01 ss02 ss03 SCRN ss01 | 1 1 1 L3T SET | 1 2 3 SLT SET 1 | yes no yes BEI yes | A C C LST | 1 3 5 LNKS | off on off GWS ACT | off on off GWS MES off | off on off GWS DIS off |
| SLSCI NIS lsi1 lsi2 lsi3 LSN SLSCI NIS lsn1 off lsn2 | 1-111-2 1-111-3 1-111-3 | L 2 3 | ss01 ss02 ss03 | 1 1 1 L3T SET | 1 2 3 SLT SET | yes no yes BEI | A C C | 1 3 5 LNKS | off on off GWS ACT | off on off GWS MES | off on off GWS DIS |
| SLSCI NIS lsi1 lsi2 lsi3 LSN SLSCI NIS lsn1 off lsn2 off | 1-111-3 1-111-3 APCN 11111 11112 | L 2 3 | ss01 ss02 ss03 SCRN ss01 ss02 | 1 1 1 L3T SET 1 | 1 2 3 SLT SET 1 | yes no yes BEI yes no | A C C LST A | 1 3 5 LNKS 1 3 | off on off GWS ACT off | off on off GWS MES off | off on off GWS DIS off on |
| SLSCI NIS lsi1 lsi2 lsi3 LSN SLSCI NIS lsn1 off lsn2 | 1-111-2 1-111-3 1-111-3 APCN 11111 | L 2 3 | ss01 ss02 ss03 SCRN ss01 | 1 1 1 L3T SET | 1 2 3 SLT SET 1 | yes no yes BEI yes | A C C LST A | 1 3 5 LNKS | off on off GWS ACT off | off on off GWS MES off | off on off GWS DIS off on |

Link set table is (9 of 1024) 1% full

If the GWSA value of the linkset is no, shown in the GWSACT column of the rtrv-ls output, perform the "Changing an SS7 Linkset" procedure in Database Administration - SS7 User's Guide to change the GWSA value of the linkset. Continue the procedure with 3.

If the GWSA value of the linkset is yes, continue the procedure with 3.

3. Set the gateway screening thresholds for a linkset using the set-gtwy-acthresh command.

For this example, enter this command.

set-gtwy-acthresh:lsn=lsa2:intrvl=20:rej=30:recv=2500



When this command has successfully completed, a message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0 SET-GTWY-TRHSHLD: MASP A - COMPLTD
```

4. Verify the changes using the rtrv-gtwy-acthresh command with the linkset name specified in step 3.

For this example, enter this command.

```
rtrv-gtwy-acthresh:lsn=lsa2
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0 LSN REJ RECV INTRVL LSA2 30 2500 20
```

5. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED): MASP A - Backup starts on active MASP.

BACKUP (FIXED): MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED): MASP A - Backup starts on standby MASP.

BACKUP (FIXED): MASP A - Backup on standby MASP to fixed disk complete.
```



Enter the rtrv-gtwy-acthesh command Enter the rtrv-ls command Does the linkset Yes have a screen set assigned? No Enter the rtrv-scrset command Enter the set-gtwy-acthresh command with Go to the "Changing an SS7 these mandatory parameters: Linkset" procedure in the Database :lsn = <the name of the linkset> :intrvl = <5 - 30>Administration Manual - SS7 and and with at least one of these change the linkset with the gwsa=on and scm parameters optional parameters: :rej = <0 - 999999> $:re\ cv = <0 - 9999999>$ Enter the rtrv-gtwy-acthresh :lsn=<linkset name specified in the set-gtwy-acthresh command> command Enter the chg-db:action=backup:dest=fixed command

Figure 2-28 Set the Threshold for Reporting Gateway Screening Activity



Setting the Maximum Number of Gateway Screening Rejected Messages

When an MSU is rejected because of gateway screening, a UIM is sent to the terminal alerting the user that the MSU has been rejected. The EAGLE allows the user to configure the maximum number of these UIMs that can be sent to the terminal for a specified time period. This procedure is used to configure the maximum number of UIMs sent to the terminal and the time period using the set-scrrej-prmtrs command.

The set-scrrej-prmtrs command uses these parameters.

:limit – the number of UIMs to be sent to the EAGLE terminals during the time period specified by the intrvl parameter. The values for this parameter range from 0 to 9999.

:intrvl - the amount of time, in minutes, that the maximum number of UIMs, defined by the limit parameter, can be sent to the EAGLE terminals.

The examples in this procedure are used to set the number of UIMs to 500 and the time period to 20 minutes.

1. Display the current gateway screening rejected UIM limit in the database using the rtrv-gtwy-prmtrs command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 LIMIT INTRVL 1000 15
```

Set the gateway screening rejected UIM limit using the set-scrrej-prmtrs command.

For this example, enter this command.

```
set-scrrej-prmtrs:limit=500:intrvl=20
```

When this command has successfully completed, a message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 SET-SCRREJ-PRMTRS: MASP A - COMPLTD
```

3. Verify the changes using the rtrv-gtwy-prmtrs command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0
LIMIT INTRVL
500 20
```

4. Backup the new changes using the chq-db:action=backup:dest=fixed command.



The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

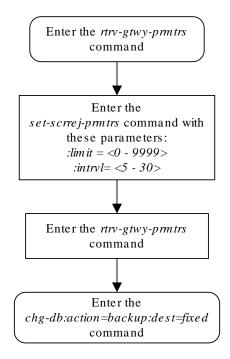
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Figure 2-29 Set the Maximum Number of Gateway Screening Rejected Messages





Activating the MTP Routed GWS Stop Action Feature

This procedure is used to enable and turn on the MTP Routed GWS Stop Action feature using the feature's part number and a feature access key.



As of Release 46.3, the fak parameter is no longer required. This parameter is only used for backward compatibility.

The feature access key for the MTP Routed GWS Stop Action feature is based on the feature's part number and the serial number of the EAGLE, making the feature access key site-specific.

The <code>enable-ctrl-feat</code> command enables the feature by inputting the feature's access key and the feature's part number with these parameters:

: fak – The feature access key provided by Oracle. The feature access key contains 13 alphanumeric characters and is not case sensitive.

:partnum - The Oracle-issued part number of the MTP Routed GWS Stop Action feature, 893035601.

The <code>enable-ctrl-feat</code> command requires that the database contain a valid serial number for the EAGLE, and that this serial number is locked. This can be verified with the <code>rtrv-serial-num</code> command. The EAGLE is shipped with a serial number in the database, but the serial number is not locked. The serial number can be changed, if necessary, and locked once the EAGLE is on-site, with the <code>ent-serial-num</code> command. The <code>ent-serial-num</code> command uses these parameters.

: serial – The serial number assigned to the EAGLE. The serial number is not case sensitive.

:lock – Specifies whether or not the serial number is locked. This parameter has only one value, yes, which locks the serial number. Once the serial number is locked, it cannot be changed.

Note:

To enter and lock the EAGLE's serial number, the <code>ent-serial-num</code> command must be entered twice, once to add the correct serial number to the database with the <code>serial</code> parameter, then again with the <code>serial</code> and the <code>lock=yes</code> parameters to lock the serial number. You should verify that the serial number in the database is correct before locking the serial number. The serial number can be found on a label affixed to the control shelf (shelf 1100).

This feature cannot be temporarily enabled (with the temporary feature access key).



Once this feature is enabled, provisioning for this feature can be performed, but the feature will not work until the feature is turned on with the <code>chg-ctrl-feat</code> command. The <code>chg-ctrl-feat</code> command uses these parameters.

:partnum - The Oracle-issued part number of the MTP Routed GWS Stop Action feature, 893035601.

: status=on - used to turn the MTP Routed GWS Stop Action feature on.

Once the MTP Routed GWS Stop Action feature has been turned on, it be can be turned off. For more information on turning the MTP Routed GWS Stop Action feature off, refer to the Turning Off the MTP Routed GWS Stop Action Feature procedure.

The status of the features in the EAGLE is shown with the rtrv-ctrl-feat command.

When the MTP Routed GWS Stop Action feature is turned on, MTP routed SCCP UDT/XUDT messages that pass gateway screening are forwarded to the service modules for further processing.

1. Display the status of the controlled features by entering the rtrv-ctrl-feat command. The following is an example of the possible output.

tklc1110501 15-06-24 16:53:12 EST EAGLE5 46.2.0-65.53.1 The following features have been permanently enabled:

| Feature Name | Partnum | Status | Quantity |
|---------------------------|-----------|--------|-----------|
| Large System # Links | 893005910 | on | 2000 |
| XGTT Table Expansion | 893006110 | on | 1000000 |
| Routesets | 893006403 | on | 8000 |
| LNP Short Message Serv. | 893006601 | on | |
| Intermed GTT Load Sharing | 893006901 | on | |
| Command Class Management | 893005801 | on | |
| Telnet | 893005701 | on | |
| EAGLE5 Product | 893007101 | on | |
| XMAP Table Expansion | 893007710 | on | 3000 |
| LNP ported NPANXXs | 893009403 | on | 350000 |
| LNP ported LRNs | 893010506 | on | 200000 |
| LNP ELAP Configuration | 893010901 | on | |
| LNP ported TNs | 893011036 | on | 384000000 |
| SCCP Conversion | 893012001 | on | |
| HC-MIM SLK Capacity | 893012707 | on | 64 |
| EAGLE OA&M IP Security | 893400001 | off | |
| Flexible GTT Load Sharing | 893015401 | on | |
| Origin-Based MTP Routing | 893014201 | on | |
| Origin Based SCCP Routing | 893014301 | on | |
| GPORT | 893017201 | on | |
| INP | 893017901 | on | |
| E5-SM4G Throughput Cap | 893019101 | on | 5000 |
| Multiple Linkset to APC | 893019701 | on | |
| 6-Way LS on Routesets | 893019801 | on | |
| Proxy Point Code | 893018710 | on | 100 |
| AMGTT | 893021801 | on | |
| VGTT with 16 GTT lengths | 893024801 | on | |
| ITU TCAP LRN QUERY(LRNQT) | 893026301 | on | |
| ISLSBR | 893026501 | on | |



```
GTT Action - DISCARD 893027501 on ----
GTT Action - DUPLICATE 893027601 on ----
GTT Action - FORWARD 893037501 on ----
Flex Lset Optnl Based Rtg 893027701 on ----
TCAP Opcode Based Routing 893027801 on ----
TOBR Opcode Quantity 893027907 on 1000000
ST-HSL-A SLK Capacity 893027301 on 4
3 Links per E5-ATM card 893039104 on 20
Integrated GLS 893038901 on ----
EPAP Data Split 893039801 on ----
Dual ExAP Config 893040501 on ----
```

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period Left

- Leitou Hele

Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum

Zero entries found.

If the MTP Routed GWS Stop Action feature is enabled and turned on, no further action is necessary. This procedure does not need to be performed.

If the MTP Routed GWS Stop Action feature is enabled and but not turned on, continue the procedure with 8.

If the MTP Routed GWS Stop Action feature is not enabled, continue the procedure with 2.

2. To enable the MTP Routed GWS Stop Action feature, the GTT feature must be turned on. Enter the rtrv-feat command to verify whether or not the GTT feature is on. If the GTT feature is on, the GTT field should be set to on.

Note:

The rtrv-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-feat command, refer to the rtrv-feat command description in Commands User's guide.

If the GTT feature is off, perform the "Adding a Service Module" procedure in *Database Administration - GTT* to turn the GTT feature on. Add any required service modules according to the Service Module and Feature Combination table in the "Adding a Service Module" procedure.

After the "Adding a Service Module" procedure has been performed, or if the GTT feature is on, continue the procedure by performing one of these steps.

• If the rtrv-ctrl-feat output shows the HC-MIM SLK Capacity feature with a quantity of 64 and other features, continue the procedure with 7.



- If the rtrv-ctrl-feat output shows only the HC-MIM SLK Capacity feature with a quantity of 64, continue the procedure with 3.
- 3. Display the serial number in the database with the rtrv-serial-num command. This is an example of the possible output.

```
rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
System serial number = nt00001231
System serial number is not locked.
rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
Command Completed
```

Note:

If the serial number is correct and locked, continue the procedure with 7. If the serial number is correct but not locked, continue the procedure with 6. If the serial number is not correct, but is locked, this feature cannot be enabled and the remainder of this procedure cannot be performed. Contact the Customer Care Center to get an incorrect and locked serial number changed. Refer to My Oracle Support (MOS) for the contact information. The serial number can be found on a label affixed to the control shelf (shelf 1100).

4. Enter the correct serial number into the database using the ent-serial-num command with the serial parameter.

For this example, enter this command.

```
ent-serial-num:serial=<EAGLE's correct serial number>
```

When this command has successfully completed, the following message should appear.

```
rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0 ENT-SERIAL-NUM: MASP A - COMPLTD
```

5. Verify that the serial number entered into 4 was entered correctly using the rtrv-serial-num command. This is an example of the possible output.

```
rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
System serial number = nt00001231

System serial number is not locked.

rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
Command Completed
```

If the serial number was not entered correctly, repeat 4 and 5 and re-enter the correct serial number.

6. Lock the serial number in the database by entering the <code>ent-serial-num</code> command with the serial number shown in 3, if the serial number shown in 3 is correct, or with the serial number shown in 5, if the serial number was changed in 4, and with the <code>lock=yes</code> parameter.

For this example, enter this command.

```
ent-serial-num:serial=<EAGLE's serial number>:lock=yes
```

When this command has successfully completed, the following message should appear.

```
rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
ENT-SERIAL-NUM: MASP A - COMPLTD
```

7. Enable the MTP Routed GWS Stop Action feature with the enable-ctrl-feat command specifying the part number for the MTP Routed GWS Stop Action feature and the feature access key. Enter this command.

```
enable-ctrl-feat:partnum=893035601:fak=<MTP Routed GWS Stop
Action feature access key>
```

The MTP Routed GWS Stop Action feature cannot be enabled with a temporary feature access key.

The value for the feature access key (the fak parameter) is provided by Oracle. If you do not have the feature access key for the MTP Routed GWS Stop Action feature, contact your Oracle Sales Representative or Account Representative.

When the enable-crtl-feat command has successfully completed, this message should appear.

```
rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
ENABLE-CTRL-FEAT: MASP B - COMPLTD
```

Caution:

Once the MTP Routed GWS Stop Action feature is enabled, the SCCP gateway screening stop action can be provisioned for Gateway Screening rules. MTP routed SCCP UDT/XUDT messages that pass gateway screening will not be forwarded to the service modules for further processing until the MTP Routed GWS Stop Action is turned on in8.

8. Turn the MTP Routed GWS Stop Action feature on with the <code>chg-ctrl-feat</code> command specifying the part number for the MTP Routed GWS Stop Action feature and the status=on parameter. Enter this command.

```
chg-ctrl-feat:partnum=893035601:status=on
```

When the chg-crtl-feat command has successfully completed, this message should appear.

```
rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
CHG-CTRL-FEAT: MASP B - COMPLTD
```

9. Verify the changes by entering the rtrv-ctrl-featcommand with the MTP Routed GWS Stop Action feature part number. Enter this command.

```
rtrv-ctrl-feat:partnum=893035601
```



The following is an example of the possible output.

```
rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0 The following features have been permanently enabled:
```

```
Feature Name Partnum Status Quantity MTPRTD GWS Stop Action 893035601 on ----
```

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period

Left

Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum

Zero entries found.

10. Backup the new changes using the chg-db:action=backup:dest=fixed command. These messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED): MASP A - Backup starts on active MASP.

BACKUP (FIXED): MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED): MASP A - Backup starts on standby MASP.

BACKUP (FIXED): MASP A - Backup on standby MASP to fixed disk complete.
```



Enter the rtrv-ctrl-feat command Is the MTP Routed GWS Stop To Action feature Sheet 2 enabled? Yes The MTP Routed GWS Stop Is the status of the MTP Routed GWS Action feature is enabled Stop Action feature and turned on. No further on or off? action is necessary. Off Enter the chg-ctrl-feat command with these parameters:
:partnum=893035601 :status=on Enter the rtrv-ctrl-feat command with this parameter: :partnum=893035601 Enter the chg-db:action=backup:dest=fixed command

Figure 2-30 Activate the MTP Routed GWS Stop Action - Sheet 1 of 4 Feature



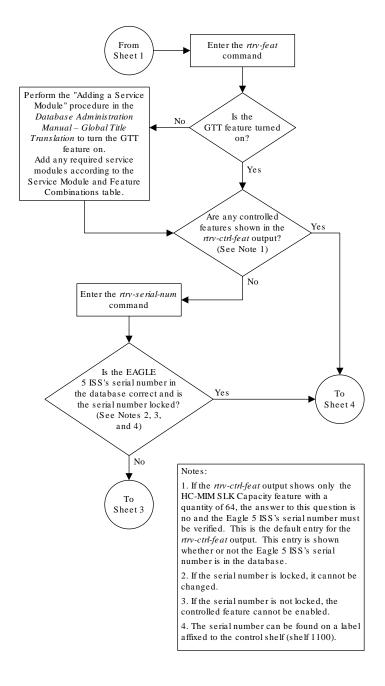


Figure 2-31 Activate the MTP Routed GWS Stop Action - Sheet 2 of 4



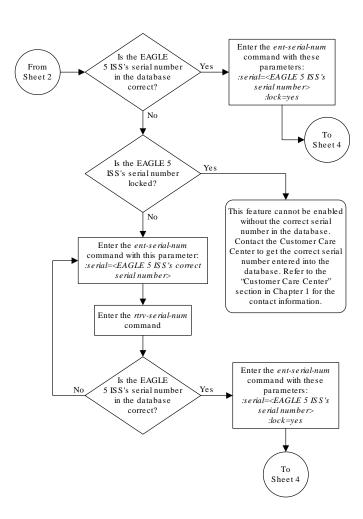


Figure 2-32 Activate the MTP Routed GWS Stop Action - Sheet 3 of 4



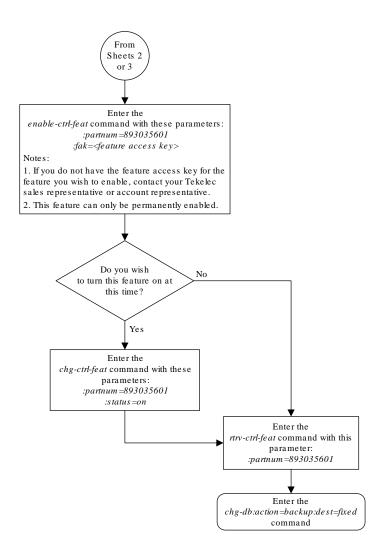


Figure 2-33 Activate the MTP Routed GWS Stop Action - Sheet 4 of 4

Turning Off the MTP Routed GWS Stop Action Feature

This procedure is used to turn off the MTP Routed GWS Stop Action feature, using the chg-ctrl-feat command.

The chg-ctrl-feat command uses the following parameters:

:partnum - The part number of the MTP Routed GWS Stop Action feature, 893035601.

: status=off – used to turn off the MTP Routed GWS Stop Action feature.

The status of the MTP Routed GWS Stop Action feature must be on and is shown with the rtrv-ctrl-feat command.



Caution:

If the MTP Routed GWS Stop Action feature is turned off, MTP routed SCCP UDT/XUDT messages that pass gateway screening will not be forwarded to the service modules for further processing.

1. Display the status of the MTP Routed GWS Stop Action feature by entering the rtrv-ctrl-feat:partnum=893035601 command.

The following is an example of the possible output.

```
rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
The following features have been permanently enabled:
```

Feature Name Partnum Status Quantity MTPRTD GWS Stop Action 893035601 on

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial

Period Left

Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum

Zero entries found.

If the status of the MTP Routed GWS Stop Action feature is off, or if the MTP Routed GWS Stop Action feature is not enabled, this procedure cannot be performed.

2. Turn off the MTP Routed GWS Stop Action feature by entering the chg-ctrlfeat command with the status=off parameter.

For example, enter this command.

chg-ctrl-feat:partnum=893035601:status=off



When this command has successfully completed, the following message should appear.

```
rlghncxa03w 09-07-28 21:16:37 GMT EAGLE5 41.1.0 CHG-CTRL-FEAT: MASP A - COMPLTD
```

3. Verify that the MTP Routed GWS Stop Action feature has been turned off by using the rtrv-ctrl-feat:partnum=893035601 command. The following is an example of the possible output.

```
rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
The following features have been permanently enabled:
Feature Name
                        Partnum
                                   Status Quantity
MTPRTD GWS Stop Action
                        893035601 off
The following features have been temporarily enabled:
Feature Name
                        Partnum Status Quantity Trial Period
Left
Zero entries found.
The following features have expired temporary keys:
Feature Name
                         Partnum
Zero entries found.
```

4. Backup the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

```
BACKUP (FIXED): MASP A - Backup starts on active MASP.

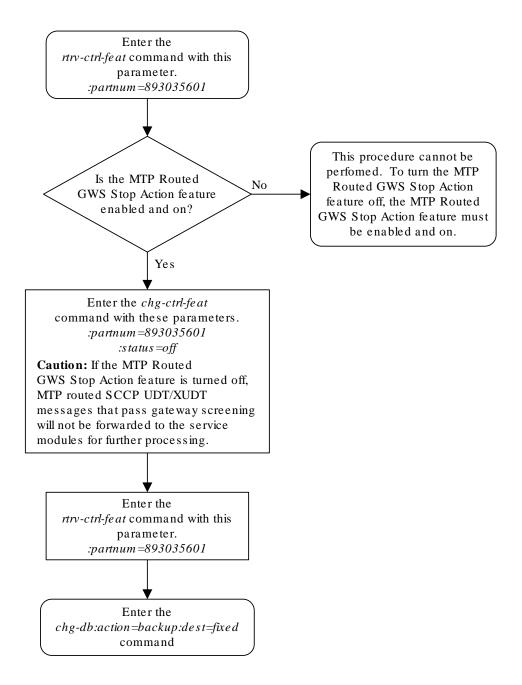
BACKUP (FIXED): MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED): MASP A - Backup starts on standby MASP.

BACKUP (FIXED): MASP A - Backup on standby MASP to fixed disk complete.
```



Figure 2-34 Turning Off the MTP Routed GWS Stop Action Feature





3

Allowed Affected Point Code (AFTPC) Screen Configuration

Chapter 3, Allowed Affected Point Code (AFTPC) Screen Configuration, contains the procedures necessary to configure allowed affected point code screens.

Introduction

The allowed affected point code (AFTPC) screen is used to identify affected point codes. Messages containing the allowed affected point code in the AFTPC screen are allowed into the EAGLE for further processing. The gray shaded areas in Figure 3-3 shows the fields of the SS7 message that are checked by the AFTPC screening function. Affected point codes are found in subsystem-prohibited (SSP), subsystem-status-test (SST) and subsystem-allowed (SSA) SCCP management messages. This is the last screen in the gateway screening process.

Gateway Screening Actions

The Gateway Screening process stops with this screen. The nsfi parameter value can only be stop.

If a match is not found, the message is discarded.

If a match is found, the message is processed. If a gateway screening stop action set is specified with the screen, shown by the actname parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

- If the rdct (redirect) gateway screening stop action is specified, the message is diverted from the original destination and sent to another destination with the Database Transport Access feature, specified by global title translation, for further processing.
- If the cncf gateway screening stop action is specified, the PIP parameter in the incoming ISUP IAM message is converted to the GN parameter. The GN parameter in the incoming ISUP IAM message is converted to the PIP parameter. The message is then sent to the node specified by the DPC in the routing label in the message. For more information on the Calling Name Conversion Facility feature, see Calling Name Conversion Facility (CNCF) Configuration.
- If the tlnp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are processed either by the ISUP NP with EPAP feature (if the ISUP NP with EPAP feature is enabled and turned on) or by the Triggerless LNP feature (if the Triggerless LNP feature is turned on). The ISUP NP with EPAP feature is discussed in more detail in *G-Port User's Guide*. The Triggerless LNP feature is discussed in more detail in *ELAP Administration and LNP Feature Activation Guide*.
- If the tinp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP)

feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in *G-Port User's Guide*.

- If the tif, tif2, or tif3 gateway screening stop actions are specified, TIF processing is applied to the message.
- If the sccp gateway screening stop action is specified, MTP routed SCCP UDT/ XUDT are forwarded to the service modules for further processing.

Allowed AFTPC Screening Actions

Figure 3-1 and Figure 3-2 show the screening actions of the allowed AFTPC screen.



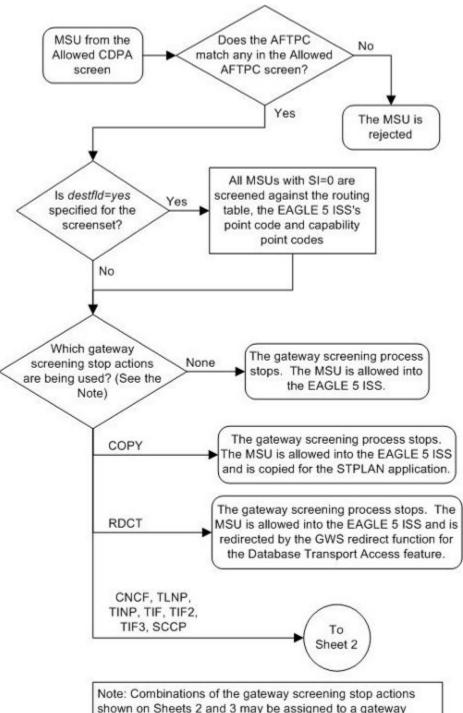
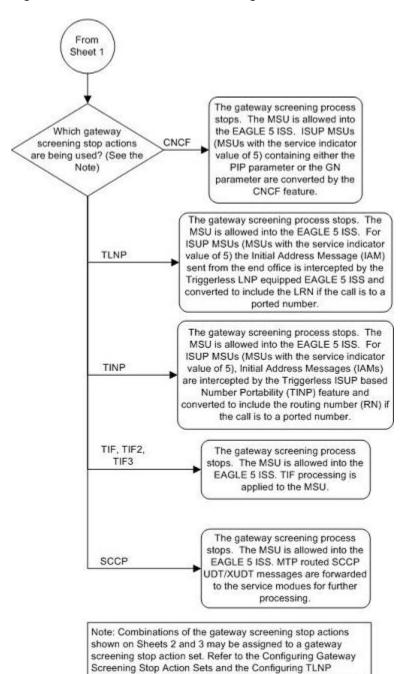


Figure 3-1 Allowed AFTPC Screening Actions - Sheet 1 of 2

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.





Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.

Figure 3-2 Allowed AFTPC Screening Actions - Sheet 2 of 2



Figure 3-3 Allowed Affected Point Code Screening Function

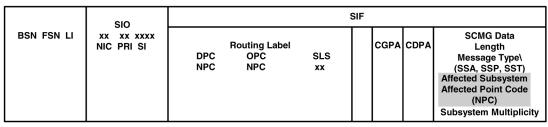
ANSI MSU (ANSI Message Signal Unit)

| | SIO | | SIF | |
|------------|--------------------------|--|-----------|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing Label DPC OPC SLS NCM NC NI NCM NC NI xx | CGPA CDPA | SCMG Data Length Message Type\ (SSA, SSP, SST) Affected Subsystem Affected Point Code (NCM NC NI) Subsystem Multiplicity |

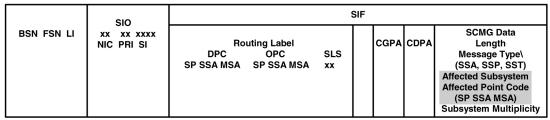
ITU-I MSU (ITU International Message Signal Unit)

| | SIO | | SIF | F | | |
|------------|--------------------------|---|-----------|------|------|---|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing Label DPC OPC ID AREA ZONE ID AREA ZONE | SLS xx | CGPA | CDPA | SCMG Data Length Message Type\ (SSA, SSP, SST) Affected Subsystem Affected Point Code (ID AREA ZONE) Subsystem Multiplicity |

14-Bit ITU-N MSU (14-Bit ITU National Message Signal Unit)



24-Bit ITU-N MSU (24-Bit ITU National Message Signal Unit)



Adding an Allowed Affected Point Code Screen

This procedure is used to add an allowed affected point code (AFTPC) screen to the database using the ent-scr-aftpc command. The parameters used by the ent-scr-aftpc command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The examples in this procedure are used to add the allowed AFTPC screen data shown in Table 3-1 and based on the example configurations shown in Figure 2-3 and Figure 2-6.



Table 3-1 Example Gateway Screening Allowed AFTPC Configuration Table

| Screening Reference | NI | NC | NCM | SSN | NSFI | ACTNAME |
|------------------------|-----|-----|-----|-----|------|---------|
| gw20 | 800 | 800 | 800 | 250 | stop | COPY |
| ls04 | 010 | 010 | 010 | 015 | stop | COPY |



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

Specifying a Range of Values

A range of values can be specified for the point code parameters ni, nc, or ncm.

If a range of values is specified for any of these parameters, and the value of the other parameters match existing values for the screening reference name, the range of values for the point code parameter cannot include any values for that parameter that are currently provisioned for the screening reference name.

For example, screening reference name scr1 contains these entries:

| SR | NI | NC | NCM | SSN | NSFI | NSR/ACT |
|------|-----|-----|-----|-----|------|---------|
| SCR1 | 240 | 001 | 010 | 012 | STOP | |
| SCR1 | 241 | 010 | 020 | 015 | STOP | |

Another entry for screening reference scrl with the ni value of 240 and the nc value of 001 cannot be specified if the range of values for the ncm parameter includes the value 010.

The ANSI point code parameter values can be specified as a single value, a range of values, or with an asterisk (*). The asterisk specifies all possible values for the ni, nc, and ncm parameters. Table 3-2 shows the valid combinations of these parameter values.

Table 3-2 Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM |
|-----------------|-----------------|-----------------|
| Single Value | Single Value | Single Value |
| Single Value | Single Value | Range of Values |
| Single Value | Single Value | Asterisk |
| Single Value | Range of Values | Asterisk |
| Single Value | Asterisk | Asterisk |
| Range of Values | Asterisk | Asterisk |
| Asterisk | Asterisk | Asterisk |

A range of values can also be specified for an ITU-I or 24-bit ITU-N point code parameter using a combination of asterisks (*) and single values for the point code



parameters. Table 3-3 shows the valid combinations of the ITU-I parameter values. Table 3-4 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 3-3 Valid Value Combinations for ITU-I Point Code Parameters

| ZONE | AREA | ID | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

Table 3-4 Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MCA | 664 | CD. | |
|--------------|--------------|--------------|--|
| MSA | SSA | SP | |
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

Verify that the gateway screening feature is on, by entering the rtrv-feat command.
 If the gateway screening feature is on, the GWS field is set to on.



Thertry-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by thertry-feat command, see thertry-feat command description in Commands User's Guide.

If the gateway screening feature is on, shown by the entry GWS = on in the rtrv-feat command output, skip step 2, and go to step 3.

2. Turn the gateway screening feature on by entering this command.

chg-feat:gws=on

Note:

Once the gateway screening feature is turned on with the chg-feat command, it cannot be turned off.

The gateway screening feature must be purchased before you turn this feature on with the <code>chg-feat</code> command. If you are not sure if you have purchased the gateway screening feature, contact your Oracle Sales Representative or Account Representative.



When the chg-feat has successfully completed, this message should appear.

```
rlghncxa03w 06-10-28 11:43:04 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

3. Display all allowed AFTPC screens in the database using the rtrv-scr-aftpc command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED AFTPC SR REF RULES IEC YES 2 WRD2 YES 1 WRD4 YES 9
```

If the screening reference names that you wish to add with this procedure are not shown in the rtrv-scr-aftpc command output, go to step 4. For this example, the screening reference names are not shown. If these screening reference names are shown in the rtrv-scr-aftpc command output, make sure the screening data you wish to enter is not already in the database by entering the rtrv-scr-aftpc command with the screening reference name. For example, enter the rtrv-scr-aftpc:sr=iec command. The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED AFTPC
SR
    ΝI
         NC
                   NCM
                          SSN
                                 NSFI
                                        NSR/ACT
IEC
    010
          010
                  011
                         012
                                  STOP
IEC
    010
          010
                   013
                          012
                                  STOP
                                        _____
```

If a gateway screening stop action set is to be assigned to the allowed AFTPC screen being added to the database, go to step 4. Otherwise, go to step 5.

4. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT ACT
ID
   NAME 1 2
             3
                 4 5 6 7 8 9 10
   1
   сору сору
2
   rdct rdct
3
   cr
       copy rdct
4
  cncf cncf
5
 cpcncf copy cncf
6 cncfrd cncf rdct
   cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```



If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.



If the point code being added in this procedure is not an ITU-I or 14-bit ITU-N spare point code, skip step 5 and to step 6.

Note:

If the point code being added in this procedure is an ITU-I or 14-bit ITU-N spare point code and the screening reference contains ITU-I or 14-bit ITU-N spare point codes, skip step 5 and go to step 6.

5. Display the status of the ITU National and International Spare Point Code Support feature by entering the rtrv-ctrl-feat command with the ITU National and International Spare Point Code Support feature part number.

Enter this command.

```
rtrv-ctrl-feat:partnum=893013601
```

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 The following features have been permanently enabled:
```

```
Feature Name Partnum Status Quantity Spare Point Code Support 893013601 on ----
```

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period Left Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

If the ITU National and International Spare Point Code Support feature is enabled, go to step 6.

If the ITU National and International Spare Point Code Support feature is not enabled, perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure in *Database Administration - SS7 User's Guide* to enable the ITU National and International Spare Point Code Support feature as required. After the feature has been enabled, go to step 6.

6. Add the new allowed AFTPC screen to the database using the ent-scr-aftpc command.



Caution:

The EAGLE does not support redirecting MSUs for the DTA feature or intercepting ISUP IAM messages for the Calling Name Conversion Facility feature from the allowed AFTPC screen. Gateway screening stop action sets containing either the RDCT (redirect) or CNCF (calling name conversion facility) stop actions should not be assigned to the allowed AFTPC screen. If a gateway screening stop action set containing the RDCT or CNCF stop actions is specified with the ent-scr-aftpc command, unsolicited information message (UIM) 1127 is generated when the attempt is made to redirect MSUs from the allowed AFTPC screen. Unsolicited information message (UIM) 1217 is generated when ISUP IAM MSUs are intercepted from the allowed AFTPC screen. For more information on UIMs 1127 and 1217, go to Unsolicited Alarm and Information Messages Reference.

If a gateway screening stop action is to be assigned to the allowed AFTPC screen being changed, enter the ent-scr-aftpc command with the nsfi=stop parameter and the actname parameter with the name of a gateway screening stop action set shown in the output of the rtrv-qws-actset command executed in step 4.

The following list contains the values for ni, nc, ncm, zone, area, id, npc, msa, ssa, sp, and ssn parameters:

- ni 0 255 or an asterisk (*)
- nc 0 255 or an asterisk (*)
- ncm 0 255 or an asterisk (*)
- zone 0 7 or an asterisk (*)
- area 0 255 or an asterisk (*)
- id 0 7 or an asterisk (*)
- npc 1 16383 or an asterisk (*)
- msa 0 255 or an asterisk (*)
- ssa 0 255 or an asterisk (*)
- sp 0 255 or an asterisk (*)
- ssn 0 255 or an asterisk (*)

A range of values can be specified for the ni, nc, and ncm parameters. See the Specifying a Range of Values section for more information on how the asterisk and a range of values are used for the ni, nc, and ncm parameters.

To add a spare point code to the allowed AFTPC screen, the pcst=s parameter must be specified. To add a non-spare point code to the allowed AFTPC screen, the post parameter does not have to be specified. If the post parameter is specified for a screen containing an ITU-I or 14-bit ITU-N non-spare point code, the value must be none. For this example, enter these commands.

```
aftpc:sr=gw20:ni=008:nc=008:ncm=008:ssn=250:nsfi=stop :actna
me=copy
```



A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0
ENT-SCR-AFTPC: SCREEN SET AFFECTED - GW20 1% FULL
ENT-SCR-AFTPC: MASP A - COMPLTD

ent-scr-
aftpc:sr=ls04:ni=010:nc=010:ncm=010:ssn=015:nsfi=stop :actname=co
py
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0 ENT-SCR-AFTPC: SCREEN SET AFFECTED - LS04 1% FULL ENT-SCR-AFTPC: MASP A - COMPLTD
```

7. Verify the changes using the rtrv-scr-aftpc command with the screening reference name used in step 6.

For this example, enter these commands.

```
rtrv-scr-aftpc:sr=gw20
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED AFTPC SR NI NC NCM SSN NSFI NSR/ACT GW20 008 008 008 250 STOP COPY
```

```
rtrv-scr-aftpc:sr=ls04
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0

SCREEN = ALLOWED AFTPC

SR NI NC NCM SSN NSFI NSR/ACT
LS04 010 010 010 015 STOP COPY
```

8. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED): MASP A - Backup starts on active MASP.

BACKUP (FIXED): MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED): MASP A - Backup starts on standby MASP.

BACKUP (FIXED): MASP A - Backup on standby MASP to fixed disk complete.
```



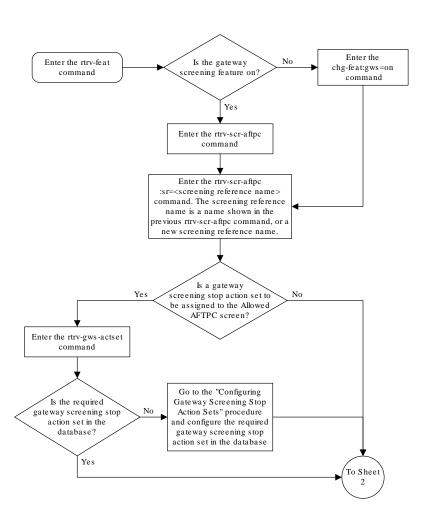


Figure 3-4 Add an Allowed Affected Point Code Screen - Sheet 1 of 3



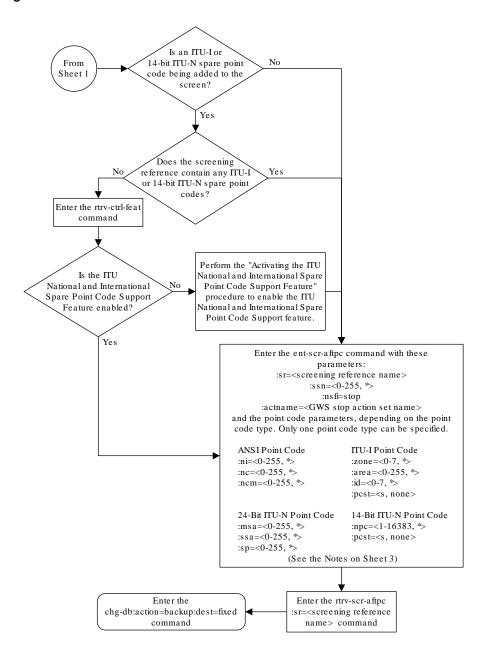


Figure 3-5 Add an Allowed Affected Point Code Screen - Sheet 2 of 3



Figure 3-6 Add an Allowed Affected Point Code Screen - Sheet 3 of 3

Notes

- 1. A range of values can be specified for the ni, nc, or ncm parameters by inserting double ampersands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the ni parameter, enter 025 &&200 for the ni parameter value.
- 2. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" section is in the "Adding an Allowed Affected Point Code Screen" procedure in the Database Administration Manual - Gateway Screening.

- 3. The actname parameter is optional. If the actname parameter is specified, the actname parameter value is one of the gateway screening stop action set names shown in the rtrv-gws-actset output on Sheet 1.
- 4. To add a non-spare point code, the post parameter does not have to be specified. If the post parameter is specified for a screen containing an ITU-I or 14-bit ITU-N non-spare point code, the value must be none.
- 5. To add a spare point code, the pcst=s parameter must be specified.

Removing an Allowed Affected Point Code Screen

This procedure is used to remove an allowed affected point code (AFTPC) screen from the database using the ${\tt dlt-scr-aftpc}$ command. The parameters used by the ${\tt dlt-scr-aftpc}$ command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.



The example in this procedure removes the allowed AFTPC screen wrd0 from the database.



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

 Display the allowed AFTPC screens in the database using the rtrv-scr-aftpc command.

The following is an example of the possible output.

From the rtrv-scr-aftpc output, display the allowed AFTPC screen you wish to remove using the rtrv-scr-aftpc command with the screening reference name. For this example, enter the rtrv-scr-aftpc: sr=wrd0 command. The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0

SCREEN = ALLOWED AFTPC

SR ZONE AREA ID SSN NSFI NSR/ACT

WRD0 1 004 6 023 STOP -----
```

2. An allowed AFTPC screen can only be referenced by an allowed CDPA screen.

Verify any references to the allowed AFTPC screen being removed from the database using the rtrv-scr-cdpa:nsfi=aftpc command. The following is an example of the possible output.

| rlghncxa | a03w 06· | -10-25 1 | 5:26:30 | GMT | EAGLE5 | 36.0.0 | | |
|------------|--------------|----------|---------|-----|-----------|----------------|---------------|----------------|
| SCREEN = | = ALLOW | ED CDPA | | | | | | |
| SR | ZONE | AREA | ID | S | SN | SCMGFID | NSFI | NSR/ACT |
| IEC | 1 | 134 | * | 0 | 01 | 002 | AFTPC | IEC |
| SR | ZONE | AREA | ID | S | SN | SCMGFID | NSFI | NSR/ACT |
| WRD1 | 1 | 004 | 6 | 0 | 01 | 005 | AFTPC | WRD0 |
| SR WRD4 | NPC 12345 | | | _ | SSN 01 | SCMGFID 100 | NSFI AFTPC | NSR/ACT IEC |
| | | | | | | | | |

If the screen being removed is referenced by any CDPA screens, perform the Changing an Allowed Called Party Address Screen procedure to change the NSFI of those CDPA



screens to reference other AFTPC screens or change the NSFI of these screens to STOP.

3. Remove the allowed AFTPC screen from the database using the dlt-scr-aftpc command with the screening reference name shown in the rtrv-scr-aftpc output in step 1 and with the point code parameter values (ni, nc, ncm, or zone, area, id, or npc, or msa, ssa, sp) and the ssn parameter value of the screen being removed from the database.

The values for these parameters must be entered exactly as shown in the rtrv-scr-aftpc output.

To remove an entry containing either an ITU-I or a 14-bit ITU-N spare point code, the pcst=s parameter must be specified with the dlt-scr-aftpc command.

To remove an entry containing either an ITU-I or a 14-bit ITU-N non-spare point code, the post parameter does not have to be specified with the dlt-scr-aftpc command. If the post parameter is specified, the value must be none.

For this example, enter this command.

```
dlt-scr-aftpc:sr=wrd0:zone=1:area=004:id=6:ssn=023
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0 DLT-SCR-AFTPC: SCREEN SET AFFECTED - WRD0 0% FULL DLT-SCR-AFTPC: MASP A - COMPLTD
```

4. Verify the changes using the rtrv-scr-aftpc command with screening reference name used in step 3.

For this example, enter this command.

```
rtrv-scr-aftpc:sr=wrd0
```

The following message should appear.

```
E2573 Cmd Rej: SR or NSR does not reference an existing SR
```

This message shows that the specified screening reference name is not in the database and the action of the dlt-scr-aftpc command in step 5 was successful. If the specified screening reference name contained more than one entry when the dlt-scr-aftpc command was executed in step 4, the rtrv-scr-aftpc: sr= command output would show the remaining entries in the screening reference instead of error message E2573.

5. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



:sr=<screening reference Enter the rtrv-scr-aftpc Enter the rtrv-scr-cdpa name> command. The creening reference name is a :nsfi=aftpc command name shown in the previous rtrv-scr-aftpc command. Go to the "Changing an Allowed Called Party Address Screen" Do any screens procedure and change the creen with other NSFI and NSR reference the screen being values or have the screening removed? process stop with the Allowed CDPA screen Nο Enter the dlt-scr-aftpc command with these parameters: :sr=<screening reference name> :ssn=<current ssn value> and the point code parameters, depending on the point code type contained in the screen being removed. Only one point code type can be specified. ANS I Point Code ITU-I Point Code :ni=<current ni value> :zone=<current zone value> :nc=<current nc value> :area=<current area value> :ncm=<current ncm value> :id=<current id value> :pcst=<s, none> 24-Bit ITU-N Point Code 14-Bit ITU-N Point Code Enter the rtry-scr-aftpc :msa=<current msa value> :npc=<current npc value> sr=<screening reference :ssa=<current ssa value> :pcst=<s, none> name> command :sp=<current sp value> 1. The current values for the ni, nc, ncm, zone, area, id, npc, msa, Enter the ssa, sp, or ssn parameters must be entered exactly as shown in the chg-db:action=backup rtrv-scr-aftpc output. :dest=fixed command 2. To remove an entry containing either an ITU-I or a 14-bit ITU-N spare point code, the pcst=s parameter must be specified with the dlt-scr-aftpc command. 3. To remove an entry containing either an ITU-I or a 14-bit ITU-N non-spare point code, the post parameter does not have to be specified with the dlt-scr-aftpc command. If the post parameter is specified for a screen containing either an ITU-I or a 14-bit ITU-N non-spare point code, the value must be none.

Figure 3-7 Remove an Allowed Affected Point Code Screen

Enter the rtrv-scr-aftpc

Changing an Allowed Affected Point Code Screen

This procedure is used to change the attributes of an allowed affected point code (AFTPC) screen in the database using the <code>chg-scr-aftpc</code> command. The parameters used by the <code>chg-scr-aftpc</code> command are shown in the Gateway Screening Attributes section. The

general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure is used to change the point code 009-009-009 for the allowed AFTPC screen gw21 to 100-100-100, and the subsystem number from 253 to 150.



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

Specifying a Range of Values

A range of values can be specified for the point code parameters ni, nc, or ncm.

If a range of values is specified for any of these parameters, and the value of the other parameters match existing values for the screening reference name, the range of values for the point code parameter cannot include any values for that parameter that are currently provisioned for the screening reference name.

For example, screening reference name scr1 contains these entries:

| SR | NI | NC | NCM | SSN | NSFI | NSR/ACT |
|------|-----|-----|-----|-----|------|---------|
| SCR1 | 240 | 001 | 010 | 012 | STOP | |
| SCR1 | 241 | 010 | 020 | 015 | STOP | |

Another entry for screening reference scrl with the ni value of 240 and the nc value of 001 cannot be specified if the range of values for the ncm parameter includes the value 010.

The ANSI point code parameter values can be specified as a single value, a range of values, or with an asterisk (*). The asterisk specifies all possible values for the ni, nc, and ncm parameters. Table 3-5 shows the valid combinations of these parameter values.

Table 3-5 Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM |
|-----------------|-----------------|-----------------|
| Single Value | Single Value | Single Value |
| Single Value | Single Value | Range of Values |
| Single Value | Single Value | Asterisk |
| Single Value | Range of Values | Asterisk |
| Single Value | Asterisk | Asterisk |
| Range of Values | Asterisk | Asterisk |
| Asterisk | Asterisk | Asterisk |

A range of values can also be specified for an ITU-I or 24-bit ITU-N point code parameter using a combination of asterisks (*) and single values for the point code parameters. Table 3-6 shows the valid combinations of the ITU-I parameter values. Table 3-7 shows the valid combinations of the 24-bit ITU-N parameter values.



| Table 3-6 Va | alid Value | Combinations | for ITU-I Poin | t Code Parameters |
|--------------|------------|--------------|----------------|-------------------|
|--------------|------------|--------------|----------------|-------------------|

| ZONE | AREA | ID | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

Table 3-7 Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

 Display the allowed AFTPC screens in the database using the rtrv-scr-aftpc command.

The following is an example of the possible output.

From the rtrv-scr-aftpc output, display the allowed AFTPC screen you wish to change using the rtrv-scr-aftpc command with the screening reference name. For this example, enter this command.

```
rtrv-scr-aftpc:sr=gw21
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0

SCREEN = ALLOWED AFTPC

SR NI NC NCM SSN NSFI NSR/ACT
GW21 009 009 253 STOP -----
```

If a gateway screening stop action set is to be assigned to the allowed AFTPC screen being changed in this procedure, go to step 2. Otherwise, skip step 2 and go to step 3.

2. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.



This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT
ID
   NAME
        1 2 3 4 5 6 7 8 9
1
   сору сору
2
   rdct rdct
3
   cr copy rdct
4 cncf cncf
5 cpcncf copy cncf
6 cncfrd cncf rdct
7 cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.

3. Display the status of the ITU National and International Spare Point Code Support feature by entering the rtrv-ctrl-feat command with the ITU National and International Spare Point Code Support feature part number.

Note:

If any of these conditions apply to this procedure, skip this step and go to step 4:

- The point code in the screen is not being changed.
- The screen being changed contains either an ANSI or 24-bit ITU-N point code.
- The ITU-I or 14-bit ITU-N non-spare point code in the screen is not being changed to an ITU-I or 14-bit ITU-N spare point code.
- The point code in the screen is an ITU-I or 14-bit ITU-N spare point code or the screening reference contains other screens with ITU-I or 14-bit ITU-N spare point codes.

Enter this command.

```
rtrv-ctrl-feat:partnum=893013601
```

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
The following features have been permanently enabled:
Feature Name Partnum Status Quantity
Spare Point Code Support 893013601 on ----
The following features have been temporarily enabled:
```



Feature Name Partnum Status Quantity Trial Period Left Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

If the ITU National and International Spare Point Code Support feature is enabled, go to step 4.

If the ITU National and International Spare Point Code Support feature is not enabled, perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure in *Database Administration - SS7 User's Guide* to enable the ITU National and International Spare Point Code Support feature as required. After the feature has been enabled, go to step 4.

4. Change the attributes of an allowed AFTPC screen using the chg-scr-aftpc command.

If a gateway screening stop action is to be assigned to the allowed AFTPC screen being changed, enter the <code>chg-scr-aftpc</code> command with the <code>nsfi=stop</code> parameter and the <code>actname</code> parameter with the name of a gateway screening stop action set shown in the output of the <code>rtrv-gws-actset</code> command executed in step 2.

The current values for the ni, nc, ncm, zone, area, id, npc, msa, ssa, sp, and ssn parameters must be entered exactly as shown in the rtrv-scr-aftpc output in step 1.

The following list contains the values for the nni, nnc, nncm, nzone, narea, nid, nnpc, nmsa, nssa, nsp, and nssn parameters:

- nni 0-255 or an asterisk (*)
- nnc 0-255 or an asterisk (*)
- nncm 0-255 or an asterisk (*)
- nzone 0-7 or an asterisk (*)
- narea 0-255 or an asterisk (*)
- nid 0-7 or an asterisk (*)
- nnpc 1 16383 or an asterisk (*)
- nmsa 0-255 or an asterisk (*)
- nssa 0-255 or an asterisk (*)
- nsp 0-255 or an asterisk (*)
- nssn 0 255 or an asterisk (*)

A range of values can be specified for the nni, nnc, and nncm parameters. See the "Specifying a Range of Values" section for more information on how the asterisk and a range of values are used for the nni, nnc, and nncm parameters.

To change an ITU-I or 14-bit ITU-N spare point code to a non-spare point code, both the pcst=s and npcst=none parameters must be specified with the chg-scr-aftpc command.



To change an ITU-I or 14-bit ITU-N non-spare point code to a spare point code, the npcst=s parameter must be specified with the chg-scr-aftpc command. The post parameter does not have to be specified.

If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N spare point code, the post=s parameter must be specified with the chgscr-aftpc command.

If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N non-spare point code, the post parameter does not have to be specified with the chg-scr-aftpc command. If the post parameter is specified for a screen containing either an ITU-I or 14-bit ITU-N non-spare point code, the post parameter value must be none.

For this example, enter this command.

```
chq-scr-
aftpc:sr=gw21:ni=009:nc=009:ncm=009:ssn=253:nni=100 :nnc=100
:nncm=100:nssn=150
```

Caution:

The EAGLE does not support redirecting MSUs for the DTA feature or intercepting ISUP IAM messages for the Calling Name Conversion Facility feature from the allowed AFTPC screen. Gateway screening stop action sets containing either the RDCT (redirect) or CNCF (calling name conversion facility) stop actions should not be assigned to the allowedAFTPC screen. If a gateway screening stop action set containing the RDCT or CNCF stop actions is specified with the chg-scr-aftpc command, unsolicited information message (UIM) 1127 is generated when the attempt is made to redirect MSUs from the allowed AFTPC screen. Unsolicited information message (UIM) 1217 is generated when ISUP IAM MSUs are intercepted from the allowed AFTPC screen. For more information on UIMs 1127 and 1217, go to Unsolicited Alarm and Information Messages Reference.

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0
CHG-SCR-AFTPC: SCREEN SET AFFECTED - GW21 1% FULL
CHG-SCR-AFTPC: MASP A - COMPLTD
```

5. Verify the changes using the rtrv-scr-aftpc command with screening reference name used in step 4.

For this example, enter this command.

```
rtrv-scr-aftpc:sr=gw21
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED AFTPC
SR
     NI
             NC
                      NCM
                               SSN
                                       NSFT
                                               NSR/ACT
GW21 100
             100
                      100
                               150
                                       STOP
```



6. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Enter the rtrv-scr-aftpc command Enter the rtrv-scr-aftpc :sr=<screening reference name> command. The screening reference name is a name shown in the previous rtrv-scr-aftpc command. Is a gateway screening stop action set to No be assigned to the Allowed AFTPC screen? Yes Enter the rtrv-gws-actset command Go to the "Configuring Gateway Screening Stop Is the required Action Sets" procedure and gateway screening stop No configure the required action set in the gateway screening stop database? action set in the database Yes To Sheet

Figure 3-8 Change an Allowed Affected Point Code Screen - Sheet 1 of 4



From Sheet 1 Is the point No code being changed Yes Is the point code No an ITU-I or 14-bit ITU-N being changed? point code? To Yes Sheet 3 Is the point code an Yes ITU-I or 14-bit ITU-N spare point code? No Is the point code being changed No to an ITU-I or 14-bit ITU-N spare point code? Yes Does the screening reference contain any ITU-I No Yes or 14-bit ITU-N spare point codes? Enter the rtrv-ctrl-feat command Is the ITU National and International Yes Spare Point Code Support Feature enabled? No Perform the "Activating the ITU National and International Spare Point Code To Support Feature" procedure to enable the Sheet 3 ITU National and International Spare Point Code Support feature.

Figure 3-9 Change an Allowed Affected Point Code Screen - Sheet 2 of 4



Figure 3-10 Change an Allowed Affected Point Code Screen - Sheet 3 of 4

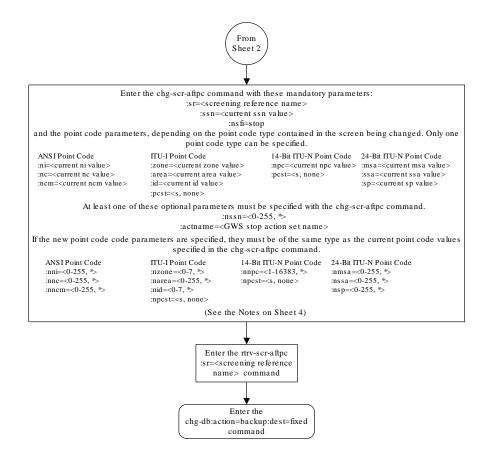




Figure 3-11 Change an Allowed Affected Point Code Screen - Sheet 4 of 4

Notes:

- 1. A range of values can be specified for the ni, nc, or ncm parameters by inserting double ampersands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the ni parameter, enter 025&&200 for the ni parameter value.
- 2. The current values for the ni, nc, ncm, zone, area, id, or ssn parameters must be entered exactly as shown in the rtrv-scr-aftpc output.
- 3. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" section is in the "Changing an Allowed Affected Point Code Screen" procedure in the Database Administration Manual - Gateway Screening.

- 4. The actname parameter is optional. If the actname parameter is specified, the actname parameter value is one of the gateway screening stop action set names shown in the rtrv-gws-actset output on Sheet 1.
- 5. To change an ITU-I or 14-bit ITU-N spare point code to a non-spare point code, both the pcst=s and npcst=none parameters must be specified with the chg-scr-aftpc command
- 6. To change an ITU-I or 14-bit ITU-N non-spare point code to a spare point code, the npcst=s parameter must be specified with the chg-scr-aftpc command. The pcst parameter does not have to be specified.
- 7. If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N spare point code, the pcst=s parameter must be specified with the chg-scr-aftpc command.
- 8. If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N non-spare point code, the pcst parameter does not have to be specified with the chg-scr-aftpc command. If the pcst parameter is specified for a screen containing either an ITU-I or 14-bit ITU-N non-spare point code, the pcst parameter value must be none.



4

Allowed Called Party (CDPA) Screen Configuration

Chapter 4, Allowed Called Party (CDPA) Screen Configuration, contains the procedures necessary to configure allowed called party address screens.

Introduction

The allowed called party address (CDPA) screen is used to screen SCCP messages for a DPC in the routing label and a subsystem number in the called party address. The gray shaded areas in Figure 4-4 shows the fields of the SS7 message that are checked by the CDPA screening function. The screening reference contains a list of point codes and subsystem number combinations.

Gateway Screening Actions

If a match is not found, the message is discarded.

If a match is found, the nsfi is examined to determine the next step in the screening process. If the nsfi value is any value other than stop, the next screening reference (nsr) is identified and the screening process continues to the next screen identified by the nsfi and nsr parameter values.

If the nsfi is equal to stop, the screening process stops and the message is processed. If a gateway screening stop action set is specified with the screen, shown by the actname parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

- If the rdct (redirect) gateway screening stop action is specified, the message is diverted from the original destination and sent to another destination with the Database Transport Access feature, specified by global title translation, for further processing.
- If the cncf gateway screening stop action is specified, the PIP parameter in the incoming ISUP IAM message is converted to the GN parameter. The GN parameter in the incoming ISUP IAM message is converted to the PIP parameter. The message is then sent to the node specified by the DPC in the routing label in the message. For more information on the Calling Name Conversion Facility feature, see Calling Name Conversion Facility (CNCF) Configuration.
- If the tlnp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are processed either by the ISUP NP with EPAP feature (if the ISUP NP with EPAP feature is enabled and turned on) or by the Triggerless LNP feature (if the Triggerless LNP feature is turned on). The ISUP NP with EPAP feature is discussed in more detail in *G-Port User's Guide*. The Triggerless LNP feature is discussed in more detail in *ELAP Administration and LNP Feature Activation Guide*.
- If the tinp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP)

- feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in *G-Port User's Guide*.
- If the tif, tif2, or tif3 gateway screening stop actions are specified, TIF processing is applied to the message.
- If the sccp gateway screening stop action is specified, MTP routed SCCP UDT/ XUDT are forwarded to the service modules for further processing.

Allowed CDPA Screening Actions

Figure 4-1 through Figure 4-3 show the screening actions of the allowed CDPA screen.

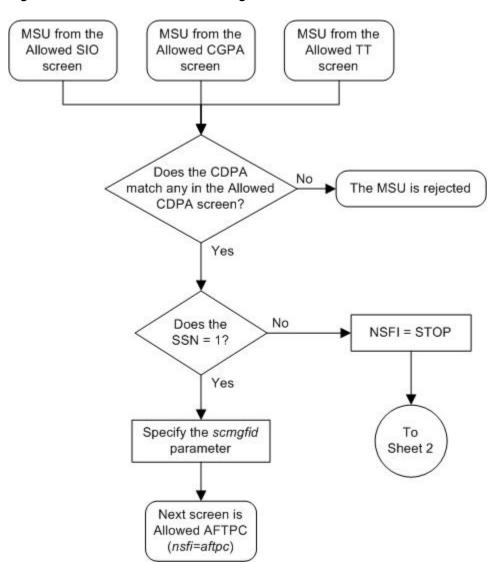


Figure 4-1 Allowed CDPA Screening Actions - Sheet 1 of 3

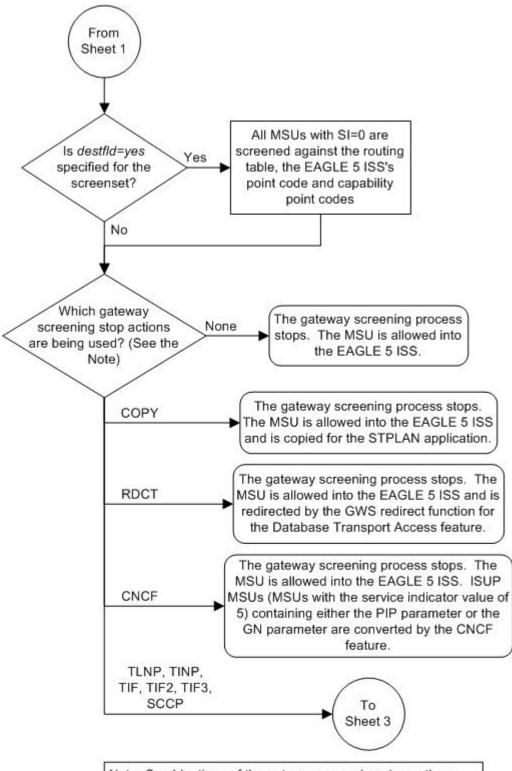


Figure 4-2 Allowed CDPA Screening Actions - Sheet 2 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.

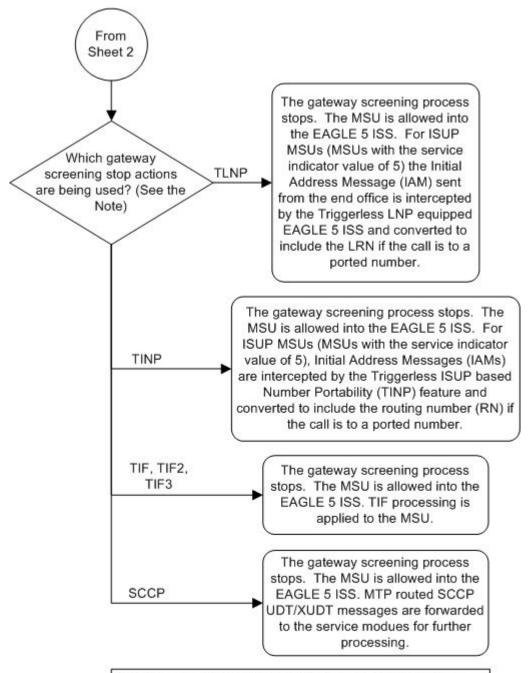


Figure 4-3 Allowed CDPA Screening Actions - Sheet 3 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.



Figure 4-4 Allowed Called Party Address Screening Function

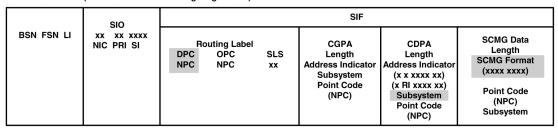
ANSI MSU (ANSI Message Signal Unit)

| | SIO | | | | SIF | | |
|------------|--------------------------|------------------|----------------------------------|-----------|---|---|---|
| BSN FSN LI | XX XX XXXX NIC PRI SI | DPC NCM NC NI | outing Label OPC NCM NC NI | SLS xx | CGPA Length Address Indicator Subsystem Point Code (NCM NC NI) | CDPA Length Address Indicator (x x xxxx xx) (x RI xxxx xx) Subsystem Point Code (NCM NC NI) | SCMG Data Length SCMG Format (xxxx xxxx) Point Code (NCM NC NI) Subsystem |

ITU-I MSU (ITU International Message Signal Unit)

| | SIO | | SIF | | |
|------------|--------------------------|--|--|--|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing Label DPC OPC SLS ID AREA ZONE ID AREA ZONE xx | CGPA Length Address Indicator Subsystem Point Code (ID AREA ZONE) | CDPA Length Address Indicator (x x xxxx xx) (x RI xxxx xx) Subsystem Point Code (ID AREA ZONE) | SCMG Data Length SCMG Format (xxxx xxxx) Point Code (ID AREA ZONE) Subsystem |

14-Bit ITU-N MSU (14-Bit ITU National Message Signal Unit)



24-Bit ITU-N MSU (24-bit ITU National Message Signal Unit)

| | SIO | SIF | | | | | |
|------------|--------------------------|-------------------|---|--|--|--|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | DPC SP SSA MSA | uting Label OPC SLS SP SSA MSA xx | CGPA Length Address Indicator Subsystem Point Code (SP SSA MSA) | CDPA Length Address Indicator (x x xxxx xx) (x RI xxxx xx) Subsystem Point Code (SP SSA MSA) | SCMG Data Length SCMG Format (xxxx xxxx) Point Code (SP SSA MSA) Subsystem | |

Adding an Allowed Called Party Address Screen

This procedure is used to add an allowed called party address (CDPA) screen to the database using the <code>ent-scr-cdpa</code> command. The parameters used by the <code>ent-scr-cdpa</code> command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.



The examples in this procedure are used to add the allowed CDPA screen data shown in Table 4-1 and based on the example configurations shown in Figure 2-3 through Figure 2-6.

Table 4-1 Example Gateway Screening Allowed CDPA Configuration Table

| Screenin g Referenc e | ZONE | AREA | ID | SSN | SCMGFID | NSFI | NSR |
|--------------------------------|------|------|-----|-----|---------|-------|------|
| gw15 | 5 | 117 | 2 | 254 | | stop | |
| | | | | | | | |
| Screenin g Referenc e | NI | NC | NCM | SSN | SCMGFID | NSFI | NSR |
| gw17 | 003 | 003 | 003 | 001 | 050 | aftpc | gw20 |
| gw18 | 006 | 006 | 006 | 253 | | stop | |
| ls03 | 007 | 007 | 007 | 001 | 100 | aftpc | ls04 |



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

The allowed CDPA screen can only reference an allowed AFTPC screen and the allowed AFTPC screen being referenced must be in the database. This can be verified using the rtrv-scr-aftpc:all=yes command. If the desired allowed AFTPC screen is not in the database, perform one of these procedures to add the required screen to the database or change an existing screen in the database.

- Adding an Allowed Affected Point Code Screen
- Changing an Allowed Affected Point Code Screen

Specifying a Range of Values

A range of values can be specified for the point code parameters \min , nc, or ncm.

If a range of values is specified for any of these parameters, and the value of the other parameters match existing values for the screening reference name, the range of values for the point code parameter cannot include any values for that parameter that are currently provisioned for the screening reference name.

For example, screening reference name scr1 contains these entries:

| SR | NI | NC | NCM | SSN | SCMGFID | NSFI | NSR/ACT |
|------|-----|-----|-----|------|---------|-------|---------|
| SCR1 | 240 | 001 | 010 | 012 | | STOP | |
| SCR1 | 241 | 010 | 020 | 0.01 | 002 | AFTPC | SCR1 |



Another entry for screening reference scrl with the ni value of 240 and the nc value of 001 cannot be specified if the range of values for the ncm parameter includes the value 010.

The ANSI point code parameter values can be specified as a single value, a range of values, or with an asterisk (*). The asterisk specifies all possible values for the ni, nc, and ncm parameters. Table 4-2 shows the valid combinations of these parameter values.

Table 4-2 Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM |
|-----------------|-----------------|-----------------|
| Single Value | Single Value | Single Value |
| Single Value | Single Value | Range of Values |
| Single Value | Single Value | Asterisk |
| Single Value | Range of Values | Asterisk |
| Single Value | Asterisk | Asterisk |
| Range of Values | Asterisk | Asterisk |
| Asterisk | Asterisk | Asterisk |

A range of values can also be specified for an ITU-I or 24-bit ITU-N point code parameter using a combination of asterisks (*) and single values for the point code parameters. Table 4-3 shows the valid combinations of the ITU-I parameter values. Table 4-4 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 4-3 Valid Value Combinations for ITU-I Point Code Parameters

| ZONE | AREA | ID | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

Table 4-4 Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP |
|--------------|--------------|--------------|
| Single Value | Single Value | Single Value |
| Single Value | Single Value | Asterisk |
| Single Value | Asterisk | Asterisk |
| Asterisk | Asterisk | Asterisk |

Verify that the gateway screening feature is on, by entering the rtrv-feat command.
 If the gateway screening feature is on, the GWS field is set to on.



Thertry-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by thertry-feat command, see thertry-feat command description in *Commands User's Guide*.



If the gateway screening feature is on, shown by the entry GWS = on in the rtrv-feat command output, skip step 2, and go to step 3.

2. Turn the gateway screening feature on by entering this command.

```
chg-feat:gws=on
```



Once the gateway screening feature is turned on with the chg-feat command, it cannot be turned off.

The gateway screening feature must be purchased before you turn this feature on with the <code>chg-feat</code> command. If you are not sure if you have purchased the gateway screening feature, contact your Oracle Sales Representative or Account Representative.

When the chg-feat has successfully completed, this message should appear.

```
rlghncxa03w 06-10-28 11:43:04 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

3. Display all allowed CDPA screens in the database using the rtrv-scr-cdpa command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED CDPA SR REF RULES IEC YES 2 WRD2 YES 1 WRD4 YES 9
```

If the screening reference names that you wish to add with this procedure are not shown in the rtrv-scr-cdpa command output, go to step 4. For this example, the screening reference names are not shown. If these screening reference names are shown in the rtrv-scr-cdpa command output, make sure the screening data you wish to enter is not already in the database by entering the rtrv-scr-cdpa command with the screening reference name. For example, enter the rtrv-scr-cdpa: sr=iec command.

The following is an example of the possible output.

| rlghno | cxa03w 06 | -10-25 1 | 5:26:30 GM | IT EAGLE5 | 36.0.0 | | |
|--------|-----------|----------|------------|-----------|---------|-------|---------|
| SCREE | N = ALLOW | ED CDPA | | | | | |
| SR | NI | NC | NCM | SSN | SCMGFID | NSFI | NSR/ACT |
| IEC | 240 | 001 | 010 | 012 | | STOP | |
| SR | ZONE | AREA | ID | SSN | SCMGFID | NSFI | NSR/ACT |
| IEC | 1 | 134 | * | 001 | 002 | AFTPC | IEC |

If a gateway screening stop action set is to be assigned to the allowed CDPA screen being added to the database, go to step 4.



Step 4 verifies the gateway screening stop action set names in the database. The gateway screening stop action set names are assigned only if the NSFI of the screen being added in this procedure is STOP. If the NSFI of the new screen will be STOP, but a gateway screening stop action set name will not be assigned to the new screen, skip steps 4 and 5 and go to step 6. If the NSFI of the new screen is AFTPC, skip step 4 and go to step 5.

4. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT ACT
   NAME 1 2 3 4 5 6
                                 7 8 9 10
ID
1
   сору сору
2
   rdct rdct
3
   cr
         copy rdct
   cncf cncf
4
5 cpcncf copy cncf
6
   cncfrd cncf rdct
7
   cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.



If the NSFI of the screen being added in this procedure is STOP, skip step 5 and go to step 6.

5. Enter the rtrv-scr-aftpc command to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 7 is in the database.

If the desired screen is not in the database, perform one of these procedures to add the desired screen to the database or change an existing screen in the database.

- Adding an Allowed Affected Point Code Screen
- Changing an Allowed Affected Point Code Screen.



If the point code being added in this procedure is not an ITU-I or 14-bit ITU-N spare point code, skip step 6 and to step 7.





If the point code being added in this procedure is an ITU-I or 14-bit ITU-N spare point code and the screening reference contains ITU-I or 14-bit ITU-N spare point codes, skip step 6 and go to step 7.

6. Display the status of the ITU National and International Spare Point Code Support feature by entering the rtrv-ctrl-feat command with the ITU National and International Spare Point Code Support feature part number.

Enter this command.

```
rtrv-ctrl-feat:partnum=893013601
```

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 The following features have been permanently enabled:
```

```
Feature Name Partnum Status Quantity Spare Point Code Support 893013601 on ----
```

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period

Left

Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum

Zero entries found.

If the ITU National and International Spare Point Code Support feature is enabled, go to step 7.

If the ITU National and International Spare Point Code Support feature is not enabled, perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure in *Database Administration - SS7 User's Guide* to enable the ITU National and International Spare Point Code Support feature as required. After the feature has been enabled, go to step 7.

7. Add a new allowed CDPA screen to the database using the ent-scr-cdpa command.

If a gateway screening stop action is to be assigned to the allowed CDPA screen being added to the database, enter the <code>ent-scr-cdpa</code> command with the <code>nsfi=stop</code> parameter and the <code>actname</code> parameter with the name of a gateway screening stop action set shown in the output of the <code>rtrv-gws-actset</code> command executed in step 4.



Caution:

The EAGLE does not support redirecting MSUs for the DTA feature or intercepting ISUP IAM messages for the Calling Name Conversion Facility feature from the allowed CDPA screen. Gateway screening stop action sets containing either the RDCT (redirect) or CNCF (calling name conversion facility) stop actions should not be assigned to the allowed CDPA screen. If a gateway screening stop action set containing the RDCT or CNCF stop actions is specified with the ent-scr-cdpa command, unsolicited information message (UIM) 1125 is generated when the attempt is made to redirect MSUs from the allowed CDPA screen. Unsolicited information message (UIM) 1215 is generated when ISUP IAM MSUs are intercepted from the allowed CDPA screen. For more information on UIMs 1125 and 1215, go to the Unsolicited Alarm and Information Messages Reference.

The following list contains the values for ni, nc, ncm, zone, area, id, npc, msa, ssa, sp, ssn, and scmgfid parameters:

- ni 0 255 or an asterisk (*)
- nc 0 255 or an asterisk (*)
- ncm 0 255 or an asterisk (*)
- zone 0 7 or an asterisk (*)
- area -0 255 or an asterisk (*)
- id 0 7 or an asterisk (*)
- npc 1 16383 or an asterisk (*)
- msa 0 255 or an asterisk (*)
- ssa 0 255 or an asterisk (*)
- sp 0 255 or an asterisk (*)
- ssn 0 255 or an asterisk (*)
- scmgfid 1 255 or an asterisk (*)



Note:

The scmgfid, ssn, nsfi, and nsr parameters can be specified only as shown inTable 4-5.

Table 4-5 CDPA Parameter Combinations

| SSN | SCMGFID | NSFI | NSR |
|-------------|---------------------|-------|---------------------|
| 1 | 1 - 255, * | AFTPC | Must be specified |
| 0, 2-255, * | Cannot be specified | STOP | Cannot be specified |

A range of values can be specified for the ni, nc, and ncm parameters. See the Specifying a Range of Values section for more information on how the asterisk and a range of values are used for the ni, nc, and ncm parameters.



To add a spare point code to the allowed CDPA screen, the pcst=s parameter must be specified. To add a non-spare point code to the allowed CDPA screen, the pcst parameter does not have to be specified. If the pcst parameter is specified for a screen containing an ITU-I or 14-bit ITU-N non-spare point code, the value must be none.

For this example, enter these commands.

```
ent-scr-cdpa:sr=gw15:zone=5:area=117:id=2:ssn=254:nsfi=stop
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:28:30 GMT    EAGLE5 36.0.0
ENT-SCR-CDPA: SCREEN SET AFFECTED - GW15 1% FULL
ENT-SCR-CDPA: MASP A - COMPLTD

ent-scr-
cdpa:sr=gw17:ni=003:nc=003:ncm=003:ssn=001:scmgfid=050 :nsfi
=aftpc:nsr=gw20
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0
ENT-SCR-CDPA: SCREEN SET AFFECTED - GW17 1% FULL
ENT-SCR-CDPA: MASP A - COMPLTD
ent-scr-cdpa:sr=gw18:ni=006:nc=006:ncm=006:ssn=253:nsfi=stop
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0
ENT-SCR-CDPA: SCREEN SET AFFECTED - GW18 1% FULL
ENT-SCR-CDPA: MASP A - COMPLTD

ent-scr-
cdpa:sr=ls03:ni=007:nc=007:ncm=007:ssn=001:scmgfid=100 :nsfi
=aftpc:nsr=ls04
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:31:30 GMT EAGLE5 36.0.0 ENT-SCR-CDPA: SCREEN SET AFFECTED - LS03 1% FULL ENT-SCR-CDPA: MASP A - COMPLTD
```

8. Verify the changes using the rtrv-scr-cdpa command with the screening reference name used in step 7.

For this example, enter these commands.

```
rtrv-scr-cdpa:sr=gw15
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:32:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED CDPA
```



| SR | ZONE | AREA | ID | SSN | SCMGFID | NSFI | NSR/ACT |
|------|------|------|----|-----|---------|------|---------|
| GW15 | 5 | 117 | 2 | 254 | | STOP | |

rtrv-scr-cdpa:sr=gw17

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:33:30 GMT EAGLE5 36.0.0

SCREEN = ALLOWED CDPA

SR NI NC NCM SSN SCMGFID NSFI NSR/ACT
GW17 003 003 003 001 050 AFTPC GW20
```

rtrv-scr-cdpa:sr=gw18

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:34:30 GMT EAGLE5 36.0.0

SCREEN = ALLOWED CDPA

SR NI NC NCM SSN SCMGFID NSFI NSR/ACT

GW18 006 006 006 253 ----- STOP -----
```

rtrv-scr-cdpa:sr=1s03

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:35:30 GMT EAGLE5 36.0.0

SCREEN = ALLOWED CDPA

SR NI NC NCM SSN SCMGFID NSFI NSR/ACT
LS03 007 007 007 001 100 AFTPC -----
```

9. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Enter the Enter the rtrv-feat Is the gateway screening feature on? chg-feat:gws=oncommand command Yes Enter the rtrv-scr-cdpa command Enter the rtrv-scr-cdpa :sr=<screening reference name> command. The screening reference name is a name shown in the previous rtrv-scr-cdpa command, or a new screening reference name. Will To screening stop with Sheet 2 this screen? Is a gateway screening stop action set to To be assigned to the Allowed Sheet 3 CDPA screen? Yes Go to the "Configuring Is the required Gateway Screening Stop Enter the rtrv-gws-actset gateway screening stop Action Sets" procedure and action set in the database? command configure the required gateway screening stop action set in the database Yes То Sheet 3

Figure 4-5 Add an Allowed Called Party Address Screen - Sheet 1 of 4



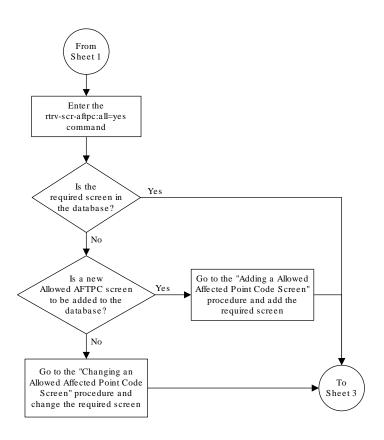


Figure 4-6 Add an Allowed Called Party Address Screen - Sheet 2 of 4



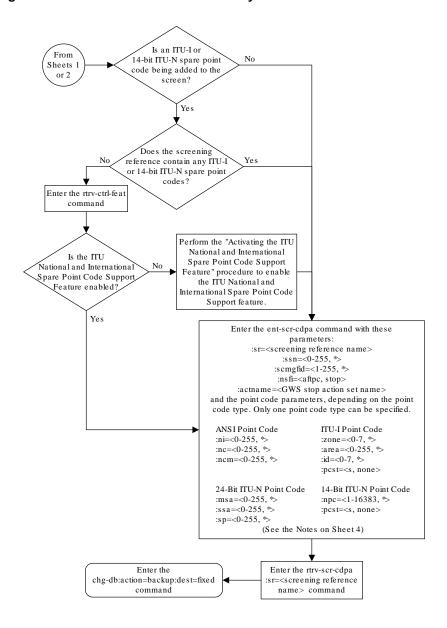


Figure 4-7 Add an Allowed Called Party Address Screen - Sheet 3 of 4



Figure 4-8 Add an Allowed Called Party Address Screen - Sheet 4 of 4

Notes:

- 1. A range of values can be specified for the ni, nc, or ncm parameters by inserting double ampersands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the ni parameter, enter 025&200 for the ni parameter value.
- 2. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" section is in the "Adding an Allowed Called Party Address Screen" procedure in the Database Administration Manual - Gateway Screening.

- 3. The scmgfid parameter can be specified only if the ssn=1 parameter is specified. If either the ssn=1 or scmgfid parameter is specified, the other parameter must be specified. The scmgfid parameter cannot be specified if the ssn parameter value is 0, 2 through 255, or *.
- 4. To specify the nsfi=aftpc parameter, the ssn parameter value must be 1.
- 5. If the ssn parameter value is 0, 2 through 255, or *, the nsfi parameter value must be stop.
- 6. If the ssn parameter value is 1, the nsfi parameter value can be aftpc or stop.
- 7. The nsr parameter can be specified only, and must be specified, if the nsfi=aftpc parameter is specified.
- 8. The actname parameter can be specified only if the nsfi=stop parameter is specified. The actname parameter is optional. If the actname parameter is specified, the actname parameter value is one of the gateway screening stop action set names shown in the ntry-gws-actset output on Sheet 1.
- 9. To add a non-spare point code, the *pcst* parameter does not have to be specified. If the *pcst* parameter is specified for a screen containing an ITU-I or 14-bit ITU-N non-spare point code, the value must be *none*.
- 10. To add a spare point code, the pcst=s parameter must be specified.

Removing an Allowed Called Party Address Screen

This procedure is used to remove an allowed called party address (CDPA) screen from the database using the dlt-scr-cdpa command. The parameters used by the dlt-scr-cdpa command are shown in the Gateway Screening Attributes section. The general rules that



apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure removes the allowed CDPA screen gw17 from the database.



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

The allowed CDPA screen can be referenced by one of the following screens.

- Allowed SIO
- Allowed CGPA
- Allowed TT

Verifying the Gateway Screening Configuration

Enter the following commands to verify that none of these screens reference the allowed CDPA screen being removed from the database.

- rtrv-scr-sio:nsfi=cdpa
- rtrv-scr-cgpa:nsfi=cdpa
- rtrv-scr-tt:nsfi=cdpa

Gateway Screening Configuration Procedures

To change the NSFI of any of these screens, preform one of these procedures.

- Changing an Allowed Translation Type Screen
- Changing an Allowed Calling Party Address Screen
- Changing an Allowed SIO Screen
- Display the allowed CDPA screens in the database using the rtrv-scr-cdpa command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED CDPA
     REF RULES
GW15 YES
            1
GW17 YES
            1
GW18 YES
            1
IEC
    YES
LS03 YES
            1
WRD2 YES
            1
WRD4 YES
```

From the rtrv-scr-cdpa output, display the allowed CDPA screen you wish to remove using the rtrv-scr-cdpa command with the screening reference name.



For this example, enter the rtrv-scr-cdpa:sr=gw17 command. The following is an example of the possible output.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED CDPA
     NI
             NC
SR
                     NCM
                               SSN
                                        SCMGFID NSFI
                                                        NSR/ACT
GW17 003
              003
                      003
                               001
                                        050
                                                        GW20
                                                 AFTPC
```

2. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen being removed is not referenced by other screens in the database.

If the screen being removed is referenced by other screens, perform the procedures shown in the Gateway Screening Configuration Procedures section to change the NSFI of those screens to reference other screens or change the NSFI of these screens to STOP.

3. Remove the allowed CDPA screen from the database using the dlt-scr-cdpa command.

The current values for the ni, nc, ncm, zone, area, id, npc, msa, ssa, sp, and ssn parameters must be entered exactly as shown in the rtrv-scr-cdpa output in 1. To remove an entry containing either an ITU-I or a 14-bit ITU-N spare point code, the pcst=s parameter must be specified with the dlt-scr-cdpa command.

To remove an entry containing either an ITU-I or a 14-bit ITU-N non-spare point code, the post parameter does not have to be specified with the dlt-scr-cdpa command. If the post parameter is specified, the value must be none.

For this command, enter this command:

```
dlt-scr-cdpa:sr=gw17:ni=003:nc=003:ncm=003:ssn=001
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 DLT-SCR-CDPA: SCREEN SET AFFECTED - GW17 0% FULL DLT-SCR-CDPA: MASP A - COMPLTD
```

4. Verify the changes using the rtrv-scr-cdpa command with the screening reference name used in 3.

For this example, enter this command.

```
rtrv-scr-cdpa:sr=gw17
```

The following is an example of the possible output.

```
E2573 Cmd Rej: SR or NSR does not reference an existing SR
```

This message shows that the specified screening reference name is not in the database and the action of the dlt-scr-cdpa command in 3 was successful. If the specified screening reference name contained more than one entry when the dlt-scr-cdpa command was executed in 3, the rtrv-scr-cdpa: sr= command output would show the remaining entries in the screening reference instead of error message E2573.

5. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Figure 4-9 Remove an Allowed Called Party Address Screen - Sheet 1 of 2

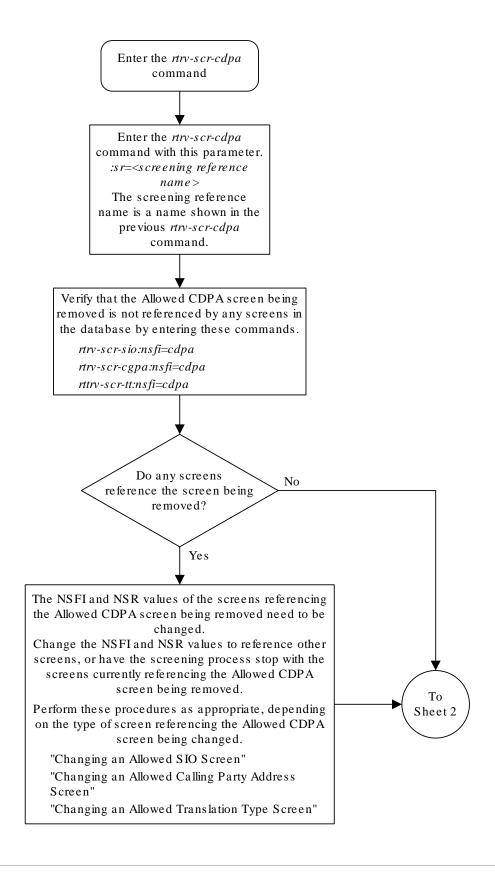
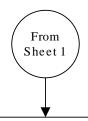




Figure 4-10 Remove an Allowed Called Party Address Screen - Sheet 2 of 2



Enter the *dlt-scr-cdpa* command with these parameters:

:sr=<screening reference name> :ssn=<current ssn value>

and the point code parameters, depending on the point code type contained in the screen being removed. Only one point code type can be specified.

ANSI Point Code

:ni=<current ni value> :nc=<current nc value> :ncm=<current ncm value>

24-Bit ITU-N Point Code

:msa=<current msa value> :ssa=<current ssa value> :sp=<current sp value>

ITU-I Point Code

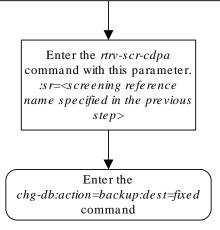
:zone =<current zone value> :area=<current area value> :id=<current id value> :pcst=<s, none>

14-Bit ITU-N Point Code

:npc=<current npc value>
:pcst<s, none>

Notes:

- 1. The current values for the *ni*, *nc*, *ncm*, *zone*, *area*, *id*, *npc*, *msa*, *ssa*, *sp*, or *ssn* parameters must be entered exactly as shown in the *rtrv-scr-cdpa* output.
- 2. To remove an entry containing either an ITU-I or a 14-bit ITU-N spare point code, the *pcst*=*s* parameter must be specified with the *dlt-scr-cdpa* command.
- 3. To remove an entry containing either an ITU-I or a 14-bit ITU-N non-spare point code, the *pcst* parameter does not have to be specified with the *dlt-scr-cdpa* command. If the *pcst* parameter is specified for a screen containing either an ITU-I or a 14-bit ITU-N non-spare point code, the value must be *none*.





Changing an Allowed Called Party Address Screen

This procedure is used to change the attributes of an allowed called party address (CDPA) screen in the database using the <code>chg-scr-cdpa</code> command. The parameters used by the <code>chg-scr-cdpa</code> command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure is used to change the point code 5-117-2 for the allowed CDPA screen gw15 to 2-230-7, the subsystem number from 254 to 001, the NSFI to aftpc, the NSR of itu1, and the new SCMG format ID of 150.



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

The allowed CDPA screen can only reference an allowed AFTPC screen. This can be verified using the rtrv-scr-aftpc:all=yes command. If the desired allowed AFTPC screen is not in the database, perform one of these procedures to add the required screen to the database or change an existing screen in the database.

- Adding an Allowed Affected Point Code Screen
- Changing an Allowed Affected Point Code Screen

Specifying a Range of Values

A range of values can be specified for the point code parameters ni, nc, or ncm.

If a range of values is specified for any of these parameters, and the value of the other parameters match existing values for the screening reference name, the range of values for the point code parameter cannot include any values for that parameter that are currently provisioned for the screening reference name.

For example, screening reference name ${\tt scr1}$ contains these entries:

| SR | NI | NC | NCM | SSN | SCMGFID | NSFI | NSR/ACT |
|------|-----|-----|-----|-----|---------|-------|---------|
| SCR1 | 240 | 001 | 010 | 012 | | STOP | |
| SCR1 | 241 | 010 | 020 | 001 | 002 | AFTPC | SCR1 |

Another entry for screening reference scrl with the ni value of 240 and the nc value of 001 cannot be specified if the range of values for the ncm parameter includes the value 010.

The ANSI point code parameter values can be specified as a single value, a range of values, or with an asterisk (*). The asterisk specifies all possible values for the ni, nc, and ncm parameters. Table 4-6 shows the valid combinations of these parameter values.

Table 4-6 Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM |
|--------------|--------------|--------------|
| Single Value | Single Value | Single Value |



Table 4-6 (Cont.) Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM |
|-----------------|-----------------|-----------------|
| Single Value | Single Value | Range of Values |
| Single Value | Single Value | Asterisk |
| Single Value | Range of Values | Asterisk |
| Single Value | Asterisk | Asterisk |
| Range of Values | Asterisk | Asterisk |
| Asterisk | Asterisk | Asterisk |

A range of values can also be specified for an ITU-I or 24-bit ITU-N point code parameter using a combination of asterisks (*) and single values for the point code parameters. Table 4-7 shows the valid combinations of the ITU-I parameter values. Table 4-8 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 4-7 Valid Value Combinations for ITU-I Point Code Parameters

| ZONE | AREA | ID | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

Table 4-8 Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

1. Display the allowed CDPA screens in the database using the rtrv-scr-cdpa command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED CDPA
SR
    REF RULES
GW15 YES
           1
GW17 YES
             1
GW18 YES
             1
IEC YES
             2
LS03 YES
WRD2 YES
            1
WRD4 YES
             9
```



From the rtrv-scr-cdpa output, display the allowed CDPA screen you wish to change using the rtrv-scr-cdpa command with the screening reference name. For this example, enter this command.

```
rtrv-scr-cdpa:sr=gw15
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0

SCREEN = ALLOWED CDPA

SR ZONE AREA ID SSN SCMGFID NSFI NSR/ACT
GW15 5 117 2 254 ----- STOP -----
```

If a gateway screening stop action set is to be assigned to the allowed CDPA screen being changed in this procedure, go to step 2.

Step 2 verifies the gateway screening stop action set names in the database. The gateway screening stop action set names are assigned only if the NSFI of the screen being changed in this procedure is STOP. If the NSFI of the screen will be changed to STOP, but a gateway screening stop action set name will not be assigned to the screen, skip steps 2 and 3 and go to step 4. If the NSFI of the screen will not be STOP, skip step 2 and go to step 3.

2. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT ACT
ID
  NAME 1 2 3
                4 5 6
                           7 8 9
   1
   copy copy
2
   rdct rdct
3
      copy rdct
  cr
  cncf cncf
4
5
  cpcncf copy cncf
 cncfrd cncf rdct
6
  cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure and configure the required gateway screening stop action set.



If the NSFI of the screen being added in this procedure is STOP, skip step 3 and go to step 4.

3. Enter the rtrv-scr-aftpc command to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 5 is in the database.



If the desired screen is not in the database, perform one of these procedures to add the desired screen to the database or change an existing screen in the database.

- Adding an Allowed Affected Point Code Screen
- Changing an Allowed Affected Point Code Screen.

Note:

If any of these conditions apply to this procedure, skip step 4 and go to step 5:

- The point code in the screen is not being changed.
- The screen being changed contains either an ANSI or 24-bit ITU-N point code.
- The ITU-I or 14-bit ITU-N non-spare point code in the screen is not being changed to an ITU-I or 14-bit ITU-N spare point code.
- The point code in the screen is an ITU-I or 14-bit ITU-N spare point code or the screening reference contains other screens with ITU-I or 14-bit ITU-N spare point codes.
- 4. Display the status of the ITU National and International Spare Point Code Support feature by entering the rtrv-ctrl-feat command with the ITU National and International Spare Point Code Support feature part number.

Enter this command.

```
rtrv-ctrl-feat:partnum=893013601
```

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 The following features have been permanently enabled:
```

```
Feature Name Partnum Status Quantity Spare Point Code Support 893013601 on ----
```

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period

Left

Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum

Zero entries found.

If the ITU National and International Spare Point Code Support feature is enabled, go to step 5.

If the ITU National and International Spare Point Code Support feature is not enabled, perform the "Activating the ITU National and International Spare Point



Code Support Feature" procedure in Database Administration - SS7 User's Guide to enable the ITU National and International Spare Point Code Support feature as required. After the feature has been enabled, go to step 5.

5. Change the attributes for the allowed CDPA screen using the chg-scr-cdpa command.

If a gateway screening stop action is to be assigned to the allowed CDPA screen being changed, enter the chg-scr-cdpa command with the nsfi=stop parameter and the actname parameter with the name of a gateway screening stop action set shown in the output of the rtrv-gws-actset command executed in step 2.



Caution:

The EAGLE does not support redirecting MSUs for the DTA feature or intercepting ISUP IAM messages for the Calling Name Conversion Facility feature from the allowed CDPA screen. Gateway screening stop action sets containing either the RDCT (redirect) or CNCF (calling name conversion facility) stop actions should not be assigned to the allowed CDPA screen. If a gateway screening stop action set containing the RDCT or CNCF stop actions is specified with the chg-scr-cdpa command, unsolicited information message (UIM) 1125 is generated when the attempt is made to redirect MSUs from the allowed CDPA screen. Unsolicited information message (UIM) 1215 is generated when ISUP IAM MSUs are intercepted from the allowed CDPA screen. For more information on UIMs 1125 and 1215, go to Unsolicited Alarm and Information Messages Reference.

The current values for the ni, nc, ncm, zone, area, id, npc, msa, ssa, and sp, ssn, and scmqfid parameters must be entered exactly as shown in the rtrv-scr-cdpa output in step 1. If the scmgfid value is shown as dashes, the scmgfid parameter cannot be specified.

The following list contains the values for nni, nnc, nncm, nzone, narea, nid, nnpc, nmsa, nssa, nsp, nssn, and nscmgfid parameters:

- nni 0 255 or an asterisk (*)
- nnc 0 255 or an asterisk (*)
- nncm 0 255 or an asterisk (*)
- nzone 0 7 or an asterisk (*)
- narea 0 255 or an asterisk (*)
- nid 0 7 or an asterisk (*)
- nnpc 1 16383 or an asterisk (*)
- nmsa 0 255 or an asterisk (*)
- nssa 0 255 or an asterisk (*)
- nsp 0 255 or an asterisk (*)
- nssn 0 255 or an asterisk (*)
- nscmgfid 1 255 or an asterisk (*)



Note:

Thensfi=aftpc parameter can be specified only if thessn value (new or current) is 1. Table 4-9shows the valid parameter combinations for thessn,scmgfid,nsfi, andnsr parameter values.

Table 4-9 CDPA Parameter Combinations

| New or Current SSN Value | New or Current SCMGFID Value | NSFI | NSR |
|-----------------------------|---------------------------------|---------------|---------------------------------|
| 1 | 1 - 255, * | AFTPC or STOP | Must be specified if NSFI=AFTPC |
| 0, 2-255, * | Cannot be specified | STOP | Cannot be specified |

A range of values can be specified for the nni, nnc, and nncm parameters. See the "Specifying a Range of Values" section for more information on how the asterisk and a range of values are used for the nni, nnc, and nncm parameters.

To change an ITU-I or 14-bit ITU-N spare point code to a non-spare point code, both the post=s and npost=none parameters must be specified with the chg-scr-cdpa command.

To change an ITU-I or 14-bit ITU-N non-spare point code to a spare point code, the npcst=s parameter must be specified with the chg-scr-cdpa command. The pcst parameter does not have to be specified.

If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N spare point code, the post=s parameter must be specified with the chg-scr-cdpa command.

If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N non-spare point code, the post parameter does not have to be specified with the <code>chg-scr-cdpa</code> command. If the post parameter is specified for a screen containing either an ITU-I or 14-bit ITU-N non-spare point code, the post parameter value must be <code>none</code>.

For this example, enter this command.

```
chg-scr-
cdpa:sr=gw15:zone=5:area=117:id=2:ssn=254:nzone=2 :narea=230
:nid=7:nssn=001:nscmgfid=150:nsfi=aftpc:nsr=itu1
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0 CHG-SCR-CDPA: SCREEN SET AFFECTED - GW15 1% FULL CHG-SCR-CDPA: MASP A - COMPLTD
```

6. Verify the changes using the rtrv-scr-cdpa command with the screening reference name used in step 5.

For this example, enter this command.

```
rtrv-scr-cdpa:sr=gw15
```



The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED CDPA
       ZONE
             AREA
                     ID
                               SSN
                                       SCMGFID NSFI
                                                       NSR/ACT
              230
                     7
                               001
GW15
       2
                                       150
                                                AFTPC
                                                       ITU1
```

7. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

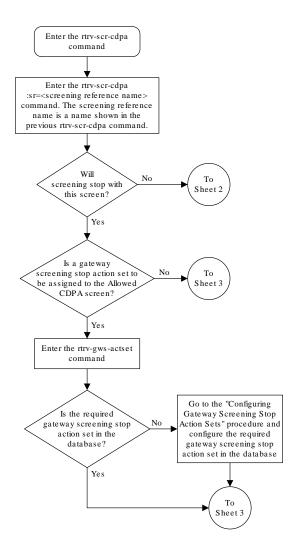
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Figure 4-11 Change an Allowed Called Party Address Screen - Sheet 1 of 5





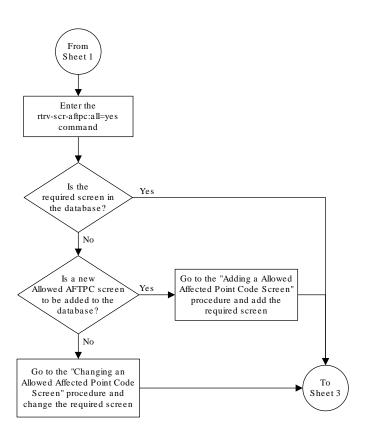


Figure 4-12 Change an Allowed Called Party Address Screen - Sheet 2 of 5



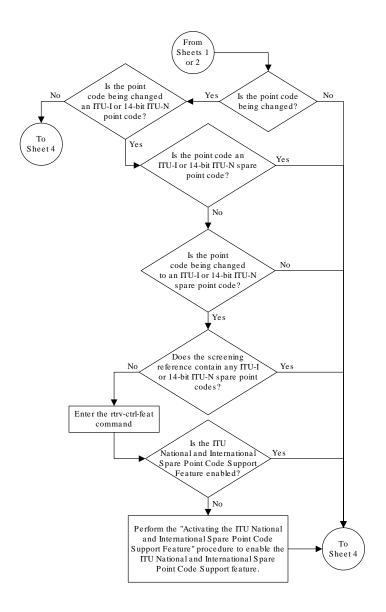


Figure 4-13 Change an Allowed Called Party Address Screen - Sheet 3 of 5



Figure 4-14 Change an Allowed Called Party Address Screen - Sheet 4 of 5

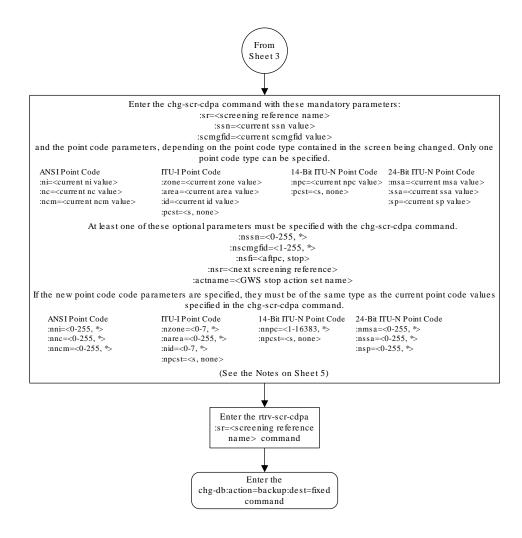




Figure 4-15 Change an Allowed Called Party Address Screen - Sheet 5 of 5

Notes:

- 1. A range of values can be specified for the nni, nnc, or nncm parameters by inserting double ampersands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the nni parameter, enter 025 &&200 for the nni parameter value.
- 2. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" section is in the "Changing an Allowed Called Party Address Screen" procedure in the Database Administration Manual - Gateway Screening.

- 3. The nscmgfid parameter can be specified only if the ssn parameter value (if unchanged) or the nssn parameter value is 1. If either the nssn=1 or nscmgfid parameter is specified, the other parameter must be specified. The nscmgfid parameter cannot be specified if the ssn parameter value is 0, 2 through 255, or *.
- 4. To specify the *nsfi=aftpc* parameter, the *ssn* parameter value (if unchanged) or the *nssn* parameter value must be 1.
- 5. If the ssn parameter value (if unchanged) or the nssn parameter value is 0, 2 through 255, or *, the nsft parameter value must be stop.
- If the ssn parameter value (if unchanged) or the nssn parameter value is 1, the nsfi parameter value can be either aftpc or stop.
- 7. The nsr parameter can be specified only, and must be specified, if the nsfi=aftpc parameter is specified.
- 8. The actname parameter can be specified only if the nsft value is stop (either the current nsft value is stop and not being changed, or the nsft value is being changed to stop). The actname parameter is optional. If the actname parameter is specified, the actname parameter value is one of the gateway screening stop action set names shown in the nn-gws-actset output on Sheet 1.
- 9. The current values for the ni, nc, ncm, zone, area, id, npc, msa, ssa, sp, or ssn parameters must be entered exactly as shown in the ntrv-scr-cdpa output. If dashes are shown for the scmgfid parameter, the scmgfid parameter cannot be specified with the chg-scr-cdpa command.
- 10. To change an ITU-I or 14-bit ITU-N spare point code to a non-spare point code, both the pcst=s and npcst=none parameters must be specified with the chg-scr-cdpa command.
- 11. To change an ITU-I or 14-bit ITU-N non-spare point code to a spare point code, the *npcst=s* parameter must be specified with the *chg-scr-cdpa* command. The *pcst* parameter does not have to be specified.
- 12. If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N spare point code, the *pcst*=s parameter must be specified with the *chg-scr-cdpa* command.
- 13. If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N non-spare point code, the pcst parameter does not have to be specified with the chg-scr-cdpa command. If the pcst parameter is specified for a screen containing either an ITU-I or 14-bit ITU-N non-spare point code, the pcst parameter value must be none.



5

Allowed Translation Type (TT) Screen Configuration

Chapter 5, Allowed Translation Type (TT) Screen Configuration, contains the procedures necessary to configure allowed translation type screens.

Introduction

The allowed translation type (TT) screen is used to screen all SCCP messages which have the specified translation type value in the called party address. The gray shaded areas in Figure 5-4 shows the fields of the SS7 message that are checked by the TT screening function.

Gateway Screening Actions

If a match is not found, the message is discarded.

If a match is found, the nsfi is examined to determine the next step in the screening process. If the nsfi value is any value other than stop, the next screening reference (nsr) is identified and the screening process continues to the next screen identified by the nsfi and nsr parameter values.

If the nsfi is equal to stop, the screening process stops and the message is processed. If a gateway screening stop action set is specified with the screen, shown by the actname parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

- If the rdct (redirect) gateway screening stop action is specified, the message is diverted from the original destination and sent to another destination with the Database Transport Access feature, specified by global title translation, for further processing.
- If the cncf gateway screening stop action is specified, the PIP parameter in the incoming ISUP IAM message is converted to the GN parameter. The GN parameter in the incoming ISUP IAM message is converted to the PIP parameter. The message is then sent to the node specified by the DPC in the routing label in the message. For more information on the Calling Name Conversion Facility feature, see Calling Name Conversion Facility (CNCF) Configuration.
- If the tlnp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are processed either by the ISUP NP with EPAP feature (if the ISUP NP with EPAP feature is enabled and turned on) or by the Triggerless LNP feature (if the Triggerless LNP feature is turned on). The ISUP NP with EPAP feature is discussed in more detail in *G-Port User's Guide*. The Triggerless LNP feature is discussed in more detail in *ELAP Administration and LNP Feature Activation Guide*.
- If the tinp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in *G-Port User's Guide*.



- If the tif, tif2, or tif3 gateway screening stop actions are specified, TIF processing is applied to the message.
- If the sccp gateway screening stop action is specified, MTP routed SCCP UDT/ XUDT are forwarded to the service modules for further processing.

Allowed TT Screening Actions

Figure 5-1 through Figure 5-3 show the screening actions of the allowed TT screen.

MSU from the Allowed CGPA screen Does the TT No The MSU is rejected match any in the Allowed TT screen? Yes Will screening Yes To stop (nsfi=stop)? Sheet 2 No Next screen is Allowed CDPA (nsfi=cdpa)

Figure 5-1 Allowed TT Screening Actions - Sheet 1 of 3

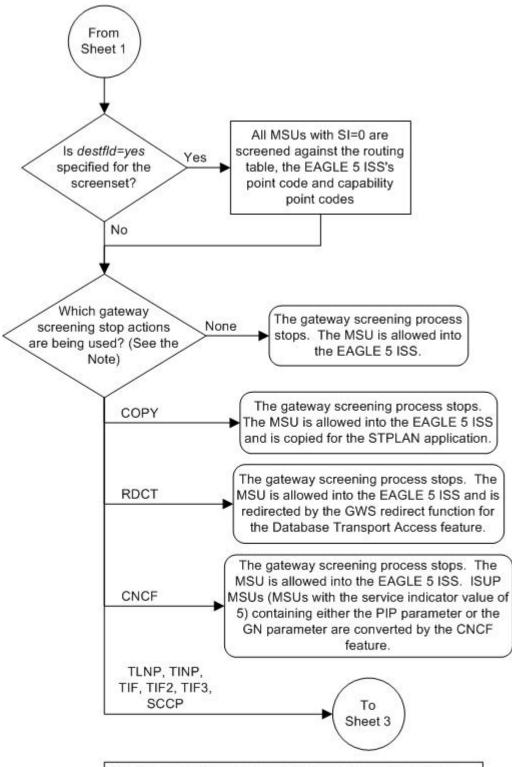


Figure 5-2 Allowed TT Screening Actions - Sheet 2 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.



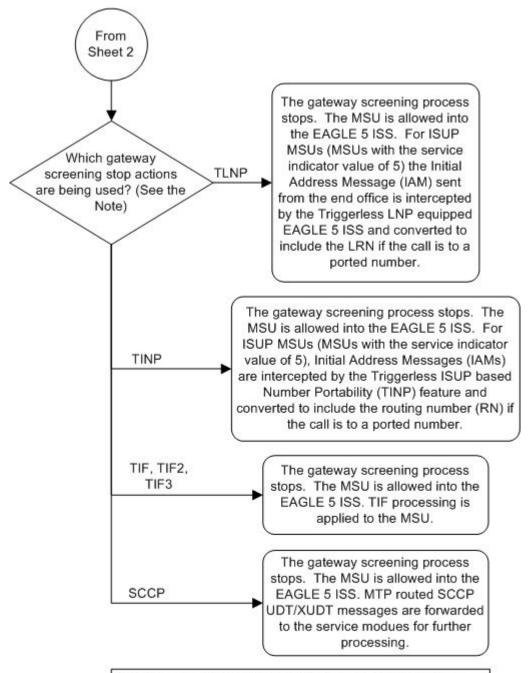


Figure 5-3 Allowed TT Screening Actions - Sheet 3 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.



Figure 5-4 Allowed Translation Type Screening Function

ANSI MSU (ANSI Message Signal Unit)

| | SIO | SIF | | | | | |
|------------|--------------------------|--|--|--|--|--|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing Label DPC OPC SLS NCM NC NI NCM NC NI xx | CGPA Length Address Indicator Subsystem Point Code (NCM NC NI) (NCM NC NI) Address (NCM NC NI) CDPA Length Address Indicator (x x xxxx xx) (x RI xxxx xx) Subsystem Point Code (NCM NC NI) Address (Translation Type) (Digits) | | | | |

ITU-I MSU (ITU International Message Signal Unit)

| | sio | SIF | | | | | |
|------------|--------------------------|--|--|--|--|--|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing Label DPC OPC SLS ID AREA ZONE ID AREA ZONE xx | CGPA Length Address Indicator Subsystem Point Code (ID AREA ZONE) CDPA Length Address Indicator (x x xxxx xx) (x RI xxxx xx) Subsystem Point Code (ID AREA ZONE) Address (Translation Type) (Digits | | | | |

14-Bit ITU-N MSU (14-Bit ITU National Message Signal Unit)

| | SIO | SIF | | | | | |
|------------|--------------------------|-----------------|----------------------------|-----------|---|--|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | R DPC NPC | outing Label OPC NPC | SLS xx | CGPA Length Address Indicator Subsystem Point Code (NPC) | CDPA Length Address Indicator (x x xxxx xx) (x RI xxxx xx) Subsystem Point Code (NPC) Address (Translation Type) (Digits) | |

24-Bit ITU-N MSU (24-Bit ITU National Message Signal Unit)

| | SIO | SIF | | | | | |
|------------|--------------------------|--|--|--|--|--|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing Label DPC OPC SLS SP SSA MSA SP SSA MSA xx | CGPA Length Address Indicator Subsystem Point Code (SP SSA MSA) (SP SSA MSA) CDPA Length Address Indicator (x x xxxx xx) (x RI xxxx xx) Subsystem Point Code (SP SSA MSA) Address (Translation Type) (Digits | | | | |



Adding an Allowed Translation Type Screen

This procedure is used to add an allowed translation type (TT) screen to the database using the <code>ent-scr-tt</code> command. The parameters used by the <code>ent-scr-tt</code> command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The examples in this procedure are used to add the allowed TT screen data shown in Table 5-1 and based on the example configuration shown in Figure 2-5.

Table 5-1 Example Gateway Screening Allowed TT Configuration Table

| Screening Reference | TYPE | NSFI | NSR |
|---------------------|------|------|------|
| gw16 | 250 | cdpa | gw18 |

The allowed TT screen can only reference an allowed CDPA screen and the allowed CDPA screen being referenced must be in the database. This can be verified using the rtrv-scr-cdpa:all=yes command. If the desired allowed CDPA screen is not in the database, perform one of these procedures to add the required screen to the database or change an existing screen in the database.

- Adding an Allowed Called Party Address Screen
- Changing an Allowed Called Party Address Screen

Specifying a Range of Values

A range of values can be specified for the type parameter. The range of values specified for the type parameter cannot include any values currently provisioned for the screen reference name.

For example, screening reference name scr1 contains these entries:

| SR | TYPE | NSFI | NSR/ACT |
|------|------|------|---------|
| scr1 | 110 | STOP | |
| scr1 | 125 | STOP | |

Another entry for screening reference scr1 cannot contain a range of values that would include the type parameter values 110 or 125.

1. Verify that the gateway screening feature is on, by entering the rtrv-feat command.

If the gateway screening feature is on, the GWS field is set to on.



The rtrv-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-feat command, see the rtrv-feat command description in Commands User's Guide.



If the gateway screening feature is on, shown by the entry GWS = on in the rtrv-feat command output, skip step 2, and go to step 3.

2. Turn the gateway screening feature on by entering this command.

```
chg-feat:gws=on
```



Once the gateway screening feature is turned on with the <code>chg-feat</code> command, it cannot be turned off.

The gateway screening feature must be purchased before you turn this feature on with the chg-feat command. If you are not sure if you have purchased the gateway screening feature, contact your Oracle Sales Representative or Account Representative.

When the chq-feat has successfully completed, this message should appear.

```
rlghncxa03w 06-10-28 11:43:04 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

3. Display all allowed TT screens in the database using the rtrv-scr-tt command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED TT

SR REF RULES
IEC YES 2
WRD2 YES 1
WRD4 YES 9
```

If the screening reference names that you wish to add with this procedure are not shown in the rtrv-scr-tt command output, go to step 4. For this example, the screening reference names are not shown. If these screening reference names are shown in the rtrv-scr-tt command output, make sure the screening data you wish to enter is not already in the database by entering the rtrv-scr-tt command with the screening reference name. For example, enter the rtrv-scr-tt:sr=iec command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED TT
    TYPE NSFI NSR/ACT
SR
   005&&010 STOP -----
IEC
IEC 012 STOP -----
IEC
     016
            CDPA IEC
WRD2 243
            STOP
                   _____
WRD4 *
             STOP
                   _____
```

If a gateway screening stop action set is to be assigned to the allowed TT screen being added to the database, go to step 4.



Step 4 verifies the gateway screening stop action set names in the database. The gateway screening stop action set names are assigned only if the NSFI of the screen being added in this procedure is STOP. If the NSFI of the new screen will be STOP, but a gateway screening stop action set name will not be assigned to the new screen, skip steps 4 and 5 and go to step 6. If the NSFI of the new screen is CDPA, skip step 4 and go to step 5.

4. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT ACT
                  3
                     4 5
ID
   NAME 1 2
                              6
                                  7
                                               10
1
    сору сору
2
   rdct rdct
3
   cr
         copy rdct
   cncf cncf
4
5
 cpcncf copy cncf
6
   cncfrd cncf rdct
7
    cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.



If the NSFI of the screen being added in this procedure is STOP, skip step 5 and go to step 6.

5. Enter the rtrv-scr-cdpa command to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 6 is in the database.

If the desired screen is not in the database, perform one of these procedures to add the desired screen to the database or change an existing screen in the database.

- Adding an Allowed Called Party Address Screen
- Changing an Allowed Called Party Address Screen.
- 6. Add a new allowed TT screen to the database using the ent-scr-tt command.

If a gateway screening stop action is to be assigned to the allowed TT screen being changed, enter the <code>ent-scr-tt</code> command with the <code>nsfi=stop</code> parameter and the <code>actname</code> parameter with the name of a gateway screening stop action set shown in the output of the <code>rtrv-qws-actset</code> command executed in step 4.





Caution:

The EAGLE does not support redirecting MSUs for the DTA feature or intercepting ISUP IAM messages for the Calling Name Conversion Facility feature from the allowed TT screen. Gateway screening stop action sets containing either the RDCT (redirect) or CNCF (calling name conversion facility) stop actions should not be assigned to the allowed TT screen. If a gateway screening stop action set containing the RDCT or CNCF stop actions is specified with the ent-scr-tt command, unsolicited information message (UIM) 1128 is generated when the attempt is made to redirect MSUs from the allowed TT screen. Unsolicited information message (UIM) 1218 is generated when ISUP IAM MSUs are intercepted from the allowed TT screen. For more information on UIMs 1128 and 1218, go to the Unsolicited Alarm and Information Messages Reference.

The value of the type parameter can be from 0 to 255 or an asterisk (*).

A range of values can be specified for the type parameter. See the Specifying a Range of Values section for more information on how a range of values is used for the type parameter.

For this example, enter this command.

```
ent-scr-tt:sr=gw16:type=250:nsfi=cdpa:nsr=gw18
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
ENT-SCR-TT: SCREEN SET AFFECTED - GW16 1% FULL
ENT-SCR-TT: MASP A - COMPLTD
```

7. Verify the changes using the rtrv-scr-tt command with the screening reference name used in step 6.

For this example, enter this command.

```
rtrv-scr-tt:sr=gw16
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED TT
     TYPE NSFI NSR/ACT
GW16 250
             CDPA GW18
```

Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED): MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



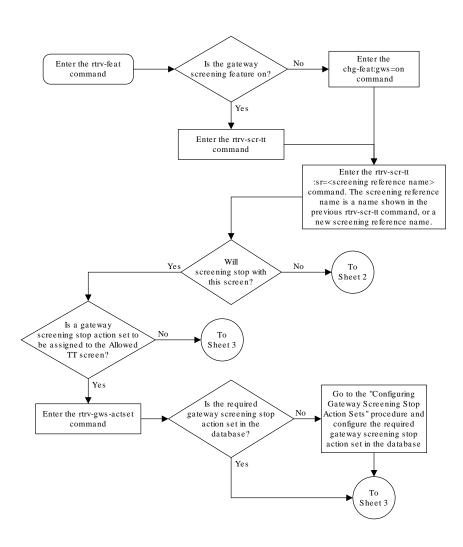


Figure 5-5 Add an Allowed Translation Type Screen - Sheet 1 of 3



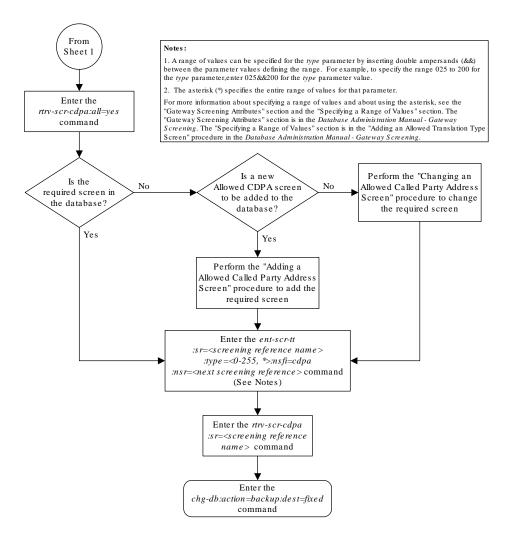


Figure 5-6 Add an Allowed Translation Type Screen - Sheet 2 of 3



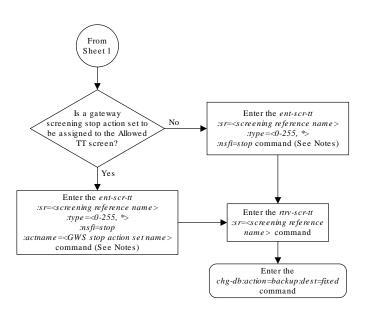


Figure 5-7 Add an Allowed Translation Type Screen - Sheet 3 of 3

Notes:

- 1. A range of values can be specified for the *type* parameter by inserting double ampers ands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the *type* parameter, enter 025 &&200 for the *type* parameter value.
- 2. The asterisk (*) specifies the entire range of values for that parameter. For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual Gateway Screening. The "Specifying a Range of Values" section is in the "Adding an Allowed Translation Type Screen" procedure in the Database Administration Manual Gateway Screening.

Removing an Allowed Translation Type Screen

This procedure is used to remove an allowed translation type (TT) screen from the database using the ${\tt dlt-scr-tt}$ command. The parameters used by the ${\tt dlt-scr-tt}$ command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.



The example in this procedure removes the allowed TT screen iec, with the translation type 016 from the database.

The allowed TT screen can be referenced by the Allowed CGPA screen. Enter the rtrv-scr-cgpa:nsfi=tt command to verify that this screen does not reference the allowed TT screen being removed from the database.

To change the NSFI of any of these screens, perform the Changing an Allowed Calling Party Address Screen procedure.

1. Display the allowed TT screens in the database using the rtrv-scr-tt command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED TT

SR REF RULES GW16 YES 1
IEC YES 3
WRD2 YES 1
WRD4 YES 1
```

From the rtrv-scr-tt output, display the allowed TT screen you wish to remove using the rtrv-scr-tt command with the screening reference name. For this example, enter the rtrv-scr-tt:sr=iec command. The following is an example of the possible output. The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED TT SR TYPE NSFI NSR/ACT IEC 005&&010 STOP ------ IEC 012 STOP ------ IEC 016 CDPA IEC
```

2. Enter the rtrv-scr-cgpa:nsfi=tt command to verify that the screen being removed is not referenced by other screens in the database.

If the screen being removed is referenced by other screens, perform the Changing an Allowed Calling Party Address Screen procedure and change the NSFI of those screens to reference other screens or change the NSFI of these screens to STOP.

3. Remove the allowed TT screen from the database using the dlt-scr-tt command.

The current value of the type parameter must be entered exactly as shown in the rtrv-scr-tt output. For this example, enter this command.

```
dlt-scr-tt:sr=iec:type=016
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 DLT-SCR-TT: SCREEN SET AFFECTED - IEC 2% FULL DLT-SCR-TT: MASP A - COMPLTD
```

4. Verify the changes using the rtrv-scr-tt command with the screening reference name used in step 3.

For this example, enter this command.



```
rtrv-scr-tt:sr=iec
```

The following is an example of the possible output.

5. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

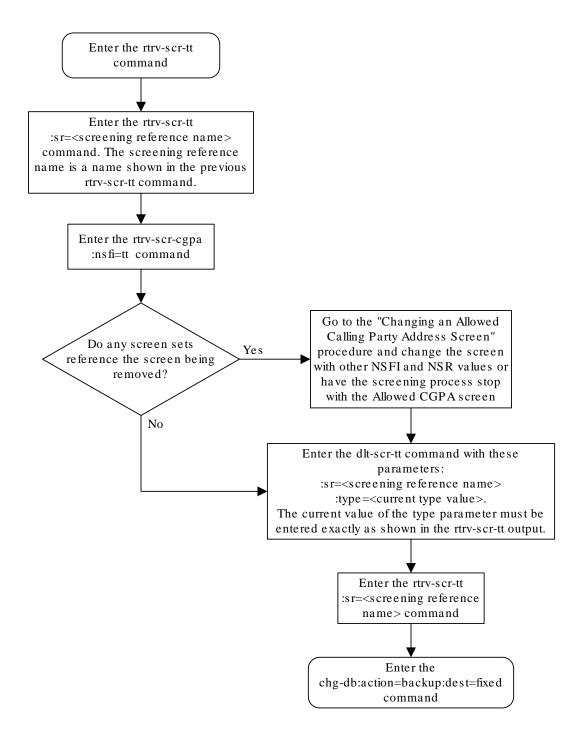
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Figure 5-8 Remove an Allowed Translation Type Screen



Changing an Allowed Translation Type Screen

This procedure is used to change the attributes of an allowed translation type (TT) screen in the database using the <code>chg-scr-tt</code> command. The parameters used by the <code>chg-scr-tt</code> command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure is used to change the translation type 016 for the allowed CGPA screen iec to 210 and change the NSFI to stop.

The allowed TT screen can only reference an allowed CDPA screen. This can be verified using the rtrv-scr-cdpa:all=yes command. If the desired allowed CDPA screen is not in the database, perform one of these procedures to add the required screen to the database or change an existing screen in the database.

- Adding an Allowed Called Party Address Screen
- Changing an Allowed Called Party Address Screen

Specifying a Range of Values

A range of values can be specified for the type parameter. The range of values specified for the type parameter cannot include any values currently provisioned for the screen reference name.

For example, screening reference name scr1 contains these entries:

```
SR TYPE NSFI NSR/ACT scr1 110 STOP ----- scr1 125 STOP -----
```

Another entry for screening reference scr1 cannot contain a range of values that would include the type parameter values 110 or 125.

 Display the allowed TT screens in the database using the rtrv-scr-tt command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED TT

SR REF RULES GW16 YES 1
IEC YES 3
WRD2 YES 1
WRD4 YES 1
```

From the rtrv-scr-tt output, display the allowed TT screen you wish to remove using the rtrv-scr-tt command with the screening reference name. For this example, enter the rtrv-scr-tt:sr=iec command.



The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED TT

SR TYPE NSFI NSR/ACT
IEC 005&&010 STOP -----
IEC 012 STOP -----
IEC 016 CDPA IEC
```

If a gateway screening stop action set is to be assigned to the allowed TT screen being added to the database, go to step 2.

Step 2 verifies the gateway screening stop action set names in the database. The gateway screening stop action set names are assigned only if the NSFI of the screen being changed in this procedure is STOP. If the NSFI of the screen will be changed to STOP, but a gateway screening stop action set name will not be assigned to the screen, skip steps 2 and 3 and go to step 4. If the NSFI of the screen will not be STOP, skip step 2 and go to step 3.

2. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT ACT
   NAME 1 2 3
                   4 5 6
                                     8 9
TD
                                 7
                                             10
1
   сору сору
2
   rdct rdct
3 cr copy rdct
   cncf cncf
4
   cpcncf copy cncf
5
6
   cncfrd cncf rdct
7
   cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.



If the NSFI of the screen being added in this procedure is STOP, skip step 3 and go to step 4.

3. Enter the rtrv-scr-cdpa command to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 4 is in the database.

If the desired screen is not in the database, perform one of these procedures to add the desired screen to the database or change an existing screen in the database.

Adding an Allowed Called Party Address Screen

- Changing an Allowed Called Party Address Screen.
- 4. Change the attributes of an allowed TT screen using the chq-scr-tt command.

If a gateway screening stop action is to be assigned to the allowed TT screen being changed, enter the chg-scr-tt command with the nsfi=stop parameter and the actname parameter with the name of a gateway screening stop action set shown in the output of the rtrv-gws-actset command executed in step 2.



Caution:

The EAGLE does not support redirecting MSUs for the DTA feature or intercepting ISUP IAM messages for the Calling Name Conversion Facility feature from the allowed TT screen. Gateway screening stop action sets containing either the RDCT (redirect) or CNCF (calling name conversion facility) stop actions should not be assigned to the allowed TT screen. If a gateway screening stop action set containing the RDCT or CNCF stop actions is specified with the chg-scr-tt command, unsolicited information message (UIM) 1128 is generated when the attempt is made to redirect MSUs from the allowed TT screen. Unsolicited information message (UIM) 1218 is generated when ISUP IAM MSUs are intercepted from the allowed TT screen. For more information on UIMs 1128 and 1218, go to Unsolicited Alarm and Information Messages Reference.

The value of the ntype parameter can be from 0 to 255 or an asterisk (*). The current value of the type parameter must be entered exactly as shown in the rtrv-scr-tt output in step 1.

A range of values can be specified for the ntype parameter. See the Specifying a Range of Values section for more information on how a range of values is used for the ntype parameter.

For this example, enter this command.

```
chg-scr-tt:sr=iec:type=016:ntype=210:nsfi=stop
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0
CHG-SCR-TT: SCREEN SET AFFECTED - IEC
CHG-SCR-TT: MASP A - COMPLTD
```

5. Verify the changes using the rtrv-scr-tt command with the screening reference name used in step 4.

For this example, enter this command.

```
rtrv-scr-tt:sr=iec
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED TT
    TYPE NSFI NSR/ACT
SR
    005&&010 STOP -----
```



```
        IEC
        012
        STOP
        -----

        IEC
        210
        STOP
        ------
```

6. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Enter the rtrv-scr-tt command Enter the rtrv-scr-tt :sr=<screening reference name> command. The screening reference name is a name shown in the previous rtrv-scr-tt command. Will To screening stop with Sheet 2 this screen? $Ye\,s$ Is a gateway screening stop action set to be assigned to the Allowed TT screen? Yes Enter the rtrv-gws-actset command Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required Is the required gateway screening stop action set in the gate way screening stop action set in the database database? Yes To

Figure 5-9 Change an Allowed Translation Type Screen - Sheet 1 of 3



Sheet 3

From $1.\ A range\ of\ values\ can\ be\ specified\ for\ the\ ntype\ parameter\ by\ inserting\ double\ ampersands\ (\&\&)\ between\ the\ parameter\ values\ defining\ the\ range\ . For\ example,\ to\ specify\ the\ range\ 025\ to\ 200\ for\ the\ ntype\ parameter, enter\ 025\&\&200\ for\ the\ ntype\ parameter\ value.$ Sheet 1 2. The asterisk (*) specifies the entire range of values for that parameter. For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The
"Gateway Screening Attributes" section is in the Database Administration Manual - Gateway
Screening. The "Specifying a Range of Values" section is in the "Changing an Allowed Translation
Type Screen" procedure in the Database Administration Manual - Gateway Screening. Enter the rtrv-scr-cdpa:all=yes command 3. The current value of the type parameter must be entered exactly as shown in the rtrv-scr-tt output. Perform the "Changing an Is the No Allowed CDPA screen No Allowed Called Party Address required screen in to be added to the Screen" procedure to change the database database? the required screen Yes $Ye\,s$ Perform the "Adding an Allowed Called Party Address Screen" procedure to add the required screen Enter the chg-scr-tt command with these parameters: :sr=<screening reference name> :type=<current type value> :nsfi=cdpa :nsr=<next screening reference> :ntype=<0-255, *> (See Notes) Enter the rtrv-scr-cdpa :sr=<screening reference name> command

Enter the chg-db:action=backup:dest=fixed command

Figure 5-10 Change an Allowed Translation Type Screen - Sheet 2 of 3



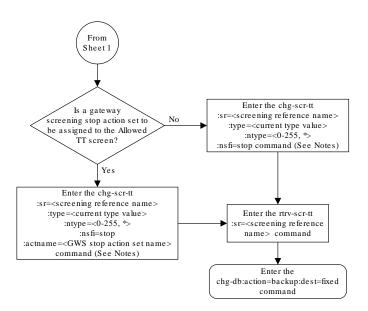


Figure 5-11 Change an Allowed Translation Type Screen - Sheet 3 of 3

Notes:

- 1. A range of values can be specified for the ntype parameter by inserting double ampersands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the ntype parameter, enter 025&&200 for the ntype parameter value.
- 2. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" section is in the "Changing an Allowed Translation Type Screen" procedure in the Database Administration Manual - Gateway Screening.

3. The current value of the type parameter must be entered exactly as shown in the trv-scr-tt output.



6

Allowed Calling Party (CGPA) Screen Configuration

Chapter 6, Allowed Calling Party (CGPA) Screen Configuration, contains the procedures necessary to configure allowed calling party address screens.

Introduction

The allowed calling party address (CGPA) screen is used to screen SCCP messages from another network. The gray shaded areas in Figure 6-4 shows the fields of the SS7 message that are checked by the CGPA screening function. The screening reference contains a list of point codes and subsystem number combinations.

Gateway Screening Actions

If a match is not found, the message is discarded.

If a match is found, the nsfi is examined to determine the next step in the screening process. If the nsfi value is any value other than stop, the next screening reference (nsr) is identified and the screening process continues to the next screen identified by the nsfi and nsr parameter values.

If the nsfi is equal to stop, the screening process stops and the message is processed. If a gateway screening stop action set is specified with the screen, shown by the actname parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

- If the rdct (redirect) gateway screening stop action is specified, the message is diverted
 from the original destination and sent to another destination with the Database Transport
 Access feature, specified by global title translation, for further processing.
- If the cncf gateway screening stop action is specified, the PIP parameter in the incoming ISUP IAM message is converted to the GN parameter. The GN parameter in the incoming ISUP IAM message is converted to the PIP parameter. The message is then sent to the node specified by the DPC in the routing label in the message. For more information on the Calling Name Conversion Facility feature, see Calling Name Conversion Facility (CNCF) Configuration.
- If the tlnp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are processed either by the ISUP NP with EPAP feature (if the ISUP NP with EPAP feature is enabled and turned on) or by the Triggerless LNP feature (if the Triggerless LNP feature is turned on). The ISUP NP with EPAP feature is discussed in more detail in *G-Port User's Guide*. The Triggerless LNP feature is discussed in more detail in *ELAP Administration and LNP Feature Activation Guide*.
- If the tinp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in *G-Port User's Guide*.

- If the tif, tif2, or tif3 gateway screening stop actions are specified, TIF processing is applied to the message.
- If the sccp gateway screening stop action is specified, MTP routed SCCP UDT/ XUDT are forwarded to the service modules for further processing.

Allowed CGPA Screening Actions

Any MSU that does not contain a service indicator of 3 in the SIO field and does not contain the SCCP message types 9, 10, 17, or 18 and reaches this screen in the gateway screening process automatically passes gateway screening and is allowed into the EAGLE.

The value of the nsfi parameter is based on the value of the routing indicator (ri) parameter. Table 6-1 through Figure 6-3 show the valid combinations of nsfi values and routing indicator values.

Table 6-1 Valid Parameter Combinations for the Allowed CGPA Screening Function

| Routing Indicator (RI) Values | Nest Screening Function Identifier (NSFI) Values |
|-------------------------------|---|
| GT | TT |
| DPC | CDPA |
| * (asterisk) | TT, CDPA |

Figure 6-1 shows the screening actions of the allowed CGPA screen.



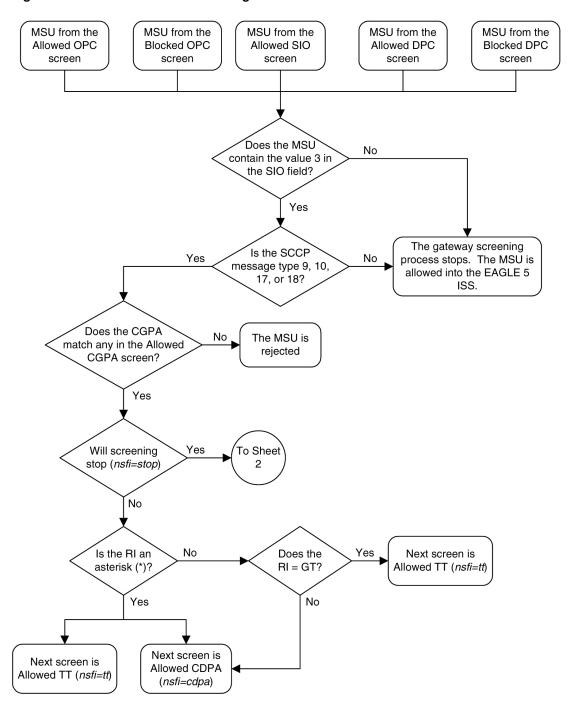


Figure 6-1 Allowed CGPA Screening Actions - Sheet 1 of 3



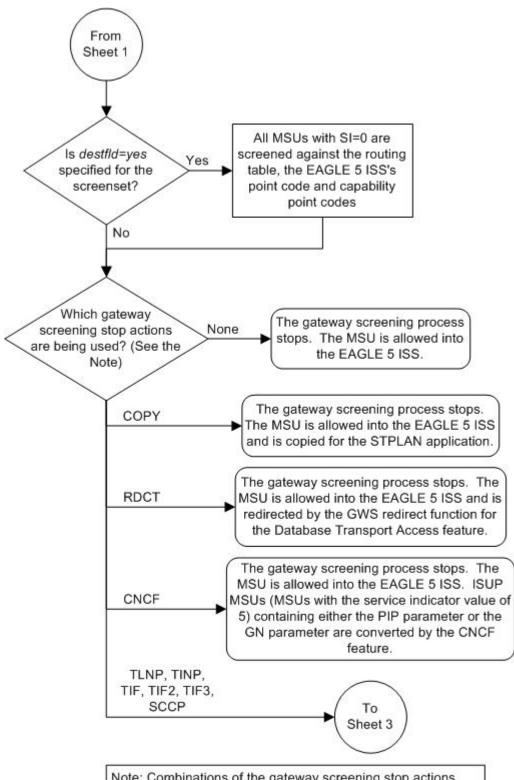


Figure 6-2 Allowed CGPA Screening Actions - Sheet 2 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.

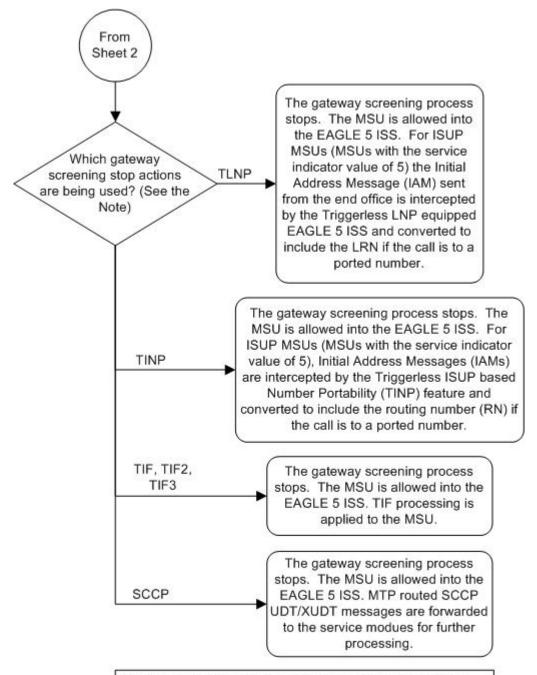


Figure 6-3 Allowed CGPA Screening Actions - Sheet 3 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.



Figure 6-4 Allowed Calling Party Address Screening Function

ANSI MSU (ANSI Message Signal Unit)

| | SIO | SIF | | | | | |
|------------|--------------------------|------------------|----------------------------------|-----------|-----------------------------------|---|---|
| BSN FSN LI | XX XX XXXX NIC PRI SI | DPC NCM NC NI | outing Label OPC NCM NC NI | SLS xx | SCCP Message Type xxxx xxxx | CGPA Length Address Indicator Subsystem Point Code (NCM NC NI) | CDPA Length Address Indicator (x x xxxx xx) (x RI xxxx xx) Subsystem Point Code (NCM NC NI) |

ITU-I MSU (ITU International Message Signal Unit)

| | SIO | SIF | | | | | | |
|------------|--------------------------|--|-----------------------------------|--|--|--|--|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing Label DPC OPC SLS ID AREA ZONE ID AREA ZONE XX | SCCP Message Type xxxx xxxx | CGPA Length Address Indicator Subsystem Point Code (ID AREA ZONE) | CDPA Length Address Indicator (x x xxxx xx) (x RI xxxx xx) Subsystem Point Code (ID AREA ZONE) | | | |

14-Bit ITU-N MSU (14-Bit ITU National Message Signal Unit)

| | sio | SIF | | | | | | |
|------------|--------------------------|----------------------------------|------------------|-----------------------------------|---|---|--|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing La DPC OPC NPC NPC | bel SLS xx | SCCP Message Type xxxx xxxx | CGPA Length Address Indicator Subsystem Point Code (NPC) | CDPA Length Address Indicator (x x xxxx xx) (x RI xxxx xx) Subsystem Point Code (NPC) | | |

24-Bit ITU-N MSU (24-Bit ITU National Message Signal Unit)

| | sio | SIF | | | | | |
|------------|--------------------------|-----|----------------------------------|-----------|-----------------------------------|--|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | DPC | uting Label OPC SP SSA MSA | SLS xx | SCCP Message Type xxxx xxxx | CGPA Length Address Indicator Subsystem Point Code (SP SSA MSA) | CDPA Length Address Indicator (x x xxxx xx) (x RI xxxx xx) Subsystem Point Code (SP SSA MSA) |

Adding an Allowed Calling Party Address Screen

This procedure is used to add an allowed calling party address (CGPA) screen to the database using the ent-scr-cgpa command. The parameters used by the ent-scr-cgpa command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The examples in this procedure are used to add the allowed CGPA screen data shown in Table 6-2 and based on the example configurations shown in Figure 2-3 through Figure 2-5.



| Screenin g Referenc e | ZONE | AREA | ID | SN | RI | SCCPMT | NSFI | NSR |
|--------------------------------|------|------|-----|-----|----|--------|------|------|
| gw11 | 7 | 100 | 4 | 254 | * | 010 | cdpa | gw15 |
| Screenin g Referenc e | NI | NC | NCM | SSN | RI | SCCPMT | NSFI | NSR |

250

253

Table 6-2 Example Gateway Screening Allowed CGPA Configuration Table



007

006

gw13

gw14

If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

gt

dpc

017

009

tt

cdpa

gw16

gw17

The allowed CGPA screen can reference one of the following screens.

007

006

- Allowed TT
- Allowed CDPA

Verifying the Gateway Screening Configuration

007

006

Enter the following commands to verify that these screens are in the database.

- rtrv-scr-tt:all=yes
- rtrv-scr-cdpa:all=yes

Gateway Screening Configuration Procedures

If the desired screen is not in the database, perform one of the following procedures to add the desired screen to the database or change an existing screen in the database.

- Adding an Allowed Translation Type Screen
- Adding an Allowed Called Party Address Screen
- Changing an Allowed Translation Type Screen
- Changing an Allowed Called Party Address Screen

Specifying a Range of Values

A range of values can be specified for the point code parameters ni, nc, or ncm.

If a range of values is specified for any of these parameters, and the value of the other parameters match existing values for the screening reference name, the range of values for the point code parameter cannot include any values for that parameter that are currently provisioned for the screening reference name.



For example, screening reference name scr1 contains these entries:

| SR | NI | NC | NCM | SSN | RI | SCCPMT | NSFI | NSR/ACT |
|------|-----|-----|-----|-----|-----|--------|------|---------|
| SCR1 | 240 | 001 | 010 | 012 | DPC | 009 | STOP | |
| SCR1 | 241 | 010 | 020 | * | GT | 017 | TT | SCR1 |

Another entry for screening reference scr1 with the ni value of 240 and the nc value of 001 cannot be specified if the range of values for the ncm parameter includes the value 010.

The ANSI point code parameter values can be specified as a single value, a range of values, or with an asterisk (*). The asterisk specifies all possible values for the ni, nc, and ncm parameters. Table 6-3 shows the valid combinations of these parameter values.

Table 6-3 Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM |
|-----------------|-----------------|-----------------|
| Single Value | Single Value | Single Value |
| Single Value | Single Value | Range of Values |
| Single Value | Single Value | Asterisk |
| Single Value | Range of Values | Asterisk |
| Single Value | Asterisk | Asterisk |
| Range of Values | Asterisk | Asterisk |
| Asterisk | Asterisk | Asterisk |

A range of values can also be specified for an ITU-I or 24-bit ITU-N point code parameter using a combination of asterisks (*) and single values for the point code parameters. Table 6-4 shows the valid combinations of the ITU-I parameter values. Table 6-5 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 6-4 Valid Value Combinations for ITU-I Point Code Parameters

| ZONE | AREA | ID | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

Table 6-5 Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

1. Verify that the gateway screening feature is on, by entering the rtrv-feat command.



If the gateway screening feature is on, the GWS field is set to on.



Thertry-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by thertry-feat command, see the rtry-feat command description in *Commands User's Guide*.

If the gateway screening feature is on, shown by the entry GWS = on in the rtrv-feat command output, skip step 2, and go to step 3.

2. Turn the gateway screening feature on by entering this command.

```
chg-feat:gws=on
```



Once the gateway screening feature is turned on with the <code>chg-feat</code> command, it cannot be turned off.

The gateway screening feature must be purchased before you turn this feature on with the chg-feat command. If you are not sure if you have purchased the gateway screening feature, contact your Oracle Sales Representative or Account Representative.

When the chg-feat has successfully completed, this message should appear.

```
rlghncxa03w 06-10-28 11:43:04 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

3. Display all allowed CGPA screens in the database using the rtrv-scr-cgpa command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED CGPA
SR REF RULES
IEC YES 2
WRD2 YES 1
WRD4 YES 9
```

If the screening reference names that you wish to add with this procedure are not shown in the rtrv-scr-cgpa command output, go to step 2. For this example, the screening reference names are not shown. If these screening reference names are shown in the rtrv-scr-cgpa command output, make sure the screening data you wish to enter is not already in the database by entering the rtrv-scr-cgpa command with the



screening reference name. For example, enter the rtrv-scr-cgpa:sr=iec command. The following is an example of the possible output.

| rlghn | cxa03w 06 | -10-25 15 | :26:30 GM | r EAGLE5 | 36.0 | . 0 | | |
|-----------------------|-----------|-----------|-----------|----------|------|--------|------|-----|
| SCREEN = ALLOWED CGPA | | | | | | | | |
| SR | NI | NC | NCM | SSN | RI | SCCPMT | NSFI | |
| NSR/ACT | | | | | | | | |
| IEC | 240 | 001 | 010 | 012 | DPC | 009 | STOP | |
| | | | | | | | | |
| IEC | 241 | 010 | * | * | GT | 017 | TT | TT1 |

If a gateway screening stop action set is to be assigned to the allowed CGPA screen being added to the database, go to step 4.

Step 4 verifies the gateway screening stop action set names in the database. The gateway screening stop action set names are assigned only if the NSFI of the screen being added in this procedure is STOP. If the NSFI of the new screen will be STOP, but a gateway screening stop action set name will not be assigned to the new screen, skip steps 4 and 5 and go to step 6. If the NSFI of the new screen is not STOP, skip step 4 and go to step 5.

4. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT ACT
ID NAME 1 2 3 4
                     5
                        6
                           7 8 9
  1
  сору сору
  rdct rdct
2
3
  cr copy rdct
4 cncf cncf
5 cpcncf copy cncf
6
  cncfrd cncf rdct
  cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.



If the NSFI of the screen being added in this procedure is STOP, skip step 5 and go to step 6.

5. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 7 is in the database.



If the desired screen is not in the database, perform one of the procedures shown in the Gateway Screening Configuration Procedures section to add the desired screen to the database or change an existing screen in the database.



If the point code being added in this procedure is not an ITU-I or 14-bit ITU-N spare point code, skip step 6 and to step 7.



If the point code being added in this procedure is a ITU-I or 14-bit ITU-N spare point code and the screening reference contains ITU-I or 14-bit ITU-N spare point codes, skip step 6 and go to step 7.

6. Display the status of the ITU National and International Spare Point Code Support feature by entering the rtrv-ctrl-feat command with the ITU National and International Spare Point Code Support feature part number.

Enter this command.

```
rtrv-ctrl-feat:partnum=893013601
```

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 The following features have been permanently enabled:
```

Feature Name Partnum Status Quantity Spare Point Code Support 893013601 on ----

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period Left Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

If the ITU National and International Spare Point Code Support feature is enabled, go to step 7.

If the ITU National and International Spare Point Code Support feature is not enabled, perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure in *Database Administration - SS7 User's Guide* to enable the ITU National and International Spare Point Code Support feature as required. After the feature has been enabled, go to step 7.

7. Add a new allowed CGPA screen to the database using the ent-scr-cgpa command.

If a gateway screening stop action is to be assigned to the allowed CGPA screen being changed, enter the <code>ent-scr-cqpa</code> command with the <code>nsfi=stop</code> parameter and the

actname parameter with the name of a gateway screening stop action set shown in the output of the rtrv-qws-actset command executed in step 4.



Caution:

The EAGLE does not support redirecting MSUs for the DTA feature or intercepting ISUPIAM messages for the Calling Name Conversion Facility feature from the allowedCGPA screen. Gateway screening stop action sets containing either the RDCT (redirect) or CNCF (calling name conversion facility) stop actions should not be assigned to the allowed CGPA screen. If a gateway screening stop action set containing the RDCT or CNCF stop actions is specified with the ent-scr-cgpa command, unsolicited information message (UIM) 1126 is generated when the attempt is made to redirect MSUs from the allowed CGPA screen. Unsolicited information message (UIM) 1216 is generated whenISUP IAM MSUs are intercepted from the allowed CGPA screen. For more information on UIMs 1126 and 1216, go to Unsolicited Alarm and Information Messages Reference.

The following list contains the values for ni, nc, ncm, zone, area, id, npc, msa, ssa, sp, ssn, ri, and sccpmt parameters:

- ni 0 255 or an asterisk (*)
- nc 0 255 or an asterisk (*)
- ncm 0 255 or an asterisk (*)
- zone 0 7 or an asterisk (*)
- area 0 255 or an asterisk (*)
- id 0 7 or an asterisk (*)
- npc 1 16383 or an asterisk (*)
- msa 0 255 or an asterisk (*)
- ssa 0 255 or an asterisk (*)
- sp 0 255 or an asterisk (*)
- ssn 0 255 or an asterisk (*)
- ri gt, dpc or an asterisk (*)
- sccpmt 9, 10, 17, 18 or an asterisk (*)



Note:

If either theri=gt ornsfi=tt parameter is specified, the other parameter must be specified. If either theri=dpc ornsfi=cdpa parameter is specified, the other parameter must be specified. If theri=* parameter is specified, either thensfi=qt ornsfi=dpc parameters can be specified.





If the sccpmt parameter is not specified, an asterisk will be entered as the value of the sccpmt parameter.

A range of values can be specified for the ni, nc, and ncm parameters. See the Specifying a Range of Values section for more information on how the asterisk and a range of values are used for the ni, nc, and ncm parameters.

To add a spare point code to the allowed CGPA screen, the pcst=s parameter must be specified. To add a non-spare point code to the allowed CGPA screen, the pcst parameter does not have to be specified. If the pcst parameter is specified for a screen containing an ITU-I or 14-bit ITU-N non-spare point code, the value must be none.

For this example, enter these commands.

```
ent-scr-
cgpa:sr=gw11:zone=7:area=100:id=4:ssn=254:ri=* :sccpmt=010:nsfi=c
dpa:nsr=gw15
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
ENT-SCR-CGPA: SCREEN SET AFFECTED - GW11 1% FULL
ENT-SCR-CGPA: MASP A - COMPLTD

ent-scr-
cgpa:sr=gw13:ni=007:nc=007:ncm=007:ssn=250:ri=gt :sccpmt=017:nsfi
=tt:nsr=gw16
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT    EAGLE5 36.0.0
ENT-SCR-CGPA: SCREEN SET AFFECTED - GW13 1% FULL
ENT-SCR-CGPA: MASP A - COMPLTD

ent-scr-
cgpa:sr=gw14:ni=006:nc=006:ncm=006:ssn=253:ri=dpc :sccpmt=009:nsf
i=cdpa:nsr=gw17
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0 ENT-SCR-CGPA: SCREEN SET AFFECTED - GW14 1% FULL ENT-SCR-CGPA: MASP A - COMPLTD
```

8. Verify the changes using the rtrv-scr-cgpa command with the screening reference name used in step 7.

For this example, enter these commands.

```
rtrv-scr-cgpa:sr=gw11
```



The following is an example of the possible output.

rlghncxa03w 06-10-25 15:32:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED CGPA SR ZONE AREA ID SSN RΙ SCCPMT NSFI NSR/ACT 100 GW11 7 4 254 * 010 CDPA GW15

rtrv-scr-cgpa:sr=gw13

The following is an example of the possible output.

rlghncxa03w 06-10-25 15:33:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED CGPA NI NC NCM SSN RI SCCPMT NSFI NSR/ACT GW13 007 007 007 250 SSN 017 CDPA GW16

rtrv-scr-cgpa:sr=gw14

The following is an example of the possible output.

rlghncxa03w 06-10-25 15:34:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED CGPA SR NI NC NCM SSN RI SCCPMT NSFI NSR/ACT GW14 006 006 006 253 GT 009 TTGW17

9. Backup the new changes using the <code>chg-db:action=backup:dest=fixed command.</code>

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.



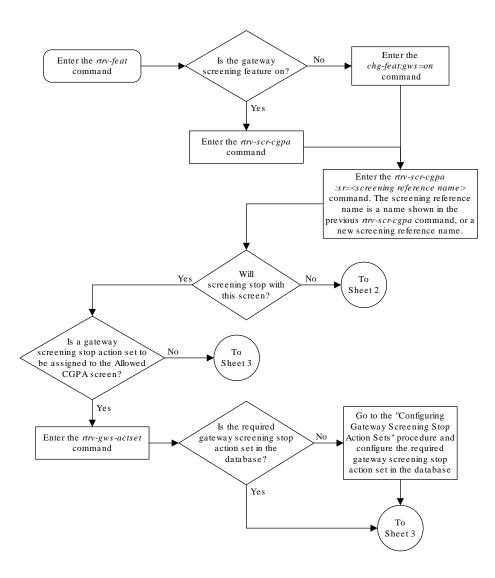
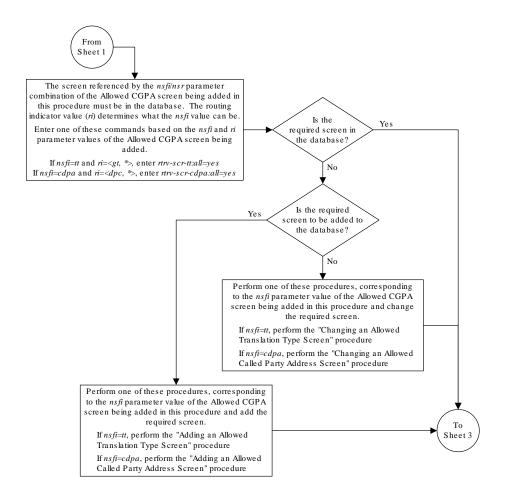


Figure 6-5 Add an Allowed Calling Party Address Screen - Sheet 1 of 4



Figure 6-6 Add an Allowed Calling Party Address Screen - Sheet 2 of 4





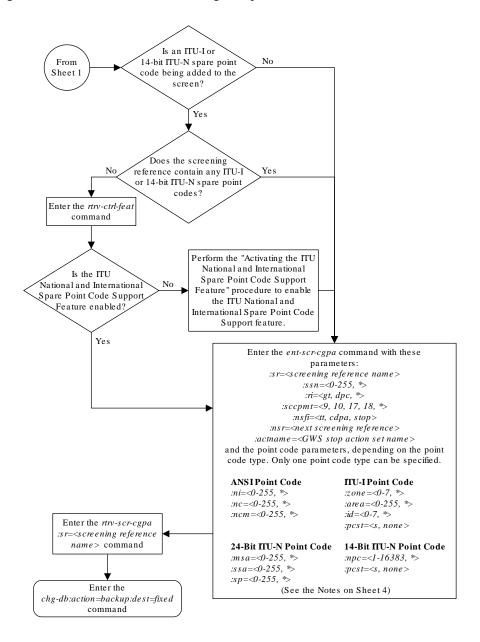


Figure 6-7 Add an Allowed Calling Party Address Screen - Sheet 3 of 4



Figure 6-8 Add an Allowed Calling Party Address Screen - Sheet 4 of 4

Notes

- 1. A range of values can be specified for the *ni*, *nc*, or *ncm* parameters by inserting double ampers ands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the *ni* parameter, enter 025 &&200 for the *ni* parameter value.
- 2. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" section is in the "Adding an Allowed Calling Party Address Screen" procedure in the Database Administration Manual - Gateway Screening.

- 3. If the *sccpmt* parameter is not specified, an asterisk will be entered as the value for the *sccpmt* parameter.
- 4. To specify the *nsfi=tt* parameter, the ni parameter value must be gt or *.
- 5. To specify the nsfi=cdpa parameter, the ni parameter value must be dpc or *.
- 6. The nsr parameter can be specified only, and must be specified, if the nsfi=tt or nsfi=cdpa parameters are specified.
- 7. The actname parameter can be specified only if the nsfi=stop parameter is specified. The actname parameter is optional. If the actname parameter is specified, the actname parameter value is one of the gateway screening stop action set names shown in the ntn-gws-actset output on Sheet 1.
- 8. To add a non-spare point code, the *pcst* parameter does not have to be specified. If the *pcst* parameter is specified for a screen containing an ITU-I or 14-bit ITU-N non-spare point code, the value must be *none*.
- 9. To add a spare point code, the pcst=s parameter must be specified.

Removing an Allowed Calling Party Address Screen

This procedure is used to remove an allowed calling party address (CGPA) screen from the database using the dlt-scr-cgpa command. The parameters used by the dlt-scr-cgpa command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.



The example in this procedure removes the allowed CGPA screen gw14 from the database.



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

The allowed CGPA screen can be referenced by one of the following screens.

- Allowed OPC
- Blocked OPC
- Allowed SIO
- Allowed DPC
- Blocked DPC

Verifying the Gateway Screening Configuration

Enter the following commands to verify that none of these screens reference the allowed CGPA screen being removed from the database.

- rtrv-scr-opc:nsfi=cqpa
- rtrv-scr-blkopc:nsfi=cgpa
- rtrv-scr-sio:nsfi=cqpa
- rtrv-scr-dpc:nsfi=cgpa
- rtrv-scr-blkdpc:nsfi=cgpa

Gateway Screening Configuration Procedures

To change the NSFI of any of these screens, perform one of these procedures.

- Changing a Blocked DPC Screen
- Changing an Allowed DPC Screen
- Changing an Allowed SIO Screen
- Changing a Blocked OPC Screen
- Changing an Allowed OPC Screen
- Display the allowed CGPA screens in the database using the rtrv-scr-cgpa command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED CGPA
     REF RULES
GW11 YES
             1
GW13 YES
             1
GW14 YES
             1
IEC
     YES
             2
WRD2 YES
             1
WRD4 YES
             9
```



From the rtrv-scr-cgpa output, display the allowed CGPA screen you wish to remove using the rtrv-scr-cgpa command with the screening reference name. For this example, enter the rtrv-scr-cgpa: sr=gw14 command. The following is an example of the possible output.

```
rtrv-scr-cgpa:sr=gw14
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED CGPA
    NI NC
SR
                     NCM
                             SSN
                                      RΙ
                                          SCCPMT
                                                  NSFI
NSR/ACT
GW14 003
             003
                     003
                             253
                                          009
                                                          GW17
                                      GΤ
                                                  TT
```

Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen being removed is not referenced by other screens in the database.

If the screen being removed is referenced by other screens, perform the procedures shown in the Gateway Screening Configuration Procedures section to change the NSFI of those screens to reference other screens or change the NSFI of these screens to STOP.

Remove the allowed CGPA screen from the database using the dlt-scr-cgpa command.

The current values for the ni, nc, ncm, zone, area, id, npc, msa, ssa, sp, ri, ssn, or sccpmt parameters must be entered exactly as shown in the rtrv-scr-cgpa output.

To remove an entry containing either an ITU-I or a 14-bit ITU-N spare point code, the post=s parameter must be specified with the dlt-scr-cgpa command.

To remove an entry containing either an ITU-I or a 14-bit ITU-N non-spare point code, the post parameter does not have to be specified with the dlt-scr-cgpa command. If the post parameter is specified, the value must be none.

For this example, enter this command.

```
dlt-scr-
cgpa:sr=gw14:ni=003:nc=003:ncm=003:ssn=253:sccpmt=009
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 DLT-SCR-CGPA: SCREEN SET AFFECTED - GW14 0% FULL DLT-SCR-CGPA: MASP A - COMPLTD
```

4. Verify the changes using the rtrv-scr-cgpa command with the screening reference name used in step 3.

For this example, enter this command.

```
rtrv-scr-cgpa:sr=gw14
```

The following is an example of the possible output.

```
E2573 Cmd Rej: SR or NSR does not reference an existing SR
```



This message shows that the specified screening reference name is not in the database and the action of the dlt-scr-cgpa command in step 3 was successful. If the specified screening reference name contained more than one entry when the dlt-scr-cgpa command was executed in step 3, the rtrv-scr-cgpa:sr= command output would show the remaining entries in the screening reference instead of error message E2573.

5. Backup the new changes using the <code>chg-db:action=backup:dest=fixed</code> command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```

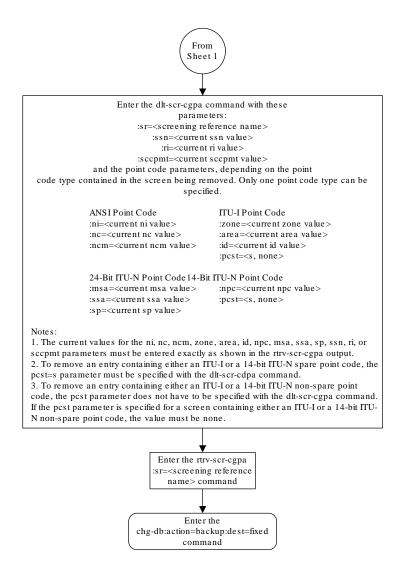


Enter the rtrv-scr-cgpa :sr=<screening reference name> Enter the rtrv-scr-cgpa command. The screening reference command name is a name shown in the previous rtrv-scr-cgpa command. Verify that the Allowed CGPA screen being removed is not referenced by any screens in the database by entering these commands. rtrv-scr-opc:nsfi=cgpa rtrv-scr-blkopc:nsfi=cgpa rtrv-scr-sio:nsfi=cgpa rtrv-scr-dpc:nsfi=cgpa rtrv-scr-blkdpc:nsfi=cgpa The NSFI and NSR values of the screens referencing the Allowed CGPA screen being removed need to be changed. Change the NSFI and NSR values to reference other screens, or have the screening process stop with the screens currently referencing the Allowed CGPA screen being removed. Do any screen sets Perform these procedures as appropriate, depending on the type of screen referencing the Allowed CGPA screen reference the screen being removed? being changed. "Changing an Allowed OPC Screen" "Changing a Blocked OPC Screen" No "Changing an Allowed SIO Screen" "Changing an Allowed DPC Screen" "Changing a Blocked DPC Screen" To Sheet 2

Figure 6-9 Remove an Allowed Calling Party Address Screen - Sheet 1 of 2



Figure 6-10 Remove an Allowed Calling Party Address Screen - Sheet 1 of 2



Changing an Allowed Calling Party Address Screen

This procedure is used to change the attributes of an allowed calling party address (CGPA) screen in the database using the chg-scr-cgpa command. The parameters used by the chg-scr-cgpa command are shown in the Gateway Screening Attributes section. The

general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure is used to change the point code 003-003-003 for the allowed CGPA screen gw14 to 230-230-230 and change the subsystem number from 253 to 150.



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

The allowed CGPA screen can reference one of the following screens.

- Allowed TT
- Allowed CDPA

Verifying the Gateway Screening Configuration

Enter the following commands to verify that these screens are in the database.

- rtrv-scr-tt:all=yes
- rtrv-scr-cdpa:all=yes

Gateway Screening Configuration Procedures

If the desired screen is not in the database, perform one of these procedures to add the desired screen to the database or change an existing screen in the database.

- Adding an Allowed Translation Type Screen
- Adding an Allowed Called Party Address Screen
- Changing an Allowed Translation Type Screen
- Changing an Allowed Called Party Address Screen

Specifying a Range of Values

A range of values can be specified for the point code parameters ni, nc, or ncm.

If a range of values is specified for any of these parameters, and the value of the other parameters match existing values for the screening reference name, the range of values for the point code parameter cannot include any values for that parameter that are currently provisioned for the screening reference name.

For example, screening reference name scr1 contains these entries:

| SR | NI | NC | NCM | SSN | RI | SCCPMT | NSFI | NSR/ACT |
|------|-----|-----|-----|-----|-----|--------|------|---------|
| SCR1 | 240 | 001 | 010 | 012 | DPC | 009 | STOP | |
| SCR1 | 241 | 010 | 020 | * | GT | 017 | TT | SCR1 |

Another entry for screening reference scrl with the ni value of 240 and the nc value of 001 cannot be specified if the range of values for the ncm parameter includes the value 010.



The ANSI point code parameter values can be specified as a single value, a range of values, or with an asterisk (*). The asterisk specifies all possible values for the ni, nc, and ncm parameters. Table 6-6 shows the valid combinations of these parameter values.

Table 6-6 Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM | |
|-----------------|-----------------|-----------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Range of Values | |
| Single Value | Single Value | Asterisk | |
| Single Value | Range of Values | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Range of Values | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

A range of values can also be specified for an ITU-I or 24-bit ITU-N point code parameter using a combination of asterisks (*) and single values for the point code parameters. Table 6-7 shows the valid combinations of the ITU-I parameter values. Table 6-8 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 6-7 Valid Value Combinations for ITU-I Point Code Parameters

| ZONE | AREA | ID | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

Table 6-8 Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP |
|--------------|--------------|--------------|
| Single Value | Single Value | Single Value |
| Single Value | Single Value | Asterisk |
| Single Value | Asterisk | Asterisk |
| Asterisk | Asterisk | Asterisk |

 Display the allowed CGPA screens in the database using the rtrv-scr-cgpa command.

The following is an example of the possible output.



From the rtrv-scr-cgpa output, display the allowed CGPA screen you wish to change using the rtrv-scr-cgpa command with the screening reference name. For this example, enter this command.

```
rtrv-scr-cgpa:sr=gw14
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED CGPA
                  NCM
   NI
        NC
                         SSN
                                RI SCCPMT
                                           NSFI
NSR/ACT
           003
                  003
GW14 003
                         253
                                GT
                                    009
                                           TT
                                                 GW17
```

If a gateway screening stop action set is to be assigned to the allowed CGPA screen being added to the database, go to step 2.

Step 2 verifies the gateway screening stop action set names in the database. The gateway screening stop action set names are assigned only if the NSFI of the screen being changed in this procedure is STOP. If the NSFI of the screen will be changed to STOP, but a gateway screening stop action set name will not be assigned to the screen, skip steps 2 and 3 and go to step 4. If the NSFI of the screen will not be STOP, skip step 2 and go to step 3.

2. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
ACT ACT
      ACT ACT ACT ACT ACT ACT ACT ACT
ID
  NAME 1 2
             3
                 4
                      5
                            7 8 9
                        6
                                       1.0
   сору сору
1
2
   rdct rdct
3
   cr
       copy rdct
4
   cncf cncf
5
 cpcncf copy cncf
6 cncfrd cncf rdct
   cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.

Note:

If the NSFI of the screen being changed in this procedure will be STOP, or if the NSFI of the screen is not being changed, skip step 3 and go to step 4.



3. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 5 is in the database.

If the desired screen is not in the database, perform one of the procedures shown in the Gateway Screening Configuration Procedures section to add the desired screen to the database or change an existing screen in the database.



If any of these conditions apply to this procedure, skip this step and go to step 5°

- The point code in the screen is not being changed.
- The screen being changed contains either an ANSI or 24-bit ITU-N point code.
- The ITU-I or 14-bit ITU-N non-spare point code in the screen is not being changed to an ITU-I or 14-bit ITU-N spare point code.
- The point code in the screen is an ITU-I or 14-bit ITU-N spare point code or the screening reference contains other screens with ITU-I or 14-bit ITU-N spare point codes.
- 4. Display the status of the ITU National and International Spare Point Code Support feature by entering the rtrv-ctrl-feat command with the ITU National and International Spare Point Code Support feature part number.

Enter this command.

```
rtrv-ctrl-feat:partnum=893013601
```

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 The following features have been permanently enabled:
```

```
Feature Name Partnum Status Quantity Spare Point Code Support 893013601 on ----
```

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period Left Zero entries found.

zoro onorros rouna.

The following features have expired temporary keys:

Feature Name Partnum

Zero entries found.

If the ITU National and International Spare Point Code Support feature is enabled, go to step 5.

If the ITU National and International Spare Point Code Support feature is not enabled, perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure in *Database Administration - SS7 User's Guide* to enable the ITU



National and International Spare Point Code Support feature as required. After the feature has been enabled, go to step 5.

Change the attributes of an allowed CGPA screen using the chg-scr-cgpa command.

If a gateway screening stop action is to be assigned to the allowed CGPA screen being changed, enter the <code>chg-scr-cgpa</code> command with the <code>nsfi=stop</code> parameter and the <code>actname</code> parameter with the name of a gateway screening stop action set shown in the output of the <code>rtrv-gws-actset</code> command executed in step 2.

A

Caution:

The EAGLE does not support redirecting MSUs for the DTA feature or intercepting ISUP IAM messages for the Calling Name Conversion Facility feature from the allowed CGPA screen. Gateway screening stop action sets containing either the RDCT (redirect) or CNCF (calling name conversion facility) stop actions should not be assigned to the allowed CGPA screen. If a gateway screening stop action set containing the RDCT or CNCF stop actions is specified with the chg-scr-cgpa command, unsolicited information message (UIM) 1126 is generated when the attempt is made to redirect MSUs from the allowed CGPA screen. Unsolicited information message (UIM) 1216 is generated when ISUP IAM MSUs are intercepted from the allowed CGPA screen. For more information on UIMs 1126 and 1216, go to Unsolicited Alarm and Information Messages Reference.

The current values for the ni, nc, ncm, zone, area, id, npc, msa, ssa, sp, ssn, ri, and sccpmt parameters must be entered exactly as shown in the rtrv-scr-cqpa output in step 1.

The following list contains the values for nni, nnc, nncm, nzone, narea, nid, nnpc, nssn, nmsa, nssa, nsp, nri, and nsccpmt parameters:

- nni 0 255 or an asterisk (*)
- nnc 0 255 or an asterisk (*)
- nncm 0 255 or an asterisk (*)
- nzone 0 7 or an asterisk (*)
- narea 0 255 or an asterisk (*)
- nid 0 7 or an asterisk (*)
- nnpc 1 16383 or an asterisk (*)
- nmsa 0 255 or an asterisk (*)
- nssa 0 255 or an asterisk (*)
- nsp 0 255 or an asterisk (*)
- nssn 0 255 or an asterisk (*)
- nri gt, dpc or an asterisk (*)
- nsccpmt 9, 10, 17, 18 or an asterisk (*)





Thenri,nsfi, andnsr parameters can be specified only as shown in Table 6-9.

Table 6-9 CGPA Parameter Combinations

| New or Current RI Value | NSFI | NSR |
|-------------------------|----------------|---|
| GT | TT, STOP | Must be specified if NSFI=TT |
| DPC | CDPA, STOP | Must be specified if NSFI=CDPA |
| * | TT, CDPA, STOP | Must be specified if NSFI=TT or NSFI=CDPA |

A range of values can be specified for the nni, nnc, and nncm parameters. See the "Specifying a Range of Values" section for more information on how the asterisk and a range of values are used for the nni, nnc, and nncm parameters.

To change an ITU-I or 14-bit ITU-N spare point code to a non-spare point code, both the pcst=s and npcst=none parameters must be specified with the chg-scr-cgpa command.

To change an ITU-I or 14-bit ITU-N non-spare point code to a spare point code, the npcst=s parameter must be specified with the chg-scr-cgpa command. The pcst parameter does not have to be specified.

If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N spare point code, the pcst=s parameter must be specified with the chg-scr-cgpa command.

If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N non-spare point code, the pcst parameter does not have to be specified with the chg-scr-cgpa command. If the pcst parameter is specified for a screen containing either an ITU-I or 14-bit ITU-N non-spare point code, the pcst parameter value must be none.

For this example, enter this command.

```
chg-scr-
cgpa:sr=gw14:ni=003:nc=003:ncm=003:ssn=253:sccpmt=009 :nni=230:nn
c=230:nncm=230:nssn=150
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0 CHG-SCR-CGPA: SCREEN SET AFFECTED - GW14 1% FULL CHG-SCR-CGPA: MASP A - COMPLTD
```

6. Verify the changes using the rtrv-scr-cgpa command with the screening reference name used in step 5.

For this example, enter this command.

```
rtrv-scr-cgpa:sr=gw14
```



The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED CGPA
                       NCM
                                 SSN
                                                        NSFI
     NI
              NC
                                          RΙ
                                               SCCPMT
NSR/ACT
GW14 230
               230
                        230
                                               009
                                 150
                                          GΤ
                                                        TT
                                                                GW17
```

7. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

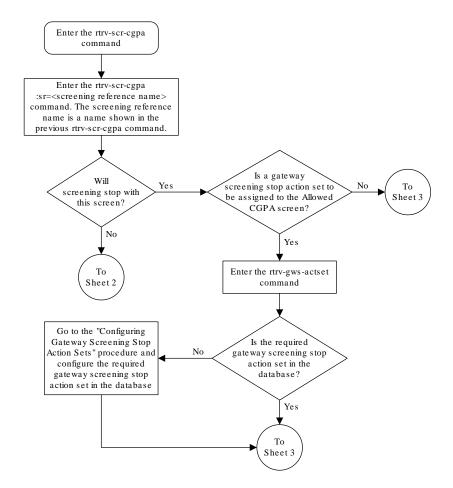
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Figure 6-11 Change an Allowed Calling Party Address Screen - Sheet 1 of 5





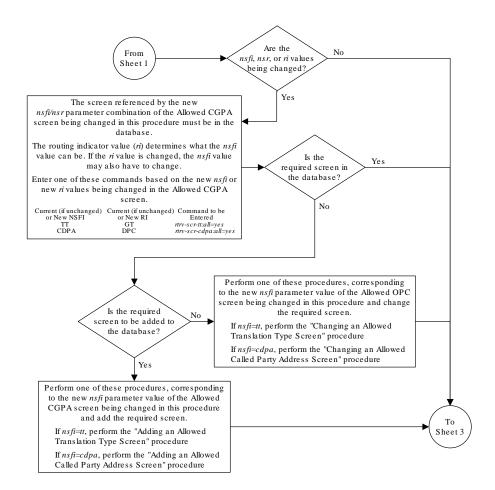


Figure 6-12 Change an Allowed Calling Party Address Screen - Sheet 2 of 5



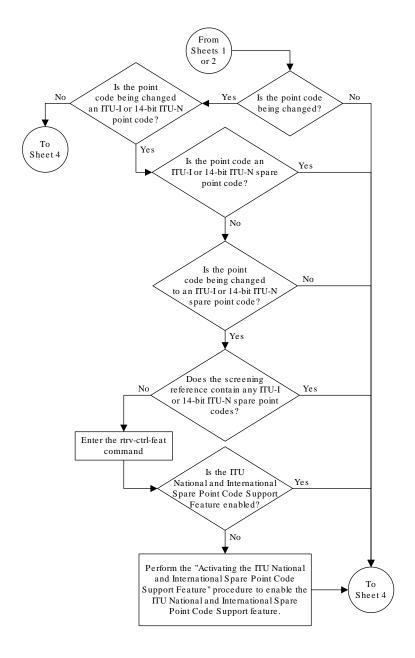


Figure 6-13 Change an Allowed Calling Party Address Screen - Sheet 3 of 5



Figure 6-14 Change an Allowed Calling Party Address Screen - Sheet 4 of 5

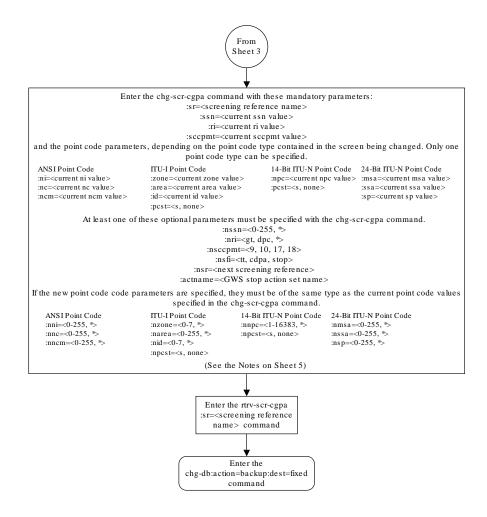




Figure 6-15 Change an Allowed Calling Party Address Screen - Sheet 5 of 5

Notes:

- 1. A range of values can be specified for the nni, nnc, or nncm parameters by inserting double ampersands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the nni parameter, enter 025&&200 for the nni parameter value.
- 2. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" section is in the "Changing an Allowed Calling Party Address Screen" procedure in the Database Administration Manual - Gateway Screening.

- 3. If either the nsfi=<tt or cdpa> or nsr paramters are specified, the other parameter must be specified.
- 4. If the *nsfi=stop* parameter is specified, or if the current *nsfi* value is stop and is not being changed, the *nsr* parameter cannot be specified.
- 5. The actname parameter can be specified only when the nsfi value is stop (either the current nsfi value is stop and not being changed, or if the nsfi value is being changed to stop). The actname parameter is optional. If the actname parameter is specified, the actname parameter value is one of the gateway screening stop action set names shown in the nrv-gws-actset output on Sheet 1.
- 6. The nri=gt parameter can be specified only if the nsfi value is TT. If the nsfi=tt parameter is specified, the ni value must be GT or *.
- 7. The $n\vec{n}=dpc$ parameter can be specified only if the nsfi value is CDPA. If the nsfi=cdpa parameter is specified, the \vec{n} value must be DPC or *.
- 8. The current values for the ni, nc, ncm, zone, area, id, npc, ssn, ni, and sccpmt parameters must be entered exactly as shown in the ntv-scr-cgpa output.
- 9. To change an ITU-I or 14-bit ITU-N spare point code to a non-spare point code, both the pcst=s and npcst=none parameters must be specified with the chg-scr-cgpa command.
- 10. To change an ITU-I or 14-bit ITU-N non-spare point code to a spare point code, the *npcst=s* parameter must be specified with the *chg-scr-cgpa* command. The *pcst* parameter does not have to be specified.
- 11. If the current point code in the screen being changed is either an Π U-I or 14-bit Π U-N spare point code, the pcst=s parameter must be specified with the chg-scr-cgpa command.
- 12. If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N non-spare point code, the pcst parameter does not have to be specified with the chg-scr-cgpa command. If the pcst parameter is specified for a screen containing either an ITU-I or 14-bit ITU-N non-spare point code, the pcst parameter value must be none.



7

Allowed Affected Destination Field (DESTFLD) Screen Configuration

Chapter 7, Allowed Affected Destination Field (DESTFLD) Screen Configuration, contains the procedures necessary to configure allowed affected destination field screens.

Introduction

The Affected Destination Field screen identifies the point code in the affected destination field, the concerned signaling point code of incoming MTP network management messages from another network that are allowed into the EAGLE. The gray shaded areas in Figure 7-4 shows the fields of the SS7 message that are checked by the Affected Destination Field screening function.

Network management messages contain the entry 0 in the service indicator field of the SIO. This is the last screen in the MTP portion of the gateway screening process. This nsfi for this screen has only one value, stop.

Note:

Screening of the affected destination field can also be performed without configuring an allowed affected destination field screen by specifying the destfld=yes parameter when configuring a screen set. For more information on the screen setdestfld=yes parameter, see the sectionAutomatic Destination Field Screening.

Gateway Screening Actions

The Gateway Screening process stops with this screen. The nsfi parameter value can only be stop.

If a match is not found, the message is discarded.

If a match is found, the message is processed. If a gateway screening stop action set is specified with the screen, shown by the actname parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

- If the rdct (redirect) gateway screening stop action is specified, the message is diverted from the original destination and sent to another destination with the Database Transport Access feature, specified by global title translation, for further processing.
- If the cncf gateway screening stop action is specified, the PIP parameter in the incoming ISUP IAM message is converted to the GN parameter. The GN parameter in the incoming ISUP IAM message is converted to the PIP parameter. The message is then sent to the node specified by the DPC in the routing label in the message. For more

information on the Calling Name Conversion Facility feature, see Calling Name Conversion Facility (CNCF) Configuration.

- If the tlnp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are processed either by the ISUP NP with EPAP feature (if the ISUP NP with EPAP feature is enabled and turned on) or by the Triggerless LNP feature (if the Triggerless LNP feature is turned on). The ISUP NP with EPAP feature is discussed in more detail in *G-Port User's Guide*. The Triggerless LNP feature is discussed in more detail in *ELAP Administration and LNP Feature Activation Guide*.
- If the tinp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in *G-Port User's Guide*.
- If the tif, tif2, or tif3 gateway screening stop actions are specified, TIF processing is applied to the message.
- If the sccp gateway screening stop action is specified, MTP routed SCCP UDT/ XUDT are forwarded to the service modules for further processing.

Allowed Affected Destination Screening Actions

These network management messages are screened by the Allowed Affected Destination Field: TFP, TFA, TFC, UPU, and SRST (RSP, RSR). Any MSU that is not one of these network management message types, or does not contain a service indicator of 0 in the SIO field and reaches this screen in the gateway screening process automatically passes gateway screening and is allowed into the EAGLE.

Figure 7-1 through Figure 7-3 show the screening actions of the allowed affected destination field screen.



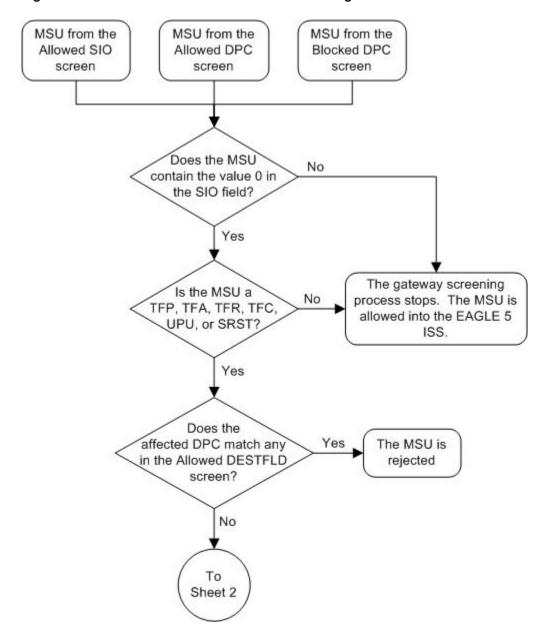


Figure 7-1 Allowed Affected Destination Screening Actions - Sheet 1 of 3



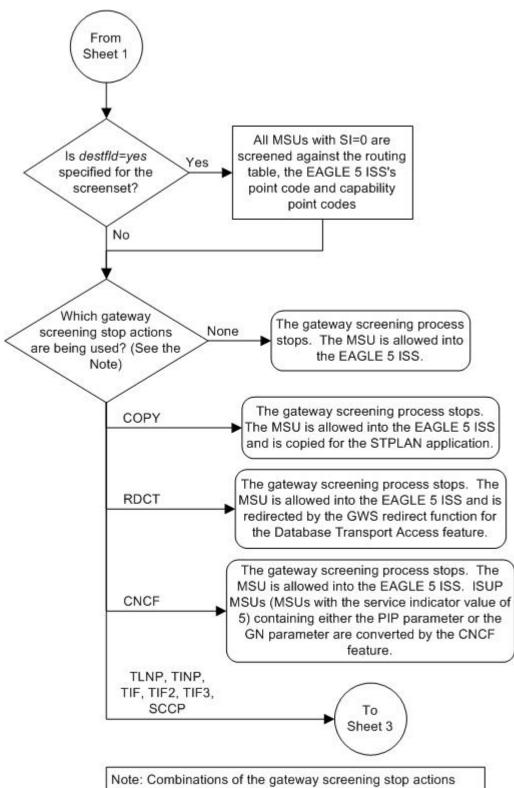


Figure 7-2 Allowed Affected Destination Screening Actions - Sheet 2 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.

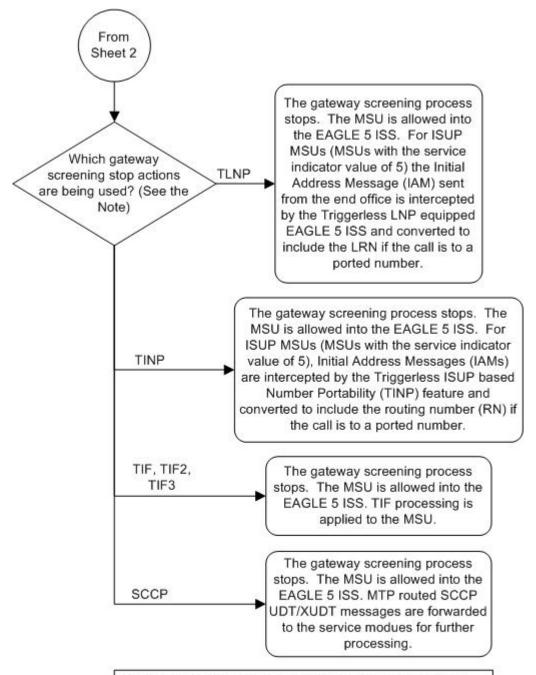


Figure 7-3 Allowed Affected Destination Screening Actions - Sheet 3 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.



Figure 7-4 Allowed Affected Destination Field Screening Function

ANSI MSU (ANSI Message Signal Unit)

| | SIO | | s | IF | |
|------------|--------------------------|---|-----------|-------|---------------------------|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing Label DPC OPC NCM NC NI NCM NC NI | SLS xx | H1 H0 | Affected DPC NCM NC NI |

ITU-I MSU (ITU International Message Signal Unit)

| | SIO | S | SIF |
|------------|--------------------------|--|---------------------------------|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing Label DPC OPC SLS ID AREA ZONE ID AREA ZONE xx | H1 H0 Affected DPC ID AREA ZONE |

14-Bit ITU-N MSU (14-Bit ITU National Message Signal Unit)

| | SIO | | | SIF | |
|------------|--------------------------|-------------------------------------|-----------|-------|---------------------|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing Label DPC OPC NPC NPC | SLS xx | H1 H0 | Affected DPC NPC |

24-Bit ITU-N MSU (24-Bit ITU National Message Signal Unit)

| | SIO | | s | IF | |
|------------|--------------------------|---|-----------|-------|----------------------------|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing Label DPC OPC SP SSA MSA SP SSA MSA | SLS xx | H1 H0 | Affected DPC SP SSA MSA |

Adding an Allowed Affected Destination Field Screen

This procedure is used to add an allowed affected destination field (DESTFLD) screen to the database using the <code>ent-scr-destfld</code> command. The parameters used by the <code>ent-scr-destfld</code> command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The examples in this procedure are used to add the allowed DESTFLD screen data shown in Table 7-1 and based on the example configuration shown in Figure 2-7.

Table 7-1 Example Gateway Screening Allowed DESTFLD Configuration Table

| Screening Reference | NI | NC | NCM | NSFI | ACTNAME |
|------------------------|-----|-----|-----|------|---------|
| fld5 | 100 | 100 | 100 | stop | CR |





If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

Specifying a Range of Values

A range of values can be specified for the point code parameters ni, nc, or ncm.

If a range of values is specified for any of these parameters, and the value of the other parameters match existing values for the screening reference name, the range of values for the point code parameter cannot include any values for that parameter that are currently provisioned for the screening reference name.

For example, screening reference name scr1 contains these entries:

| SR | NI | NC | NCM | NSFI | NSR/ACT |
|------|-----|-----|-----|------|---------|
| SCR1 | 240 | 001 | 010 | STOP | |
| SCR1 | 241 | 010 | 020 | STOP | |

Another entry for screening reference scrl with the ni value of 240 and the nc value of 001 cannot be specified if the range of values for the ncm parameter includes the value 010.

The ANSI point code parameter values can be specified as a single value, a range of values, or with an asterisk (*). The asterisk specifies all possible values for the ni, nc, and ncm parameters. Table 7-2 shows the valid combinations of these parameter values.

Table 7-2 Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM |
|-----------------|-----------------|-----------------|
| Single Value | Single Value | Single Value |
| Single Value | Single Value | Range of Values |
| Single Value | Single Value | Asterisk |
| Single Value | Range of Values | Asterisk |
| Single Value | Asterisk | Asterisk |
| Range of Values | Asterisk | Asterisk |
| Asterisk | Asterisk | Asterisk |

A range of values can also be specified for an ITU-I or 24-bit ITU-N point code parameter using a combination of asterisks (*) and single values for the point code parameters. Table 7-3 shows the valid combinations of the ITU-I parameter values. Table 7-4 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 7-3 Valid Value Combinations for ITU-I Point Code Parameters

| ZONE | AREA | ID | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |



Table 7-4 Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

1. Verify that the gateway screening feature is on, by entering the rtrv-feat command.

If the gateway screening feature is on, the GWS field is set to on.



Thertry-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by thertry-feat command, see thertry-feat command description in *Commands User's Guide*.

If the gateway screening feature is on, shown by the entry GWS = on in the rtrv-feat command output, skip step 2, and go to step 3.

2. Turn the gateway screening feature on by entering this command.

chg-feat:gws=on

Note:

Once the gateway screening feature is turned on with the chg-feat command, it cannot be turned off.

The gateway screening feature must be purchased before you turn this feature on with the <code>chg-feat</code> command. If you are not sure if you have purchased the gateway screening feature, contact your Oracle Sales Representative or Account Representative.

When the chq-feat has successfully completed, this message should appear.

```
rlghncxa03w 06-10-28 11:43:04 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

3. Display all allowed DESTFLD screens in the database using the rtrv-scr-destfld command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED DESTFLD SR REF RULES
```



```
IEC YES 2
WRD2 YES 1
WRD4 YES 9
```

If the screening reference names that you wish to add with this procedure are not shown in the rtrv-scr-destfld command output, go to step 4. For this example, the screening reference names are not shown. If these screening reference names are shown in the rtrv-scr-destfld command output, make sure the screening data you wish to enter is not already in the database by entering the rtrv-scr-destfld command with the screening reference name. For example, enter the rtrv-scr-destfld destfld: sr=iec command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED DESTFLD
SR
     NI
            NC
                    NCM
                            NSFI
                                  NSR/ACT
                    010
IEC
     240
            001
                            STOP
                                   -----
IEC
     241
           010
                   *
                            STOP
                                   COPY
```

If a gateway screening stop action set is to be assigned to the allowed DESTFLD screen being added to the database, go to step 4. Otherwise, go to step 5.

4. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT ACT
TD
   NAME 1 2
                 3
                     4
                         5 6
                                 7 8 9
                                              10
1
   copy copy
2
   rdct rdct
3
   cr copy rdct
4
   cncf cncf
5
   cpcncf copy cncf
   cncfrd cncf rdct
6
7
   cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.



If the point code being added in this procedure is not an ITU-I or 14-bit ITU-N spare point code, skip this step and to step 6.



Note:

If the point code being added in this procedure is an ITU-I or 14-bit ITU-N spare point code and the screening reference contains ITU-I or 14-bit ITU-N spare point codes, skip this step and go to step 6.

5. Display the status of the ITU National and International Spare Point Code Support feature by entering the rtrv-ctrl-feat command with the ITU National and International Spare Point Code Support feature part number.

Enter this command.

```
rtrv-ctrl-feat:partnum=893013601
```

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 The following features have been permanently enabled:
```

```
Feature Name Partnum Status Quantity Spare Point Code Support 893013601 on ----
```

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period

Left

Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum

Zero entries found.

If the ITU National and International Spare Point Code Support feature is enabled, go to step 6.

If the ITU National and International Spare Point Code Support feature is not enabled, perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure in *Database Administration - SS7 User's Guide* to enable the ITU National and International Spare Point Code Support feature as required. After the feature has been enabled, go to step 6.

6. Add a new allowed DESTFLD screen to the database using the ent-scr-destfld command.

If a gateway screening stop action is to be assigned to the allowed DESTFLD screen being changed, enter the <code>ent-scr-destfld</code> command with the <code>nsfi=stop</code> parameter and the <code>actname</code> parameter with the name of a gateway screening stop action set shown in the output of the <code>rtrv-gws-actset</code> command executed in step 4.

The following list contains the values for ni, nc, ncm, zone, area, id, npc, msa, ssa, and sp parameters:

- ni 0 255 or an asterisk (*)
- nc 0 255 or an asterisk (*)



- ncm 0 255 or an asterisk (*)
- zone 0 7 or an asterisk (*)
- area 0 255 or an asterisk (*)
- id 0 7 or an asterisk (*)
- npc 1 16383 or an asterisk (*)
- msa 0 255 or an asterisk (*)
- ssa 0 255 or an asterisk (*)
- sp 0 255 or an asterisk (*)

A range of values can be specified for the ni, nc, and ncm parameters. See the Specifying a Range of Values section for more information on how the asterisk and a range of values are used for the ni, nc, and ncm parameters.

To add a spare point code to the allowed DESTFLD screen, the pcst=s parameter must be specified. To add a non-spare point code to the allowed DESTFLD screen, the pcst parameter does not have to be specified. If the pcst parameter is specified for a screen containing an ITU-I or 14-bit ITU-N non-spare point code, the value must be none.

For this example, enter this command.

```
ent-scr-
destfld:sr=fld5:ni=100:nc=100:ncm=100:nsfi=stop :actname=cr
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0 ENT-SCR-DESTFLD: SCREEN SET AFFECTED - FLD5 1% FULL ENT-SCR-DESTFLD: MASP A - COMPLTD
```

7. Verify the changes using the rtrv-scr-destfld command with the screening reference name used in step 6. For this example, enter this command.

```
rtrv-scr-destfld:sr=fld5
```

The following is an example of the possible output.

8. Backup the new changes using the chq-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Enter the Is the gateway Enter the rtrv-feat chg-feat:gws=on command screening feature on? Yes Enter the rtrv-scr-destfld command Enter the rtrv-scr-destfld :sr=<screening reference name> command. The screening reference name is a name shown in the previous rtrv-scr-destfld command, or a new screening reference name. Is a gateway screening stop action set to be assigned to the Allowed DESTFLD screen? Enter the rtrv-gws-actset command Go to the "Configuring Is the required Gateway Screening Stop gateway screening stop action set in the Action Sets" procedure and configure the required gateway screening stop action set in the database database? Yes To Sheet

Figure 7-5 Add an Allowed Affected Destination Field Screen - Sheet 1 of 3



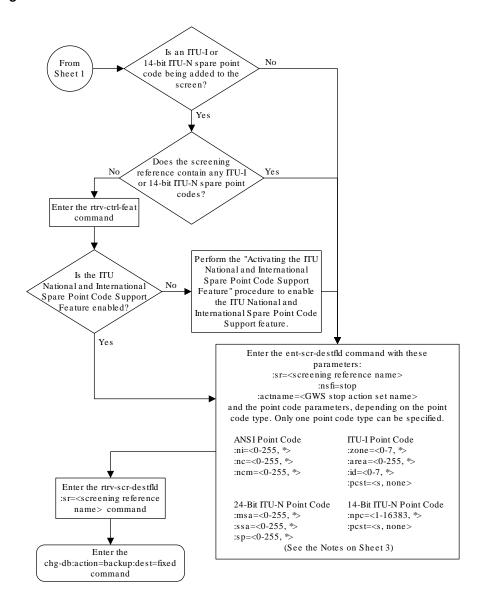


Figure 7-6 Add an Allowed Affected Destination Field Screen - Sheet 2 of 3



Figure 7-7 Add an Allowed Affected Destination Field Screen - Sheet 3 of 3

Notes

- 1. A range of values can be specified for the *ni*, *nc*, or *ncm* parameters by inserting double ampersands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the *ni* parameter, enter 025 &&200 for the *ni* parameter value.
- 2. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" section is in the "Adding an Allowed Affected Destination Field Screen" procedure in the Database Administration Manual - Gateway Screening.

- 3. The actname parameter is optional. If the actname parameter is specified, the actname parameter value is one of the gateway screening stop action set names shown in the ntr-gws-actset output on Sheet 1.
- 4. To add a non-spare point code, the *pcst* parameter does not have to be specified. If the *pcst* parameter is specified for a screen containing an ITU-I or 14-bit ITU-N non-spare point code, the value must be *none*.
- 5. To add a spare point code, the pcst=s parameter must be specified.

Removing an Allowed Affected Destination Field Screen

This procedure is used to remove an allowed affected destination field (DESTFLD) screen from the database using the ${\tt dlt-scr-destfld}$ command. The parameters used by the ${\tt dlt-scr-destfld}$ command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.



The example in this procedure removes the allowed DESTFLD screen fld5 from the database.



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

The allowed DESTFLD screen can be referenced by one of the following screens.

- Allowed SIO
- Allowed DPC
- Blocked DPC

Verifying the Gateway Screening Configuration

Enter the following commands to verify that none of these screens reference the allowed CGPA screen being removed from the database.

- rtrv-scr-sio:nsfi=destfld
- rtrv-scr-dpc:nsfi=destfld
- rtrv-scr-blkdpc:nsfi=destfld

Gateway Screening Configuration Procedures

To change the NSFI of any of these screens, perform one of these procedures.

- Changing an Allowed SIO Screen
- · Changing an Allowed DPC Screen
- Changing a Blocked DPC Screen
- Display the allowed DESTFLD screens in the database using the rtrv-scr-destfld command.

The following is an example of the possible output.

From the rtrv-scr-destfld output, display the allowed DESTFLD screen you wish to remove using the rtrv-scr-destfld command with the screening reference name. For this example, enter this command.

```
rtrv-scr-destfld:sr=fld5
```



The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED DESTFLD SR NI NC NCM NSFI NSR/ACT fld5 100 100 100 STOP cr
```

Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen being removed is not referenced by other screens in the database.

If the screen being removed is referenced by other screens, perform the procedures shown in the Gateway Screening Configuration Procedures section to change the NSFI of those screens to reference other screens or change the NSFI of these screens to STOP.

3. Remove the allowed DESTFLD screen from the database using the dlt-scr-destfld command with the screening reference name shown in the rtrv-scr-destfld output in step 1 and with the point code parameter values (ni, nc, ncm, or zone, area, id, npc, msa, ssa, or sp) of the screen being removed from the database.

The values for these parameters must be entered exactly as shown in the rtrv-scr-destfld output.

To remove an entry containing either an ITU-I or a 14-bit ITU-N spare point code, the post=s parameter must be specified with the dlt-scr-destfld command.

To remove an entry containing either an ITU-I or a 14-bit ITU-N non-spare point code, the post parameter does not have to be specified with the dlt-scr-destfld command. If the post parameter is specified, the value must be none.

For this example, enter this command.

```
dlt-scr-destfld:sr=fld5:ni=100:nc=100:ncm=100
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 DLT-SCR-DESTFLD: SCREEN SET AFFECTED - FLD5 0% FULL DLT-SCR-DESTFLD: MASP A - COMPLTD
```

4. Verify the changes using the rtrv-scr-destfld command with the screening reference name used in step 3.

For this example, enter this command.

```
rtrv-scr-destfld:sr=fld5
```

The following is an example of the possible output.

```
E2573 Cmd Rej: SR or NSR does not reference an existing SR
```

This message shows that the specified screening reference name is not in the database and the action of the dlt-scr-destfld command in step 3 was successful. If the specified screening reference name contained more than one entry when the dlt-scr-destfld command was executed in step 3, the rtrv-scr-destfld:sr= command output would show the remaining entries in the screening reference instead of error message E2573.



5. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Figure 7-8 Remove an Allowed Affected Destination Field Screen - Sheet 1 of 2

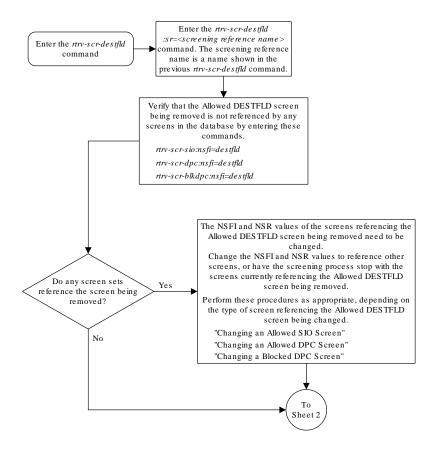
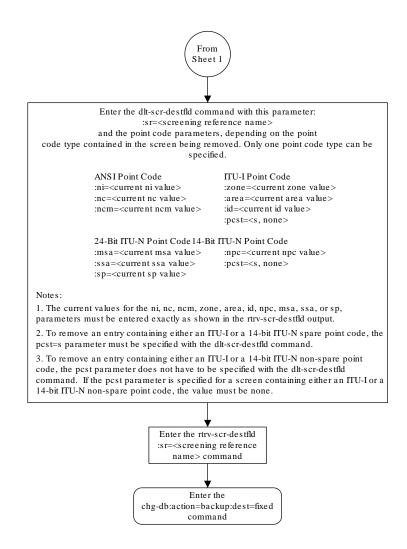




Figure 7-9 Remove an Allowed Affected Destination Field Screen - Sheet 2 of 2



Changing an Allowed Affected Destination Field Screen

This procedure is used to change the attributes of an allowed affected destination field (DESTFLD) screen in the database using the chg-scr-destfld command. The parameters used by the chg-scr-destfld command are shown in the Gateway Screening

Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure is used to change the point code 100-100-100 for the allowed DESTFLD screen fld5 to 030-030-030 and to redirect the MSU for the DTA feature.



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

Specifying a Range of Values

A range of values can be specified for the point code parameters ni, nc, or ncm.

If a range of values is specified for any of these parameters, and the value of the other parameters match existing values for the screening reference name, the range of values for the point code parameter cannot include any values for that parameter that are currently provisioned for the screening reference name.

For example, screening reference name scr1 contains these entries:

| SR | NI | NC | NCM | NSFI | NSR/ACT |
|------|-----|-----|-----|------|---------|
| SCR1 | 240 | 001 | 010 | STOP | |
| SCR1 | 241 | 010 | 020 | STOP | |

Another entry for screening reference scrl with the ni value of 240 and the nc value of 001 cannot be specified if the range of values for the ncm parameter includes the value 010.

The ANSI point code parameter values can be specified as a single value, a range of values, or with an asterisk (*). The asterisk specifies all possible values for the ni, nc, and ncm parameters. Table 7-5 shows the valid combinations of these parameter values.

Table 7-5 Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM |
|-----------------|-----------------|-----------------|
| Single Value | Single Value | Single Value |
| Single Value | Single Value | Range of Values |
| Single Value | Single Value | Asterisk |
| Single Value | Range of Values | Asterisk |
| Single Value | Asterisk | Asterisk |
| Range of Values | Asterisk | Asterisk |
| Asterisk | Asterisk | Asterisk |

A range of values can also be specified for an ITU-I or 24-bit ITU-N point code parameter using a combination of asterisks (*) and single values for the point code parameters. Table 7-6 shows the valid combinations of the ITU-I parameter values. Table 7-7 shows the valid combinations of the 24-bit ITU-N parameter values.



Table 7-6 Valid Value Combinations for ITU-I Point Code Parameters

| ZONE | AREA | ID | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

Table 7-7 Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

 Display the allowed DESTFLD screens in the database using the rtrv-scr-destfld command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED DESTFLD
SR REF RULES
FLD5 YES 1
IEC YES 6
WRD2 YES 1
WRD4 YES 9
```

From the rtrv-scr-destfld output, display the allowed DESTFLD screen you wish to change using the rtrv-scr-destfld command with the screening reference name. For this example, enter this command.

```
rtrv-scr-destfld:sr=fld5
```

The following is an example of the possible output.

If a gateway screening stop action set is to be assigned to the allowed DESTFLD screen being added to the database, go to step 2. Otherwise, go to step 3.

2. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT ACT
```



```
ID NAME 1 2 3 4 5 6 7 8 9 10
1
   сору сору
2
   rdct rdct
3 cr
        copy rdct
4
   cncf cncf
  cpcncf copy cncf
5
6 cncfrd cncf rdct
   cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.

3. Display the status of the ITU National and International Spare Point Code Support feature by entering the rtrv-ctrl-feat command with the ITU National and International Spare Point Code Support feature part number.

Note:

If any of these conditions apply to this procedure, skip this step and go to step 4:

- The point code in the screen is not being changed.
- The screen being changed contains either an ANSI or 24-bit ITU-N point code.
- The ITU-I or 14-bit ITU-N non-spare point code in the screen is not being changed to an ITU-I or 14-bit ITU-N spare point code.
- The point code in the screen is an ITU-I or 14-bit ITU-N spare point code or the screening reference contains other screens with ITU-I or 14-bit ITU-N spare point codes.

Enter this command.

```
rtrv-ctrl-feat:partnum=893013601
```

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
The following features have been permanently enabled:
```

```
Feature Name
                        Partnum Status Quantity
Spare Point Code Support 893013601 on
```

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period Left

Zero entries found.



The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

If the ITU National and International Spare Point Code Support feature is enabled, go to step 4.

If the ITU National and International Spare Point Code Support feature is not enabled, perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure in *Database Administration - SS7 User's Guide* to enable the ITU National and International Spare Point Code Support feature as required. After the feature has been enabled, go to step 4.

4. Change the attributes of an allowed DESTFLD screen using the chg-scr-destfld command.

If a gateway screening stop action is to be assigned to the allowed DESTFLD screen being changed, enter the chg-scr-destfld command with the actname parameter with the name of a gateway screening stop action set shown in the output of the rtrv-gws-actset command executed in step 2.

The current values for the ni, nc, ncm, zone, area, id, npc, msa, ssa, and sp parameters must be entered exactly as shown in the rtrv-scr-destfld output in step 1.

The following list contains the values for the nni, nnc, nncm, nzone, narea, nid, nnpc, nmsa, nssa, and nsp parameters:

- nni 0-255 or an asterisk (*)
- nnc 0-255 or an asterisk (*)
- nncm 0-255 or an asterisk (*)
- nzone 0-7 or an asterisk (*)
- narea 0-255 or an asterisk (*)
- nid 0-7 or an asterisk (*)
- nnpc 1 16383 or an asterisk (*)
- nmsa 0-255 or an asterisk (*)
- nssa 0-255 or an asterisk (*)
- nsp 0-255 or an asterisk (*)

```
chg-scr-
destfld:sr=fld5:ni=100:nc=100:ncm=100:nni=030:nnc=030 :nncm=030:a
ctname=rdct
```

The following messages appear.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0 CHG-SCR-DESTFLD: SCREEN SET AFFECTED - FLD5 1% FULL CHG-SCR-DESTFLD: MASP A - COMPLTD
```

5. Verify the changes using the rtrv-scr-destfld command with screening reference name used in step 4.

For this example, enter this command.



```
rtrv-scr-destfld:sr=fld5
```

The following is an example of the possible output.

6. Backup the new changes using the <code>chg-db:action=backup:dest=fixed command.</code>

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

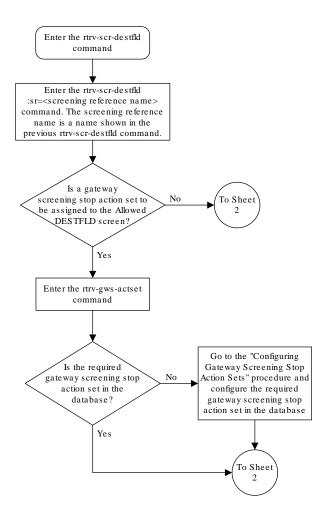
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Figure 7-10 Change an Allowed Affected Destination Field Screen - Sheet 1 of 4





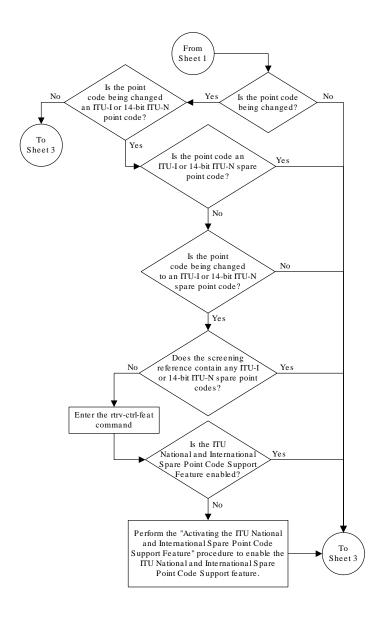


Figure 7-11 Change an Allowed Affected Destination Field Screen - Sheet 2 of 4



Figure 7-12 Change an Allowed Affected Destination Field Screen - Sheet 3 of 4

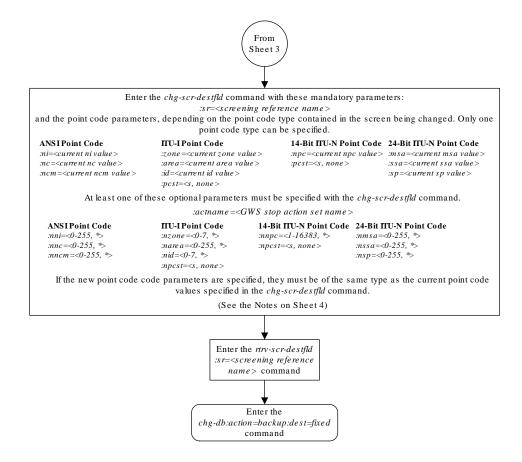




Figure 7-13 Change an Allowed Affected Destination Field Screen - Sheet 4 of 4

Notes

- 1. A range of values can be specified for the nni, nnc, or nncm parameters by inserting double ampers ands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the nni parameter, enter 025&&200 for the nni parameter value.
- 2. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" section is in the "Changing an Allowed Affected Destination Field Screen" procedure in the Database Administration Manual - Gateway Screening.

- 3. The actname parameter is optional. If the actname parameter is specified, the actname parameter value is one of the gateway screening stop action set names shown in the nrv-gws-actset output on Sheet 1.
- 4. The current values for the ni, nc, ncm, zone, area, id, npc, msa, ssa, and sp parameters must be entered exactly as shown in the nrv-scr-destfld output.
- 5. To change an ITU-I or 14-bit ITU-N spare point code to a non-spare point code, both the pcst=s and npcst=none parameters must be specified with the chg-scr-destfld command.
- 6. To change an ITU-I or 14-bit ITU-N non-spare point code to a spare point code, the npcst=s parameter must be specified with the chg-scr-destfld command. The pcst parameter does not have to be specified.
- 7. If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N spare point code, the pcst=s parameter must be specified with the chg-scr-destfld command.
- 8. If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N non-spare point code, the pcst parameter does not have to be specified with the chg-scr-destfld command. If the pcst parameter is specified for a screen containing either an ITU-I or 14-bit ITU-N non-spare point code, the pcst parameter value must be none.



8

Blocked Destination Point Code (BLKDPC) Screen Configuration

Chapter 8, Blocked Destination Point Code (BLKDPC) Screen Configuration, contains the procedures necessary to configure blocked destination point code screens.

Introduction

The blocked DPC screen identifies DPC's that are not allowed to receive SS7 messages from another network. The gray shaded areas in Figure 8-4 shows the fields of the SS7 message that are checked by the blocked DPC screening function.

Gateway Screening Actions

If a match is found, the nsfi is equal to fail, the message is discarded and no further screening takes place.

If a match is not found, the nsfi is examined to determine the next step in the screening process. If the nsfi value is any value other than stop, the next screening reference (nsr) is identified and the screening process continues to the next screen identified by the nsfi and nsr parameter values.

If the nsfi is equal to stop, the screening process stops and the message is processed. If a gateway screening stop action set is specified with the screen, shown by the actname parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

- If the rdct (redirect) gateway screening stop action is specified, the message is diverted
 from the original destination and sent to another destination with the Database Transport
 Access feature, specified by global title translation, for further processing.
- If the cncf gateway screening stop action is specified, the PIP parameter in the incoming ISUP IAM message is converted to the GN parameter. The GN parameter in the incoming ISUP IAM message is converted to the PIP parameter. The message is then sent to the node specified by the DPC in the routing label in the message. For more information on the Calling Name Conversion Facility feature, see Calling Name Conversion Facility (CNCF) Configuration.
- If the tlnp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are processed either by the ISUP NP with EPAP feature (if the ISUP NP with EPAP feature is enabled and turned on) or by the Triggerless LNP feature (if the Triggerless LNP feature is turned on). The ISUP NP with EPAP feature is discussed in more detail in the Feature Manual G-Port. The Triggerless LNP feature is discussed in more detail in the ELAP Administration and LNP Feature Activation manual.
- If the tinp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in the *Feature Manual G-Port*.

- If the tif, tif2, or tif3 gateway screening stop actions are specified, TIF processing is applied to the message.
- If the sccp gateway screening stop action is specified, MTP routed SCCP UDT/ XUDT are forwarded to the service modules for further processing.

Blocked DPC Screening Actions

Figure 8-1 through Figure 8-3 show the screening actions of the blocked DPC screen.

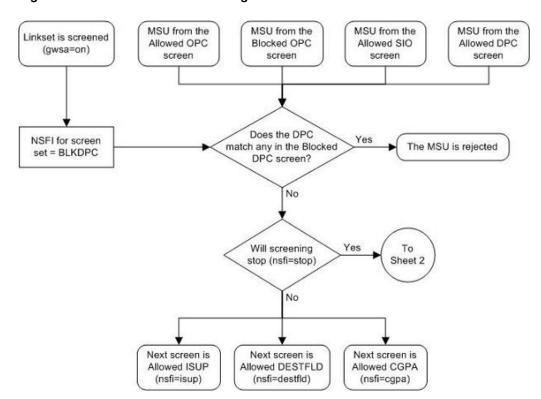


Figure 8-1 Blocked DPC Screening Actions - Sheet 1 of 3



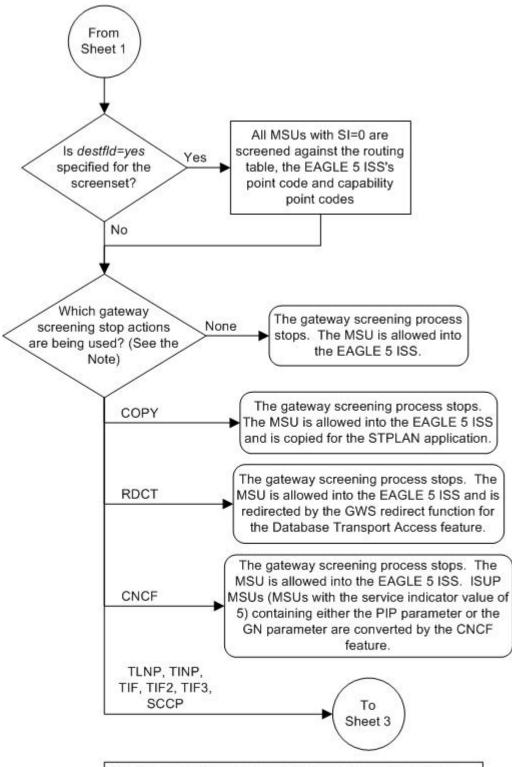


Figure 8-2 Blocked DPC Screening Actions - Sheet 2 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.



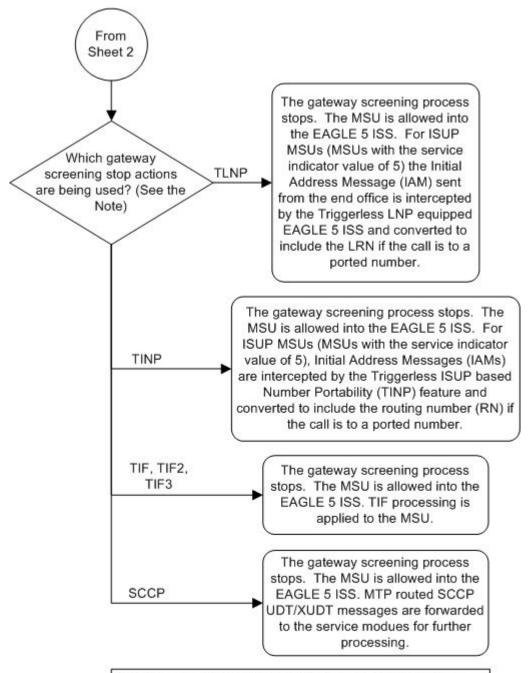


Figure 8-3 Blocked DPC Screening Actions - Sheet 3 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.



Figure 8-4 Blocked DPC Screening Functions

ANSI MSU (ANSI Message Signal Unit)

| | SIO | | SIF | | |
|------------|-----|------------------|------------------|-----|--|
| BSN FSN LI | | | outing Label | | |
| | | DPC NCM NC NI | OPC NCM NC NI | SLS | |

ITU-I MSU (ITU International Message Signal Unit)

| | SIO | | SIF | | |
|------------|--------------------------|---------------------|---------------------|-----------|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | | Routing Label | | |
| | | DPC ID AREA ZONE | OPC ID AREA ZONE | SLS xx | |

14-Bit ITU-N MSU (14-Bit ITU National Message Signal Unit)

| SIO | SIO | SIF | | | |
|------------|--------------------------|------------|---------------------------|-----------|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | DPC NPC | outing Labe OPC NPC | SLS xx | |

24-Bit ITU-N MSU (24-Bit ITU National Message Signal Unit)

| | SIO | | SIF | | |
|------------|--------------------------|-------------------|-------------------|-----------|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | | Routing Label | | |
| NIC PRI SI | | DPC SP SSA MSA | OPC SP SSA MSA | SLS xx | |

Adding a Blocked DPC Screen

This procedure is used to add a blocked destination point code (DPC) screen to the database using the <code>ent-scr-blkdpc</code> command. The parameters used by the <code>ent-scr-blkdpc</code> command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The examples in this procedure are used to add the blocked DPC screen data shown in Table 8-1 and based on the example configurations shown in Figure 2-3 and Figure 2-5.

 Table 8-1
 Example Gateway Screening Blocked DPC Configuration Table

| Screening Reference | NI | NC | NCM | NSFI | NSR |
|------------------------|-----|-----|-----|------|------|
| gws9 | С | С | С | cgpa | gw13 |
| gws9 | 005 | 005 | 005 | fail | |
| gw12 | С | С | С | cgpa | gw14 |



Table 8-1 (Cont.) Example Gateway Screening Blocked DPC Configuration Table

| Screening Reference | NI | NC | NCM | NSFI | NSR |
|------------------------|-----|-----|-----|------|-----|
| gw12 | 004 | 004 | 004 | fail | |



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

The blocked DPC screen can reference one of the following screens.

- Allowed Affected Destination Field
- Allowed CGPA
- Allowed ISUP

Verifying Gateway Screening Configuration

Enter the following commands to verify that these screens are in the database.

- rtrv-scr-destfld:all=yes
- rtrv-scr-cgpa:all=yes
- rtrv-scr-isup:all=yes

Gateway Screening Configuration Procedures

If the desired screen is not in the database, perform one of the following procedures to add the desired screen to the database or change an existing screen in the database.

- Adding an Allowed Affected Destination Field Screen
- Adding an Allowed Calling Party Address Screen
- Adding an Allowed ISUP Message Type Screen
- Changing an Allowed Affected Destination Field Screen
- Changing an Allowed Calling Party Address Screen
- Changing an Allowed ISUP Message Type Screen

For the first entry for a specific screening reference, the value for the point code must be c, and the NSFI must be either stop or cgpa. If the NSFI is stop, the screening of the message will stop at the specified blocked DPC screen. If the NSFI is cgpa, then any message containing a point code that is not listed in the blocked DPC screen with a NSFI equal to fail, will continue to be screened with the allowed CGPA screen. All subsequent entries for that screening reference must contain a numeric point code value, the NSFI must be equal to fail, and the nsr parameter cannot be specified. Any message that contains a DPC in the blocked DPC screen with the NSFI equal to fail will be rejected from the network and the screening process is stopped.

The post parameter, specifying whether or not the ITU-I or 14-bit ITU-N point code is a spare point code, cannot be used with the zone=c or npc=c parameters.



Specifying a Range of Values

A range of values can be specified for the point code parameters ni, nc, or ncm.

If a range of values is specified for any of these parameters, and the value of the other parameters match existing values for the screening reference name, the range of values for the point code parameter cannot include any values for that parameter that are currently provisioned for the screening reference name.

For example, screening reference name scr1 contains these entries:

| SR | NI | NC | NCM | NSFI | NSR/ACT |
|------|-----|-----|-----|------|---------|
| SCR1 | С | С | С | CGPA | cg01 |
| SCR1 | 240 | 001 | 010 | FAIL | |
| SCR1 | 241 | 010 | 020 | FAIL | |

Another entry for screening reference scrl with the ni value of 240 and the nc value of 001 cannot be specified if the range of values for the ncm parameter includes the value 010.

The ANSI point code parameter values can be specified as a single value, a range of values, or with an asterisk (*). The asterisk specifies all possible values for the ni, nc, and ncm parameters. Table 8-2 shows the valid combinations of these parameter values.

Table 8-2 Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM | |
|-----------------|-----------------|-----------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Range of Values | |
| Single Value | Single Value | Asterisk | |
| Single Value | Range of Values | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Range of Values | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

A range of values can also be specified for an ITU-I or 24-bit ITU-N point code parameter using a combination of asterisks (*) and single values for the point code parameters. Table 8-3 shows the valid combinations of the ITU-I parameter values. Table 8-4 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 8-3 Valid Value Combinations for ITU-I Point Code Parameters

| ZONE | AREA | ID | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

Table 8-4 Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP |
|--------------|--------------|--------------|
| Single Value | Single Value | Single Value |



Table 8-4 (Cont.) Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP | |
|--------------|--------------|----------|--|
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

1. Verify that the gateway screening feature is on, by entering the rtrv-feat command.

If the gateway screening feature is on, the GWS field is set to on.



Thertry-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by thertry-feat command, see thertry-feat command description in *Commands User's Guide*.

If the gateway screening feature is on, shown by the entry GWS = on in the rtrv-feat command output, skip step 2, and go to step 3.

2. Turn the gateway screening feature on by entering this command.

```
chq-feat: gws=on
```

Note:

Once the gateway screening feature is turned on with the chg-feat command, it cannot be turned off.

The gateway screening feature must be purchased before you turn this feature on with the <code>chg-feat</code> command. If you are not sure if you have purchased the gateway screening feature, contact your Oracle Sales Representative or Account Representative.

When the chg-feat has successfully completed, this message should appear.

```
rlghncxa03w 06-10-28 11:43:04 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

3. Display all blocked DPC screens in the database using the rtrv-scr-blkdpc command. The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = BLOCKED DPC
SR    REF    RULES
IEC    YES    6
WRD2    YES    1
```



```
WRD3 NO 4
WRD4 YES 9
```

If the screening reference names that you wish to add with this procedure are not shown in the rtrv-scr-blkdpc command output, go to step 4. For this example, the screening reference names are not shown. If these screening reference names are shown in the rtrv-scr-blkdpc command output, make sure the screening data you wish to enter is not already in the database by entering the rtrv-scr-blkdpc command with the screening reference name. For example, enter the rtrv-scr-blkdpc:sr=iec command. The following is an example of the possible output.

| _ | | 06-10-25 OCKED DPC | 15:26:30 | GMT EAGI | LE5 36.0.0 |
|-----|------|-----------------------|----------|----------|------------|
| SR | NI | NC | NCM | NSFI | NSR/ACT |
| IEC | 240 | 001 | 010 | FAIL | |
| IEC | 241 | 010 | * | FAIL | |
| | | | | | |
| SR | NPC | | | NSFI | NSR/ACT |
| IEC | 0023 | 35 | | FAIL | |
| | | | | | |
| SR | ZONE | E AREA | ID | NSFI | NSR/ACT |
| IEC | 1 | 003 | 4 | FAIL | |
| IEC | 1 | 003 | 5 | FAIL | |
| IEC | С | С | С | CGPA | cg01 |

If a gateway screening stop action set is to be assigned to the blocked DPC screen being added to the database, go to step 4.

Step 4 verifies the gateway screening stop action set names in the database. The gateway screening stop action set names are assigned only if the NSFI of the screen being added in this procedure is STOP. If the NSFI of the new screen will be STOP, but a gateway screening stop action set name will not be assigned to the new screen, skip steps 4 and 5 and go to step 6. If the NSFI of the new screen is not STOP, skip step 4 and go to step 5.

4. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT
ID
   NAME 1
               3
                       5
                          6
                              7
   1
   сору сору
2
   rdct
        rdct
3
   cr
        copy rdct
   cncf
4
        cncf
5
   cpcncf copy cncf
   cncfrd cncf rdct
7
   cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```



If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.



If the NSFI of the screen being added in this procedure is STOP or FAIL, skip step 5 and go to step 6.

5. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 7 is in the database.

If the desired screen is not in the database, perform one of the procedures shown in the Gateway Screening Configuration Procedures section to add the desired screen to the database or change an existing screen in the database.



If the point code being added in this procedure is not an ITU-I or 14-bit ITU-N spare point code, skip this step and to step 7.

Note:

If the point code being added in this procedure is an ITU-I or 14-bit ITU-N spare point code and the screening reference contains ITU-I or 14-bit ITU-N spare point codes, skip this step and go to step 7.

6. Display the status of the ITU National and International Spare Point Code Support feature by entering the rtrv-ctrl-feat command with the ITU National and International Spare Point Code Support feature part number.

Enter this command.

```
rtrv-ctrl-feat:partnum=893013601
```

This is an example of the possible output.

rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 The following features have been permanently enabled:

Feature Name Partnum Status Quantity Spare Point Code Support 893013601 on ----

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period Left

Zero entries found.

The following features have expired temporary keys:



Feature Name Zero entries found.

Partnum

If the ITU National and International Spare Point Code Support feature is enabled, go to step 7.

If the ITU National and International Spare Point Code Support feature is not enabled, perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure in *Database Administration - SS7 User's Guide* to enable the ITU National and International Spare Point Code Support feature as required. After the feature has been enabled, go to step 7.

7. Add a new blocked DPC screen to the database using the ent-scr-blkdpc command.

If a gateway screening stop action is to be assigned to the blocked DPC screen being added, enter the <code>ent-scr-blkdpc</code> command with the <code>nsfi=stop</code> parameter and the <code>actname</code> parameter with the name of a gateway screening stop action set shown in the output of the <code>rtrv-gws-actset</code> command executed in step 4.

The following list contains the values for ni, nc, ncm, zone, area, id, npc, msa, ssa, and sp parameters:

- ni 0-255, c, or an asterisk (*)
- nc 0-255, c, or an asterisk (*)
- ncm 0-255, c, or an asterisk (*)
- zone 0-7, c, or an asterisk (*)
- area 0-255, c, or an asterisk (*)
- id 0-7, c, or an asterisk (*)
- npc 1 16383, c, or an asterisk (*)
- msa 0-255, c, or an asterisk (*)
- ssa 0-255, c, or an asterisk (*)
- sp 0-255, c, or an asterisk (*)

A range of values can be specified for the ni, nc, and ncm parameters. See the "Specifying a Range of Values" section for more information on how the asterisk and a range of values are used for the ni, nc, and ncm parameters.

To add a spare point code to the blocked DPC screen, the pcst=s parameter must be specified. To add a non-spare point code to the blocked DPC screen, the pcst parameter does not have to be specified. If the pcst parameter is specified for a screen containing an ITU-I or 14-bit ITU-N non-spare point code, the value must be none. The pcst parameter cannot be used with the zone=c or npc=c parameters.

For this example, enter these commands.

```
ent-scr-blkdpc:sr=gws9:ni=c:nc=c:ncm=c:nsfi=cgpa:nsr=gw13
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
ENT-SCR-BLKDPC: SCREEN SET AFFECTED - GWS9 1% FULL
ENT-SCR-BLKDPC: MASP A - COMPLTD
ent-scr-blkdpc:sr=gws9:ni=005:nc=005:ncm=005:nsfi=fail
```



A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0 ENT-SCR-BLKDPC: SCREEN SET AFFECTED - GWS9 1% FULL ENT-SCR-BLKDPC: MASP A - COMPLTD
```

ent-scr-blkdpc:sr=gw12:ni=c:nc=c:ncm=c:nsfi=cgpa:nsr=gw14

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0 ENT-SCR-BLKDPC: SCREEN SET AFFECTED - GW12 1% FULL ENT-SCR-BLKDPC: MASP A - COMPLTD
```

ent-scr-blkdpc:sr=qw12:ni=004:nc=004:ncm=004:nsfi=fail

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:31:30 GMT EAGLE5 36.0.0 ENT-SCR-BLKDPC: SCREEN SET AFFECTED - GW12 1% FULL ENT-SCR-BLKDPC: MASP A - COMPLTD
```

8. Verify the changes using the rtrv-scr-blkdpc command with the screening reference name used in step 7. For this example, enter these commands.

```
rtrv-scr-blkdpc:sr=gws9
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:32:30 GMT EAGLE5 36.0.0 SCREEN = BLOCKED DPC SR NI NC NCM NSFI NSR/ACT GWS9 C C C CGPA GW13 GWS9 005 005 FAIL -----
```

rtrv-scr-blkdpc:sr=gw12

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:33:30 GMT EAGLE5 36.0.0 SCREEN = BLOCKED DPC SR NI NC NCM NSFI NSR/ACT GW12 C C C CGPA GW14 GW12 004 004 FAIL -----
```

9. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
```



BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.

Figure 8-5 Add a Blocked DPC Screen - Screen 1 of 5

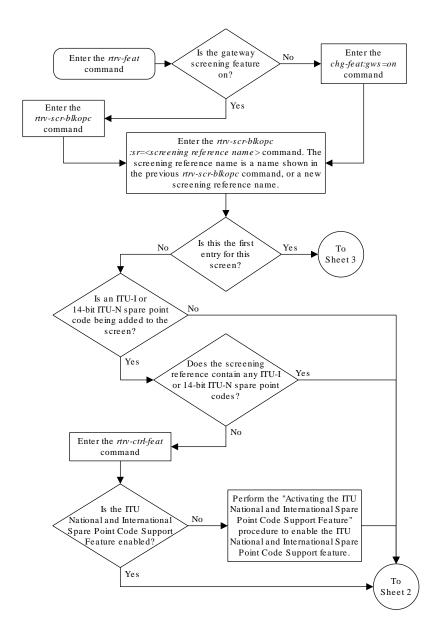
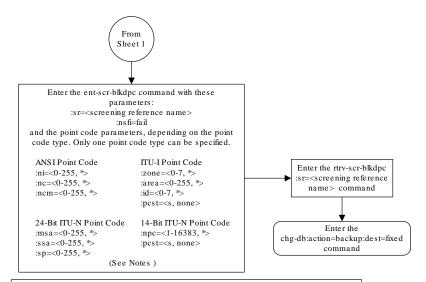


Figure 8-6 Add a Blocked DPC Screen - Screen 2 of 5



Notes:

- 1. A range of values can be specified for the ni, nc, or ncm parameters by inserting double ampers ands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the ni parameter, enter 025 && 200 for the ni parameter value.
- 2. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" section is in the "Adding a Blocked DPC Screen" procedure in the Database Administration Manual - Gateway Screening.

- 3. To add a non-spare point code, the pcst parameter does not have to be specified. If the pcst parameter is specified for a screen containing an ITU-I or 14-bit ITU-N non-spare point code, the value must be none.
- 4. To add a spare point code, the pcst=s parameter must be specified.



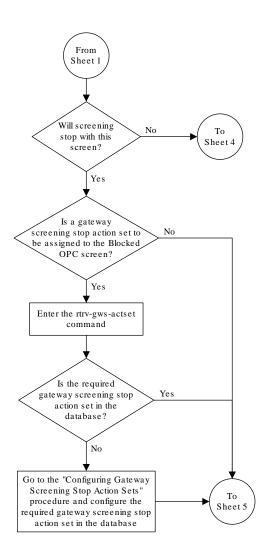
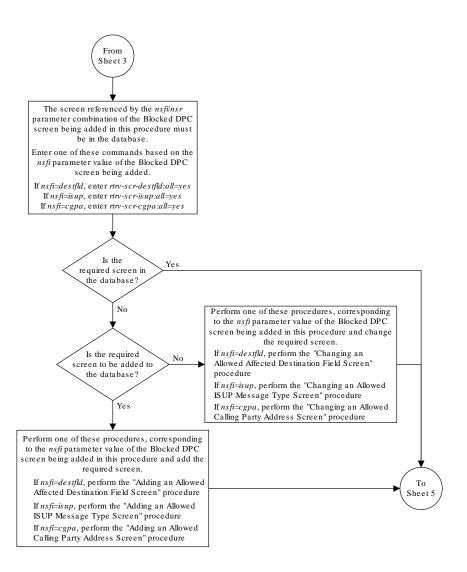


Figure 8-7 Add a Blocked DPC Screen - Screen 3 of 5



Figure 8-8 Add a Blocked DPC Screen - Screen 4 of 5





From Sheets 3 or 4 Enter the ent-scr-blkdpc command with these parameters: :sr=<screening reference name> :nsfi=<destfld, isup, cgpa, stop> :nsr=<next screening reference> :actname=<GWS stop action set name> and the point code parameters, depending on the point code type. Only one point code type can be specified. ANS I Point Code ITU-I Point Code :ni=c :zone=c 14-Bit ITU-N Point Code 24-Bit ITU-N Point Code :msa=c:npc=c (See Notes) Enter the rtrv-scr-blkdpc :sr=<screening reference name> command Enter the

Figure 8-9 Add a Blocked DPC Screen - Screen 5 of 5

Notes:

1. The nsr parameter can be specified only, and must be specified, if the nsfi parameter value is either destfld, isup, or cgpa.

chg-db:action=backup:dest=fixed command

2. The actname parameter is optional and can be specified only with the nsfi=stop parameter. If the actname parameter is specified, the actname parameter value is one of the gateway screening stop action set names shown in the rtrv-gws-actset output on Sheet 3.

Removing a Blocked DPC Screen

This procedure is used to remove a blocked destination point code (DPC) screen from the database using the dlt-scr-blkdpc command. The parameters used by the dlt-scr-blkdpc command are shown in the Gateway Screening Attributes section. The general rules

that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure removes the blocked DPC screen iec with the point code 240-001-010 from the database.



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

The c-c-c entry cannot be removed from the blocked DPC screen unless all other entries in the blocked DPC screen have been removed. The c-c-c entry cannot be removed from the blocked DPC screen if other screens reference the blocked DPC screen. If the last entry (c-c-c) in the blocked DPC screen is removed, the blocked DPC screen is removed. The blocked DPC screen can be referenced by one of the following screens.

- Screen Set
- Allowed OPC
- Blocked OPC
- Allowed SIO
- Allowed DPC

Verifying the Gateway Screening Configuration

Enter the following commands to verify that none of these screens reference the blocked DPC screen being removed from the database.

- rtrv-scrset:nsfi=blkdpc
- rtrv-scr-opc:nsfi=blkdpc
- rtrv-scr-blkopc:nsfi=blkdpc
- rtrv-scr-sio:nsfi=blkdpc
- rtrv-scr-dpc:nsfi=blkdpc

Gateway Screening Configuration Procedures

To change the NSFI of any of these screens, perform one of these procedures.

- Changing a Screen Set
- Changing an Allowed OPC Screen
- Changing a Blocked OPC Screen
- Changing an Allowed SIO Screen
- Changing an Allowed DPC Screen
- Display the blocked DPC screens in the database using the rtrv-scr-blkdpc command.



The following is an example of the possible output.

From the rtrv-scr-blkdpc output, display the blocked DPC screen you wish to remove using the rtrv-scr-blkdpc command with the screening reference name. For this example, enter this command.

```
rtrv-scr-blkdpc:sr=iec
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = BLOCKED DPC
SR
     NI
             NC
                     NCM
                             NSFI
                                    NSR/ACT
IEC
     240
           001
                     010
                             FAIL
                                    _____
            010
IEC 241
                             FAIL
      NPC
SR
                             NSFI
                                    NSR/ACT
IEC
      00235
                             FAIL
                                    _____
      ZONE AREA
SR
                    ID
                             NSFI
                                    NSR/ACT
TEC
      1
             003
                     4
                             FAIL
                                    _____
                                    _____
IEC
      1
             003
                     5
                             FAIL
                     С
TEC
      С
             С
                             CGPA
                                    cg01
```

2. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen being removed is not referenced by other screens in the database.

If the screen being removed is referenced by other screens, perform the procedures shown in the Gateway Screening Configuration Procedures section to change the NSFI of those screens to reference other screens or change the NSFI of these screens to STOP.

3. Remove the blocked DPC screen from the database using the dlt-scr-blkdpc command with the screening reference name shown in the rtrv-scr-blkdpc output in step 1 and with the point code parameter values (ni, nc, ncm, or zone, area, id, npc, msa, ssa, or sp) of the screen being removed from the database. The values for these parameters must be entered exactly as shown in the rtrv-scr-blkdpc output.

To remove an entry containing either an ITU-I or a 14-bit ITU-N spare point code, the pcst=s parameter must be specified with the dlt-scr-blkdpc command.

To remove an entry containing either an ITU-I or a 14-bit ITU-N non-spare point code, the post parameter does not have to be specified with the dlt-scr-blkdpc command. If the post parameter is specified, the value must be none.

The post parameter cannot be used with the zone=c or the npc=c parameters.

For this example, enter this command.

```
dlt-scr-blkdpc:sr=iec:ni=240:nc=001:ncm=010
```



A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 DLT-SCR-BLKDPC: SCREEN SET AFFECTED - IEC 25% FULL DLT-SCR-BLKDPC: MASP A - COMPLTD
```

4. Verify the changes using the rtrv-scr-blkdpc command with the screening reference name used in step 3.

For this example, enter this command.

```
rtrv-scr-blkdpc:sr=iec
```

The following is an example of the possible output.

| rlghn | cxa03w 0 | 6-10-25 | 15:27:30 | GMT EAGL | E5 36.0.0 |
|----------------------|----------|---------|----------|----------|-----------|
| SCREEN = BLOCKED DPC | | | | | |
| SR | NI | NC | NCM | NSFI | NSR/ACT |
| IEC | 241 | 010 | * | FAIL | |
| | | | | | |
| SR | NPC | | | NSFI | NSR/ACT |
| IEC | 00235 | | | FAIL | |
| | | | | | |
| SR | ZONE | AREA | ID | NSFI | NSR/ACT |
| IEC | 1 | 003 | 4 | FAIL | |
| IEC | 1 | 003 | 5 | FAIL | |
| IEC | С | C | С | CGPA | cg01 |

If the screen removed in step 3 was the last screen contained in the specified screening reference, the screening reference is removed from the database. The following message is displayed.

```
E2573 Cmd Rej: SR or NSR does not reference an existing SR
```

5. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

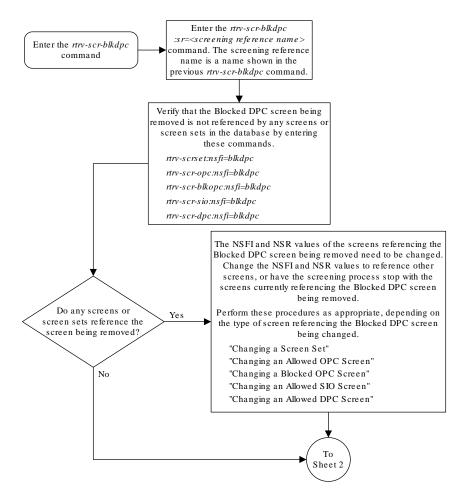
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Figure 8-10 Remove a Blocked DPC Screen - Sheet 1 of 2



From Sheet 1 Enter the dlt-scr-blkdpc command with these parameters: :sr=<screening reference name> and the point code parameters, depending on the point code type contained in the screen being removed. Only one point code type can be specified. ANS I Point Code ITU-I Point Code :ni=<current ni value> :zone=<current zone value> :nc=<current nc value> :area=<current area value> :ncm=<current ncm value> :id=<current id value> :pcst=<s, none> 24-Bit ITU-N Point Code 14-Bit ITU-N Point Code :msa=<current msa value> :npc=<current npc value> :ssa=<current ssa value> :pcst=<s, none> :sp=<current sp value> Enter the rtrv-scr-blkdpc Notes: <screening reference</p> name> command 1. The current values for the ni, nc, ncm, zone, area, id, npc, msa, ssa, or sp parameters must be entered exactly as shown in the rtrv-scr-blkdpc output. 2. The screen containing the point code value C cannot be Enter the removed until all other screens in the screening reference have chg-db:action=backup:dest=fixed been removed. Removing the screen containing the point code command value C will remove the screening reference from the Blocked DPC table. 3. To remove an entry containing either an ITU-I or a 14-bit ITU-N spare point code, the pcst=s parameter must be specified with the dlt-scr-blkdpc command. 4. To remove an entry containing either an ITU-I or a 14-bit ITU-N non-spare point code, the post parameter does not have to be specified with the dlt-scr-blkdpc command. If the pcst parameter is specified for a screen containing either an ITU-I or

a 14-bit ITU-N non-spare point code, the value must be none.

Figure 8-11 Remove a Blocked DPC Screen - Sheet 2 of 2

Changing a Blocked DPC Screen

This procedure is used to change the attributes of a blocked destination point code (DPC) screen in the database using the <code>chg-scr-blkdpc</code> command. The parameters used by the <code>chg-scr-blkdpc</code> command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.



The example in this procedure is used to change the point code 003-003-003 for the blocked DPC screen gw12 to 230-230-230.



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

If the current ni, nc, and ncm are equal to the character "c", only the next screening function identifier and next screening reference can be changed. The next screening function identifier cannot be equal to fail. If the next screening function identifier is not equal to stop, the next screening reference must be specified. Otherwise, only the blocked DPC can be changed.

The blocked DPC screen can reference one of the following screens.

- Allowed Affected Destination Field
- Allowed CGPA
- Allowed ISUP

Verifying the Gateway Screening Configuration

Enter the following commands to verify that these screens are in the database.

- rtrv-scr-destfld:all=yes
- rtrv-scr-cgpa:all=yes
- rtrv-scr-isup:all=yes

Gateway Screening Configuration Procedures

If the desired screen is not in the database, perform one of these procedures to add the desired screen to the database or change an existing screen in the database.

- Adding an Allowed Affected Destination Field Screen
- Adding an Allowed Calling Party Address Screen
- Adding an Allowed ISUP Message Type Screen
- Changing an Allowed Affected Destination Field Screen
- Changing an Allowed Calling Party Address Screen
- Changing an Allowed ISUP Message Type Screen

If the NSFI is stop, the screening of the message will stop at the specified blocked DPC screen. If the NSFI is either cgpa, destfld, or isup, then any message containing a point code that is not listed in the blocked DPC screen with a NSFI equal to fail, will continue to be screened with either the allowed CGPA, allowed DESTFLD, or allowed ISUP screen. All subsequent entries for that screening reference must contain a numeric point code value, the NSFI must be equal to fail, and the nsr parameter cannot be specified. Any message that contains a DPC in the blocked DPC screen with the NSFI equal to fail will be rejected from the network and the screening process is stopped.

The post or npost parameters, specifying whether or not the ITU-I or 14-bit ITU-N point code is a spare point code, cannot be used with the zone=c or npo=c parameters.



Specifying a Range of Values

A range of values can be specified for the point code parameters ni, nc, or ncm.

If a range of values is specified for any of these parameters, and the value of the other parameters match existing values for the screening reference name, the range of values for the point code parameter cannot include any values for that parameter that are currently provisioned for the screening reference name.

For example, screening reference name scr1 contains these entries:

| SR | NI | NC | NCM | NSFI | NSR/ACT |
|------|-----|-----|-----|------|---------|
| SCR1 | С | С | С | CGPA | cg01 |
| SCR1 | 240 | 001 | 010 | FAIL | |
| SCR1 | 241 | 010 | 020 | FAIL | |

Another entry for screening reference scrl with the ni value of 240 and the nc value of 001 cannot be specified if the range of values for the ncm parameter includes the value 010.

The ANSI point code parameter values can be specified as a single value, a range of values, or with an asterisk (*). The asterisk specifies all possible values for the ni, nc, and ncm parameters. Table 8-5 shows the valid combinations of these parameter values.

Table 8-5 Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM |
|-----------------|-----------------|-----------------|
| Single Value | Single Value | Single Value |
| Single Value | Single Value | Range of Values |
| Single Value | Single Value | Asterisk |
| Single Value | Range of Values | Asterisk |
| Single Value | Asterisk | Asterisk |
| Range of Values | Asterisk | Asterisk |
| Asterisk | Asterisk | Asterisk |

A range of values can also be specified for an ITU-I or 24-bit ITU-N point code parameter using a combination of asterisks (*) and single values for the point code parameters. Table 8-6 shows the valid combinations of the ITU-I parameter values. Table 8-7 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 8-6 Valid Value Combinations for ITU-I Point Code Parameters

| ZONE | AREA | ID | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |



Table 8-7 Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

 Display the blocked DPC screens in the database using the rtrv-scr-blkdpc command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = BLOCKED DPC SR REF RULES GW12 YES 2 IEC YES 6 WRD2 YES 1 WRD3 NO 4 WRD4 YES 9
```

From the rtrv-scr-blkdpc output, display the blocked DPC screen you wish to change using the rtrv-scr-blkdpc command with the screening reference name. For this example, enter this command.

```
rtrv-scr-blkdpc:sr=gw12
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = BLOCKED DPC
     NI
           NC
                     NCM
                              NSFI
                                     NSR/ACT
GW12 C
             С
                      С
                              CGPA
                                     GW14
GW12 003
             003
                     003
                              FAIL
```

If a gateway screening stop action set is to be assigned to the blocked DPC screen being changed in the database, go to step 2.

Step 2 verifies the gateway screening stop action set names in the database. The gateway screening stop action set names are assigned only if the NSFI of the screen being changed in this procedure is STOP. If the NSFI of the screen will be changed to STOP, but a gateway screening stop action set name will not be assigned to the screen, skip steps 2 and 3 and go to step 4. If the NSFI of the screen will not be STOP, skip step 2 and go to step 3.

2. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.



```
1
    сору
          сору
2
   rdct rdct
3
   cr
        copy rdct
4
   cncf cncf
5
   cpcncf copy cncf
6
    cncfrd cncf rdct
7
    cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.



If the NSFI of the screen being changed in this procedure will be STOP or FAIL, or if the NSFI of the screen is not being changed, skip step 3 and go to step 4.

3. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 5 is in the database.

If the desired screen is not in the database, go to one of the procedures shown in the Gateway Screening Configuration Procedures section to add the desired screen to the database or change an existing screen in the database.



If any of these conditions apply to this procedure, skip this step and go to step 5:

- The point code in the screen is not being changed.
- The screen being changed contains either an ANSI or 24-bit ITU-N point code.
- The ITU-I or 14-bit ITU-N non-spare point code in the screen is not being changed to an ITU-I or 14-bit ITU-N spare point code.
- The point code in the screen is an ITU-I or 14-bit ITU-N spare point code or the screening reference contains other screens with ITU-I or 14-bit ITU-N spare point codes.
- 4. Display the status of the ITU National and International Spare Point Code Support feature by entering the rtrv-ctrl-feat command with the ITU National and International Spare Point Code Support feature part number.

Enter this command.

```
rtrv-ctrl-feat:partnum=893013601
```



This is an example of the possible output.

rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 The following features have been permanently enabled:

Feature Name Partnum Status Quantity
Spare Point Code Support 893013601 on ----

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period Left Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

If the ITU National and International Spare Point Code Support feature is enabled, go to step 5.

If the ITU National and International Spare Point Code Support feature is not enabled, perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure in the *Database Administration Manual - SS7* to enable the ITU National and International Spare Point Code Support feature as required. After the feature has been enabled, go to step 5.

5. Change the attributes of a blocked DPC screen using the chg-scr-blkdpc command.

If a gateway screening stop action is to be assigned to the blocked DPC screen being changed, enter the <code>chg-scr-blkdpc</code> command with the <code>nsfi=stop</code> parameter and the <code>actname</code> parameter with the name of a gateway screening stop action set shown in the output of the <code>rtrv-gws-actset</code> command executed in step 2.

The current values for the ni, nc, ncm, zone, area, id, npc, msa, ssa, and sp parameters must be entered exactly as shown in the rtrv-scr-blkdpc output in step 1.

The following list contains the values for the nni, nnc, nncm, nzone, narea, nid, nnpc, nmsa, nssa, and nsp parameters:

- nni 0 255, c, or an asterisk (*)
- nnc 0 255, c, or an asterisk (*)
- nncm 0 255, c, or an asterisk (*)
- nzone 0 7, c, or an asterisk (*)
- narea 0 255, c, or an asterisk (*)
- nid 0 7, c, or an asterisk (*)
- nnpc 1 16383, c, or an asterisk (*)
- nmsa 0 255, c, or an asterisk (*)
- nssa 0 255, c, or an asterisk (*)
- nsp 0 255, c, or an asterisk (*)



A range of values can be specified for the nni, nnc, and nncm parameters. See the "Specifying a Range of Values" section for more information on how the asterisk and a range of values are used for the nni, nnc, and nncm parameters.

To change an ITU-I or 14-bit ITU-N spare point code to a non-spare point code, both the pcst=s and npcst=none parameters must be specified with the chg-scr-blkdpc command.

To change an ITU-I or 14-bit ITU-N non-spare point code to a spare point code, the npcst=s parameter must be specified with the chg-scr-blkdpc command. The pcst parameter does not have to be specified.

If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N spare point code, the post=s parameter must be specified with the chg-scr-blkdpc command.

If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N non-spare point code, the post parameter does not have to be specified with the <code>chg-scr-blkdpc</code> command. If the post parameter is specified for a screen containing either an ITU-I or 14-bit ITU-N non-spare point code, the post parameter value must be <code>none</code>.

The post or npost parameters cannot be used with the zone=c or npo=c parameters.

For this example, enter this command.

```
chg-scr-
blkdpc:sr=gw12:ni=003:nc=003:ncm=003:nni=230:nnc=230 :nncm=2
30
```

The following message appears.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0 CHG-SCR-BLKDPC: SCREEN SET AFFECTED - GW12 1% FULL CHG-SCR-BLKDPC: MASP A - COMPLTD
```

6. Verify the changes using the rtrv-scr-blkdpc command with the screening reference name used in step 5.

For this example, enter this command.

```
rtrv-scr-blkdpc:sr=gw12
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0 SCREEN = BLOCKED DPC SR NI NC NCM NSFI NSR/ACT GW12 C C C CGPA GW14 GW12 230 230 230 FAIL -----
```

 Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk
```



complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.

Figure 8-12 Change a Blocked DPC Screen - Sheet 1 of 5

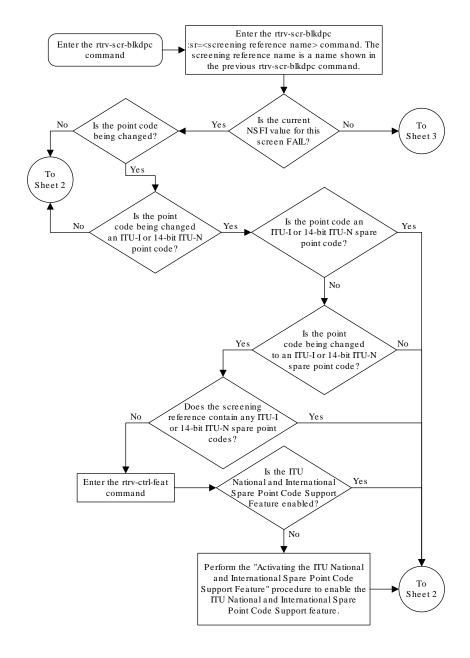
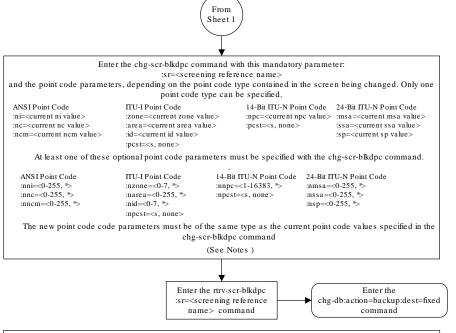




Figure 8-13 Change a Blocked DPC Screen - Sheet 2 of 5



Notes:

- 1. A range of values can be specified for the nni, nnc, or nncm parameters by inserting double ampersands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the nni parameter, enter 025 &&200 for the nni parameter value.
- 2. The current values for the ni, nc, ncm, zone, area, id, npc, msa, ssa, or sp parameters must be entered exactly as shown in the rtrv-scr-blkdpc output. The current point code value cannot be C.
- 3. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" section is in the "Changing a Blocked DPC Screen" procedure in the Database Administration Manual - Gateway Screening.

- 4. To change an ITU-I or 14-bit ITU-N spare point code to a non-spare point code, both the pcst=s and npcst=none parameters must be specified with the chg-scr-blkdpc command.
- 5. To change an ITU-I or 14-bit ITU-N non-spare point code to a spare point code, the npcst=s parameter must be specified with the chg-scr-blkdpc command. The pcst parameter does not have to be specified.
- 6. If the current point code in the screen being changed is either an ΠU-I or 14-bit ΠU-N spare point code, the pcst=s parameter must be specified with the chg-scr-blkdpc command.
- 7. If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N non-spare point code, the post parameter does not have to be specified with the chg-scr-blkdpc command. If the post parameter is specified for a screen containing either an ITU-I or 14-bit ITU-N non-spare point code, the post parameter value must be none.



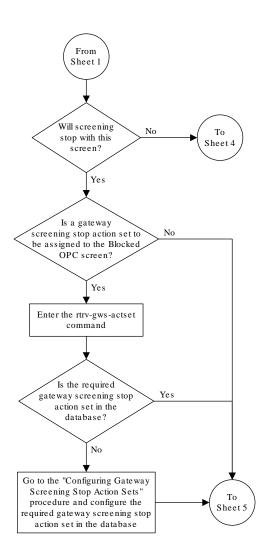


Figure 8-14 Change a Blocked DPC Screen - Sheet 3 of 5



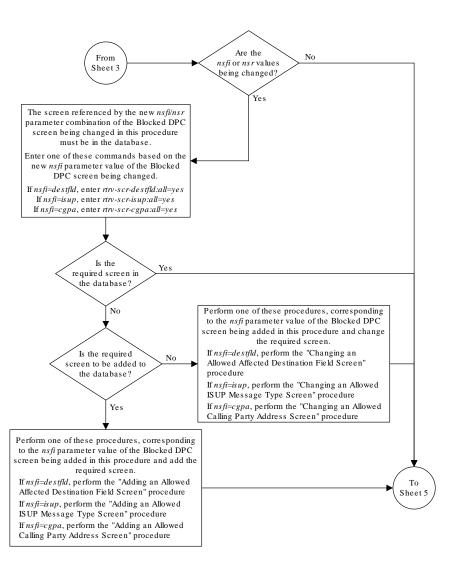
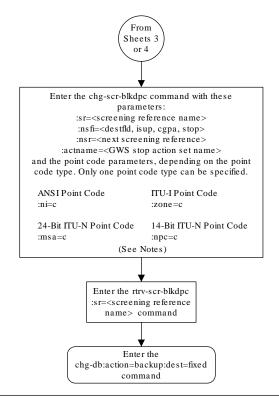


Figure 8-15 Change a Blocked DPC Screen - Sheet 4 of 5



Figure 8-16 Change a Blocked DPC Screen - Sheet 5 of 5



Notes

- 1. The nsr parameter can be specified only, and must be specified, if the nsfi parameter value is either destfld, isup, or cgpa.
- 2. The actname parameter is optional and can be specified only with the nsfi=stop parameter. If the actname parameter is specified, the actname parameter value is one of the gateway screening stop action set names shown in the rtrv-gws-actset output on Sheet 3.



9

Allowed Destination Point Code (DPC) Screen Configuration

Chapter 9, Allowed Destination Point Code (DPC) Screen Configuration, contains the procedures necessary to configure allowed destination point code screens.

Introduction

The allowed destination point code (DPC) screen identifies a set of DPC's that are allowed to receive SS7 messages from another network. The gray shaded areas in Figure 9-4 shows the fields of the SS7 message that are checked by the allowed DPC screening function.

Gateway Screening Actions

If a match is not found, the message is discarded.

If a match is found, the nsfi is examined to determine the next step in the screening process. If the nsfi value is any value other than stop, the next screening reference (nsr) is identified and the screening process continues to the next screen identified by the nsfi and nsr parameter values.

If the nsfi is equal to stop, the screening process stops and the message is processed. If a gateway screening stop action set is specified with the screen, shown by the actname parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

- If the rdct (redirect) gateway screening stop action is specified, the message is diverted
 from the original destination and sent to another destination with the Database Transport
 Access feature, specified by global title translation, for further processing.
- If the cncf gateway screening stop action is specified, the PIP parameter in the incoming ISUP IAM message is converted to the GN parameter. The GN parameter in the incoming ISUP IAM message is converted to the PIP parameter. The message is then sent to the node specified by the DPC in the routing label in the message. For more information on the Calling Name Conversion Facility feature, see Calling Name Conversion Facility (CNCF) Configuration.
- If the tlnp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are processed either by the ISUP NP with EPAP feature (if the ISUP NP with EPAP feature is enabled and turned on) or by the Triggerless LNP feature (if the Triggerless LNP feature is turned on). The ISUP NP with EPAP feature is discussed in more detail in *G-Port User's Guide*. The Triggerless LNP feature is discussed in more detail in *ELAP Administration and LNP Feature Activation Guide*.
- If the tinp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in *G-Port User's Guide*.



- If the tif, tif2, or tif3 gateway screening stop actions are specified, TIF processing is applied to the message.
- If the sccp gateway screening stop action is specified, MTP routed SCCP UDT/ XUDT are forwarded to the service modules for further processing.

Allowed DPC Screening Actions

Figure 9-1 through Figure 9-3 show the screening actions of the allowed DPC screen.

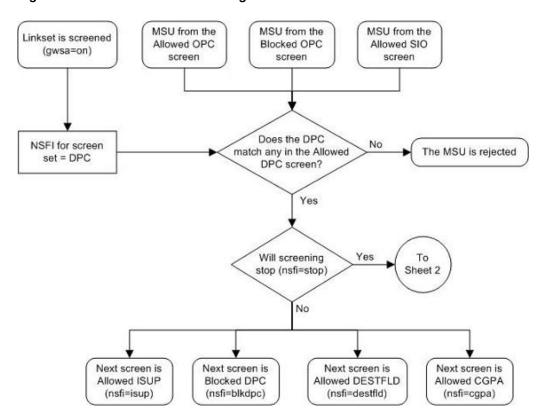


Figure 9-1 Allowed DPC Screening Actions - Sheet 1 of 3

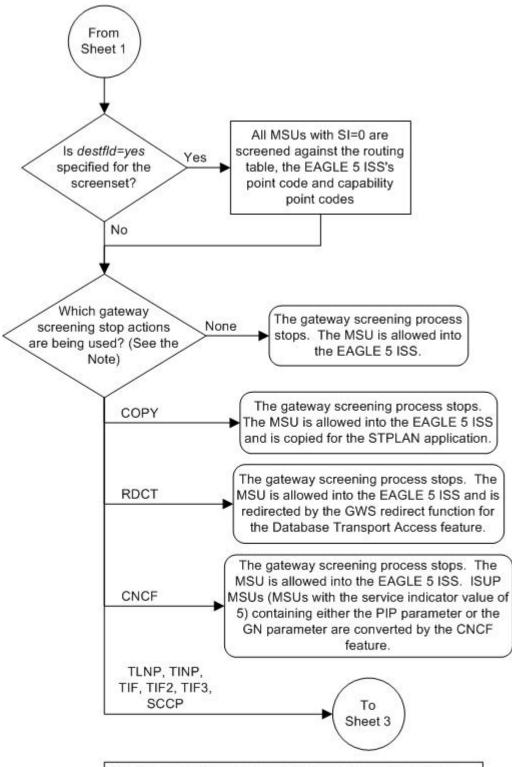


Figure 9-2 Allowed DPC Screening Actions - Sheet 2 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.

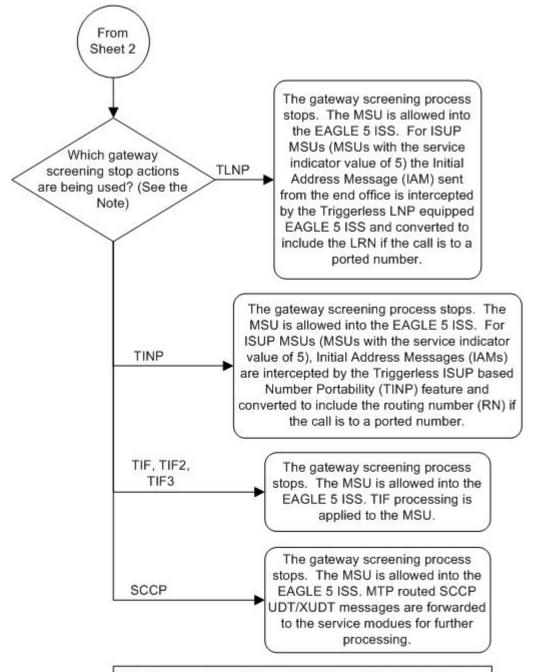


Figure 9-3 Allowed DPC Screening Actions - Sheet 3 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.



Figure 9-4 Allowed DPC Screening Functions

ANSI MSU (ANSI Message Signal Unit)

| | SIO | SIF | | | |
|------------|--------------------------|-----------|---------------------|-----|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | DPC | outing Label OPC | SLS | |
| | | NCM NC NI | NCM NC NI | XX | |

ITU-I MSU (ITU International Message Signal Unit)

| | SIO | | SIF | | |
|------------|--------------------------|---------------------|---------------------|-----------|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | | Routing Label | | |
| | | DPC ID AREA ZONE | OPC ID AREA ZONE | SLS xx | |

14-Bit ITU-N MSU (14-Bit ITU National Message Signal Unit)

| | SIO | | s | IF | |
|------------|--------------------------|------------------|---------------------------|-----------|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Ro DPC NPC | outing Labe OPC NPC | SLS xx | |

24-Bit ITU-N MSU (24-Bit ITU National Message Signal Unit)

| | SIO | | SIF | | |
|------------|--------------------------|-------------------|-------------------|-----------|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | | Routing Label | | |
| | | DPC SP SSA MSA | OPC SP SSA MSA | SLS xx | |

Adding an Allowed DPC Screen

This procedure is used to add an allowed destination point code (DPC) screen to the database using the <code>ent-scr-dpc</code> command. The parameters used by the <code>ent-scr-dpc</code> command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The examples in this procedure are used to add the allowed DPC screen data shown in Table 9-1 and based on the example configurations shown in Figure 2-3, Figure 2-5, and Figure 2-9.

Table 9-1 Example Gateway Screening Allowed DPC Configuration Table

| Screening Reference | NI | NC | NCM | NSFI | NSR |
|------------------------|-----|-----|----------|--------|------|
| gws9 | 003 | 003 | 003 | blkdpc | gw12 |
| iec | 070 | 070 | 025&&135 | blkdpc | gws9 |

Table 9-1 (Cont.) Example Gateway Screening Allowed DPC Configuration Table

| Screening Reference | NI | NC | NCM | NSFI | NSR | |
|------------------------|-----|-----|-----|------|------|--|
| isp2 | 073 | 200 | 059 | isup | isp2 | |
| tup1 | 050 | 034 | 049 | isup | tup1 | |



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

The allowed DPC screen can reference one of the following screens.

- Blocked DPC
- Allowed Affected Destination Field
- Allowed CGPA
- Allowed ISUP

Verifying the Gateway Screening Configuration

Enter the following commands to verify that these screens are in the database.

- rtrv-scr-blkdpc:all=yes
- rtrv-scr-destfld:all=yes
- rtrv-scr-cgpa:all=yes
- rtrv-scr-isup:all=yes

Gateway Screening Configuration Procedures

If the desired screen is not in the database, perform one of these procedures to add the desired screen to the database or change an existing screen in the database.

- Adding a Blocked DPC Screen
- Adding an Allowed Affected Destination Field Screen
- · Adding an Allowed Calling Party Address Screen
- Adding an Allowed ISUP Message Type Screen
- Changing a Blocked DPC Screen
- Changing an Allowed Affected Destination Field Screen
- · Changing an Allowed Calling Party Address Screen
- Changing an Allowed ISUP Message Type Screen

Specifying a Range of Values

A range of values can be specified for the point code parameters ni, nc, or ncm.

If a range of values is specified for any of these parameters, and the value of the other parameters match existing values for the screening reference name, the range of

values for the point code parameter cannot include any values for that parameter that are currently provisioned for the screening reference name.

For example, screening reference name scr1 contains these entries:

| SR | NI | NC | NCM | NSFI | NSR/ACT |
|------|-----|-----|-----|------|---------|
| SCR1 | 240 | 001 | 010 | CGPA | |
| SCR1 | 241 | 010 | 020 | STOP | |

Another entry for screening reference scrl with the ni value of 240 and the nc value of 001 cannot be specified if the range of values for the ncm parameter includes the value 010.

The ANSI point code parameter values can be specified as a single value, a range of values, or with an asterisk (*). The asterisk specifies all possible values for the ni, nc, and ncm parameters. Table 9-2 shows the valid combinations of these parameter values.

Table 9-2 Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM |
|-----------------|-----------------|-----------------|
| Single Value | Single Value | Single Value |
| Single Value | Single Value | Range of Values |
| Single Value | Single Value | Asterisk |
| Single Value | Range of Values | Asterisk |
| Single Value | Asterisk | Asterisk |
| Range of Values | Asterisk | Asterisk |
| Asterisk | Asterisk | Asterisk |

A range of values can also be specified for an ITU-I or 24-bit ITU-N point code parameter using a combination of asterisks (*) and single values for the point code parameters. Table 9-3 shows the valid combinations of the ITU-I parameter values. Table 9-4 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 9-3 Valid Value Combinations for ITU-I Point Code Parameters

| ZONE | AREA | ID | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

Table 9-4 Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

1. Verify that the gateway screening feature is on, by entering the rtrv-feat command.



If the gateway screening feature is on, the GWS field is set to on.



The rtrv-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-feat command, see the rtrv-feat command description in Commands User's Guide.

If the gateway screening feature is on, shown by the entry GWS = on in the rtrv-feat command output, skip step 2, and go to step 3.

2. Turn the gateway screening feature on by entering this command.

chg-feat:gws=on



Once the gateway screening feature is turned on with the chg-feat command, it cannot be turned off.

Note:

The gateway screening feature must be purchased before you turn this feature on with the <code>chg-feat</code> command. If you are not sure if you have purchased the gateway screening feature, contact your Oracle Sales Representative or Account Representative.

When the <code>chg-feat</code> has successfully completed, this message should appear.

```
rlghncxa03w 06-10-28 11:43:04 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

3. Display all allowed DPC screens in the database using the rtrv-scr-dpc command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED DPC SR REF RULES IEC YES 6 WRD2 YES 1 WRD4 YES 9
```

If the screening reference names that you wish to add with this procedure are not shown in the rtrv-scr-dpc command output, go to step 2. For this example, the screening reference names are not shown. If these screening reference names are shown in the rtrv-scr-dpc command output, make sure the screening data



you wish to enter is not already in the database by entering the rtrv-scr-dpc command with the screening reference name. For example, enter the rtrv-scr-dpc:sr=iec command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED DPC
SR
         NC
                   NCM
    ΝI
                          NSFI
                                NSR/ACT
          001
                  010
IEC
    240
                          STOP
                   *
IEC
   241
           010
                          CGPA
                                cg04
SR
    NPC
                          NSFI NSR/ACT
IEC
    00235
                          CGPA cg04
    00240
IEC
                          CGPA
                                cg01
           AREA
      ZONE
                  ID
                          NSFI
                                NSR/ACT
SR
            003
      1
                  4
IEC
                          BLKDPC blk1
IEC
            003
                   5
                          STOP ----
```

If a gateway screening stop action set is to be assigned to the allowed DPC screen being added to the database, go to step 4.

Step 4 verifies the gateway screening stop action set names in the database. The gateway screening stop action set names are assigned only if the NSFI of the screen being added in this procedure is STOP. If the NSFI of the new screen will be STOP, but a gateway screening stop action set name will not be assigned to the new screen, skip steps 4, 5, and 6 and go to step 7. If the NSFI of the new screen is not STOP, skip step 4 and 5, and go to step 6.

4. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT ACT
ID
                 3
                    4
                        5
                            6
                                 7
   NAME
            2
   _____ ___ ___ ___ ___ ____
1
   сору сору
2
   rdct rdct
3
   cr
        copy rdct
4 cncf cncf
5 cpcncf copy cncf
6
   cncfrd cncf rdct
7
   cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.



Note:

If the gateway screening stop action set being assigned to the Allowed DPC screen does not contain the redirect stop action, skip step 5 and go to step 6.

5. Verify the EAGLE's point code by entering the rtrv-sid command.

The following is an example of the possible output.

| rlghncxa03w PCA PCTYPE | 06-10-10 11:43:04 PCI | GMT EAGLE5 36.0 PCN | CLLI | |
|---|---|--|---------|--------------------------|
| 100-100-100 | 3-75-7 | 7-9-8-1 | rlghncx | a03w OTHER |
| CPCA 002-002-002 002-002-006 004-002-001 | 002-002-003 002-002-007 004-003-003 | 002-002-00 002-002-00 050-060-07 | 0 8 | 02-002-005 02-002-009 |
| CPCA (LNP) 005-005-002 | 005-005-004 | 005-005-00 |)5 0 | 06-006-006 |
| CPCI 1-002-1 2-001-1 | 1-002-2 7-222-7 | 1-002-3 | 1 | -002-4 |
| CPCN 2-0-10-3 2-2-3-3 | 2-0-11-0 2-2-4-0 | 2-0-11-2 10-14-10-1 | | -0-12-1 |

Caution:

Redirecting SLTA/SLTM messages prevents SLTA/SLTM messages from being returned to the EAGLE. The signaling link carrying these messages will fail if these messages are not returned to the EAGLE. To prevent SLTA/SLTM messages from being redirected, gateway screening stop action sets containing the redirect stop action should not be assigned to Allowed DPC screens containing the EAGLE's point code.

Note:

If the NSFI of the screen being added in this procedure is STOP, skip step 6 and go to step 7.

Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 8 is in the database.

If the desired screen is not in the database, perform one of the procedures shown in the Gateway Screening Configuration Procedures section to add the desired screen to the database or change an existing screen in the database.



If the point code being added in this procedure is not an ITU-I or 14-bit ITU-N spare point code, continue the procedure with step 8.

Note:

If the point code being added in this procedure is an ITU-I or 14-bit ITU-N spare point code and the screening reference contains ITU-I or 14-bit ITU-N spare point codes, continue the procedure with step 8.

7. Display the status of the ITU National and International Spare Point Code Support feature by entering the rtrv-ctrl-feat command with the ITU National and International Spare Point Code Support feature part number.

Enter this command.

```
rtrv-ctrl-feat:partnum=893013601
```

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 The following features have been permanently enabled:
```

```
Feature Name Partnum Status Quantity Spare Point Code Support 893013601 on ----
```

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period Left Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

If the ITU National and International Spare Point Code Support feature is enabled, go to step 8.

If the ITU National and International Spare Point Code Support feature is not enabled, perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure in *Database Administration - SS7 User's Guide* to enable the ITU National and International Spare Point Code Support feature as required. After the feature has been enabled, go to step 8.

8. Add a new allowed DPC screen to the database using the ent-scr-dpc command.

If a gateway screening stop action is to be assigned to the allowed DPC screen being added, enter the <code>ent-scr-dpc</code> command with the <code>nsfi=stop</code> parameter and the

actname parameter with the name of a gateway screening stop action set shown in the output of the rtrv-gws-actset command executed in step 4.



Caution:

Redirecting SLTA/SLTM messages prevents SLTA/ SLTM messages from being returned to the EAGLE. The signaling link carrying these messages will fail if these messages are not returned to the EAGLE. To prevent SLTA/SLTM messages from being redirected, gateway screening stop action sets containing the redirect stop action should not be assigned to Allowed DPC screens containing the EAGLE's point code, shown in step 5.

The following list contains the values for ni, nc, ncm, zone, area, id, npc, msa, ssa, and sp parameters:

- ni 0 255 or an asterisk (*)
- nc 0 255 or an asterisk (*)
- ncm 0 255 or an asterisk (*)
- zone 0 7 or an asterisk (*)
- area 0 255 or an asterisk (*)
- id 0 7 or an asterisk (*)
- npc 1 16383 or an asterisk (*)
- msa 0 255 or an asterisk (*)
- ssa 0 255 or an asterisk (*)
- sp 0 255 or an asterisk (*)

A range of values can be specified for the ni, nc, and ncm parameters. See the Specifying a Range of Values section for more information on how the asterisk and a range of values are used for the ni, nc, and ncm parameters. To add a spare point code to the allowed DPC screen, the post=s parameter must be specified.

To add a non-spare point code to the allowed DPC screen, the post parameter does not have to be specified. If the post parameter is specified for a screen containing an ITU-I or 14-bit ITU-N non-spare point code, the value must be none.

For this example, enter these commands.

```
ent-scr-
dpc:sr=gws9:ni=003:nc=003:ncm=003:nsfi=blkdpc:nsr=gw12
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
ENT-SCR-DPC: SCREEN SET AFFECTED - GWS9 1% FULL
ENT-SCR-DPC: MASP A - COMPLTD
ent-scr-dpc:sr=isp2:ni=073:nc=200:ncm=059:nsfi=isup:nsr=isp2
```



A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0 ENT-SCR-DPC: SCREEN SET AFFECTED - ISP2 1% FULL ENT-SCR-DPC: MASP A - COMPLTD
```

ent-scr-dpc:sr=tup1:ni=050:nc=034:ncm=059:nsfi=isup:nsr=tup1

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0
ENT-SCR-DPC: SCREEN SET AFFECTED - TUP1 1% FULL
ENT-SCR-DPC: MASP A - COMPLTD

ent-scr-
dpc:sr=iec:ni=070:nc=070:ncm=025&&135:nsfi=blkdpc :nsr=gws9
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0 ENT-SCR-DPC: SCREEN SET AFFECTED - IEC 1% FULL ENT-SCR-DPC: MASP A - COMPLTD
```

9. Verify the changes using the rtrv-scr-dpc command with the screening reference name used in step 8.

For this example, enter these commands.

```
rtrv-scr-dpc:sr=gws9
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED DPC
SR NI NC NCM NSFI NSR/ACT
GWS9 003 003 003 BLKDPC GW12
```

rtrv-scr-dpc:sr=iec

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:31:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED DPC SR NI NC NCM NSFI NSR/ACT IEC 070 070 025&&135 BLKDPC GWS9
```

rtrv-scr-dpc:sr=isp2

The following is an example of the possible output.

| rlghn | cxa03w | 06-10-25 | 15:31:30 | GMT EAG | LE5 36.0.0 |
|-------|---------|-----------|----------|---------|------------|
| SCREE | N = ALI | LOWED DPC | | | |
| SR | NI | NC | NCM | NSFI | NSR/ACT |
| ISP2 | 073 | 200 | 059 | ISUP | ISP2 |



```
rtrv-scr-dpc:sr=tup1
```

The following is an example of the possible output.

10. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



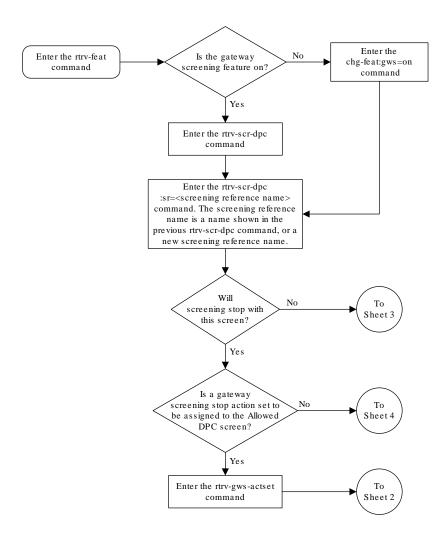


Figure 9-5 Add an Allowed DPC Screen - Sheet 1 of 5



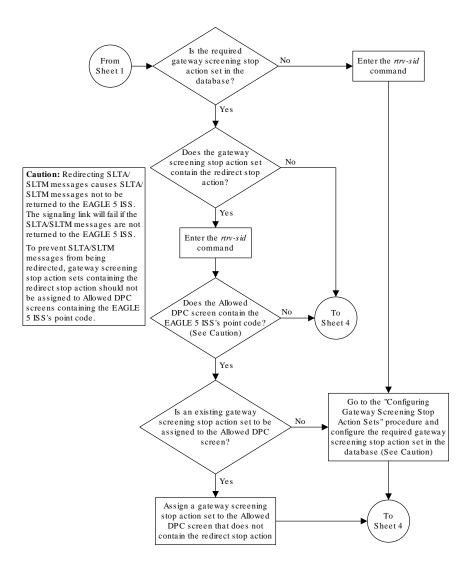
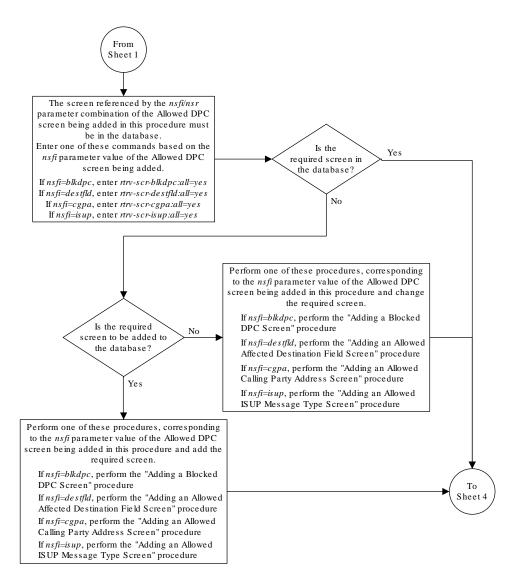


Figure 9-6 Add an Allowed DPC Screen - Sheet 2 of 5



Figure 9-7 Add an Allowed DPC Screen - Sheet 3 of 5





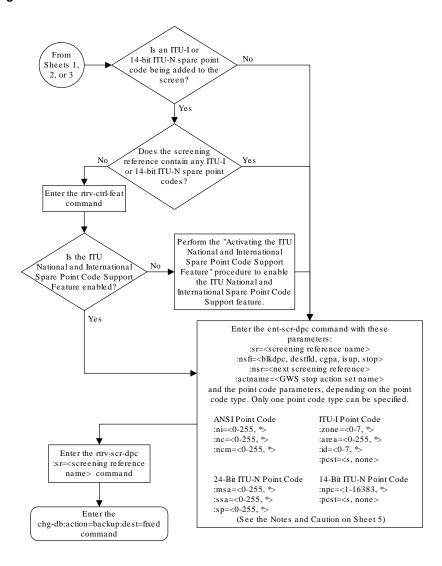


Figure 9-8 Add an Allowed DPC Screen - Sheet 4 of 5



Figure 9-9 Add an Allowed DPC Screen - Sheet 5 of 5

Notes:

- 1. A range of values can be specified for the ni, nc, or ncm parameters by inserting double ampersands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the ni parameter, enter 025 &&200 for the ni parameter value.
- 2. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" section is in the "Adding an Allowed DPC Screen" procedure in the Database Administration Manual - Gateway Screening.

- 3. The nsr parameter can be specified only, and must be specified, if the nsfi parameter value is either blkdpc, destfld, cgpa, or isup.
- 4. The actname parameter is optional and can be specified only with the nsfi=stop parameter. If the actname parameter is specified, the actname parameter value is one of the gateway screening stop action set names shown in the ntrv-gws-actset output on Sheet 1.
- 5. To add a non-spare point code, the *pcst* parameter does not have to be specified. If the *pcst* parameter is specified for a screen containing an ITU-I or 14-bit ITU-N non-spare point code, the value must be *none*.
- 6. To add a spare point code, the pcst=s parameter must be specified.

Caution: Redirecting SLTA/SLTM messages causes SLTA/SLTM messages noto to be returned to the EAGLE 5 ISS. The signaling link will fail if the SLTA/SLTM messages are not returned to the EAGLE 5 ISS.

To prevent SLTA/SLTM messages from being redirected, gateway screening stop action sets containing the redirect stop action should not be assigned to Allowed DPC screens containing the EAGLE 5 ISS's point code.

Removing an Allowed DPC Screen

This procedure is used to remove an allowed destination point code (DPC) screen from the database using the dlt-scr-dpc command. The parameters used by the dlt-scr-dpc command are shown in the Gateway Screening Attributes section. The general rules that

apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure removes the allowed DPC screen gws9 from the database.



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

The allowed DPC screen can be referenced by one of the following screens.

- Screen Set
- Allowed OPC
- Blocked OPC
- Allowed SIO

Verifying the Gateway Screening Configuration

Enter the following commands to verify that none of these screens reference the allowed DPC screen being removed from the database.

- rtrv-scrset:nsfi=dpc
- rtrv-scr-opc:nsfi=dpc
- rtrv-scr-blkopc:nsfi=dpc
- rtrv-scr-sio:nsfi=dpc

Gateway Screening Configuration Procedures

To change the NSFI of any of these screens, perform one of these procedures.

- Changing a Screen Set
- Changing an Allowed OPC Screen
- Changing a Blocked OPC Screen
- · Changing an Allowed SIO Screen
- Display the allowed DPC screens in the database using the rtrv-scr-dpc command.

The following is an example of the possible output.



```
WRD2 YES 1
WRD4 YES 9
```

From the rtrv-scr-dpc output, display the allowed DPC screen you wish to remove using the rtrv-scr-dpc command with the screening reference name. For this example, enter this command.

```
rtrv-scr-dpc:sr=gws9
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED DPC SR NI NC NCM NSFI NSR/ACT GWS9 003 003 003 BLKDPC GW12
```

2. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen being removed is not referenced by other screens in the database.

If the screen being removed is referenced by other screens, perform the procedures shown in the Gateway Screening Configuration Procedures section to change the NSFI of those screens to reference other screens or change the NSFI of these screens to STOP.

3. Remove the allowed DPC screen from the database using the dlt-scr-dpc command with the screening reference name shown in the rtrv-scr-dpc output in step 1 and with the point code parameter values (ni, nc, ncm, or zone, area, id, or npc, or msa, ssa, sp) of the screen being removed from the database.

The values for these parameters must be entered exactly as shown in the rtrv-scr-dpc output.

To remove an entry containing either an ITU-I or a 14-bit ITU-N spare point code, the pcst=s parameter must be specified with the dlt-scr-dpc command.

To remove an entry containing either an ITU-I or a 14-bit ITU-N non-spare point code, the post parameter does not have to be specified with the dlt-scr-dpc command. If the post parameter is specified, the value must be none.

For this example, enter this command.

```
dlt-scr-dpc:sr=gws9:ni=003:nc=003:ncm=003
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 DLT-SCR-DPC: SCREEN SET AFFECTED - GWS9 0% FULL DLT-SCR-DPC: MASP A - COMPLTD
```

4. Verify the changes using the rtrv-scr-dpc command with the screening reference name used in step 3.

For this example, enter this command.

```
rtrv-scr-dpc:sr=gws9
```

The following is an example of the possible output.

```
E2573 Cmd Rej: SR or NSR does not reference an existing SR
```



This message shows that the specified screening reference name is not in the database and the action of the dlt-scr-dpc command in step 3 was successful. If the specified screening reference name contained more than one entry when the dlt-scr-dpc command was executed in step 3, the rtrv-scr-dpc: sr= command output would show the remaining entries in the screening reference instead of error message E2573.

5. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Enter the rtrv-scr-dpc :sr=<screening reference name> Enter the rtrv-scr-dpc command. The screening reference command name is a name shown in the previous rtrv-scr-dpc command. Verify that the Allowed DPC screen being removed is not referenced by any screens in the database by entering these commands. rtrv-scr-scrset:nsfi=dpc rtrv-scr-opc:nsfi=dpc rtrv-scr-blkopc:nsfi=dpc rtrv-scr-sio:nsfi=dpc Do any screen sets reference the screen being removed? Enter the dlt-scr-dpc command with these Yes parameters: :sr=<screening reference name> and the point code parameters, depending on the point Change the screens, or screen sets. code type contained in the screen being removed. Only one point referencing the Allowed DPC being removed code type can be specified. by performing these procedures as appropriate and change the screen, or ANSI Point Code ITU-I Point Code screen set, with other NSFI and NSR values :ni=<current ni value> :zone=<current zone value> or have the screening process stop with the :nc=<current nc value> :area=<current area value> screen or screen set. :ncm=<current ncm value> :id=<current id value> :pcst= < s, none >"Changing a Screen Set" "Changing an Allowed OPC Screen" 24-Bit ITU-N Point Code 14-Bit ITU-N Point Code "Changing a Blocked OPC Screen" :msa=<current msa value> :npc=<current npc value> "Changing an Allowed SIO Screen" :ssa=<current ssa value> :pcst=<s, none> :sp=<current sp value> 1. The current values for the ni, nc, ncm, zone, area, id, npc, msa, ssa, or sp parameters must be entered exactly as shown in the rtrv-scr-dpc output. Enter the rtrv-scr-dpc rsr=<screening reference 2. To remove an entry containing either an ITU-I or a 14-bit name > command ITU-N spare point code, the pcst=s parameter must be specified with the dlt-scr-dpc command. 3. To remove an entry containing either an ITU-I or a 14-bit ITU-N non-spare point code, the pcst parameter does not have Enter the to be specified with the dlt-scr-dpc command. If the pcst chg-db:action=backup:dest=fixed parameter is specified for a screen containing either an ITU-I or command a 14-bit ITU-N non-spare point code, the value must be none.

Figure 9-10 Remove an Allowed DPC Screen

Changing an Allowed DPC Screen

This procedure is used to change the attributes of an allowed destination point code (DPC) screen in the database using the chg-scr-dpc command. The parameters used by the chg-scr-dpc command are shown in the Gateway Screening Attributes section. The

general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure change point code in the allowed DPC screen gws9 to 009-009-009 and change the nsfi to stop.



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

The allowed DPC screen can reference one of the following screens.

- Blocked DPC
- Allowed Affected Destination Field
- Allowed CGPA
- Allowed ISUP Message Type

Verifying the Gateway Screening Configuration

Enter the following commands to verify that these screens are in the database.

- rtrv-scr-blkdpc:all=yes
- rtrv-scr-destfld:all=yes
- rtrv-scr-cgpa:all=yes
- rtrv-scr-isup:all=yes

Gateway Screening Configuration Procedures

If the desired screen is not in the database, perform one of these procedures to add the desired screen to the database or change an existing screen in the database.

- Adding a Blocked DPC Screen
- Adding an Allowed Affected Destination Field Screen
- Adding an Allowed Calling Party Address Screen
- Adding an Allowed ISUP Message Type Screen
- · Changing a Blocked DPC Screen
- Changing an Allowed Affected Destination Field Screen
- Changing an Allowed Calling Party Address Screen
- Changing an Allowed ISUP Message Type Screen

Specifying a Range of Values

A range of values can be specified for the point code parameters ni, nc, or ncm.

If a range of values is specified for any of these parameters, and the value of the other parameters match existing values for the screening reference name, the range of values for the point code parameter cannot include any values for that parameter that are currently provisioned for the screening reference name.



For example, screening reference name scr1 contains these entries:

| SR | NI | NC | NCM | NSFI | NSR/ACT |
|------|-----|-----|-----|------|---------|
| SCR1 | 240 | 001 | 010 | CGPA | |
| SCR1 | 241 | 010 | 020 | STOP | |

Another entry for screening reference scrl with the ni value of 240 and the nc value of 001 cannot be specified if the range of values for the ncm parameter includes the value 010.

The ANSI point code parameter values can be specified as a single value, a range of values, or with an asterisk (*). The asterisk specifies all possible values for the ni, nc, and ncm parameters. Table 9-5 shows the valid combinations of these parameter values.

Table 9-5 Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM | |
|-----------------|-----------------|-----------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Range of Values | |
| Single Value | Single Value | Asterisk | |
| Single Value | Range of Values | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Range of Values | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

A range of values can also be specified for an ITU-I or 24-bit ITU-N point code parameter using a combination of asterisks (*) and single values for the point code parameters. Table 9-6 shows the valid combinations of the ITU-I parameter values. Table 9-7 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 9-6 Valid Value Combinations for ITU-I Point Code Parameters

| ZONE | AREA | ID | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

Table 9-7 Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

1. Display the allowed DPC screens in the database using the rtrv-scr-dpc command.



The following is an example of the possible output.

From the rtrv-scr-dpc output, display the allowed DPC screen you wish to remove using the rtrv-scr-dpc command with the screening reference name. For this example, enter this command.

```
rtrv-scr-dpc:sr=gws9
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED DPC
SR NI NC NCM NSFI NSR/ACT
GWS9 003 003 003 BLKDPC GW12
```

If a gateway screening stop action set is to be assigned to the allowed DPC screen being changed in the database, go to step 2.

Step 2 verifies the gateway screening stop action set names in the database. The gateway screening stop action set names are assigned only if the NSFI of the screen being changed in this procedure is STOP. If the NSFI of the screen will be changed to STOP, but a gateway screening stop action set name will not be assigned to the screen, skip steps 2, 3, and 4, and go to step 5. If the NSFI of the screen will not be STOP, skip step 2 and 3, and go to step 4.

2. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT
ID
   NAME
        1 2
                 3
                   4
                         5
                            6
                                 7 8 9
                                             10
1
   copy copy
   rdct rdct
2
3 cr
        copy rdct
4 cncf cncf
5 cpcncf copy cncf
6 cncfrd cncf rdct
7
   cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```



If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.



If the gateway screening stop action set being assigned to the Allowed DPC screen does not contain the redirect stop action, skip step 3 and go to step 4.

3. Verify the EAGLE's point code by entering the rtrv-sid command.

The following is an example of the possible output.

| rlghncxa03w | 06-10-10 11:43:04 | GMT EAGLE5 36 | .0.0 | |
|-------------|-------------------|---------------|-------------|--------|
| PCA | PCI | PCN | CLLI | PCTYPE |
| 100-100-100 | 3-75-7 | 7-9-8-1 | rlghncxa03w | OTHER |
| | | | | |
| CPCA | | | | |
| 002-002-002 | 002-002-003 | 002-002-0 | 002-002- | 005 |
| 002-002-006 | 002-002-007 | 002-002-0 | 002-002- | 009 |
| 004-002-001 | 004-003-003 | 050-060-0 | 070 | |
| | | | | |
| CPCA (LNP) | | | | |
| 005-005-002 | 005-005-004 | 005-005-0 | 006-006- | 006 |
| | | | | |
| CPCI | | | | |
| 1-002-1 | 1-002-2 | 1-002-3 | 1-002-4 | |
| 2-001-1 | 7-222-7 | | | |
| 2 001 1 | , 222 , | | | |
| CPCN | | | | |
| 2-0-10-3 | 2-0-11-0 | 2-0-11-2 | 2-0-12-1 | |
| 2-2-3-3 | 2-2-4-0 | 10-14-10- | | |
| 2 2 3 3 | 2 2 7 0 | 10 14 10 | ± | |



Caution:

Redirecting SLTA/SLTM messages prevents SLTA/SLTM messages from being returned to the EAGLE. The signaling link carrying these messages will fail if these messages are not returned to the EAGLE. To prevent SLTA/ SLTMmessages from being redirected, gateway screening stop action sets containing the redirect stop action should not be assigned to Allowed DPC screens containing the EAGLE's point code.



If the NSFI of the screen being changed in this procedure will be STOP, or if the NSFI of the screen is not being changed, skip step 4 and go to step 5.

4. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 6 is in the database.

If the desired screen is not in the database, perform one of the procedures shown in the Gateway Screening Configuration Procedures section to add the desired screen to the database or change an existing screen in the database.

Note:

If any of these conditions apply to this procedure, skip step 5 and go to step 6:

- The point code in the screen is not being changed.
- The screen being changed contains either an ANSI or 24-bit ITU-N point code.
- The ITU-I or 14-bit ITU-N non-spare point code in the screen is not being changed to an ITU-I or 14-bit ITU-N spare point code.
- The point code in the screen is an ITU-I or 14-bit ITU-N spare point code or the screening reference contains other screens with ITU-I or 14-bit ITU-N spare point codes.
- 5. Display the status of the ITU National and International Spare Point Code Support feature by entering the rtrv-ctrl-feat command with the ITU National and International Spare Point Code Support feature part number.

Enter this command.

```
rtrv-ctrl-feat:partnum=893013601
```

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 The following features have been permanently enabled:
```

```
Feature Name Partnum Status Quantity Spare Point Code Support 893013601 on ----
```

The following features have been temporarily enabled:

```
Feature Name Partnum Status Quantity Trial Period
```

Left

Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum

Zero entries found.

If the ITU National and International Spare Point Code Support feature is enabled, go to step 6.

If the ITU National and International Spare Point Code Support feature is not enabled, perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure in *Database Administration - SS7 User's Guide* to enable the ITU National and International Spare Point Code Support feature as required. After the feature has been enabled, go to step 6.



6. Change the attributes of an allowed DPC screen using the chg-scr-dpc command.

If a gateway screening stop action is to be assigned to the allowed DPC screen being changed, enter the chq-scr-dpc command with the nsfi=stop parameter and the actname parameter with the name of a gateway screening stop action set shown in the output of the rtrv-gws-actset command executed in step 2.

Caution:

Redirecting SLTA/SLTM messages prevents SLTA/SLTM messages from being returned to the EAGLE. The signaling link carrying these messages will fail if these messages are not returned to the EAGLE. To prevent SLTA/ SLTMmessages from being redirected, gateway screening stop action sets containing the redirect stop action should not be assigned to Allowed DPC screens containing the EAGLE's point code, shown in step 3.

The current values for the ni, nc, ncm, zone, area, id, npc, msa, ssa, and sp parameters must be entered exactly as shown in the rtrv-scr-dpc output in step 1.

The following list contains the values for the nni, nnc, nncm, nzone, narea, nid, nnpc, nmsa, nssa, and nsp parameters:

- nni 0-255 or an asterisk (*)
- nnc 0-255 or an asterisk (*)
- nncm 0-255 or an asterisk (*)
- nzone 0-7 or an asterisk (*)
- narea 0-255 or an asterisk (*)
- nid 0-7 or an asterisk (*)
- nnpc 1 16383 or an asterisk (*)
- nmsa 0-255 or an asterisk (*)
- nssa 0-255 or an asterisk (*)
- nsp 0-255 or an asterisk (*)

A range of values can be specified for the nni, nnc, and nncm parameters. See the "Specifying a Range of Values" section for more information on how the asterisk and a range of values are used for the nni, nnc, and nncm parameters.

To change an ITU-I or 14-bit ITU-N spare point code to a non-spare point code, both the post=s and npost=none parameters must be specified with the chg-scr-dpc command.

To change an ITU-I or 14-bit ITU-N non-spare point code to a spare point code, the npcst=s parameter must be specified with the chg-scr-dpc command. The pcst parameter does not have to be specified.

If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N spare point code, the post=s parameter must be specified with the chg-scr-dpc command.

If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N non-spare point code, the post parameter does not have to be specified with the chgscr-dpc command. If the pcst parameter is specified for a screen containing either an ITU-I or 14-bit ITU-N non-spare point code, the pcst parameter value must be none.

For this example, enter this command.

```
chg-scr-
dpc:sr=gws9:ni=003:nc=003:ncm=003:nni=009:nnc=009 :nncm=009:
nsfi=stop
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0 CHG-SCR-DPC: SCREEN SET AFFECTED - GWS9 1% FULL CHG-SCR-DPC: MASP A - COMPLTD
```

7. Verify the changes using the rtrv-scr-dpc command with the screening reference name used in step 6.

For this example, enter this command.

```
rtrv-scr-dpc:sr=gws9
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED DPC SR NI NC NCM NSFI NSR/ACT GWS9 009 009 STOP -----
```

8. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

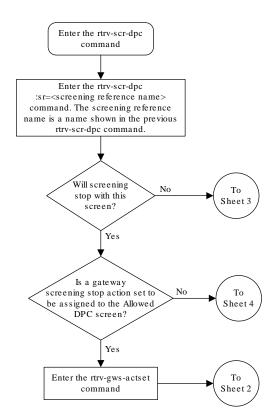
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Figure 9-11 Change an Allowed DPC Screen - Sheet 1 of 6





Is the required gateway screening stop From Enter the rtrv-sid action set in the command Sheet database? Yes Does the gateway screening stop action set No contain the redirect stop Caution: Redirecting SLTA/ SLTM messages causes SLTA/ action? SLTM messages not to be returned to the EAGLE 5 ISS. Yes The signaling link will fail if the SLTA/SLTM messages are not returned to the EAGLE 5 ISS. Enter the rtrv-sid To prevent SLTA/SLTM command messages from being redirected, gateway screening stop action sets containing the redirect stop action should not be assigned to Allowed DPC Does the Allowed screens containing the EAGLE 5 ISS's point code. DPC screen contain the No To EAGLE 5 ISS's point code? Sheet 4 (See Caution) Yes Go to the "Configuring Is an existing gateway Gateway Screening Stop screening stop action set to be Action Sets" procedure and assigned to the Allowed DPC configure the required gateway screening stop action set in the database (See Caution) screen? $Ye\,s$ Assign a gateway screening stop action set to the Allowed DPC screen that does not To Sheet 4 contain the redirect stop action

Figure 9-12 Change an Allowed DPC Screen - Sheet 2 of 6



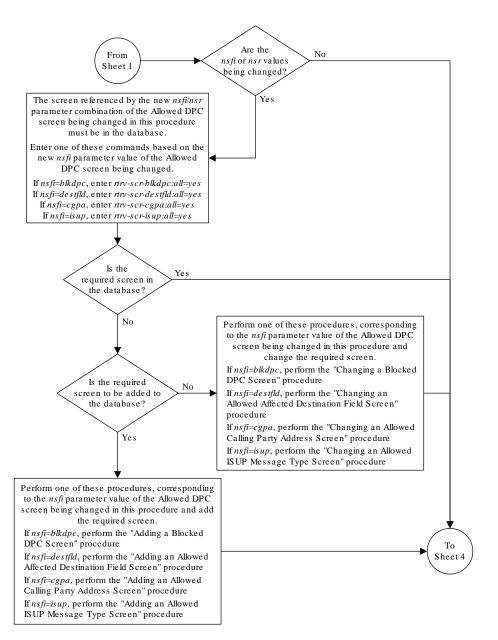


Figure 9-13 Change an Allowed DPC Screen - Sheet 3 of 6



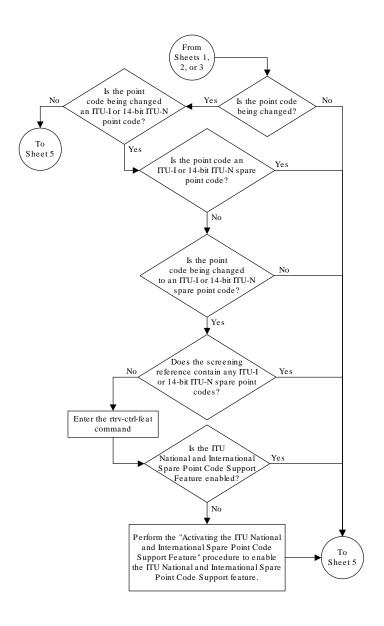


Figure 9-14 Change an Allowed DPC Screen - Sheet 4 of 6



Figure 9-15 Change an Allowed DPC Screen - Sheet 5 of 6

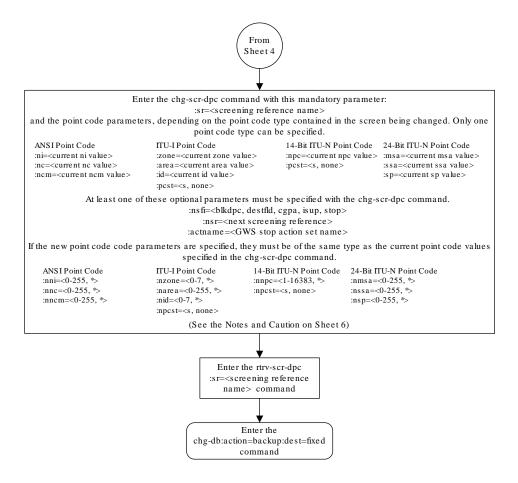




Figure 9-16 Change an Allowed DPC Screen - Sheet 6 of 6

Notes

- 1. A range of values can be specified for the ni, nc, or ncm parameters by inserting double ampersands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the ni parameter, enter 025 &&200 for the ni parameter value.
- 2. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" section is in the "Changing an Allowed DPC Screen" procedure in the Database Administration Manual - Gateway Screening.

- 3. The nsr parameter can be specified, and must be specified, if the nsfi parameter value is either blkdpc, destfld, cgpa, or isup.
- 4. The *actmame* parameter is optional and can be specified only with the *nsfi=stop* parameter. If the *actmame* parameter is specified, the *actmame* parameter value is one of the gateway screening stop action set names shown in the *trn-gws-actset* output on Sheet 1.
- 5. To change an ITU-I or 14-bit ITU-N spare point code to a non-spare point code, both the *pcst=s* and *npcst=none* parameters must be specified with the *chg-scr-dpc* command.
- 6. To change an ITU-I or 14-bit ITU-N non-spare point code to a spare point code, the *npcst*=*s* parameter must be specified with the *chg-scr-dpc* command. The *pcst* parameter does not have to be specified.
- 7. If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N spare point code, the *pcst=s* parameter must be specified with the *chg-scr-dpc* command.
- 8. If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N non-spare point code, the pcst parameter does not have to be specified with the chg-scr-dpc command. If the pcst parameter is specified for a screen containing either an ITU-I or 14-bit ITU-N non-spare point code, the pcst parameter value must be none.

Caution: Redirecting SLTA/SLTM messages causes SLTA/SLTM messages not to be returned to the EAGLE 5 ISS. The signaling link will fail if the SLTA/STM messages are not returned to the EAGLE 5 ISS.

To prevent SLTA/SLTM messages from being redirected, gateway screening stop action sets containing redirect stop action should not be assigned to Allowed DPC screens containing the EAGLE 5 ISS's point code.



10

Allowed Signaling Information Octet (SIO) Screen Configuration

Chapter 10, Allowed Signaling Information Octet (SIO) Screen Configuration, contains the procedures necessary to configure allowed signaling information octet screens.

Introduction

The allowed signaling information octet (SIO) screen identifies the type of MSUs (ISUP, TCAP, etc.) that are allowed into the network. The gray shaded areas in Figure 10-4 shows the fields of the SS7 message that are checked by the allowed SIO screening function.

Gateway Screening Actions

If a match is not found, the message is discarded.

If a match is found, the nsfi is examined to determine the next step in the screening process. If the nsfi value is any value other than stop, the next screening reference (nsr) is identified and the screening process continues to the next screen identified by the nsfi and nsr parameter values.

If the nsfi is equal to stop, the screening process stops and the message is processed. If a gateway screening stop action set is specified with the screen, shown by the actname parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

- If the rdct (redirect) gateway screening stop action is specified, the message is diverted from the original destination and sent to another destination with the Database Transport Access feature, specified by global title translation, for further processing.
- If the cncf gateway screening stop action is specified, the PIP parameter in the incoming ISUP IAM message is converted to the GN parameter. The GN parameter in the incoming ISUP IAM message is converted to the PIP parameter. The message is then sent to the node specified by the DPC in the routing label in the message. For more information on the Calling Name Conversion Facility feature, see Calling Name Conversion Facility (CNCF) Configuration.
- If the tlnp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are processed either by the ISUP NP with EPAP feature (if the ISUP NP with EPAP feature is enabled and turned on) or by the Triggerless LNP feature (if the Triggerless LNP feature is turned on). The ISUP NP with EPAP feature is discussed in more detail in *G-Port User's Guide*. The Triggerless LNP feature is discussed in more detail in *ELAP Administration and LNP Feature Activation Guide*.
- If the tinp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in *G-Port User's Guide*.



- If the tif, tif2, or tif3 gateway screening stop actions are specified, TIF processing is applied to the message.
- If the sccp gateway screening stop action is specified, MTP routed SCCP UDT/ XUDT are forwarded to the service modules for further processing.

Allowed SIO Screening Actions

The value of the nsfi parameter is based on the value of the service indicator (si) parameter. Table 10-1 shows the valid combinations of nsfi values and service indicator values.

Table 10-1 Valid Parameter Combinations for the Allowed SIO Screening Function

| Service Indicator (SI) Values | Nest Screening Function Identifier (NSFI) Values |
|-------------------------------|--|
| 0 | DPC, BLKDPC, DESTFLD |
| 3 | DPC, BLKDPC, CGPA, CDPA |
| 4, 5 | DPC, BLKDPC, ISUP |
| All other values (1, 2, 6-15) | DPC, BLKDPC |

Messages containing the service indicator value 4 are TUP messages, and messages containing the service indicator value 5 are ISUP messages. Both types of messages are screened using the allowed ISUP screen. TUP messages can be screened for point codes, after the SIO screen, with the allowed and blocked DPC screens. However, if the screen set does not contain an allowed SIO screen that screens for TUP messages (messages with the service indicator value of 4), the message will be treated by the allowed ISUP message type screen as an ISUP message, even if the message contains the service indicator value of 4.

Figure 10-1 through Figure 10-3 shows the screening actions of the allowed SIO screen.



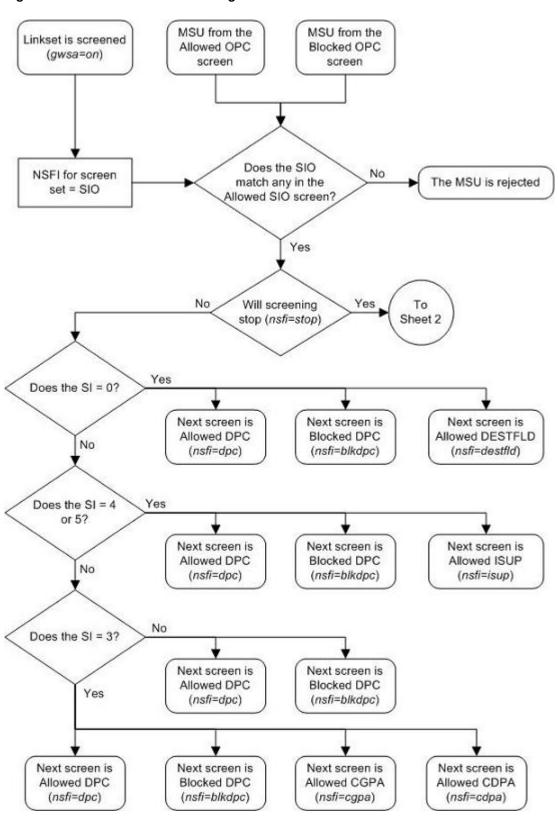


Figure 10-1 Allowed SIO Screening Actions - Sheet 1 of 3



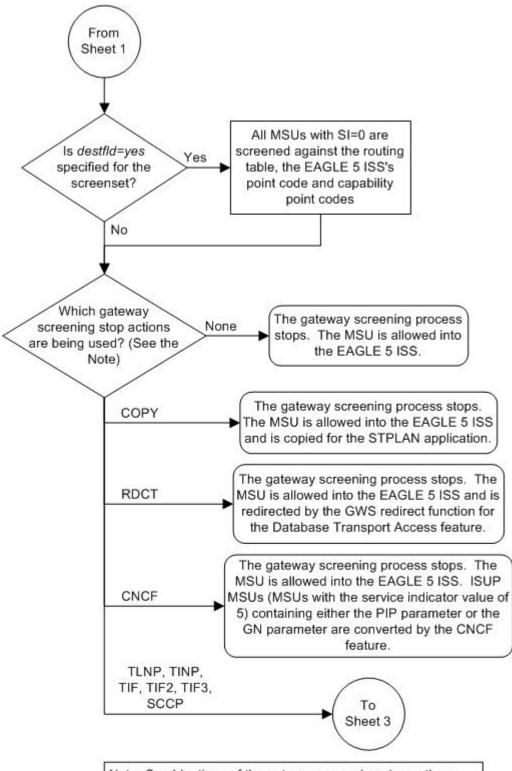


Figure 10-2 Allowed SIO Screening Actions - Sheet 2 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.

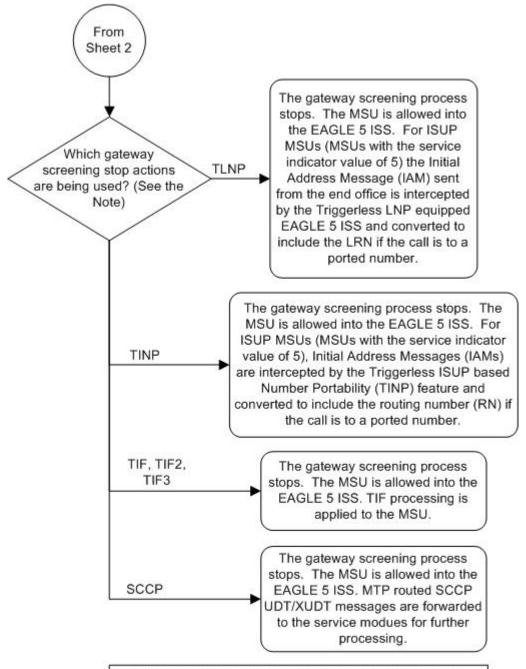


Figure 10-3 Allowed SIO Screening Actions - Sheet 3 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.



Figure 10-4 Allowed SIO Screening Function

ANSI MSU (ANSI Message Signal Unit)

| | SIO | SIF | | | | |
|------------|--------------------------|---|-----------|----|----|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing Label DPC OPC NCM NC NI NCM NC NI | SLS xx | H1 | НО | |

ITU-I MSU (ITU International Message Signal Unit)

| | SIO | SIF |
|------------|--------------------------|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing Label DPC OPC SLS ID AREA ZONE ID AREA ZONE xx |

14-Bit ITU-N MSU (14-Bit ITU National Message Signal Unit)

| | SIO | SIF |
|------------|--------------------------|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing Label H1 H0 DPC OPC SLS NPC NPC xx |

24-Bit ITU-N MSU (24-Bit ITU National Message Signal Unit)

| | SIO | SIF | | | |
|------------|--------------------------|---|-----------|----|----|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing Label DPC OPC SP SSA MSA SP SSA MSA | SLS xx | H1 | НО |

Adding an Allowed SIO Screen

This procedure is used to add an allowed signaling information octet (SIO) screen to the database using the ent-scr-sio command. The parameters used by the ent-scr-sio command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The examples in this procedure are used to add the allowed SIO screen data shown in Table 10-2 and based on the example configurations shown in Figure 2-4, Figure 2-6, Figure 2-7, Figure 2-8, and Figure 2-9.



Table 10-2 Example Gateway Screening Allowed SIO Configuration Table

| Screening Reference | NIC | SI | Н0 | H1 | PRI | NSFI | NSR |
|------------------------|-----|----|----|----|------|---------|------|
| fld4 | 2 | 0 | 4 | 5 | 3 | destfld | fld5 |
| iec | 2 | 3 | | | 1&&3 | cgpa | gw11 |
| ls02 | 2 | 3 | | | 3 | cdpa | ls03 |
| isp1 | 2 | 5 | | | 3 | isup | isp1 |
| tup1 | 2 | 4 | | | 3 | dpc | tup1 |
| tup1 | 2 | 5 | | | 3 | dpc | isp2 |

The allowed SIO screen can reference one of the following screens.

- Allowed DPC
- Blocked DPC
- Allowed Affected Destination Field
- Allowed ISUP Message Type
- Allowed CGPA
- Allowed CDPA

Verifying the Gateway Screening Configuration

Enter the following commands to verify that these screens are in the database.

- rtrv-scr-dpc:all=yes
- rtrv-scr-blkdpc:all=yes
- rtrv-scr-destfld:all=yes
- rtrv-scr-isup:all=yes
- rtrv-scr-cgpa:all=yes
- rtrv-scr-cdpa:all=yes

Gateway Screening Configuration Procedures

If the desired screen is not in the database, perform one of these procedures to add the desired screen to the database or change an existing screen in the database.

- Adding an Allowed DPC Screen
- Adding a Blocked DPC Screen
- Adding an Allowed Affected Destination Field Screen
- Adding an Allowed ISUP Message Type Screen
- Adding an Allowed Calling Party Address Screen
- Adding an Allowed Called Party Address Screen
- Changing an Allowed DPC Screen
- · Changing a Blocked DPC Screen
- Changing an Allowed Affected Destination Field Screen



- Changing an Allowed ISUP Message Type Screen
- Changing an Allowed Calling Party Address Screen
- Changing an Allowed Called Party Address Screen

Specifying a Range of Values

A range of values can be specified for the pri, h0, and h1 parameters. If a range of values is specified for any of these parameters and the nic and si values in the screening reference name are not changed, the range of values for the pri, h0, or h1 parameters cannot include any values that are currently provisioned for the screening reference name.

For example, screening reference name scrl contains these entries:

| SR | NIC | PRI | SI | ΗO | H1 | NSFI | NSR/ACT |
|------|-----|-----|----|----|----|--------|---------|
| SCR1 | 2 | 3 | 1 | 4 | 5 | DPC | LS03 |
| SCR1 | 2 | 2 | 1 | 2 | 7 | BLKDPC | LS04 |

Another entry for screening reference scr1 with the same nic and si values cannot be specified if:

- The range of values for the pri parameter includes the values 2 or 3
- The range of values for the h0 parameter includes the values 2 or 4
- The range of values for the h1 parameter includes the values 5 or 7.

Specifying H0 and H1 Values

The h0 and h1 values must be specified if the si value is 0, 1, or 2. If the si value is 3 through 15, the h0 and h1 parameters cannot be specified.

The h0 and h1 parameters must be specified if either parameter is specified.

The H0 and H1 heading code values can be a single value, a range of values with the beginning and end of the range separated by double ampersands (for example, a range of values from 2 to 9, 2&&9), or with an asterisk (*). The asterisk specifies all possible values for the h0 and h1 parameters. Table 10-3 shows the valid combinations of these parameter values.

Table 10-3 Valid Value Combinations for H0 and H1 Parameters

| Н0 | H1 |
|-----------------|-----------------|
| Single Value | Single Value |
| Single Value | Range of Values |
| Single Value | Asterisk |
| Range of Values | Asterisk |
| Asterisk | Asterisk |

1. Verify the gateway screening feature is on, by entering the rtrv-feat command. If the gateway screening feature is on, the GWS field is set to on.



Note:

Thertry-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by thertry-feat command, see thertry-feat command description in *Commands Reference*.

If the gateway screening feature is on, shown by the entry GWS = on in the rtrv-feat command output, skip step 2, and go to step 3.

2. Turn the gateway screening feature on by entering this command.

```
chq-feat: gws=on
```

Note:

Once the gateway screening feature is turned on with the chg-feat command, it cannot be turned off.

The gateway screening feature must be purchased before you turn this feature on with the <code>chg-feat</code> command. If you are not sure if you have purchased the gateway screening feature, contact your Oracle Sales Representative or Account Representative.

When the chq-feat has successfully completed, this message should appear.

```
rlghncxa03w 06-10-28 11:43:04 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

3. Display all allowed SIO screens in the database using the rtrv-scr-sio command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED SIO SR REF RULES IEC YES 5 WRD2 YES 1 WRD4 YES 9
```

If the screening reference names that you wish to add with this procedure are not shown in the rtrv-scr-sio command output, go to either steps 4 or 5.

Step 4 verifies the gateway screening stop action set names in the database. The gateway screening stop action set names are assigned only if the NSFI of the screen being added in this procedure is STOP. If the NSFI of the new screen will be STOP, but a gateway screening stop action set name will not be assigned to the new screen, skip steps 4 and 5 and go to step 6. If the NSFI of the new screen is not STOP, skip step 4 and go to step 5.

If these screening reference names are shown in the rtrv-scr-sio command output, make sure the screening data you wish to enter is not already in the database by entering the rtrv-scr-sio command with the screening reference name. In this example,

screen iec will have new data added to it. For this example, enter the rtrv-scr-sio:sr=iec command. The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED SIO

SR NIC PRI SI H0 H1 NSFI NSR/ACT IEC 2 0&&3 0 0 0 BLKDPC WDB2 IEC 2 0&&1 1 DPC WDB3 IEC 2 0&&3 4 -- -- STOP ----- IEC 2 0&&2 1 * DPC WDB3
```

4. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.



If the NSFI of the screen being added in this procedure is STOP, skip step 5 and go to step 6.

5. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 6 is in the database.

If the desired screen is not in the database, perform one of the procedures shown in the Gateway Screening Configuration Procedures section to add the desired screen to the database or change an existing screen in the database.

6. Add a new allowed SIO screen to the database using the ent-scr-sio command.

If a gateway screening stop action set is to be assigned to the new allowed SIO screen, enter the ent-scr-sio command with the nsfi=stop parameter and

the actname parameter with the name of a gateway screening stop action set shown in the output of the rtry-gws-actset command executed in step 4.



Caution:

Redirecting SLTA/SLTM messages prevents SLTA/SLTM messages from being returned to the EAGLE. The signaling link carrying these messages will fail if these messages are not returned to the EAGLE. To prevent SLTA/SLTM messages from being redirected, gateway screening stop action sets containing the redirect stop action should not be assigned to Allowed SIO screens containing the service indicator values 1 (SI=1) or 2 (SI=2).

The following list contains the values for nic, si, pri, h0 and h1 parameters:

- nic 0 3, or an asterisk (*)
- si 0 15
- pri 0 3, or an asterisk (*)
- h0 0 15, or an asterisk (*)
- h1 0 15, or an asterisk (*)

A range of values can be specified for the pri, h0, and h1 parameters. See the Specifying a Range of Values section for more information. See the Specifying H0 and H1 Values section for information on how the asterisk and a range of values are used for the h0 and h1 parameters.

The value of the nsfi parameter is based on the value of the service indicator (si) parameter. Table 10-1 shows the valid combinations of nsfi values and service indicator values. For this example, enter these commands.

```
ent-scr-
sio:sr=fld4:nic=2:si=0:h0=4:h1=5:pri=3:nsfi=destfld :nsr=fld5
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
ENT-SCR-SIO: MASP A - COMPLTD
ent-scr-sio:sr=iec:nic=2:si=3:pri=1&&3:nsfi=cqpa:nsr=qw11
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0
ENT-SCR-SIO: MASP A - COMPLTD
ent-scr-sio:sr=ls02:nic=2:si=3:pri=3:nsfi=cdpa:nsr=ls03
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0
ENT-SCR-SIO: MASP A - COMPLTD
ent-scr-sio:sr=isp1:nic=2:si=5:pri=3:nsfi=isup:nsr=isp1
```



A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0 ENT-SCR-SIO: MASP A - COMPLTD
```

```
ent-scr-sio:sr=tup1:nic=2:si=4:pri=3:nsfi=dpc:nsr=tup1
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0 ENT-SCR-SIO: MASP A - COMPLTD
```

```
ent-scr-sio:sr=tup1:nic=2:si=5:pri=3:nsfi=dpc:nsr=isp2
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0 ENT-SCR-SIO: MASP A - COMPLTD
```

7. Verify the changes using the rtrv-scr-sio command with the screening reference name used in step 6.

For this example, enter these commands.

```
rtrv-scr-sio:sr=iec
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:31:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED SIO
NSR/ACT
    2
      0&&1 0 2
                 2
                      STOP
                            _____
IEC
                            _____
    2
       0&&3 4 --
                  --
                      STOP
IEC
    2 0&&2 1 *
                      DPC
IEC
                            WDB3
IEC 2 1&&3 3 --
                 --
                            GW11
                       CGPA
```

```
rtrv-scr-sio:sr=ls02
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:32:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED SIO SR NIC PRI SI H0 H1 NSFI NSR/ACT LS02 2 3 3 -- -- CDPA LS03
```

rtrv-scr-sio:sr=fld4

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:33:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED SIO SR NIC PRI SI H0 H1 NSFI NSR/ACT FLD4 2 3 0 4 5 DESTFLD FDL5
```



```
rtrv-scr-sio:sr=isp1
```

The following is an example of the possible output.

```
rtrv-scr-sio:sr=tup1
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:33:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED SIO

SR NIC PRI SI H0 H1 NSFI NSR/ACT
tup1 2 3 4 -- -- DPC tup1
tup1 2 3 5 -- -- ISUP isp2
```

8. Backup the new changes using the <code>chg-db:action=backup:dest=fixed</code> command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Enter the rtrv-feat command Caution: Redirecting SLTA/SLTM messages prevents SLTA/SLTM messages from being returned to the EAGLE 5 ISS. The signaling link carrying these messages will fail if these messages are not returned to the EAGLE 5 Is the gateway Enter the screening feature chg-feat:gws=on command Yes To prevent SLTA/SLTM messages from being redirected, gateway screening stop action sets containing the redirect stop action Enter the rtrv-scr-sio should not be assigned to Allowed SIO command screens containing the service indicator values 1 (SI=1) or 2 (SI=2). Enter the rtrv-scr-sio :sr=<screening reference name> command. The screening reference Is a gateway name is a name shown the previous screening stop action ntrv-scr-sio command, or a new screening reference name set to be assigned to the Allowed SIO screen? (See Caution) Yes Will screening Yes Enter the rtrv-gws-actset stop with this screen? command No Go to the "Configuring Gateway Screening Stop To Is the required Action Sets procedure Sheet 2 gateway screening stop and configure the required action set in the gateway screening stop action set in the database database? (See Caution) Yes To Sheet 3

Figure 10-5 Add an Allowed SIO Screen - Sheet 1 of 3

Figure 10-6 Add an Allowed SIO Screen - Sheet 2 of 3

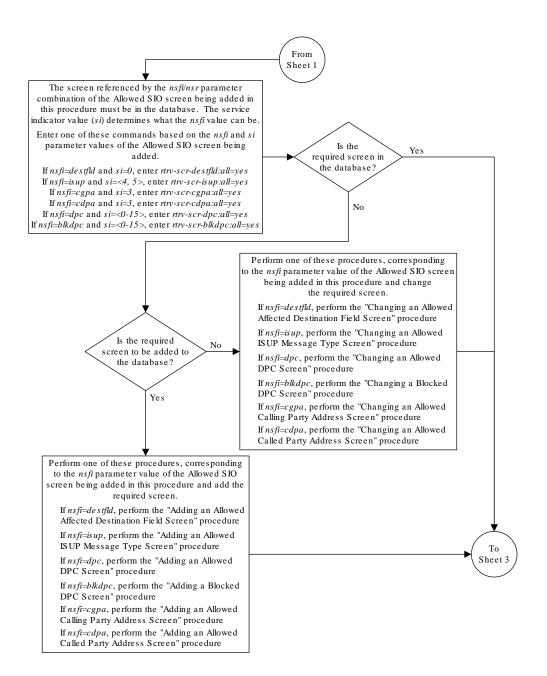
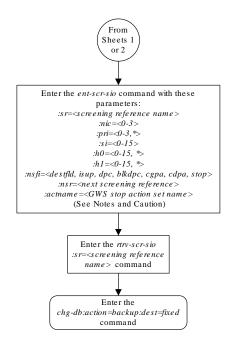




Figure 10-7 Add an Allowed SIO Screen - Sheet 3 of 3



Notes.

- 1. A range of values can be specified for the pri, h0, or h1 parameters by inserting double ampersands (&&) between the parameter values defining the range. For example, to specify the range 0 to 3 for the pri parameter, enter 0&&3 for the pri parameter, enter 0&&3 for the pri parameter.
- 2. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section in Chapter 2 and the "Specifying a Range of Values" and "Specifying H0 and H1 Values" sections in this procedure.

- 3. The nsr parameter can be specified only, and must be specified, if the nsfi parameter value is either destfld, isup, dpc, blkdpc, cgpa, or cdpa.
- 4. The acmame parameter is optional and can be specified only with the nsfi=stop parameter. If the acmame paramete is specified, the acmame parameter value is one of the gateway screening stop action set names shown in the nn-gws-actset output on Sheet 1.
- 5. The NSFI and service indicator values can be entered only in the following combinations:

 SI Value
 NSFI Value

 0
 destfld, dpc, blkdpc

 3
 cgpa, cdpa, dpc, blkdpc

 4, 5
 isup, dpc, blkdpc

 1, 2, 6-15
 dpc, blkdpc

6. The h0 and h1 parameters can be specified, and must be specified, only if the si values are either 0, 1, or 2.

Caution: Redirecting SLTA/SLTM messages prevents SLTA/SLTM messages from being returned to the EAGLE 5 IS. The signaling link carrying these messages will fail if these messages are not returned to the EAGLE 5 ISS.

To prevent SLTA/SLTM messages from being redirected, gateway screening stop action sets containing the redirect stop action should not be assigned to Albowd SIO screens containing the service indicator values 1 (SI=1) or 2 (SI=2).

Removing an Allowed SIO Screen

This procedure is used to remove an allowed signaling information octet (SIO) screen from the database using the ${\tt dlt-scr-sio}$ command. The parameters used by the ${\tt dlt-scr-sio}$ command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure removes the allowed SIO screen 1s02 from the database.

The allowed SIO screen can be referenced by one of the following screens.

- Screen Set
- Allowed OPC
- Blocked OPC

Verifying the Gateway Screening Configuration

Enter the following commands to verify that none of these screens reference the allowed SIO screen being removed from the database.

- rtrv-scrset:nsfi=sio
- rtrv-scr-opc:nsfi=sio
- rtrv-scr-blkopc:nsfi=sio

Gateway Screening Configuration Procedures

To change the NSFI of any of these screens, perform one of these procedures.

- Changing a Screen Set
- Changing an Allowed OPC Screen
- Changing a Blocked OPC Screen
- 1. Display the allowed SIO screens in the database using the rtrv-scr-sio command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED SIO
     REF RULES
SR
IEC
     YES
             6
ISP1 YES
             1
WRD2 YES
            1
             9
WRD4 YES
LS02 YES
            1
TUP1 YES
```

From the rtrv-scr-sio output, display the allowed SIO screen you wish to remove using the rtrv-scr-sio command with the screening reference name. For this example, enter this command.

```
rtrv-scr-sio:sr=1s02
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED SIO SR NIC PRI SI H0 H1 NSFI NSR/ACT LS02 2 3 3 -- -- CDPA LS03
```

2. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen being removed is not referenced by other screens in the database.



If the screen being removed is referenced by other screens, perform the procedures shown in the Gateway Screening Configuration Procedures to change the NSFI of those screens to reference other screens or change the NSFI of these screens to STOP.

3. Remove the allowed SIO to the database using the dlt-scr-sio command.

The dlt-scr-sio command must be entered with these parameters: sr, nic, si, pri. The values for these parameters must be entered exactly as shown in the rtrv-scr-sio output in step 1. If the screen being removed has values for the h0 and h1 parameters, these values must be entered with the other parameter values. If the screen being removed contains dashes for the h0 and h1 parameters, the h0 and h1 parameters cannot be specified with the dlt-scr-sio command. For this example, enter this command.

```
dlt-scr-sio:sr=ls02:nic=2:si=3:pri=3
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 DLT-SCR-SIO: SCREEN SET AFFECTED - LS02 0% FULL DLT-SCR-SIO: MASP A - COMPLTD
```

4. Verify the changes using the rtrv-scr-sio command with the screening reference name used in step 3.

For this example, enter this command.

```
rtrv-scr-sio:sr=1s02
```

The following is an example of the possible output.

```
E2573 Cmd Rej: SR or NSR does not reference an existing SR
```

This message shows that the specified screening reference name is not in the database and the action of the dlt-scr-sio command in step 3 was successful. If the specified screening reference name contained more than one entry when the dlt-scr-sio command was executed in step 3, the rtrv-scr-sio:sr= command output would show the remaining entries in the screening reference instead of error message E2573.

5. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



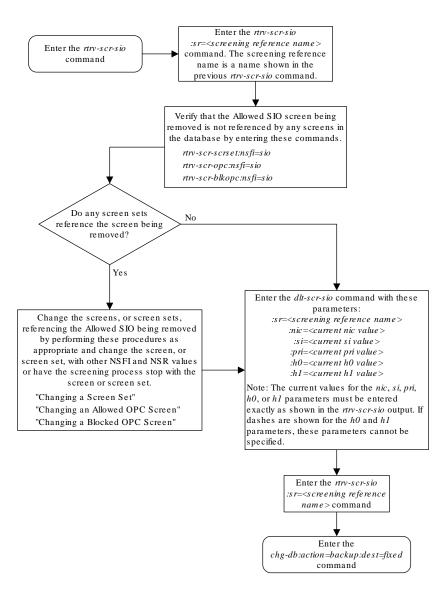


Figure 10-8 Remove an Allowed SIO Screen

Changing an Allowed SIO Screen

This procedure is used to change the attributes of an allowed signaling information octet (SIO) screen in the database using the <code>chg-scr-sio</code> command. The parameters used by the <code>chg-scr-sio</code> command are shown in the Gateway Screening Attributes section. The

general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure change the allowed SIO screen ls02 to an nic of 2, an si of 14, and an nsfi is stop.

The allowed SIO screen can reference one of the following screens.

- Allowed DPC
- Blocked DPC
- Allowed Affected Destination Field
- Allowed ISUP
- Allowed CGPA
- Allowed CDPA

Verifying the Gateway Screening Configuration

Enter the following commands to verify that these screens are in the database.

- rtrv-scr-dpc:all=yes
- rtrv-scr-blkdpc:all=yes
- rtrv-scr-destfld:all=yes
- rtrv-scr-isup:all=yes
- rtrv-scr-cgpa:all=yes
- rtrv-scr-cdpa:all=yes

Gateway Screening Configuration Procedures

If the desired screen is not in the database, perform one of these procedures to add the desired screen to the database or change an existing screen in the database.

- Adding an Allowed DPC Screen
- Adding a Blocked DPC Screen
- Adding an Allowed Affected Destination Field Screen
- Adding an Allowed ISUP Message Type Screen
- Adding an Allowed Calling Party Address Screen
- Adding an Allowed Called Party Address Screen
- Changing an Allowed DPC Screen
- · Changing a Blocked DPC Screen
- Changing an Allowed Affected Destination Field Screen
- Changing an Allowed ISUP Message Type Screen
- Changing an Allowed Calling Party Address Screen
- Changing an Allowed Called Party Address Screen

The new values for the network indicator code, service indicator, priority, and heading codes being changed in the allowed SIO screen cannot be in that screen.

Specifying a Range of Values



A range of values can be specified for the pri, h0, and h1 parameters. If a range of values is specified for any of these parameters and the nic and si values in the screening reference name are not changed, the range of values for the pri, h0, or h1 parameters cannot include any values that are currently provisioned for the screening reference name.

For example, screening reference name scr1 contains these entries:

| SR | NIC | PRI | SI | Н0 | H1 | NSFI | NSR/ACT |
|------|-----|-----|----|----|----|--------|---------|
| SCR1 | 2 | 3 | 1 | 4 | 5 | DPC | LS03 |
| SCR1 | 2 | 2 | 1 | 2 | 7 | BLKDPC | LS04 |

Another entry for screening reference scr1 with the same nic and si values cannot be specified if:

- The range of values for the pri parameter includes the values 2 or 3
- The range of values for the h0 parameter includes the values 2 or 4
- The range of values for the h1 parameter includes the values 5 or 7.

Changing H0 and H1 Values

The h0 and h1 values must be specified if the si value is 0, 1, or 2. If the si value is 3 through 15, the h0 and h1 parameters cannot be specified.

The nh0 and nh1 values must be specified if the nsi value is 0, 1, or 2. If the nsi value is 3 through 15, the nh0 and nh1 parameters cannot be specified.

The h0 and h1 parameters must be specified if either parameter is specified.

The nh0 and nh1 parameters must be specified if either parameter is specified.

The H0 and H1 heading code values can be a single value, a range of values with the beginning and end of the range separated by double ampersands (for example, a range of values from 2 to 9, 2&&9), or with an asterisk (*). The asterisk specifies all possible values for the h0 and h1 parameters. Table 10-4 shows the valid combinations of these parameter values.

Table 10-4 Valid Value Combinations for H0 and H1 Parameters

| Н0 | Н1 |
|-----------------|-----------------|
| Single Value | Single Value |
| Single Value | Range of Values |
| Single Value | Asterisk |
| Range of Values | Asterisk |
| Asterisk | Asterisk |

1. Display the allowed SIO screens in the database using the rtrv-scr-sio command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED SIO
SR    REF    RULES
IEC    YES    6
ISP1    YES     1
```



```
WRD2 YES 1
WRD4 YES 9
LS02 YES 1
TUP1 YES 2
```

From the rtrv-scr-sio output, display the allowed SIO screen you wish to change using the rtrv-scr-sio command with the screening reference name. For this example, enter this command.

```
rtrv-scr-sio:sr=ls02
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED SIO SR NIC PRI SI H0 H1 NSFI NSR/ACT LS02 2 3 3 -- -- CDPA LS03
```

If a gateway screening stop action set is to be assigned to the allowed SIO screen being changed in the database, go to step 2.

Step 2 verifies the gateway screening stop action set names in the database. The gateway screening stop action set names are assigned only if the NSFI of the screen being changed in this procedure is STOP. If the NSFI of the screen will be changed to STOP, but a gateway screening stop action set name will not be assigned to the screen, skip steps 2 and 3 and go to step 4. If the NSFI of the screen will not be STOP, skip step 2 and go to step 3.

2. Display the gateway screening stop action sets in the database with the rtrvgws-actset command.

This is an example of the possible output.

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.



Note:

If the NSFI of the screen being changed in this procedure will be STOP, or if the NSFI of the screen is not being changed, skip step 3 and go to step 4.

3. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 4 is in the database.

If the desired screen is not in the database, perform one of the procedures shown in the Gateway Screening Configuration Procedures section to add the desired screen to the database or change an existing screen in the database.

4. Change the attributes of an allowed SIO screen using the chq-scr-sio command.

If a gateway screening stop action is to be assigned to the allowed SIO screen being changed, enter the chg-scr-sio command with the nsfi=stop parameter and the actname parameter with the name of a gateway screening stop action set shown in the output of the rtrv-gws-actset command executed in step 2.

Caution:

Redirecting SLTA/SLTM messages prevents SLTA/SLTM messages from being returned to the EAGLE. The signaling link carrying these messages will fail if these messages are not returned to the EAGLE. To prevent SLTA/SLTM messages from being redirected, gateway screening stop action sets containing the redirect stop action should not be assigned to Allowed SIO screens containing the service indicator values 1 (SI=1) or 2 (SI=2).

The current values for the nic, si, pri, h0 and h1 parameters must be entered in the chg-scr-sio command exactly as shown in the rtry-scr-sio output in step 1.

The following list contains the values for nnic, nsi, npri, nh0 and nh1 parameters:

- nnic 0 3, or an asterisk (*)
- nsi 0 15
- npri 0 3, or an asterisk (*)
- nh0 0 15, or an asterisk (*)
- nh1 0 15, or an asterisk (*)

A range of values can be specified for the npri, nh0, and nh1 parameters. See the Specifying a Range of Values section for more information. See the Changing H0 and H1 Values section for information on how the asterisk and a range of values are used for the nh0 and nh1 parameters.

The value of the nsfi parameter is based on the value of the service indicator (si) parameter. Table 10-1 shows the valid combinations of nsfi values and service indicator values.

For this example, enter this command.

chg-scr-sio:sr=ls02:nic=2:si=3:pri=3:nsi=14:nsfi=stop



A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0 CHG-SCR-SIO: SCREEN SET AFFECTED - LS02 1% FULL CHG-SCR-SIO: MASP A - COMPLTD
```

5. Verify the changes using the rtrv-scr-sio command with the screening reference name used in step 4.

For this example, enter this command.

```
rtrv-scr-sio:sr=1s02
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED SIO

SR NIC PRI SI H0 H1 NSFI NSR/ACT LS02 2 3 14 -- -- STOP ------
```

6. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



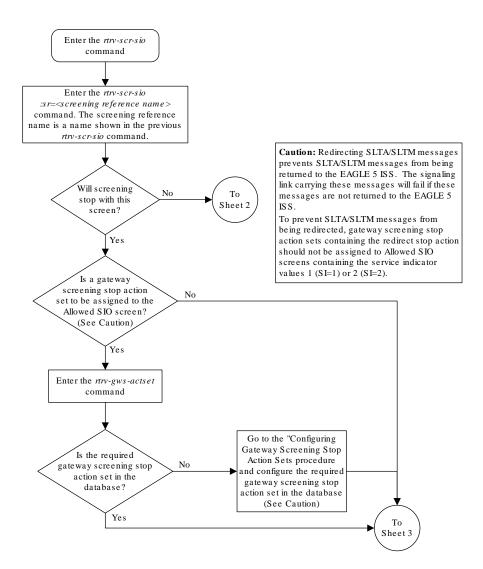


Figure 10-9 Change an Allowed SIO Screen - Screen 1 of 3



Are the From No nsfi, nsr, or si values Sheet 1 being changed? The screen referenced by the new Yes nsfi/nsr parameter combination of the Allowed SIO screen being changed in this procedure must be in the database. The service indicator value (si) determines what the nsfi value can be. If the si value is changed, the nsfi value may also have to change. Is the Yes required screen in Enter one of these commands based on the new nsfi or the database new si values being changed in the Allowed SIO screen. Current (if unchanged) Current (if unchanged) Command to be or New SI 0 4, 5 Entered

riv-scr-destfld:all=yes

riv-scr-isup:all=yes

riv-scr-cgpa:all=yes

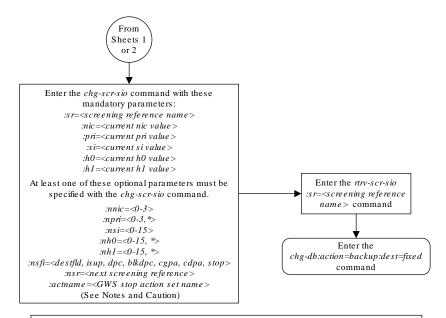
riv-scr-cdpa:all=yes or New NSFI DESTFLD No ISUP CGPA CDPA DPC BLKDPC 0 - 15 0 - 15 ntrv-scr-dpc:all=yes ntrv-scr-blkdpc:all=yes Perform one of these procedures, corresponding to the nsfi parameter value of the Allowed SIO screen being changed in this procedure and change the required screen. If nsfi=destfld, perform the "Changing an Allowed Affected Destination Field Screen" procedure If nsfi=isup, perform the "Changing an Allowed Is the required ISUP Message Type Screen" procedure screen to be added to If nsfi=dpc, perform the "Changing an Allowed the database? DPC Screen" procedure If nsfi=blkdpc, perform the "Changing a Blocked DPC Screen" procedure Yes If nsfi=cgpa, perform the "Changing an Allowed Calling Party Address Screen" procedure If nsfi=cdpa, perform the "Changing an Allowed Called Party Address Screen" procedure Perform one of these procedures, corresponding to the nsfi parameter value of the Allowed SIO screen being changed in this procedure and add the required screen. If nsfi=destfld, perform the "Adding an Allowed Affected Destination Field Screen" procedure If nsfi=isup, perform the "Adding an Allowed ISUP Message Type Screen" procedure To If nsfi=dpc, perform the "Adding an Allowed Sheet 3 DPC Screen" procedure If nsfi=blkdpc, perform the "Adding a Blocked DPC Screen" procedure If nsfi=cgpa, perform the "Adding an Allowed Calling Party Address Screen" procedure If nsfi=cdpa, perform the "Adding an Allowed

Called Party Address Screen" procedure

Figure 10-10 Change an Allowed SIO Screen - Sheet 2 of 3



Figure 10-11 Change an Allowed SIO Screen - Sheet 3 of 3



Notes:

- 1. A range of values can be specified for the npri, nh0, or nh1 parameters by inserting double ampersands (&&) between the parameter values defining the range. For example, to specify the range 0 to 3 for the npri parameter, enter 0&&3 for the npri parameter value.
- 2. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" and "Specifying H0 and H1 Values" sections. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" and "Specifying H0 and H1 Values" sections are in the "Changing an Allowed SIO Screen" procedure in the Database Administration Manual - Gateway Screening.

- 3. The current values for the nic, si, pri, h0, or h1 parameters must be entered exactly as shown in the mv-scr-sio output. If dashes are shown for the h0 and h1 parameters, these parameters cannot be specified.
- 4. The nsr parameter can be specified only, and must be specified, if the nsfi parameter is specified and its value is either destfld, isup, dpc, blkdpc, cgpa, or cdpa.
- 5. The acmame parameter is optional and can be specified only if the current nsfi parameter is stop, or the new nsfi parameter value is stop. If the acmame parameter is specified, the acmame parameter value is one of the gateway screening stop action set names shown in the nn-gwa-actest output on Sheet 1.
- 6. If the si parameter value is 0, 1, or 2, the h0 and h1 parameters must be specified. If the si parameter value is 3 through 15, the h0 and h1 parameters cannot be specified.
- 7. If the nsi parameter value is 0, 1, or 2, the nh0 and nh1 parameters must be specified. If the nsi parameter value is 3 through 15, the nh0 and nh1 parameters cannot be specified.
- 8. The NSFI and service indicator values can be entered only in the following combinations:

Current (if unchanged)
or New SI Value
0
0
3
4, 5
1, 2, 6 - 15

Current (if unchanged)
or New NSFI Value
destfld, dpc, blkdpe
ivp, dpc, blkdpe
dpc, blkdpe

Caution: Redirecting SLTA/SLTM messages prevents SLTA/SLTM messages from being returned to the EAGLE 5 ISS. The signaling link carrying these messages will fail if these messages are not returned to the EAGLE 5 ISS. To prevent SLTA/SLTM messages from being redirected, gateway screening stop action sets containing the redirect stop action should not be assigned to Allowed SIO screens containing the service indicator values 1 (SI=1) or 2 (SI=2).

11

Blocked Originating Point Code (BLKOPC) Screen Configuration

Chapter 11, Blocked Originating Point Code (BLKOPC) Screen Configuration, contains the procedures necessary to configure blocked originating point code screens.

Introduction

The blocked OPC screen identifies OPC's that are not allowed to send SS7 messages into the network. The gray shaded areas in Figure 11-4 shows the fields of the SS7 message that are checked by the blocked OPC screening function.

Gateway Screening Actions

If a match is found, the nsfi is equal to fail, the message is discarded and no further screening takes place.

If a match is not found, the nsfi is examined to determine the next step in the screening process. If the nsfi value is any value other than stop, the next screening reference (nsr) is identified and the screening process continues to the next screen identified by the nsfi and nsr parameter values.

If the nsfi is equal to stop, the screening process stops and the message is processed. If a gateway screening stop action set is specified with the screen, shown by the actname parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

- If the rdct (redirect) gateway screening stop action is specified, the message is diverted
 from the original destination and sent to another destination with the Database Transport
 Access feature, specified by global title translation, for further processing.
- If the cncf gateway screening stop action is specified, the PIP parameter in the incoming ISUP IAM message is converted to the GN parameter. The GN parameter in the incoming ISUP IAM message is converted to the PIP parameter. The message is then sent to the node specified by the DPC in the routing label in the message. For more information on the Calling Name Conversion Facility feature, see Calling Name Conversion Facility (CNCF) Configuration.
- If the tlnp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are processed either by the ISUP NP with EPAP feature (if the ISUP NP with EPAP feature is enabled and turned on) or by the Triggerless LNP feature (if the Triggerless LNP feature is turned on). The ISUP NP with EPAP feature is discussed in more detail in the Feature Manual G-Port. The Triggerless LNP feature is discussed in more detail in the ELAP Administration and LNP Feature Activation manual.
- If the tinp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in the *Feature Manual G-Port*.



- If the tif, tif2, or tif3 gateway screening stop actions are specified, TIF processing is applied to the message.
- If the sccp gateway screening stop action is specified, MTP routed SCCP UDT/ XUDT are forwarded to the service modules for further processing.

Blocked OPC Screening Actions

Figure 11-1 through Figure 11-3 show the screening actions of the blocked OPC screen.

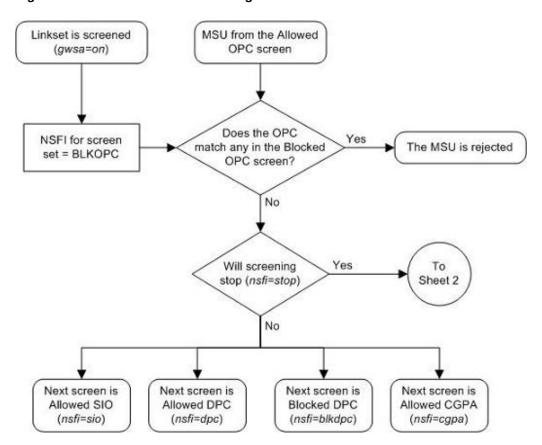


Figure 11-1 Blocked OPC Screening Actions - Sheet 1 of 3

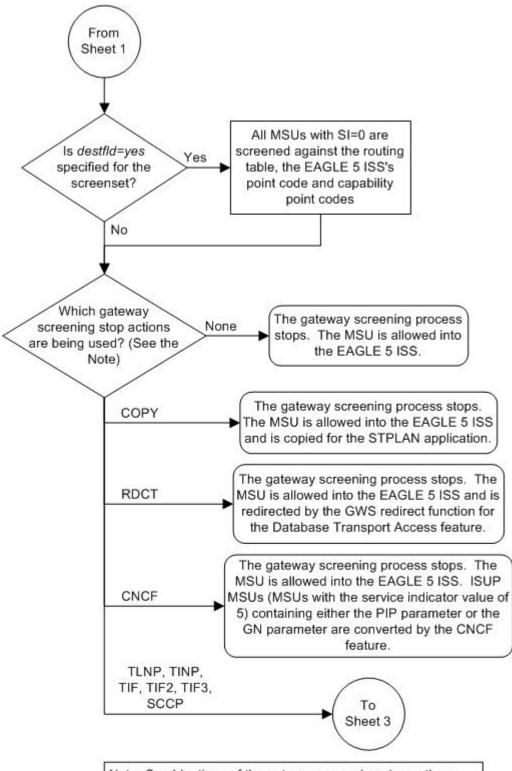


Figure 11-2 Blocked OPC Screening Actions - Sheet 2 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.

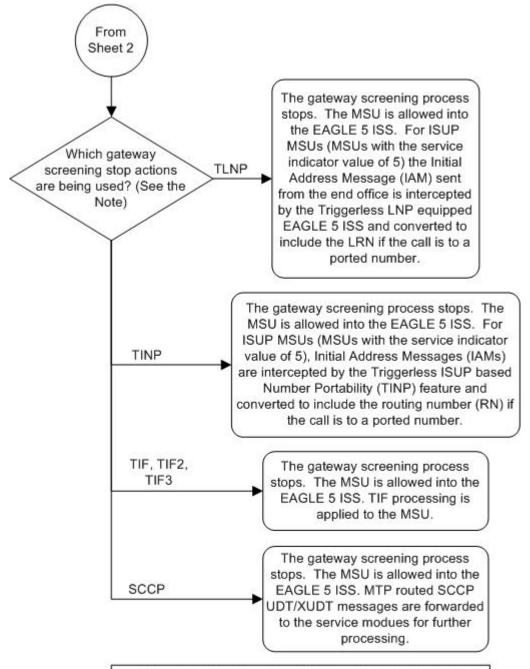


Figure 11-3 Blocked OPC Screening Actions - Sheet 3 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.

Figure 11-4 Blocked OPC Screening Functions

ANSI MSU (ANSI Message Signal Unit)

| | SIO | SIF | | | |
|------------|--------------------------|-----|----------------------------------|-----------|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | DPC | outing Label OPC NCM NC NI | SLS xx | |

ITU-I MSU (ITU International Message Signal Unit)

| | SIO | | SIF | | | | |
|------------|--------------------------|---------------------|--------------------------------------|-----------|--|--|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | DPC ID AREA ZONE | Routing Label OPC ID AREA ZONE | SLS xx | | | |

14-Bit ITU-N MSU (14-Bit ITU National Message Signal Unit)

| | sio | SIF | | | |
|------------|--------------------------|------------------|--------------------------|-----------|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Ro DPC NPC | uting Labe OPC NPC | SLS xx | |

24-Bit ITU-N MSU (24-Bit ITU National Message Signal Unit)

| | SIO | SIF | | | | |
|------------|--------------------------|------------|---------------|-----|--|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | ĺ | Routing Label | | | |
| | | DPC | OPC | SLS | | |
| | | SP SSA MSA | SP SSA MSA | хх | | |

Adding a Blocked OPC Screen

This procedure is used to add a blocked originating point code (OPC) screen to the database using the <code>ent-scr-blkopc</code> command. The parameters used by the <code>ent-scr-blkopc</code> command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The examples in this procedure are used to add the blocked OPC screen data shown in Table 11-1 and based on the example configurations shown in Figure 2-3, Figure 2-4, and Figure 2-7.

Table 11-1 Example Gateway Screening Blocked OPC Configuration Table

| Screening Reference | ZONE | AREA | ID | NSFI | NSR |
|------------------------|------|------|----|------|-----|
| gws5 | С | С | С | sio | iec |
| gws5 | 4 | 250 | 3 | fail | |

| Screening Reference | NI | NC | NCM | NSFI | NSR |
|------------------------|-----|-----|-----|------|------|
| fld3 | С | С | С | sio | fld4 |
| fld3 | 020 | 020 | 020 | fail | |
| gws3 | С | С | С | dpc | gws9 |
| gws3 | 001 | 002 | 002 | fail | |
| isp1 | С | С | С | sio | isp1 |
| isp1 | 025 | 025 | 025 | fail | |



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

The blocked OPC screen can reference one of the following screens.

- Allowed SIO
- Allowed DPC
- Blocked DPC
- Allowed CGPA

Verifying the Gateway Screening Configuration

Enter the following commands to verify that these screens are in the database.

- rtrv-scr-sio:all=yes
- rtrv-scr-dpc:all=yes
- rtrv-scr-blkdpc:all=yes
- rtrv-scr-cgpa:all=yes

Gateway Screening Configuration Procedures

If the desired screen is not in the database, perform one of the following procedures to add the desired screen to the database or change an existing screen in the database.

- Adding an Allowed SIO Screen
- Adding an Allowed DPC Screen
- Adding a Blocked DPC Screen
- Adding an Allowed Calling Party Address Screen
- Changing an Allowed SIO Screen
- Changing an Allowed DPC Screen
- Changing a Blocked DPC Screen
- Changing an Allowed Calling Party Address Screen

For the first entry for a specific screening reference, the value for the point code must be c, and the NSFI must be either stop, sio, dpc, blkdpc, or cgpa. If the NSFI is stop, the screening of the message will stop at the specified blocked OPC screen. If

the NSFI is either sio, dpc, blkdpc, or cgpa, then any message containing a point code that is not listed in the blocked OPC screen with a NSFI equal to fail, will continue to be screened with either the allowed SIO, allowed DPC, blocked DPC, or the allowed CGPA screen.

All subsequent entries for that screening reference must contain a numeric point code value, the NSFI must be equal to fail, and the nsr parameter cannot be specified. Any message that contains an OPC in the blocked OPC screen with the NSFI equal to fail will be rejected from the network and the screening process is stopped.

The post parameter, specifying whether or not the ITU-I or 14-bit ITU-N point code is a spare point code, cannot be used with the zone=c or npc=c parameters.

Specifying a Range of Values

A range of values can be specified for the point code parameters ni, nc, or ncm.

If a range of values is specified for any of these parameters, and the value of the other parameters match existing values for the screening reference name, the range of values for the point code parameter cannot include any values for that parameter that are currently provisioned for the screening reference name.

For example, screening reference name scr1 contains these entries:

| SR | NI | NC | NCM | NSFI | NSR/ACT |
|------|-----|-----|-----|------|---------|
| SCR1 | 240 | 001 | 010 | FAIL | |
| SCR1 | 241 | 010 | 020 | FAIL | |

Another entry for screening reference scrl with the ni value of 240 and the nc value of 001 cannot be specified if the range of values for the ncm parameter includes the value 010.

The ANSI point code parameter values can be specified as a single value, a range of values, or with an asterisk (*). The asterisk specifies all possible values for the ni, nc, and ncm parameters. Table 11-2 shows the valid combinations of these parameter values.

Table 11-2 Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM |
|-----------------|-----------------|-----------------|
| Single Value | Single Value | Single Value |
| Single Value | Single Value | Range of Values |
| Single Value | Single Value | Asterisk |
| Single Value | Range of Values | Asterisk |
| Single Value | Asterisk | Asterisk |
| Range of Values | Asterisk | Asterisk |
| Asterisk | Asterisk | Asterisk |

A range of values can also be specified for an ITU-I or 24-bit ITU-N point code parameter using a combination of asterisks (*) and single values for the point code parameters. Table 11-3 shows the valid combinations of the ITU-I parameter values. Table 11-4 shows the valid combinations of the 24-bit ITU-N parameter values.



Table 11-3 Valid Value Combinations for ITU-I Point Code Parameters

| ZONE | AREA | ID | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

Table 11-4 Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

1. Verify that the gateway screening feature is on, by entering the rtrv-feat command.

If the gateway screening feature is on, the GWS field is set to on.



The rtrv-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-feat command, see the rtrv-feat command description in Commands User's Guide.

If the gateway screening feature is on, shown by the entry GWS = on in the rtrv-feat command output, skip step 2, and go to step 3.

2. Turn the gateway screening feature on by entering this command.

chg-feat:gws=on

Note:

Once the gateway screening feature is turned on with the <code>chg-feat</code> command, it cannot be turned off.

The gateway screening feature must be purchased before you turn this feature on with the <code>chg-feat</code> command. If you are not sure if you have purchased the gateway screening feature, contact your Oracle Sales Representative or Account Representative.



When the chg-feat has successfully completed, this message should appear.

```
rlghncxa03w 06-10-28 11:43:04 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

3. Display all blocked OPC screens in the database using the rtrv-scr-blkopc command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = BLOCKED OPC SR REF RULES IEC YES 2 WRD2 YES 1 WRD4 YES 9
```

If the screening reference names that you wish to add with this procedure are not shown in the rtrv-scr-blkopc command output, go to step 4. For this example, the screening reference names are not shown. If these screening reference names are shown in the rtrv-scr-blkopc command output, make sure the screening data you wish to enter is not already in the database by entering the rtrv-scr-blkopc command with the screening reference name. For example, enter the rtrv-scr-blkopc:sr=iec command. The following is an example of the possible output.

| rlghn | cxa03w 06 | -10-25 | 15:26:30 | GMT EAGLE5 | 36.0.0 |
|-------|-----------|--------|----------|------------|---------|
| SCREE | N = BLOCK | ED OPC | | | |
| SR | NI | NC | NCM | NSFI | NSR/ACT |
| IEC | 240 | 001 | 010 | FAIL | |
| IEC | 241 | 010 | * | FAIL | |
| | | | | | |
| SR | ZONE | AREA | ID | NSFI | NSR/ACT |
| IEC | 1 | 003 | 4 | FAIL | |
| IEC | 1 | 003 | 5 | FAIL | |
| | | | | | |
| SR | NI | NC | NCM | NSFI | NSR/ACT |
| IEC | С | С | С | STOP | CR |
| SR | NPC | | | NSFI | NSR |
| IEC | 00235 | | | FAIL | |
| | | | | | |
| SR | NI | NC | NCM | NSFI | NSR/ACT |
| WRD2 | 243 | 015 | 001 | STOP | |
| WRD2 | 243 | 105 | 002 | FAIL | |
| WRD2 | С | С | С | STOP | |
| | | | | | |

If a gateway screening stop action set is to be assigned to the blocked OPC screen being added to the database, go to step 4.

Step 4 verifies the gateway screening stop action set names in the database. The gateway screening stop action set names are assigned only if the NSFI of the screen being added in this procedure is STOP. If the NSFI of the new screen will be STOP, but a gateway screening stop action set name will not be assigned to the new screen, skip steps 4 and 5 and go to step 6. If the NSFI of the new screen is not STOP, skip step 4 and go to step 5.



4. Display the gateway screening stop action sets in the database with the rtrvgws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
ACT ACT
         ACT ACT ACT ACT ACT ACT ACT ACT
ID
    NAME
         1 2 3
                     4
                          5
                              6
                                  7 8 9
1
    сору сору
2
   rdct rdct
3
   cr copy rdct
4
   cncf cncf
5
 cpcncf copy cncf
6
   cncfrd cncf rdct
   cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.



If the NSFI of the screen being added in this procedure is STOP or FAIL, skip step 5 and go to step 6.

- 5. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 7 is in the database.
 - If the desired screen is not in the database, perform one of the procedures shown in the Gateway Screening Configuration Procedures section to add the desired screen to the database or change an existing screen in the database.
- 6. Display the status of the ITU National and International Spare Point Code Support feature by entering the rtrv-ctrl-feat command with the ITU National and International Spare Point Code Support feature part number.

Note:

If the point code being added in this procedure is not an ITU-I or 14-bit ITU-Nspare point code, skip this step and to step 7.

Note:

If the point code being added in this procedure is an ITU-I or 14-bit ITU-N spare point code and the screening reference contains ITU-I or 14-bit ITU-N spare point codes, skip this step and go to step 7.



Enter this command.

rtrv-ctrl-feat:partnum=893013601

This is an example of the possible output.

rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 The following features have been permanently enabled:

Feature Name Partnum Status Quantity
Spare Point Code Support 893013601 on ----

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period Left Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum

Zero entries found.

If the ITU National and International Spare Point Code Support feature is enabled, go to step 7.

If the ITU National and International Spare Point Code Support feature is not enabled, perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure in *Database Administration - SS7 User's Guide* to enable the ITU National and International Spare Point Code Support feature as required. After the feature has been enabled, go to step 7.

7. Add a new blocked OPC screen to the database using the ent-scr-blkopc command.

If a gateway screening stop action is to be assigned to the blocked OPC screen being changed, enter the <code>ent-scr-blkopc</code> command with the <code>nsfi=stop</code> parameter and the <code>actname</code> parameter with the name of a gateway screening stop action set shown in the output of the <code>rtrv-gws-actset</code> command executed in step 4. The following list contains the values for <code>ni</code>, <code>nc</code>, <code>ncm</code>, <code>zone</code>, <code>area</code>, <code>id</code>, <code>npc</code>, <code>msa</code>, <code>ssa</code>, and <code>sp</code> parameters:

- ni 0 255, c, or an asterisk (*)
- nc 0 255, c, or an asterisk (*)
- ncm 0 255, c, or an asterisk (*)
- zone 0 7, c, or an asterisk (*)
- area 0 255, c, or an asterisk (*)
- id 0 7, c, or an asterisk (*)
- npc 1 16383, c, or an asterisk (*)
- msa 0 255, c, or an asterisk (*)
- ssa 0 255, c, or an asterisk (*)
- sp 0 255, c, or an asterisk (*)



A range of values can be specified for the ni, nc, and ncm parameters. See the "Specifying a Range of Values" section for more information on how the asterisk and a range of values are used for the ni, nc, and ncm parameters.

To add a spare point code to the blocked OPC screen, the pcst=s parameter must be specified. To add a non-spare point code to the blocked OPC screen, the pcst parameter does not have to be specified. If the pcst parameter is specified for a screen containing an ITU-I or 14-bit ITU-N non-spare point code, the value must be none. The pcst parameter cannot be used with the zone=c or npc=c parameters.

For this example, enter these commands.

```
ent-scr-blkopc:sr=gws5:zone=c:area=c:id=c:nsfi=sio:nsr=iec
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0
ENT-SCR-BLKOPC: SCREEN SET AFFECTED - GWS5 1% FULL
ENT-SCR-BLKOPC: MASP A - COMPLTD
ent-scr-blkopc:sr=gws5:zone=4:area=250:id=3:nsfi=fail
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0
ENT-SCR-BLKOPC: SCREEN SET AFFECTED - GWS5 1% FULL
ENT-SCR-BLKOPC: MASP A - COMPLTD
ent-scr-blkopc:sr=qws3:ni=c:nc=c:ncm=c:nsfi=dpc:nsr=qws9
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:31:30 GMT EAGLE5 36.0.0
ENT-SCR-BLKOPC: SCREEN SET AFFECTED - GWS7 1% FULL
ENT-SCR-BLKOPC: MASP A - COMPLTD
ent-scr-blkopc:sr=gws3:ni=001:nc=002:ncm=002:nsfi=fail
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:32:30 GMT EAGLE5 36.0.0
ENT-SCR-BLKOPC: SCREEN SET AFFECTED - GWS7 1% FULL
ENT-SCR-BLKOPC: MASP A - COMPLTD
ent-scr-blkopc:sr=fld3:ni=c:nc=c:ncm=c:nsfi=sio:nsr=fld4
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:33:30 GMT EAGLE5 36.0.0
ENT-SCR-BLKOPC: SCREEN SET AFFECTED - FLD3 1% FULL
ENT-SCR-BLKOPC: MASP A - COMPLTD
ent-scr-blkopc:sr=fld3:ni=020:nc=020:ncm=020:nsfi=fail
```



A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:34:30 GMT EAGLE5 36.0.0 ENT-SCR-BLKOPC: SCREEN SET AFFECTED - FLD3 1% FULL ENT-SCR-BLKOPC: MASP A - COMPLTD
```

ent-scr-blkopc:sr=isp1:ni=c:nc=c:ncm=c:nsfi=sio:nsr=isp1

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:33:30 GMT EAGLE5 36.0.0 ENT-SCR-BLKOPC: SCREEN SET AFFECTED - ISP1 1% FULL ENT-SCR-BLKOPC: MASP A - COMPLTD
```

ent-scr-blkopc:sr=isp1:ni=025:nc=025:ncm=025:nsfi=fail

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:34:30 GMT EAGLE5 36.0.0 ENT-SCR-BLKOPC: SCREEN SET AFFECTED - ISP1 1% FULL ENT-SCR-BLKOPC: MASP A - COMPLTD
```

8. Verify the changes using the rtrv-scr-blkopc command with the screening reference name used in step 7. For this example, enter these commands.

```
rtrv-scr-blkopc:sr=gws5
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:35:30 GMT EAGLE5 36.0.0
SCREEN = BLOCKED OPC
SR
     ZONE AREA
                    ID
                           NSFI
                                  NSR/ACT
            250
                   3
GWS5
    4
                           FAIL
GWS5
                    С
      С
            С
                           SIO
                                  IEC
```

rtrv-scr-blkopc:sr=gws3

The following is an example of the possible output.

| rlghno | cxa03w 06- | -10-25 | 15:25:30 | GMT E | AGLE5 36.0.0 |
|--------|------------|--------|----------|-------|--------------|
| SCREEN | I = BLOCKE | ED OPC | | | |
| SR | NI | NC | NCM | NSF | 'I NSR/ACT |
| GWS3 | 002 | 002 | 002 | FAI | L |
| GWS3 | C | C | С | DPC | GWS9 |

rtrv-scr-blkopc:sr=fld3

The following is an example of the possible output.

| rlghn | cxa03w 06 | -10-25 | 15:36:30 | GMT EAGI | LE5 36.0.0 | |
|----------------------|-----------|--------|----------|----------|------------|--|
| SCREEN = BLOCKED OPC | | | | | | |
| SR | NI | NC | NCM | NSFI | NSR/ACT | |
| FLD3 | 020 | 020 | 020 | FAIL | | |
| FLD3 | С | С | С | DPC | FLD4 | |



rtrv-scr-blkopc:sr=isp1

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:36:30 GMT EAGLE5 36.0.0
SCREEN = BLOCKED OPC
SR NI NC NCM NSFI NSR/ACT
ISP1 025 025 025 FAIL -----
ISP1 C C SIO ISP1
```

9. Backup the new changes using the <code>chg-db:action=backup:dest=fixed command.</code>

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



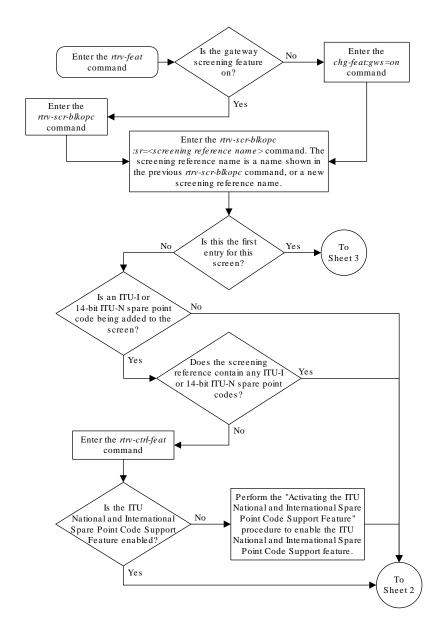
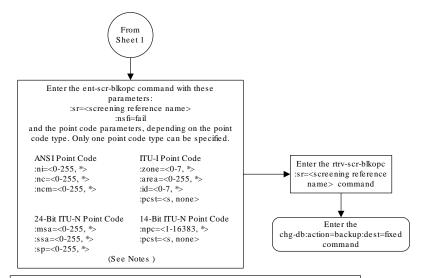


Figure 11-5 Add a Blocked OPC Screen - Sheet 1 of 5



Figure 11-6 Add a Blocked OPC Screen - Sheet 2 of 5



Notes.

- 1. A range of values can be specified for the ni, nc, or ncm parameters by inserting double ampers ands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the ni parameter, enter 025 && 200 for the ni parameter value.
- 2. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" section is in the "Adding a Blocked OPC Screen" procedure in the Database Administration Manual - Gateway Screening.

- 3. To add a non-spare point code, the pcst parameter does not have to be specified. If the pcst parameter is specified for a screen containing an ITU-I or 14-bit ITU-N non-spare point code, the value must be none.
- 4. To add a spare point code, the pcst=s parameter must be specified.



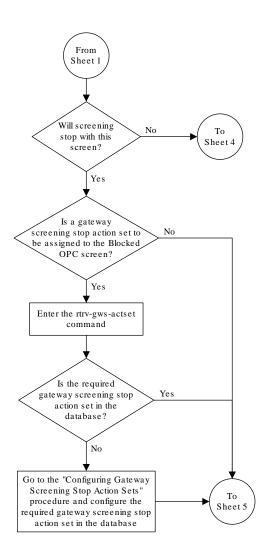


Figure 11-7 Add a Blocked OPC Screen - Sheet 3 of 5



Figure 11-8 Add a Blocked OPC Screen - Sheet 4 of 5

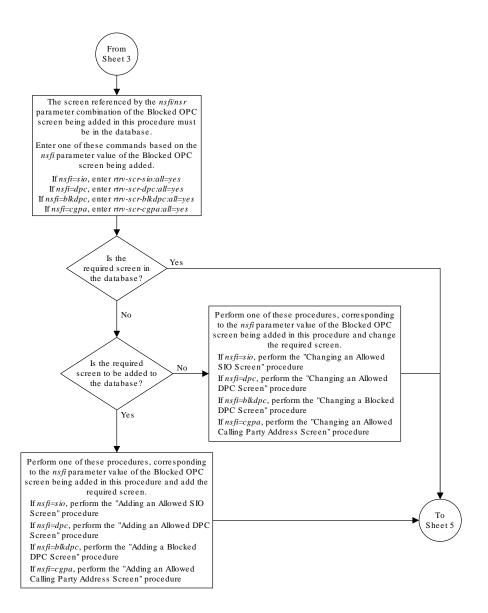
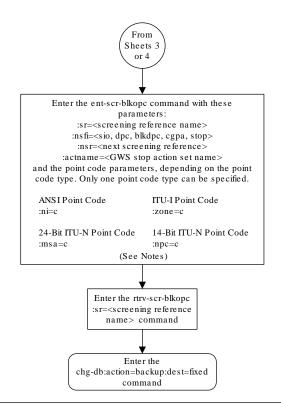




Figure 11-9 Add a Blocked OPC Screen - Sheet 5 of 5



Notes:

- 1. The nsr parameter can be specified only, and must be specified, if the nsfi parameter value is either sio, dpc, blkdpc, cgpa, or isup.
- 2. The actname parameter is optional and can be specified only with the nsfi=stop parameter. If the actname parameter is specified, the actname parameter value is one of the gateway screening stop action set names shown in the rtrv-gws-actset output on Sheet 3.

Removing a Blocked OPC Screen

This procedure is used to remove a blocked originating point code (OPC) screen from the database using the dlt-scr-blkopc command. The parameters used by the dlt-scr-blkopc command are shown in the Gateway Screening Attributes section. The general rules

that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure removes the blocked OPC screen iec with the point code 240-001-010 from the database.



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

The c-c-c entry cannot be removed from the blocked OPC screen unless all other entries in the blocked OPC screen have been removed. The c-c-c entry cannot be removed from the blocked OPC screen if other screens reference the blocked OPC screen. If the last entry (c-c-c) in the blocked OPC screen is removed, the blocked OPC screen is removed. The blocked OPC screen can be referenced by one of the following screens.

- Screen Set
- Allowed OPC

Verifying the Gateway Screening Configuration

Enter the following commands to verify that none of these screens reference the blocked OPC screen being removed from the database.

- rtrv-scrset:nsfi=blkopc
- rtrv-scr-opc:nsfi=blkopc

Gateway Screening Configuration Procedures

To change the NSFI of any of these screens, perform one of these procedures.

- Changing a Screen Set
- Changing an Allowed OPC Screen
- Display the blocked OPC screens in the database using the rtrv-scr-blkopc command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = BLOCKED DPC

SR REF RULES
IEC YES 6
ISP1 YES 2
WRD2 YES 2
WRD3 NO 4
WRD4 YES 9
```

From the rtrv-scr-blkopc output, display the blocked OPC screen you wish to remove using the rtrv-scr-blkopc command with the screening reference name. For this example, enter this command.

```
rtrv-scr-blkopc:sr=iec
```

The following is an example of the possible output.

| rlgh | ncxa03w | 06-10-25 | 15:25:30 | GMT EAGLE5 | 36.0.0 |
|------|----------|----------|----------|------------|---------|
| SCRE | EN = BLO | CKED OPC | | | |
| SR | NI | NC | NCM | NSFI | NSR/ACT |
| IEC | 240 | 001 | 010 | FAIL | |
| IEC | 241 | 010 | * | FAIL | |
| SR | ZONE | AREA | ID | NSFI | NSR/ACT |
| IEC | 1 | 003 | 4 | FAIL | |
| IEC | 1 | 003 | 5 | FAIL | |
| SR | NI | NC | NCM | NSFI | NSR/ACT |
| IEC | С | С | С | CGPA | cg01 |
| SR | NPC | | | NSFI | NSR |
| IEC | 0023 | 5 | | FAIL | |

2. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen being removed is not referenced by other screens in the database.

If the screen being removed is referenced by other screens, perform the procedures shown in the Gateway Screening Configuration Procedures section to change the NSFI of those screens to reference other screens or change the NSFI of these screens to STOP.

3. Remove the blocked OPC screen from the database using the dlt-scr-blkopc command with the screening reference name shown in the rtrv-scr-blkopc output in step 1 and with the point code parameter values (ni, nc, ncm, or zone, area, id, or npc, msa, ssa, sp) of the screen being removed from the database.

The values for these parameters must be entered exactly as shown in the rtrv-scr-blkopc output.

To remove an entry containing either an ITU-I or a 14-bit ITU-N spare point code, the pcst=s parameter must be specified with the dlt-scr-blkopc command.

To remove an entry containing either an ITU-I or a 14-bit ITU-N non-spare point code, the post parameter does not have to be specified with the dlt-scr-blkopc command. If the post parameter is specified, the value must be none.

The post parameter cannot be used with the zone=c or the npc=c parameters.

For this example, enter this command.

```
dlt-scr-blkopc:sr=iec:ni=240:nc=001:ncm=010
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 DLT-SCR-BLKOPC: SCREEN SET AFFECTED - IEC 2% FULL DLT-SCR-BLKOPC: MASP A - COMPLTD
```

4. Verify the changes using the rtrv-scr-blkopc command with the screening reference name used in step 3.

For this example, enter this command.

```
rtrv-scr-blkopc:sr=iec
```



The following is an example of the possible output.

| rlghno | cxa03w 06 | 5-10-25 | 15:27:30 | GMT EAGLE5 | 36.0.0 |
|--------|-----------|---------|----------|------------|---------|
| SCREE | N = BLOCK | KED OPC | | | |
| SR | NI | NC | NCM | NSFI | NSR/ACT |
| IEC | 241 | 010 | * | FAIL | |
| SR | ZONE | AREA | ID | NSFI | NSR/ACT |
| IEC | 1 | 003 | 4 | FAIL | |
| IEC | 1 | 003 | 5 | FAIL | |
| SR | NI | NC | NCM | NSFI | NSR/ACT |
| IEC | С | С | С | CGPA | cg01 |
| SR | NPC | | | NSFI | NSR |
| IEC | 00235 | | | FAIL | |

If the screen removed in step 3 was the last screen contained in the specified screening reference, the screening reference is removed from the database. The following message is displayed.

```
E2573 Cmd Rej: SR or NSR does not reference an existing SR
```

5. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



:sr=<screening reference name> Enter the rtrv-scr-blkopc command. The screening reference command name is a name shown in the previous rtrv-scr-blkopc command. Verify that the Blocked OPC screen being removed is not referenced by any screens or screen sets in the database by entering these commands. rtrv-scr-scrset:nsfi=blkopc rtrv-scr-opc:nsfi=blkopc Enter the dlt-scr-blkopc command with these Do any screens parameters: or screen sets :sr=<screening reference name> reference the screen and the point code parameters, depending on the point being removed? code type contained in the screen being removed. Only one point code type can be specified. Yes ANSI Point Code ITU-I Point Code :ni=<current ni value> :zone=<current zone value> :area=<current area value> :nc=<current nc value> :id=<current id value> :ncm=<current ncm value> Change the screens or screen sets :pcst= < s, none >referencing the Blocked OPC being removed by performing these procedures as 24-Bit ITU-N Point Code 14-Bit ITU-N Point Code appropriate and change the screen, or :msa=<current msa value> :npc=<current npc value> screen set, with other NSFI and NSR values :ssa=<current ssa value> :pcst= < s, none >or have the screening process stop with the :sp=<current sp value> screen or screen set. Notes: "Changing a Screen Set" $1. The \ current \ values \ for \ the \ ni, nc, ncm, zone, area, id, npc,$ "Changing an Allowed OPC Screen" msa, ssa, or sp parameters must be entered exactly as shown in the rtrv-scr-blkopc output. 2. The screen containing the point code value C cannot be removed until all other screens in the screening reference have Enter the rtrv-scr-blkopc been removed. Removing the screen containing the point code :sr=<screening reference value C will remove the screening reference from the Blocked name > command 3. To remove an entry containing either an ITU-I or a 14-bit ITU-N spare point code, the pcst=s parameter must be specified with the dlt-scr-blkopc command. Enter the chg-db:action=backup:dest=fixed 4. To remove an entry containing either an ITU-I or a 14-bit command ITU-N non-spare point code, the pcst parameter does not have to be specified with the dlt-scr-blkopc command. If the pcst parameter is specified for a screen containing either an ITU-I or a 14-bit ITU-N non-spare point code, the value must be none.

Enter the rtrv-scr-blkopc

Figure 11-10 Remove a Blocked OPC Screen

Changing a Blocked OPC Screen

This procedure is used to change the attributes of a blocked originating point code (OPC) screen in the database using the chg-scr-blkopc command. The parameters used by the chg-scr-blkopc command are shown in the Gateway Screening Attributes section. The

general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure is used to change the point code 002-002-002 for the blocked OPC screen gws7 to 230-230-230.



If you using multiple-part ITU national point codes with gateway screening, 14-Bit ITU National Point Code Formats section.

If the current ni, nc, and ncm are equal to the character "c", only the next screening function identifier and next screening reference can be changed. The next screening function identifier cannot be equal to fail. If the next screening function identifier is not equal to stop, the next screening reference must be specified. Otherwise, only the point code can be changed.

The blocked OPC screen can reference one of the following screens.

- Allowed SIO
- Allowed DPC
- Blocked DPC
- Allowed CGPA

Verifying the Gateway Screening Configuration

Enter the following commands to verify that these screens are in the database.

- rtrv-scr-sio:all=yes
- rtrv-scr-dpc:all=yes
- rtrv-scr-blkdpc:all=yes
- rtrv-scr-cgpa:all=yes

Gateway Screening Configuration Procedures

If the desired screen is not in the database, perform one of these procedures to add the desired screen to the database.

- Adding an Allowed SIO Screen
- Adding an Allowed DPC Screen
- Adding a Blocked DPC Screen
- Adding an Allowed Calling Party Address Screen
- Changing an Allowed SIO Screen
- Changing an Allowed DPC Screen
- Changing a Blocked DPC Screen
- Changing an Allowed Calling Party Address Screen

For the first entry for a specific screening reference, the value for the point code must be c, and the NSFI must be either stop, sio, dpc, blkdpc, or cgpa. If the NSFI is stop, the screening of the message will stop at the specified blocked OPC screen. If



the NSFI is either sio, dpc, blkdpc, or cgpa, then any message containing a point code that is not listed in the blocked OPC screen with a NSFI equal to fail, will continue to be screened with either the allowed SIO, allowed DPC, blocked DPC, or the allowed CGPA screen.

All subsequent entries for that screening reference must contain a numeric point code value, the NSFI must be equal to fail, and the nsr parameter cannot be specified. Any message that contains an OPC in the blocked OPC screen with the NSFI equal to fail will be rejected from the network and the screening process is stopped.

The post or npost parameters, specifying whether or not the ITU-I or 14-bit ITU-N point code is a spare point code, cannot be used with the zone=c or npo=c parameters.

Specifying a Range of Values

A range of values can be specified for the point code parameters ni, nc, or ncm.

If a range of values is specified for any of these parameters, and the value of the other parameters match existing values for the screening reference name, the range of values for the point code parameter cannot include any values for that parameter that are currently provisioned for the screening reference name.

For example, screening reference name scr1 contains these entries:

| SR | NI | NC | NCM | NSFI | NSR/ACT |
|------|-----|-----|-----|------|---------|
| SCR1 | 240 | 001 | 010 | FAIL | |
| SCR1 | 241 | 010 | 020 | FAIL | |

Another entry for screening reference scrl with the ni value of 240 and the nc value of 001 cannot be specified if the range of values for the ncm parameter includes the value 010.

The ANSI point code parameter values can be specified as a single value, a range of values, or with an asterisk (*). The asterisk specifies all possible values for the ni, nc, and ncm parameters. Table 11-5 shows the valid combinations of these parameter values.

Table 11-5 Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM |
|-----------------|-----------------|-----------------|
| Single Value | Single Value | Single Value |
| Single Value | Single Value | Range of Values |
| Single Value | Single Value | Asterisk |
| Single Value | Range of Values | Asterisk |
| Single Value | Asterisk | Asterisk |
| Range of Values | Asterisk | Asterisk |
| Asterisk | Asterisk | Asterisk |

A range of values can also be specified for an ITU-I or 24-bit ITU-N point code parameter using a combination of asterisks (*) and single values for the point code parameters. Table 11-6 shows the valid combinations of the ITU-I parameter values. Table 11-7 shows the valid combinations of the 24-bit ITU-N parameter values.



Table 11-6 Valid Value Combinations for ITU-I Point Code Parameters

| ZONE | AREA | ID | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

Table 11-7 Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

1. Display the blocked OPC screens in the database using the rtrv-scr-blkopc command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = BLOCKED OPC
    REF RULES
GWS7 YES
            2
IEC
            6
    YES
ISP1 YES
            2
WRD2 YES
           2
WRD3 NO
           4
WRD4 YES
           10
```

From the rtrv-scr-blkopc output, display the blocked OPC screen you wish to change using the rtrv-scr-blkopc command with the screening reference name. For this example, enter this command.

```
rtrv-scr-blkopc:sr=gws7
```

The following is an example of the possible output.

| rlghn | cxa03w 06 | -10-25 | 15:25:30 | GMT EAGI | E5 36.0.0 |
|-------|-----------|--------|----------|----------|-----------|
| SCREE | N = BLOCK | ED OPC | | | |
| SR | NI | NC | NCM | NSFI | NSR/ACT |
| GWS7 | 002 | 002 | 002 | FAIL | |
| GWS7 | C | С | С | DPC | GWS9 |

If a gateway screening stop action set is to be assigned to the blocked OPC screen being changed in the database, go to step 2.

Step 2 verifies the gateway screening stop action set names in the database. The gateway screening stop action set names are assigned only if the NSFI of the screen being changed in this procedure is STOP. If the NSFI of the screen will be

changed to STOP, but a gateway screening stop action set name will not be assigned to the screen, skip steps 2 and 3 and go to step 4. If the NSFI of the screen will not be STOP, skip step 2 and go to step 3.

2. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
         ACT ACT ACT ACT ACT ACT ACT ACT
ID
   NAME 1 2 3
                     4 5 6 7 8 9
1
   сору сору
2
   rdct rdct
3
   cr
         copy rdct
4
   cncf cncf
5
 cpcncf copy cncf
6
   cncfrd cncf rdct
   cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.



If the NSFI of the screen being changed in this procedure will be STOP or FAIL, or if the NSFI of the screen is not being changed, skip step 3 and go to step 4.

3. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 5 is in the database.

If the desired screen is not in the database, perform one of the procedures shown in the Gateway Screening Configuration Procedures section to add the desired screen to the database or change an existing screen in the database.



If any of these conditions apply to this procedure, skip this step and go to step 5:

- The point code in the screen is not being changed.
- The screen being changed contains either an ANSI or 24-bit ITU-N point code.
- The ITU-I or 14-bit ITU-N non-spare point code in the screen is not being changed to an ITU-I or 14-bit ITU-N spare point code.



- The point code in the screen is an ITU-I or 14-bit ITU-N spare point code or the screening reference contains other screens with ITU-I or 14-bit ITU-N spare point codes.
- 4. Display the status of the ITU National and International Spare Point Code Support feature by entering the rtrv-ctrl-feat command with the ITU National and International Spare Point Code Support feature part number.

Enter this command.

```
rtrv-ctrl-feat:partnum=893013601
```

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 The following features have been permanently enabled:
```

```
Feature Name Partnum Status Quantity
Spare Point Code Support 893013601 on ----
```

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period

Left

Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum

Zero entries found.

If the ITU National and International Spare Point Code Support feature is enabled, go to step 5.

If the ITU National and International Spare Point Code Support feature is not enabled, perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure in *Database Administration - SS7 User's Guide* to enable the ITU National and International Spare Point Code Support feature as required. After the feature has been enabled, go to step 5.

5. Change the attributes of the blocked OPC screen using the chg-scr-blkopc command.

If a gateway screening stop action is to be assigned to the blocked OPC screen being changed, enter the chg-scr-blkopc command with the nsfi=stop parameter and the actname parameter with the name of a gateway screening stop action set shown in the output of the rtrv-gws-actset command executed in step 2.

The current values for the ni, nc, ncm, zone, area, id, npc, msa, ssa, and sp parameters must be entered exactly as shown in the rtrv-scr-blkopc output in step 1.

The following list contains the values for the nni, nnc, nncm, nzone, narea, nid, nnpc, nmsa, nssa, and nsp parameters:

- nni 0 255, c, or an asterisk (*)
- nnc 0 255, c, or an asterisk (*)



- nncm 0 255, c, or an asterisk (*)
- nzone 0 7, c, or an asterisk (*)
- narea 0 255, c, or an asterisk (*)
- nid 0 7, c, or an asterisk (*)
- nnpc 1 16383, c, or an asterisk (*)
- nmsa 0 255, c, or an asterisk (*)
- nssa 0 255, c, or an asterisk (*)
- nsp 0 255, c, or an asterisk (*)

A range of values can be specified for the nni, nnc, and nncm parameters. See the "Specifying a Range of Values" section for more information on how the asterisk and a range of values are used for the nni, nnc, and nncm parameters.

To change an ITU-I or 14-bit ITU-N spare point code to a non-spare point code, both the pcst=s and npcst=none parameters must be specified with the chg-scr-blkopc command.

To change an ITU-I or 14-bit ITU-N non-spare point code to a spare point code, the npcst=s parameter must be specified with the chg-scr-blkopc command. The pcst parameter does not have to be specified.

If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N spare point code, the pcst=s parameter must be specified with the chg-scr-blkopc command.

If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N non-spare point code, the post parameter does not have to be specified with the chg-scr-blkopc command. If the post parameter is specified for a screen containing either an ITU-I or 14-bit ITU-N non-spare point code, the post parameter value must be none.

The post or npost parameters cannot be used with the zone=c or npo=c parameters.

For this example, enter this command.

```
chg-scr-
blkopc:sr=gws7:ni=002:nc=002:ncm=002:nni=230:nnc=230 :nncm=230
```

The following messages appear.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0 CHG-SCR-BLKOPC: SCREEN SET AFFECTED - GWS7 1% FULL CHG-SCR-BLKOPC: MASP A - COMPLTD
```



Verify the changes using thertry-scr-blkopc command with the screening reference name used in step 5. For this example, enter this command.

rtrv-scr-blkopc:sr=gws7



The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
SCREEN = BLOCKED OPC
     ΝI
              NC
                      NCM
                               NSFI
                                      NSR/ACT
             230
GWS7 230
                      230
                               FAIL
                                      ----
GWS7 C
             С
                      С
                               DPC
                                      GWS9
```

6. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



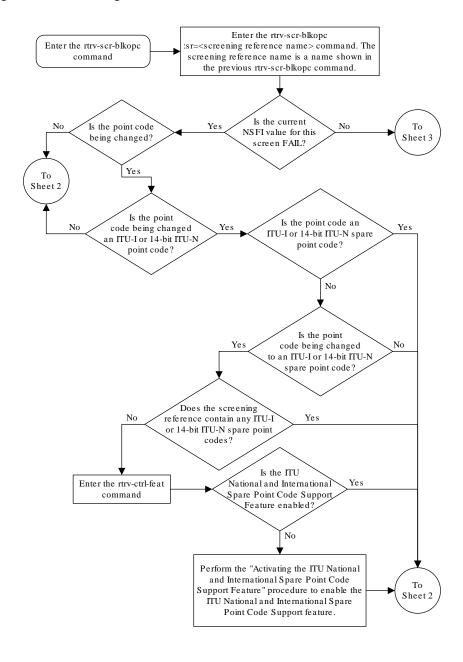
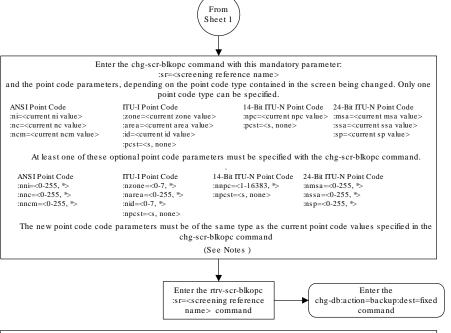


Figure 11-11 Change a Blocked OPC Screen - Sheet 1 of 5



Figure 11-12 Change a Blocked OPC Screen - Sheet 2 of 5



Notes:

- 1. A range of values can be specified for the nni, nnc, or nncm parameters by inserting double ampersands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the nni parameter, enter 025 &&200 for the nni parameter value.
- 2. The current values for the ni, nc, ncm, zone, area, id, npc, msa, ssa, or sp parameters must be entered exactly as shown in the rtrv-scr-blkopc output. The current point code value cannot be C.
- 3. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" section is in the "Changing a Blocked OPC Screen" procedure in the Database Administration Manual - Gateway Screening.

- 4. To change an ITU-I or 14-bit ITU-N spare point code to a non-spare point code, both the pcst=s and npcst=none parameters must be specified with the chg-scr-blkopc command.
- 5. To change an ITU-I or 14-bit ITU-N non-spare point code to a spare point code, the npcst=s parameter must be specified with the chg-scr-blkopc command. The pcst parameter does not have to be specified.
- 6. If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N spare point code, the pcst=s parameter must be specified with the chg-scr-blkopc command.
- 7. If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N non-spare point code, the pest parameter does not have to be specified with the chg-scr-blkopc command. If the pest parameter is specified for a screen containing either an ITU-I or 14-bit ITU-N non-spare point code, the pest parameter value must be none.

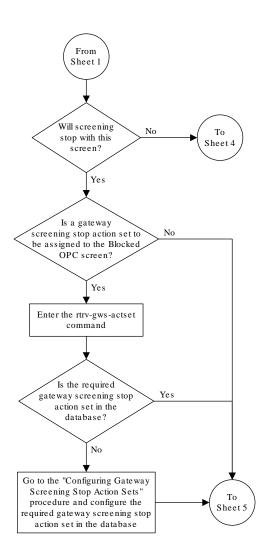


Figure 11-13 Change a Blocked OPC Screen - Sheet 3 of 5



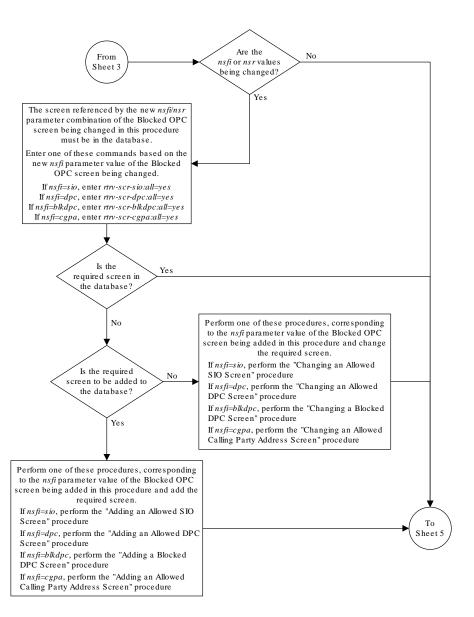
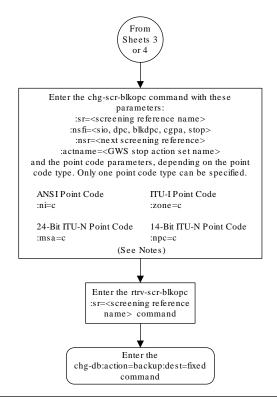


Figure 11-14 Change a Blocked OPC Screen - Sheet 4 of 5



Figure 11-15 Change a Blocked OPC Screen - Sheet 5 of 5



Notes

- 1. The nsr parameter can be specified only, and must be specified, if the nsfi parameter value is either sio, dpc, blkdpc, or cgpa.
- 2. The actname parameter is optional and can be specified only with the nsfi=stop parameter. If the actname parameter is specified, the actname parameter value is one of the gateway screening stop action set names shown in the rtrv-gws-actset output on Sheet 3.



12

Allowed Originating Point Code (OPC) Screen Configuration

Chapter 12, Allowed Originating Point Code (OPC) Screen Configuration, contains the procedures necessary to configure allowed originating point code screens.

Introduction

The allowed originating point code (OPC) screen identifies a set of OPC's that are allowed to send SS7 messages into the network. The gray shaded areas in Figure 12-4 shows the fields of the SS7 message that are checked by the allowed OPC screening function.

Gateway Screening Actions

If a match is not found, the message is discarded.

If a match is found, the nsfi is examined to determine the next step in the screening process. If the nsfi value is any value other than stop, the next screening reference (nsr) is identified and the screening process continues to the next screen identified by the nsfi and nsr parameter values.

If the nsfi is equal to stop, the screening process stops and the message is processed. If a gateway screening stop action set is specified with the screen, shown by the actname parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

- If the rdct (redirect) gateway screening stop action is specified, the message is diverted from the original destination and sent to another destination with the Database Transport Access feature, specified by global title translation, for further processing.
- If the cncf gateway screening stop action is specified, the PIP parameter in the incoming ISUP IAM message is converted to the GN parameter. The GN parameter in the incoming ISUP IAM message is converted to the PIP parameter. The message is then sent to the node specified by the DPC in the routing label in the message. For more information on the Calling Name Conversion Facility feature, see Calling Name Conversion Facility (CNCF) Configuration.
- If the tlnp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are processed either by the ISUP NP with EPAP feature (if the ISUP NP with EPAP feature is enabled and turned on) or by the Triggerless LNP feature (if the Triggerless LNP feature is turned on). The ISUP NP with EPAP feature is discussed in more detail in *G-Port User's Guide*. The Triggerless LNP feature is discussed in more detail in *ELAP Administration and LNP Feature Activation Guide*.
- If the tinp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in *G-Port User's Guide*.

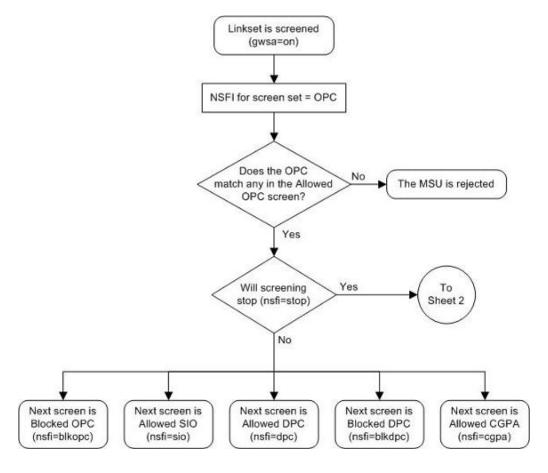


- If the tif, tif2, or tif3 gateway screening stop actions are specified, TIF processing is applied to the message.
- If the sccp gateway screening stop action is specified, MTP routed SCCP UDT/ XUDT are forwarded to the service modules for further processing.

Allowed OPC Screening Actions

Figure 12-1 through Figure 12-3 show the screening actions of the allowed OPC screen.

Figure 12-1 Allowed OPC Screening Actions - Sheet 1 of 3





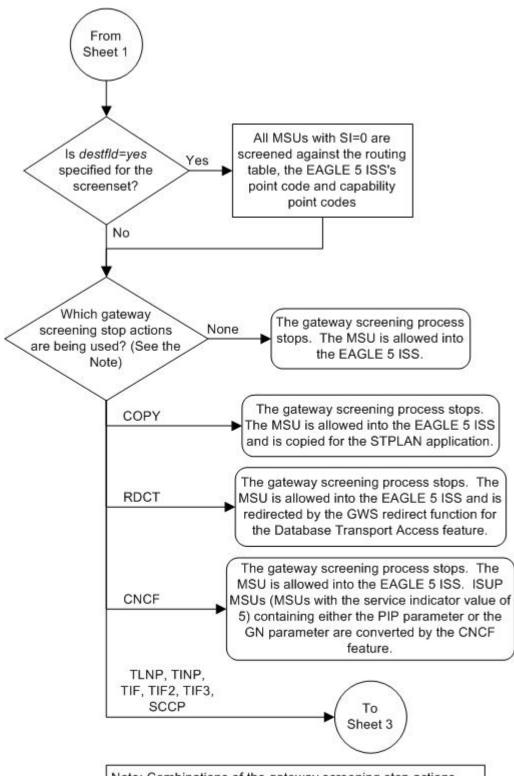


Figure 12-2 Allowed OPC Screening Actions - Sheet 2 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.

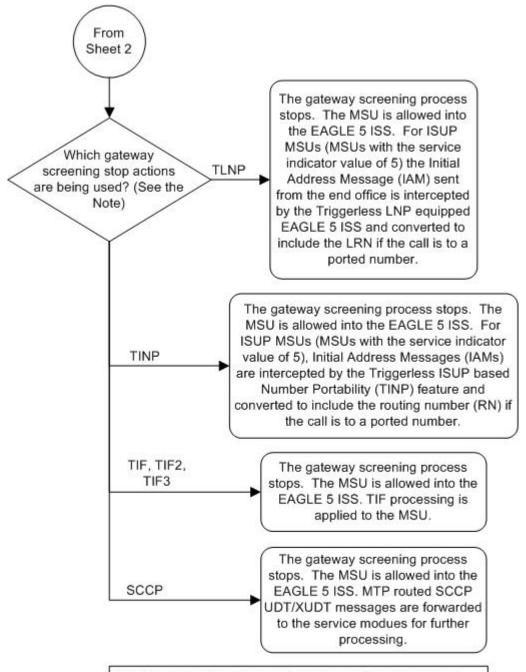


Figure 12-3 Allowed OPC Screening Actions - Sheet 3 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.



Figure 12-4 Allowed OPC Screening Functions

ANSI MSU (ANSI Message Signal Unit)

| | SIO | | SIF | |
|------------|--------------------------|-----|----------------------------|-----------|
| BSN FSN LI | XX XX XXXX NIC PRI SI | DPC | outing Label OPC NCM NC NI | SLS xx |

ITU-I MSU (ITU International Message Signal Unit)

| | SIO | | SIF | | |
|------------|--------------------------|---------------------|--------------------------------------|-----------|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | DPC ID AREA ZONE | Routing Label OPC ID AREA ZONE | SLS xx | |

14-Bit ITU-N MSU (14-Bit ITU National Message Signal Unit)

| | SIO | | S | SIF | |
|------------|--------------------------|------------------|--------------------------|-----------|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Ro DPC NPC | uting Labe OPC NPC | SLS xx | |

24-Bit ITU-N MSU (24-Bit ITU National Message Signal Unit)

| | SIO | SIF | | | |
|------------|--------------------------|------------|---------------|-----|--|
| BSN FSN LI | XX XX XXXX NIC PRI SI | | Routing Label | | |
| | | DPC | OPC | SLS | |
| | | SP SSA MSA | SP SSA MSA | хх | |

Adding an Allowed OPC Screen

This procedure is used to add an allowed originating point code (OPC) screen to the database using the <code>ent-scr-opc</code> command. The parameters used by the <code>ent-scr-opc</code> command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The examples in this procedure are used to add the allowed OPC screen data shown in Table 12-1 and based on the example configurations shown in Figure 2-3, Figure 2-7, and Figure 2-9.

Table 12-1 Example Gateway Screening Allowed OPC Configuration Table

| Screening Reference | NI | NC | NCM | NSFI | NSR |
|------------------------|-----|-----|-----|--------|------|
| gws4 | 001 | 001 | 001 | blkopc | gws3 |
| fld2 | 010 | 010 | 010 | blkopc | fld3 |

Table 12-1 (Cont.) Example Gateway Screening Allowed OPC Configuration Table

| Screening Reference | NI | NC | NCM | NSFI | NSR | |
|------------------------|-----|-----|-----|--------|------|--|
| isp1 | 015 | 015 | 015 | blkopc | isp1 | |
| tup1 | 017 | 017 | 017 | sio | tup1 | |



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

The allowed OPC screen can reference one of the following screens.

- Blocked OPC
- Allowed SIO
- Allowed DPC
- Blocked DPC
- Allowed CGPA

Verifying the Gateway Screening Configuration

Enter the following commands to verify that these screens are in the database.

- rtrv-scr-blkopc:all=yes
- rtrv-scr-sio:all=yes
- rtrv-scr-dpc:all=yes
- rtrv-scr-blkdpc:all=yes
- rtrv-scr-cgpa:all=yes

Gateway Screening Configuration Procedures

If the desired screen is not in the database, perform one of these procedures to add the desired screen to the database or change an existing screen in the database.

- Adding a Blocked OPC Screen
- Adding an Allowed SIO Screen
- Adding an Allowed DPC Screen
- Adding a Blocked DPC Screen
- Adding an Allowed Calling Party Address Screen
- Changing a Blocked OPC Screen
- Changing an Allowed SIO Screen
- Changing an Allowed DPC Screen
- Changing a Blocked DPC Screen
- · Changing an Allowed Calling Party Address Screen



Specifying a Range of Values

A range of values can be specified for the point code parameters ni, nc, or ncm.

If a range of values is specified for any of these parameters, and the value of the other parameters match existing values for the screening reference name, the range of values for the point code parameter cannot include any values for that parameter that are currently provisioned for the screening reference name.

For example, screening reference name scr1 contains these entries:

| SR | NI | NC | NCM | NSFI | NSR/ACT |
|------|-----|-----|-----|------|---------|
| SCR1 | 240 | 001 | 010 | CGPA | |
| SCR1 | 241 | 010 | 020 | STOP | |

Another entry for screening reference scrl with the ni value of 240 and the nc value of 001 cannot be specified if the range of values for the ncm parameter includes the value 010.

The ANSI point code parameter values can be specified as a single value, a range of values, or with an asterisk (*). The asterisk specifies all possible values for the ni, nc, and ncm parameters. Table 12-2 shows the valid combinations of these parameter values.

Table 12-2 Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM |
|-----------------|-----------------|-----------------|
| Single Value | Single Value | Single Value |
| Single Value | Single Value | Range of Values |
| Single Value | Single Value | Asterisk |
| Single Value | Range of Values | Asterisk |
| Single Value | Asterisk | Asterisk |
| Range of Values | Asterisk | Asterisk |
| Asterisk | Asterisk | Asterisk |

A range of values can also be specified for an ITU-I or 24-bit ITU-N point code parameter using a combination of asterisks (*) and single values for the point code parameters. Table 12-3 shows the valid combinations of the ITU-I parameter values. Table 12-4 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 12-3 Valid Value Combinations for ITU-I Point Code Parameters

| ZONE | AREA | ID | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

Table 12-4 Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |



Table 12-4 (Cont.) Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP | |
|--------------|----------|----------|--|
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

1. Verify that the gateway screening feature is on, by entering the rtrv-feat command.

If the gateway screening feature is on, the GWS field is set to on.



Thertry-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by thertry-feat command, see thertry-feat command description in *Commands User's Guide*.

If the gateway screening feature is on, shown by the entry GWS = on in the rtrv-feat command output, skip step 2, and go to step 3.

2. Turn the gateway screening feature on by entering this command.

chg-feat:gws=on

Note:

Once the gateway screening feature is turned on with the chg-feat command, it cannot be turned off.

Note:

The gateway screening feature must be purchased before you turn this feature on with thechg-feat command. If you are not sure if you have purchased the gateway screening feature, contact your Oracle Sales Representative or Account Representative.

When the chg-feat has successfully completed, this message should appear.

```
rlghncxa03w 06-10-28 11:43:04 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

3. Display all allowed OPC screens in the database using the rtrv-scr-opc command.



The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED OPC SR REF RULES IEC YES 2 WRD2 YES 1 WRD4 YES 9
```

If the screening reference names that you wish to add with this procedure are not shown in the rtrv-scr-opc command output, go to step 4. For this example, the screening reference names are not shown. If these screening reference names are shown in the rtrv-scr-opc command output, make sure the screening data you wish to enter is not already in the database by entering the rtrv-scr-opc command with the screening reference name. For example, enter the rtrv-scr-opc:sr=iec command. The following is an example of the possible output.

| rlghno | cxa03w | 06-10-25 | 15:26:30 | GMT EAGLE | 36.0.0 |
|--------|---------|----------|----------|-----------|---------|
| SCREEN | N = ALL | OWED OPC | | | |
| SR | NI | NC | NCM | NSFI | NSR/ACT |
| IEC | 240 | 001 | 010 | STOP | |
| IEC | 241 | 010 | * | CGPA | cg04 |
| | | | | | |
| SR | NPC | | | NSFI | NSR/ACT |
| IEC | 0023 | 5 | | CGPA | cg04 |
| IEC | 0024 | . 0 | | CGPA | cg01 |
| | | | | | |
| SR | ZONE | AREA | ID | NSFI | NSR/ACT |
| IEC | 1 | 003 | 4 | BLKOPC | blk1 |
| IEC | 1 | 003 | 5 | STOP | |

If a gateway screening stop action set is to be assigned to the allowed OPC screen being added to the database, go to step 4.

Step 4 verifies the gateway screening stop action set names in the database. The gateway screening stop action set names are assigned only if the NSFI of the screen being added in this procedure is STOP. If the NSFI of the new screen will be STOP, but a gateway screening stop action set name will not be assigned to the new screen, skip steps 4, 5, and 6, and go to step 7. If the NSFI of the new screen is not STOP, skip steps 4 and 5, and go to step 6.

4. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0
        ACT ACT ACT ACT ACT ACT ACT ACT
ACT ACT
ID
   NAME 1 2 3
                    4
                        5
                            6
                                7
                                    8 9
1
   сору сору
2
   rdct rdct
3
   cr copy rdct
   cncf cncf
4
5
   cpcncf copy cncf
```



```
6 cncfrd cncf rdct
7 cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.



If the gateway screening stop action set being assigned to the Allowed OPC screen does not contain the redirect stop action, skip step 5 and go to step 6.

5. Verify the point codes of adjacent nodes by entering the rtrv-ls command. The following is an example of the possible output.

| rlghncxa03w | 06-10-10 11:43 | 3:04 GM | | GLE5 SLT | 36. | 0.0 | | GWS | GWS | GWS |
|-----------------------------|----------------|---------|-----|-------------|-----|-----|------|-----|-----|-----|
| LSN | APCA (SS7) | SCRN | _ | _ | BEI | LST | LNKS | | | |
| SLSCI NIS e1e2 no off | 001-207-000 | none | 1 | 1 | no | В | 6 | off | off | off |
| ls1305 | 000-005-000 | none | 1 | 1 | no | A | 1 | off | off | off |
| ls1307 | 000-007-000 | none | 1 | 1 | no | A | 1 | off | off | off |
| elm1s1 | 001-001-001 | none | 1 | 1 | no | A | 7 | off | off | off |
| e1m1s2 no off | 001-001-002 | none | 1 | 1 | no | A | 7 | off | off | off |
| | | | L3T | SLT | | | | GWS | GWS | GWS |
| LSN SLSCI NIS | APCI (SS7) | SCRN | SET | SET | BEI | LST | LNKS | ACT | MES | DIS |
| ele2i | 1-207-0 | none | 1 | 1 | no | В | 4 | off | off | off |
| ls1315 off | 0-015-0 | none | 1 | 1 | no | A | 1 | off | off | off |
| ls1317 | 0-017-0 | none | 1 | 1 | no | A | 1 | off | off | off |
| elm2s1 | 1-011-1 | none | 1 | 1 | no | А | 7 | off | off | off |
| e1m2s2 off | 1-011-2 | none | 1 | 1 | no | A | 7 | off | off | off |

Link set table is (10 of 1024) 1% full.

Caution:

Redirecting SLTA/SLTM messages prevents SLTA/SLTM messages from being returned to the EAGLE. The signaling link carrying these messages will fail if these messages are not returned to the EAGLE. To prevent SLTA/SLTM messages from being redirected, gateway screening stop action sets containing the redirect stop action should not be assigned to Allowed OPC screens containing the adjacent point code of a linkset.

Note:

If the NSFI of the screen being added in this procedure is STOP, skip step 6 and go to step 7.

6. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 8 is in the database.

If the desired screen is not in the database, perform one of the procedures shown in the Gateway Screening Configuration Procedures section to add the desired screen to the database or change an existing screen in the database.



Note:

If the point code being added in this procedure is not an ITU-I or 14-bit ITU-N spare point code, skip step 7 and to step 8.



Note:

If the point code being added in this procedure is an ITU-I or 14-bit ITU-N spare point code and the screening reference contains ITU-I or 14-bit ITU-N spare point codes, skip step 7 and go to step 8.

7. Display the status of the ITU National and International Spare Point Code Support feature by entering the rtrv-ctrl-feat command with the ITU National and International Spare Point Code Support feature part number.

Enter this command.

```
rtrv-ctrl-feat:partnum=893013601
```

This is an example of the possible output.

rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 The following features have been permanently enabled:

```
Feature Name
                         Partnum Status Quantity
Spare Point Code Support 893013601 on
```

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period

T.eft

Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum

Zero entries found.

If the ITU National and International Spare Point Code Support feature is enabled, go to step 8.

If the ITU National and International Spare Point Code Support feature is not enabled, perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure in Database Administration - SS7 User's Guide to enable the ITU National and International Spare Point Code Support feature as required. After the feature has been enabled, go to step 8.

8. Add a new allowed OPC screen to the database using the ent-scr-opc command.

If a gateway screening stop action is to be assigned to the allowed OPC screen being changed, enter the ent-scr-opc command with the nsfi=stop parameter and the actname parameter with the name of a gateway screening stop action set shown in the output of the rtrv-qws-actset command executed in step 4.



Caution:

Redirecting SLTA/SLTM messages preventsSLTA/SLTM messages from being returned to the EAGLE. The signaling link carrying these messages will fail if these messages are not returned to the EAGLE. To prevent SLTA/SLTM messages from being redirected, gateway screening stop action sets containing the redirect stop action should not be assigned to Allowed OPC screens containing the adjacent point code of a linkset, shown in step 5.

The following list contains the values for ni, nc, ncm, zone, area, id, npc, msa, ssa, and sp parameters:

- ni 0 255 or an asterisk (*)
- nc 0 255 or an asterisk (*)
- ncm 0 255 or an asterisk (*)
- zone 0 7 or an asterisk (*)
- area 0 255 or an asterisk (*)
- id 0 7 or an asterisk (*)
- npc 1 16383 or an asterisk (*)
- msa 0 255 or an asterisk (*)
- ssa 0 255 or an asterisk (*)
- sp 0 255 or an asterisk (*)



A range of values can be specified for the ni, nc, and ncm parameters. See the "Specifying a Range of Values" section for more information on how the asterisk and a range of values are used for the ni, nc, and ncm parameters.

To add a spare point code to the allowed OPC screen, the pcst=s parameter must be specified. To add a non-spare point code to the allowed OPC screen, the pcst parameter does not have to be specified. If the pcst parameter is specified for a screen containing an ITU-I or 14-bit ITU-N non-spare point code, the value must be none.

For this example, enter these commands.

```
ent-scr-opc:sr=qws4:ni=001:nc=001:ncm=001:nsfi=blkopc:nsr=qws3
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0 ENT-SCR-OPC: SCREEN SET AFFECTED - GWS4 1% FULL ENT-SCR-OPC: MASP A - COMPLTD
```

```
ent-scr-opc:sr=fld2:ni=010:nc=010:ncm=010:nsfi=blkopc:nsr=fld3
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0 ENT-SCR-OPC: SCREEN SET AFFECTED - FLD2 1% FULL ENT-SCR-OPC: MASP A - COMPLTD
```

```
ent-scr-opc:sr=isp1:ni=015:nc=015:ncm=015:nsfi=blkopc:nsr=isp1
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0 ENT-SCR-OPC: SCREEN SET AFFECTED - ISP1 1% FULL ENT-SCR-OPC: MASP A - COMPLTD
```

```
ent-scr-opc:sr=tup1:ni=017:nc=017:ncm=017:nsfi=sio:nsr=tup1
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0 ENT-SCR-OPC: SCREEN SET AFFECTED - TUP1 1% FULL ENT-SCR-OPC: MASP A - COMPLTD
```

9. Verify the changes using the rtrv-scr-opc command with the screening reference name used in step 8.

For this example, enter these commands.

```
rtrv-scr-opc:sr=gws4
```

The following is an example of the possible output.



```
rtrv-scr-opc:sr=fld2
```

The following is an example of the possible output.

```
rtrv-scr-opc:sr=isp1
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:31:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED OPC SR NI NC NCM NSFI NSR/ACT ISP1 015 015 015 BLKOPC ISP1
```

```
rtrv-scr-opc:sr=tup1
```

The following is an example of the possible output.

10. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



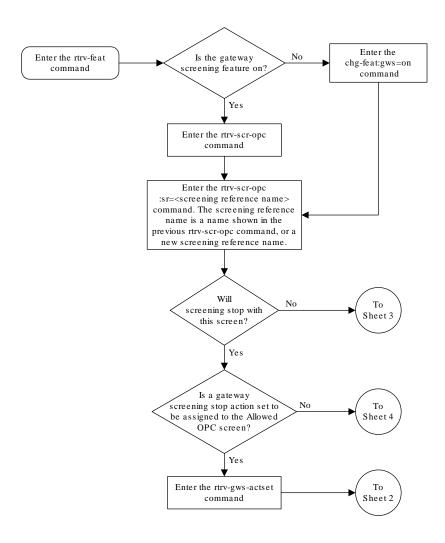


Figure 12-5 Add an Allowed OPC Screen - Sheet 1 of 5



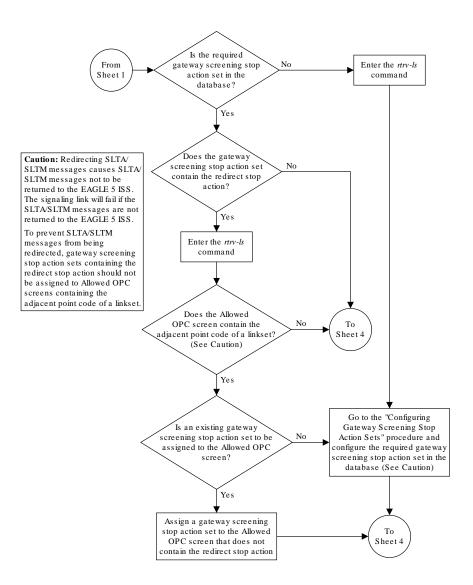
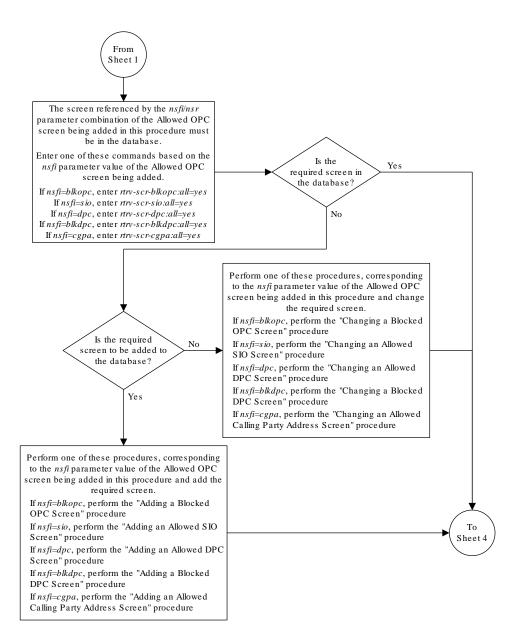


Figure 12-6 Add an Allowed OPC Screen - Sheet 2 of 5



Figure 12-7 Add an Allowed OPC Screen - Sheet 3 of 5





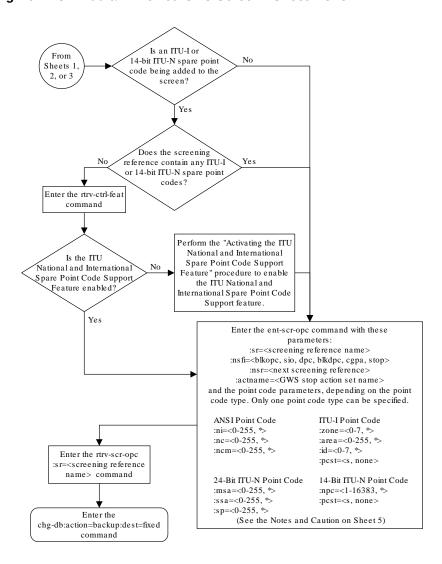


Figure 12-8 Add an Allowed OPC Screen - Sheet 4 of 5



Figure 12-9 Add an Allowed OPC Screen - Sheet 5 of 5

Notes:

- 1. A range of values can be specified for the ni, nc, or ncm parameters by inserting double ampersands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the ni parameter, enter 025 &&200 for the ni parameter value.
- 2. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" section is in the "Adding an Allowed OPC Screen" procedure in the Database Administration Manual - Gateway Screening.

- 3. The nsr parameter can be specified only, and must be specified, if the nsfi parameter value is either blkopc, sio, dpc, blkdpc, or cgpa.
- 4. The actname parameter is optional and can be specified only with the nsfi=stop parameter. If the actname parameter is specified, the actname parameter value is one of the gateway screening stop action set names shown in the ntrv-gws-actset output on Sheet 1.
- 5. To add a non-spare point code, the *pcst* parameter does not have to be specified. If the *pcst* parameter is specified for a screen containing an ITU-I or 14-bit ITU-N non-spare point code, the value must be *none*.
- 6. To add a spare point code, the pcst=s parameter must be specified.

Caution: Redirecting SLTA/SLTM messages causes SLTA/SLTM messages noto to be returned to the EAGLE 5 ISS. The signaling link will fail if the SLTA/SLTM messages are not returned to the EAGLE 5 ISS.

To prevent SLTA/SLTM messages from being redirected, gateway screening stop action sets containing the redirect stop action should not be assigned to Allowed OPC screens containing the adjacent point code of a linkset.

Removing an Allowed OPC Screen

This procedure is used to remove an allowed originating point code (OPC) screen from the database using the dlt-scr-opc command. The parameters used by the dlt-scr-opc command are shown in the Gateway Screening Attributes section. The general rules that



apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure removes the allowed OPC screen ${\tt gws4}$ from the database.



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

The allowed OPC screen can only be referenced by a screen set.

Enter the rtrv-scrset:nsfi=opc command to verify that none of the screen sets reference the allowed OPC screen being removed from the database.

To change the NSFI of any of the screen sets, perform the Changing a Screen Set procedure.

 Display the allowed OPC screens in the database using the rtrv-scr-opc command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED OPC

SR REF RULES GWS4 YES 1 IEC YES 6 ISP1 YES 1 TUP1 YES 1 WRD2 YES 1 WRD4 YES 9
```

From the rtrv-scr-opc output, display the allowed OPC screen you wish to remove using the rtrv-scr-opc command with the screening reference name. For this example, enter this command.

```
rtrv-scr-opc:sr=gws4
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED OPC
SR NI NC NCM NSFI NSR/ACT
GWS4 001 001 001 BLKOPC GWS7
```

2. Enter the rtrv-scrset:nsfi=opc command to verify that none of the screen sets reference the allowed OPC screen being removed from the database.

To change the NSFI of any of the screen sets, perform the Changing a Screen Set procedure.

3. Remove the allowed OPC screen from the database using the dlt-scr-opc command with the screening reference name shown in the rtrv-scr-opc output



in step 1 and with the point code parameter values (ni, nc, ncm, or zone, area, id, or npc, or msa, ssa, sp) of the screen being removed from the database. The values for these parameters must be entered exactly as shown in the rtrv-scr-opc output.

To remove an entry containing either an ITU-I or a 14-bit ITU-N spare point code, the pcst=s parameter must be specified with the dlt-scr-opc command.

To remove an entry containing either an ITU-I or a 14-bit ITU-N non-spare point code, the post parameter does not have to be specified with the dlt-scr-opc command. If the post parameter is specified, the value must be none.

For this example, enter this command.

```
dlt-scr-opc:sr=gws4:ni=001:nc=001:ncm=001
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 DLT-SCR-OPC: SCREEN SET AFFECTED - GWS4 0% FULL DLT-SCR-OPC: MASP A - COMPLTD
```

4. Verify the changes using the rtrv-scr-opc command with the screening reference name used in step 3.

For this example, enter this command.

```
rtrv-scr-opc:sr=qws4
```

The following is an example of the possible output.

```
E2573 Cmd Rej: SR or NSR does not reference an existing SR
```

This message shows that the specified screening reference name is not in the database and the action of the dlt-scr-opc command in step 3 was successful. If the specified screening reference name contained more than one entry when the dlt-scr-opc command was executed in step 3, the rtrv-scr-opc:sr= command output would show the remaining entries in the screening reference instead of error message E2573.

5. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED): MASP A - Backup starts on active MASP.

BACKUP (FIXED): MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED): MASP A - Backup starts on standby MASP.

BACKUP (FIXED): MASP A - Backup on standby MASP to fixed disk complete.
```



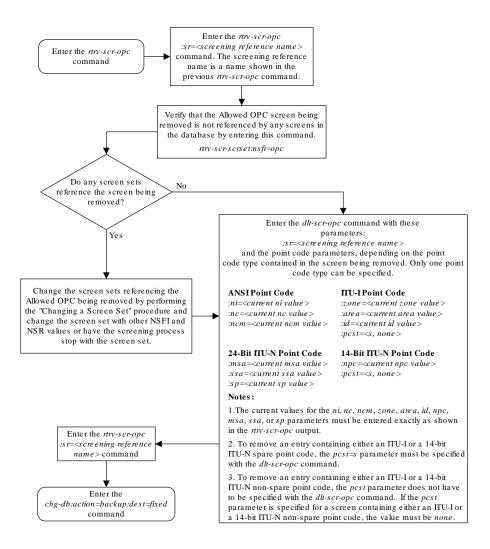


Figure 12-10 Remove an Allowed OPC Screen

Changing an Allowed OPC Screen

This procedure is used to change the attributes of an allowed originating point code (OPC) screen in the database using the <code>chg-scr-opc</code> command. The parameters used by the <code>chg-scr-opc</code> command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure is used to change the point code for the allowed OPC screen wrd2 to 230-230-230, the NSFI to blkopc, and the NSR to wrd6.



If you using multiple-part ITU national point codes with gateway screening, see the 14-Bit ITU National Point Code Formats section.

The allowed OPC screen can reference one of the following screens.

- Blocked OPC
- Allowed SIO
- Allowed DPC
- Blocked DPC
- Allowed CGPA

Verifying the Gateway Screening Configuration

Enter the following commands to verify that these screens are in the database.

- rtrv-scr-blkopc:all=yes
- rtrv-scr-sio:all=yes
- rtrv-scr-dpc:all=yes
- rtrv-scr-blkdpc:all=yes
- rtrv-scr-cgpa:all=yes

Gateway Screening Configuration Procedures

If the desired screen is not in the database, perform one of these procedures to add the desired screen to the database or change an existing screen in the database.

- Adding a Blocked OPC Screen
- Adding an Allowed SIO Screen
- Adding an Allowed DPC Screen
- Adding a Blocked DPC Screen
- Adding an Allowed Calling Party Address Screen
- Changing a Blocked OPC Screen
- Changing an Allowed SIO Screen
- Changing an Allowed DPC Screen
- · Changing a Blocked DPC Screen
- Changing an Allowed Calling Party Address Screen

Specifying a Range of Values

A range of values can be specified for the point code parameters ni, nc, or ncm.

If a range of values is specified for any of these parameters, and the value of the other parameters match existing values for the screening reference name, the range of values for



the point code parameter cannot include any values for that parameter that are currently provisioned for the screening reference name.

For example, screening reference name scr1 contains these entries:

| SR | NI | NC | NCM | NSFI | NSR/ACT |
|------|-----|-----|-----|------|---------|
| SCR1 | 240 | 001 | 010 | CGPA | |
| SCR1 | 241 | 010 | 020 | STOP | |

Another entry for screening reference scr1 with the ni value of 240 and the nc value of 001 cannot be specified if the range of values for the ncm parameter includes the value 010.

The ANSI point code parameter values can be specified as a single value, a range of values, or with an asterisk (*). The asterisk specifies all possible values for the ni, nc, and ncm parameters. Table 12-5 shows the valid combinations of these parameter values.

Table 12-5 Valid Value Combinations for ANSI Point Code Parameters

| NI | NC | NCM |
|-----------------|-----------------|-----------------|
| Single Value | Single Value | Single Value |
| Single Value | Single Value | Range of Values |
| Single Value | Single Value | Asterisk |
| Single Value | Range of Values | Asterisk |
| Single Value | Asterisk | Asterisk |
| Range of Values | Asterisk | Asterisk |
| Asterisk | Asterisk | Asterisk |

A range of values can also be specified for an ITU-I or 24-bit ITU-N point code parameter using a combination of asterisks (*) and single values for the point code parameters. Table 12-6 shows the valid combinations of the ITU-I parameter values. Table 12-7 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 12-6 Valid Value Combinations for ITU-I Point Code Parameters

| ZONE | AREA | ID | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |

Table 12-7 Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

| MSA | SSA | SP | |
|--------------|--------------|--------------|--|
| Single Value | Single Value | Single Value | |
| Single Value | Single Value | Asterisk | |
| Single Value | Asterisk | Asterisk | |
| Asterisk | Asterisk | Asterisk | |



1. Display the allowed OPC screens in the database using the rtrv-scr-opc command.

The following is an example of the possible output.

From the rtrv-scr-opc output, display the allowed OPC screen you wish to remove using the rtrv-scr-opc command with the screening reference name. For this example, enter this command.

```
rtrv-scr-opc:sr=wrd2
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED OPC SR NI NC NCM NSFI NSR/ACT WRD2 243 015 001 STOP -----
```

If a gateway screening stop action set is to be assigned to the allowed OPC screen being changed in the database, go to step 2.

Step 2 verifies the gateway screening stop action set names in the database. The gateway screening stop action set names are assigned only if the NSFI of the screen being changed in this procedure is STOP. If the NSFI of the screen will be changed to STOP, but a gateway screening stop action set name will not be assigned to the screen, skip steps 2, 3, and 4 and go to step 5. If the NSFI of the screen will not be STOP, skip step 2 and 3, and go to step 4.

2. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT ACT
ID
   NAME 1
                 3
                     4 5 6
                                 7 8 9
1
    сору сору
2
   rdct rdct
3
   cr
         copy rdct
4
   cncf cncf
5 cpcncf copy cncf
6 cncfrd cncf rdct
   cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```



If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.



If the gateway screening stop action set being assigned to the Allowed OPC screen does not contain the redirect stop action, skip step 3 and go to step 4.

3. Verify the point codes of adjacent nodes by entering the rtrv-ls command. The following is an example of the possible output.

| rlghncxa03w 06-10-10 11:43:04 GMT E | | T EAG | GLE5 | 36.0.0 | | | | | | | |
|--|----------------------------|-----------|-----------|-------------|-------------|----------------|-------------|-------------|-------------------|-------------------|-------------------|
| | | | | L3T | SLT | | | | GWS | GWS | GWS |
| LSN | APCA | (SS7) | SCRN | SET | SET | BEI | LST | LNKS | ACT | MES | DIS |
| SLSCI NIS | | | | | | | | | | | |
| e1e2 | 001-20 | 7-000 | none | 1 | 1 | no | В | 6 | off | off | off |
| no off | | | | | | | | | | | |
| ls1305 | 000-00 | 5-000 | none | 1 | 1 | no | A | 1 | off | off | off |
| no off | | | | | | | | | | | |
| ls1307 | 000-00 | 7-000 | none | 1 | 1 | no | A | 1 | off | off | off |
| no off | | | | | | | | | | | |
| elm1s1 | 001-00 | 1-001 | none | 1 | 1 | no | A | 7 | off | off | off |
| no off | | | | | | | | | | | |
| e1m1s2 | 001-00 | 1-002 | none | 1 | 1 | no | A | 7 | off | off | off |
| no off | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | L3T | SLT | | | | GWS | GWS | GWS |
| LSN | 7 DOT | (007) | | | | D D T | TOM | | | | DIC |
| | APCI | (SS/) | SCRN | SET | SET | BEI | LST | LNKS | ACT | MES | DIS |
| SLSCI NIS | APCI | (SS/) | SCRN | SET | SET | BEI | LST | LNKS | ACT | MES | DIS |
| SLSCI NIS e1e2i | 1-207- | , , | scrn | SET | SET | no | LST B | LNKS | | MES off | |
| | | , , | | | | | | | | | |
| e1e2i | | 0 | | | | | | | off | | off |
| e1e2i on | 1-207- | 0 | none | 1 | 1 | no | В | 4 | off | off | off |
| ele2i on ls1315 | 1-207- | 0 | none | 1 | 1 | no | В | 4 | off off | off | off off |
| e1e2i on ls1315 off | 1-207- 0-015- | 0 | none | 1 | 1 | no no | В | 4 | off off | off off | off off |
| e1e2i on ls1315 off ls1317 | 1-207- 0-015- | 0 0 0 | none | 1 | 1 | no no | В | 4 | off off off | off off | off off off |
| e1e2i on ls1315 off ls1317 on e1m2s1 off | 1-207- 0-015- 0-017- | 0 0 0 | none none | 1 1 1 | 1 1 1 | no no no | B A A | 4 1 1 | off off off | off off off | off off off |
| e1e2i on ls1315 off ls1317 on e1m2s1 | 1-207- 0-015- 0-017- | 0 0 0 0 1 | none none | 1 1 1 | 1 1 1 | no no no | B A A | 4 1 1 | off off off | off off off | off off off |

Link set table is (10 of 1024) 1% full.



Caution:

Redirecting SLTA/SLTM messages prevents SLTA/SLTM messages from being returned to the EAGLE. The signaling link carrying these messages will fail if these messages are not returned to the EAGLE. To prevent SLTA/SLTM messages from being redirected, gateway screening stop action sets containing the redirect stop action should not be assigned to Allowed OPC screens containing the adjacent point code of a linkset.

Note:

If the NSFI of the screen being changed in this procedure will be STOP, or if the NSFI of the screen is not being changed, skip step 4 and go to step 5.

4. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 6 is in the database.

If the desired screen is not in the database, perform one of the procedures shown in the Gateway Screening Configuration Procedures section to add the desired screen to the database or change an existing screen in the database.

Note:

If any of these conditions apply to this procedure, skip this step and go to step

- The point code in the screen is not being changed.
- The screen being changed contains either an ANSI or 24-bit ITU-N point code.
- The ITU-I or 14-bit ITU-N non-spare point code in the screen is not being changed to an ITU-I or 14-bit ITU-N spare point code.
- The point code in the screen is an ITU-I or 14-bit ITU-N spare point code or the screening reference contains other screens with ITU-I or 14-bit ITU-N spare point codes.
- Display the status of the ITU National and International Spare Point Code Support feature by entering the rtrv-ctrl-feat command with the ITU National and International Spare Point Code Support feature part number.

Enter this command.

```
rtrv-ctrl-feat:partnum=893013601
```

This is an example of the possible output.

rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 The following features have been permanently enabled:

Feature Name Partnum Status Quantity Spare Point Code Support 893013601 on



The following features have been temporarily enabled:

Feature Name Partnum Status Ouantity Trial Period

Left

Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum

Zero entries found.

If the ITU National and International Spare Point Code Support feature is enabled, go to step 6.

If the ITU National and International Spare Point Code Support feature is not enabled, perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure in Database Administration - SS7 User's Guide to enable the ITU National and International Spare Point Code Support feature as required. After the feature has been enabled, go to step 6.

6. Change the attributes for the allowed OPC using the chg-scr-opc command.

If a gateway screening stop action is to be assigned to the allowed OPC screen being changed, enter the chg-scr-opc command with the nsfi=stop parameter and the actname parameter with the name of a gateway screening stop action set shown in the output of the rtrv-qws-actset command executed in step 2.



Caution:

Redirecting SLTA/SLTM messages prevents SLTA/SLTM messages from being returned to the EAGLE. The signaling link carrying these messages will fail if these messages are not returned to the EAGLE. To prevent SLTA/SLTM messages from being redirected, gateway screening stop action sets containing the redirect stop action should not be assigned to Allowed OPC screens containing the adjacent point code of a linkset, shown in step 3.

The current values for the ni, nc, ncm, zone, area, id, npc, msa, ssa, and sp parameters must be entered exactly as shown in the rtrv-scr-opc output in step 1.

The following list contains the values for the nni, nnc, nncm, nzone, narea, nid, and nnpc parameters:

- nni 0 255 or an asterisk (*)
- nnc 0 255 or an asterisk (*)
- nncm 0 255 or an asterisk (*)
- nzone 0 7 or an asterisk (*)
- narea 0 255 or an asterisk (*)
- nid 0 7 or an asterisk (*)
- nnpc 1 16383 or an asterisk (*)



- nmsa 0 255 or an asterisk (*)
- nssa 0 255 or an asterisk (*)
- nsp 0 255 or an asterisk (*)

A range of values can be specified for the nni, nnc, and nncm parameters. See the Specifying a Range of Values section for more information on how the asterisk and a range of values are used for the nni, nnc, and nncm parameters.

To change an ITU-I or 14-bit ITU-N spare point code to a non-spare point code, both the pcst=s and npcst=none parameters must be specified with the chg-scr-opc command.

To change an ITU-I or 14-bit ITU-N non-spare point code to a spare point code, the npcst=s parameter must be specified with the chg-scr-opc command. The pcst parameter does not have to be specified.

If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N spare point code, the post=s parameter must be specified with the chg-scr-opc command.

If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N non-spare point code, the post parameter does not have to be specified with the chg-scr-opc command. If the post parameter is specified for a screen containing either an ITU-I or 14-bit ITU-N non-spare point code, the post parameter value must be none.

For this example, enter this command.

```
chg-scr-
opc:sr=wrd2:ni=243:nc=015:ncm=001:nni=230:nc=230 :ncm=230:nsfi=bl
kopc:nsr=wrd6
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0 CHG-SCR-OPC: SCREEN SET AFFECTED - WRD2 1% FULL CHG-SCR-OPC: MASP A - COMPLTD
```

7. Verify the changes using the rtrv-scr-opc command with the screening reference name used in step 6.

For this example, enter this command.

```
rtrv-scr-opc:sr=wrd2
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED OPC SR NI NC NCM NSFI NSR/ACT WRD2 230 230 BLKOPC WRD6
```

8. Backup the new changes using the chq-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

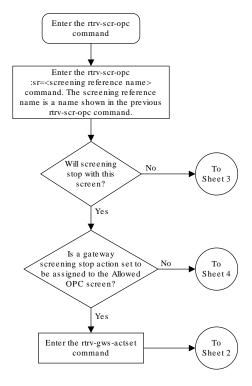
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
```



 ${\tt BACKUP}$ (FIXED) : MASP A - Backup starts on standby MASP. ${\tt BACKUP}$ (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.

Figure 12-11 Change an Allowed OPC Screen - Sheet 1 of 6



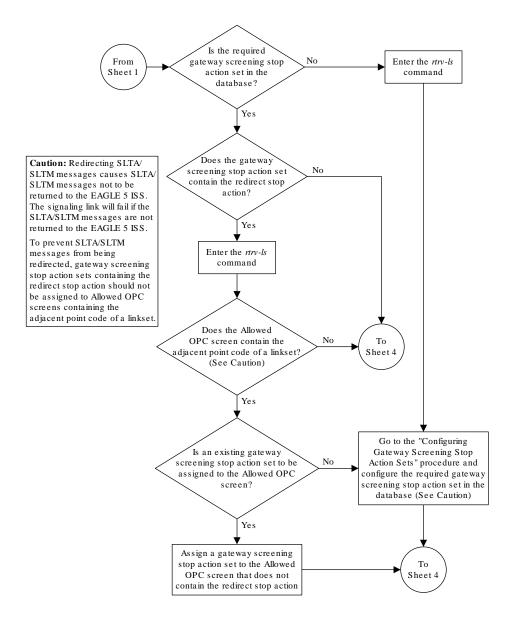


Figure 12-12 Change an Allowed OPC Screen - Sheet 2 of 6



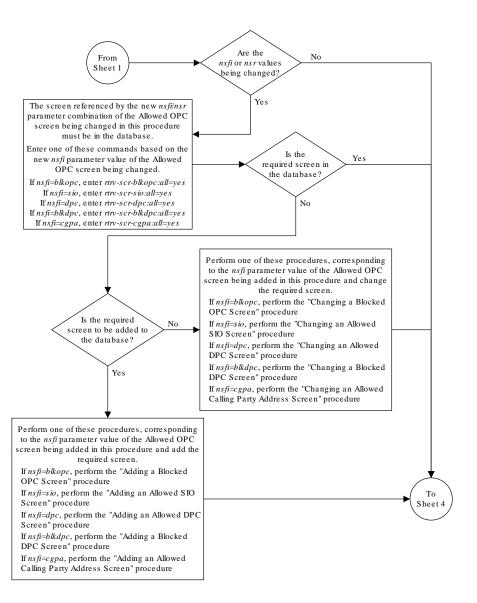


Figure 12-13 Change an Allowed OPC Screen - Sheet 2 of 6



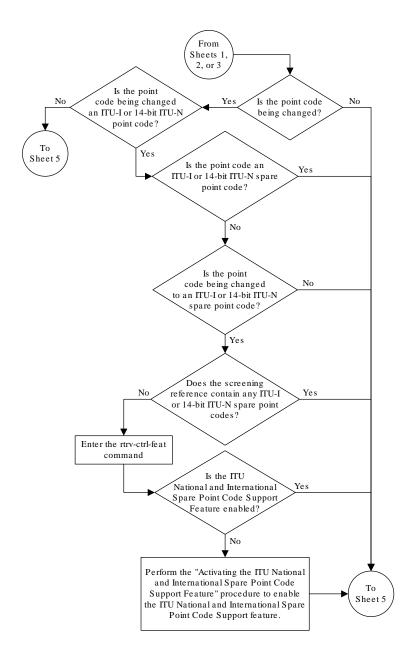


Figure 12-14 Change an Allowed OPC Screen - Sheet 2 of 6



Figure 12-15 Change an Allowed OPC Screen - Sheet 2 of 6

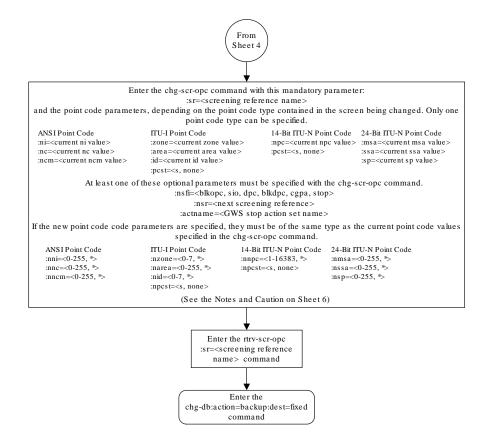




Figure 12-16 Change an Allowed OPC Screen - Sheet 2 of 6

Notes:

- 1. A range of values can be specified for the ni, nc, or ncm parameters by inserting double ampersands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the ni parameter, enter 025 &&200 for the ni parameter value.
- 2. The asterisk (*) specifies the entire range of values for that parameter.

For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying a Range of Values" section is in the "Changing an Allowed OPC Screen" procedure in the Database Administration Manual - Gateway Screening.

- 3. The *nsr* parameter can be specified, and must be specified, if the *nsfi* parameter value is either *blkopc*, *sio*, *dpc*, *blkdpc*, or *cgpa*.
- 4. The actname parameter is optional and can be specified only with the nsfi=stop parameter. If the actname parameter is specified, the actname parameter value is one of the gateway screening stop action set names shown in the ntrv-gws-actset output on Sheet 1.
- 5. To change an ITU-I or 14-bit ITU-N spare point code to a non-spare point code, both the *pcst=s* and *npcst=none* parameters must be specified with the *chg-scr-opc* command.
- 6. To change an ITU-I or 14-bit ITU-N non-spare point code to a spare point code, the *npcst*=*s* parameter must be specified with the *chg-scr-opc* command. The *pcst* parameter does not have to be specified.
- 7. If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N spare point code, the *pcst=s* parameter must be specified with the *chg-scr-opc* command.
- 8. If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N non-spare point code, the *pcst* parameter does not have to be specified with the *chg-scr-opc* command. If the *pcst* parameter is specified for a screen containing either an ITU-I or 14-bit ITU-N non-spare point code, the *pcst* parameter value must be *none*.

Caution: Redirecting SLTA/SLTM messages causes SLTA/SLTM messages not to be returned to the EAGLE 5 ISS. The signaling link will fail if the SLTA/STM messages are not returned to the EAGLE 5 ISS.

To prevent SLTA/SLTM messages from being redirected, gateway screening stop action sets containing redirect stop action should not be assigned to Allowed OPC screens containing the adjacent point code of a linkset.



13

Screen Set Configuration

Chapter 13, Screen Set Configuration, contains the procedures necessary to configure screen sets.

Introduction

A screen set is a gateway screening table containing a list of rules, or screening references. The screening references indicate the screening action that is to be performed on a message in a specific linkset. These screening references are configured in Allowed Affected Point Code (AFTPC) Screen Configuration through Allowed Originating Point Code (OPC) Screen Configuration. The screen set is assigned to a linkset. When the <code>gwsa=on</code> linkset parameter is specified for a specific linkset, all the messages on that linkset will be screened by the gateway screening feature based on the screening references contained in the screen set. For more information of the linkset parameters used for the gateway screening feature, go to the <code>Gateway Screening States</code> section, or to the <code>ent-ls</code> or <code>chg-ls</code> command descriptions in <code>Commands User's Guide</code>.

Automatic Destination Field Screening

Network management messages can be screened automatically by gateway screening without configuring an Allowed Affected Destination Field screen. The destfld=yes parameter specified with the ent-scrset or chg-scrset commands turns on automatic screening of the affected destination point code (see Figure 7-4) in the network management messages. Network management messages contain the value 0 in the service indicator field of the SIO. The network management messages are screened against the routing table, the EAGLE's point code, and capability point codes. If the affected destination point code matches the EAGLE's point code, capability point codes, or point codes in the routing table, the message is allowed into the EAGLE. The automatic screening is applied after the last screen in the screening process, containing the nsfi=stop parameter, for that screen set.

These network management messages are automatically screened by gateway screening: TFP, TFA, TFC, UPU, SRST (RSP, RSR). All other network management messages are allowed into the EAGLE.

Adding a Screen Set

This procedure is used to add a screen set to the database using the <code>ent-scrset</code> command. The parameters used by the <code>ent-scrset</code> command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

A maximum of 255 screen sets can be configured in the database. If the database contains 255 screen sets, any attempt to add another screen set with the ent-scrset command will be rejected. If the database contains 255 screen sets, and you wish to add another screen set, a current screen set must be removed or changed. To remove a screen set, perform the

Removing a Screen Set procedure. To change an existing screen set, perform the Changing a Screen Set procedure.

The examples in this procedure are used to add the screen set data shown in Table 13-1 and based on the example configurations shown in Figure 2-3 through Figure 2-9.

Table 13-1 Example Gateway Screening Screen Set Configuration Table

| Screen Set Name | Next Screening Next Screening Function Identifier Reference | | DESTFLD | |
|-----------------|---|------|---------|--|
| gws1 | орс | gws4 | No | |
| gws2 | blkopc | gws5 | No | |
| ls01 | sio | ls02 | Yes | |
| wrd1 | dpc | iec | Yes | |
| fld1 | орс | fld2 | No | |
| isp1 | орс | isp1 | No | |
| tup1 | орс | tup1 | No | |

The screen set can reference one of the following screens.

- Allowed OPC
- Blocked OPC
- Allowed SIO
- Allowed DPC
- Blocked DPC

Verifying the Gateway Screening Configuration

Enter the following commands to verify that these screens are in the database.

- rtrv-scr-opc:all=yes
- rtrv-scr-blkopc:all=yes
- rtrv-scr-sio:all=yes
- rtrv-scr-dpc:all=yes
- rtrv-scr-blkdpc:all=yes

Gateway Screening Configuration Procedures

If the desired screen is not in the database, perform one of these procedures to add the desired screen to the database or change an existing screen in the database.

- Adding an Allowed OPC Screen
- Adding a Blocked OPC Screen
- Adding an Allowed SIO Screen
- Adding an Allowed DPC Screen
- Adding a Blocked DPC Screen
- Changing an Allowed OPC Screen
- Changing a Blocked OPC Screen



- Changing an Allowed SIO Screen
- Changing an Allowed DPC Screen
- Changing a Blocked DPC Screen
- 1. Verify that the gateway screening feature is on, by entering the rtrv-feat command. If the gateway screening feature is on, the GWS field is set to on.



The rtrv-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-feat command, see the rtrv-feat command description in *Commands User's Guide*.

If the gateway screening feature is on, shown by the entry GWS = on in the rtrv-feat command output, skip step 2, and go to step 3.

2. Turn the gateway screening feature on by entering this command.

```
chg-feat:gws=on
```

Note:

Once the gateway screening feature is turned on with the <code>chg-feat</code> command, it cannot be turned off.

The gateway screening feature must be purchased before you turn this feature on with the <code>chg-feat</code> command. If you are not sure if you have purchased the gateway screening feature, contact your Oracle Sales Representative or Account Representative.

When the chg-feat has successfully completed, this message should appear.

```
rlghncxa03w 06-10-28 11:43:04 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

3. Display all the screen sets in the database using the rtrv-scrset command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
ENTIRE GWS DATABASE IS 1% FULL
CDPA + AFTPC TABLES ARE 1% FULL
THERE ARE 248 SCREEN SETS AVAILABLE
THE FOLLOWING ARE OVER 80% FULL:
SCRN NSFI
            NSR/ACT FULL RULES TABLES DESTFLD
SCRN NSFI
             NSR/ACT FULL RULES TABLES DESTFLD
                     51% 2075
ss01 OPC
                                  22
             opc1
                                         YES
ss02 OPC
                       2%
                           75
                                  22
                                         YES
             opc2
```



| ss03 | OPC | opc3 | 2% | 75 | 22 | YES |
|------|-----|------|-----|------|----|-----|
| ss04 | OPC | opc1 | 51% | 2075 | 22 | NO |
| ss07 | OPC | opc1 | 51% | 2075 | 22 | YES |
| ss09 | OPC | opc1 | 51% | 2075 | 22 | NO |
| ss28 | OPC | opc1 | 51% | 2075 | 22 | YES |

If a gateway screening stop action set is to be assigned to the screen set being added to the database, go to step 4.

Step 4 verifies the gateway screening stop action set names in the database. The gateway screening stop action set names are assigned only if the NSFI of the screen set being added in this procedure is STOP. If the NSFI of the new screen set will be STOP, but a gateway screening stop action set name will not be assigned to the new screen set, skip steps 4 and 5 and go to step 6. If the NSFI of the new screen set is not STOP, skip step 4 and go to step 5.

4. Display the gateway screening stop action sets in the database with the rtrvgws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT ACT
                             7
ID
  NAME 1 2
               3
                 4
                      5
                          6
                                        10
   1
   сору сору
2
   rdct rdct
3
  cr copy rdct
  cncf cncf
5
   cpcncf copy cncf
   cncfrd cncf rdct
6
7
   cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.



If the NSFI of the screen set being added in this procedure is STOP, skip step 5 and go to step 6.

- 5. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 6 is in the database.
 - If the desired screen is not in the database, perform one of the procedures shown in the Gateway Screening Configuration Procedures section to add the desired screen to the database or change an existing screen in the database.
- 6. Add a new screen set to the database using the ent-scrset command.
 - If a gateway screening stop action is to be assigned to the screen set being added, enter the <code>ent-scrset</code> command with the <code>nsfi=stop</code> parameter and the



actname parameter with the name of a gateway screening stop action set shown in the output of the rtrv-qws-actset command executed in step 4.

For this example, enter these commands.

```
ent-scrset:scrn=gws1:nsfi=opc:nsr=gws4:destfld=no
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0 ENT-SCRSET: SCREEN SET AFFECTED - GWS1 1% FULL ENT-SCRSET: MASP A - COMPLTD
```

ent-scrset:scrn=gws2:nsfi=blkopc:nsr=gws5:destfld=no

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0 ENT-SCRSET: SCREEN SET AFFECTED - GWS2 1% FULL ENT-SCRSET: MASP A - COMPLTD
```

ent-scrset:scrn=ls01:nsfi=sio:nsr=ls02:destfld=yes

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0 ENT-SCRSET: SCREEN SET AFFECTED - LS01 1% FULL ENT-SCRSET: MASP A - COMPLTD
```

ent-scrset:scrn=wrd1:nsfi=dpc:nsr=iec:destfld=yes

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0 ENT-SCRSET: SCREEN SET AFFECTED - WRD1 1% FULL ENT-SCRSET: MASP A - COMPLTD
```

ent-scrset:scrn=fld1:nsfi=opc:nsr=fld2:destfld=no

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:31:30 GMT EAGLE5 36.0.0 ENT-SCRSET: SCREEN SET AFFECTED - FLD1 1% FULL ENT-SCRSET: MASP A - COMPLTD
```

ent-scrset:scrn=isp1:nsfi=opc:nsr=isp1:destfld=no

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:31:30 GMT EAGLE5 36.0.0
ENT-SCRSET: SCREEN SET AFFECTED - ISP1 1% FULL
ENT-SCRSET: MASP A - COMPLTD
ent-scrset:scrn=tup1:nsfi=opc:nsr=tup1:destfld=no
```



A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:31:30 GMT EAGLE5 36.0.0 ENT-SCRSET: SCREEN SET AFFECTED - TUP1 1% FULL ENT-SCRSET: MASP A - COMPLTD
```

7. Verify the changes using the rtrv-scrset command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:32:30 GMT EAGLE5 36.0.0 ENTIRE GWS DATABASE IS 1% FULL CDPA + AFTPC TABLES ARE 1% FULL THERE ARE 242 SCREEN SETS AVAILABLE
```

| THE FOLLOWING | ARE OVER | 80% FU | JLL: | | |
|---------------|----------|--------|-------|--------|---------|
| SCRN NSFI | NSR/ACT | FULL | RULES | TABLES | DESTFLD |
| | | | | | |
| SCRN NSFI | NSR/ACT | FULL | RULES | TABLES | DESTFLD |
| fld1 OPC | fld2 | 1% | 5 | 4 | NO |
| gws1 OPC | gws4 | 1% | 9 | 7 | NO |
| gws2 BLKOPC | gws5 | 1% | 5 | 4 | NO |
| isp1 OPC | isp1 | 1% | 6 | 4 | NO |
| ls01 SIO | ls02 | 1% | 3 | 3 | YES |
| ss01 OPC | opc1 | 51% | 2075 | 22 | YES |
| ss02 OPC | opc2 | 2% | 75 | 22 | YES |
| ss03 OPC | opc3 | 2% | 75 | 22 | YES |
| ss04 OPC | opc1 | 51% | 2075 | 22 | NO |
| ss07 OPC | opc1 | 51% | 2075 | 22 | YES |
| ss09 OPC | opc1 | 51% | 2075 | 22 | NO |
| ss28 OPC | opc1 | 51% | 2075 | 22 | YES |
| tup1 OPC | tup1 | 1% | 8 | 5 | NO |
| wrd1 DPC | iec | 1% | 6 | 5 | YES |

8. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Enter the No Enter the rtrv-feat Is the gateway chg-feat:gws=on command command screening feature on? Yes Enter the rtrv-scrset commandNo To screening stop with Sheet 2 this screen set? Yes Is a gateway screening stop action set to To be assigned to the Sheet 3 screen set? Is the required Enter the rtrv-gws-actset gateway screening stop Yes command action set in the database? No Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required To Sheet 3 gateway screening stop action set in the database

Figure 13-1 Add a Screen Set - Sheet 1 of 3



Figure 13-2 Add a Screen Set - Sheet 2 of 3

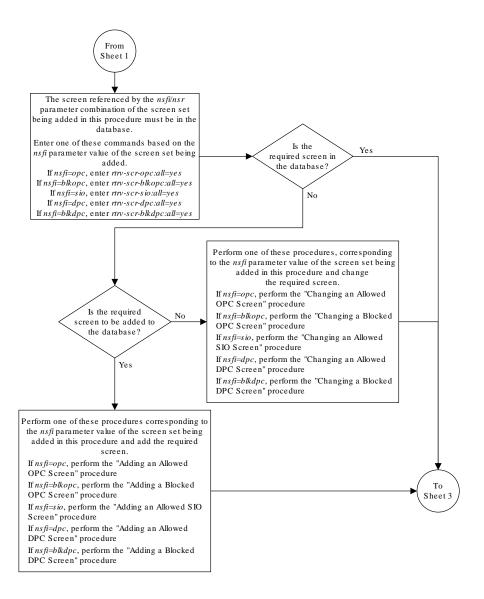
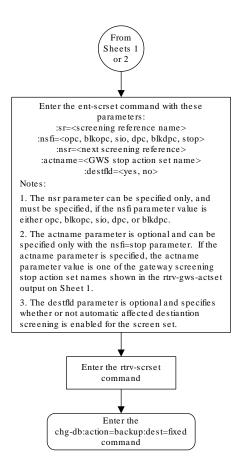




Figure 13-3 Add a Screen Set - Sheet 2 of 3



Removing a Screen Set

This procedure is used to remove a screen set from the database using the <code>dlt-scrset</code> command. The parameters used by the <code>dlt-scrset</code> command are shown in the <code>Gateway</code>

Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure removes the screen set gws1 from the database.

1. Display all screen sets in the database using the rtrv-scrset command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
ENTIRE GWS DATABASE IS 1% FULL
CDPA + AFTPC TABLES ARE 1% FULL
THERE ARE 242 SCREEN SETS AVAILABLE
THE FOLLOWING ARE OVER 80% FULL:
SCRN NSFI NSR/ACT FULL RULES TABLES DESTFLD
SCRN NSFI NSR/ACT FULL RULES TABLES DESTFLD
fld1 OPC fld2 1% 5 4
                                   NO
gws1 OPC gws4
gws2 BLKOPC gws5
                  1 %
                        9 7
                                   NΟ
                  1%
                        5
                            4
                                   NO
isp1 OPC isp1
                  1%
                        6 4
                                   NΟ
ls01 SIO
          ls02
                  1%
                        3 3
                                   YES
ss01 OPC opc1
                 51% 2075 22
                                   YES
ss02 OPC opc2
                  2% 75 22
                                   YES
ss03 OPC
         opc3
                   2%
                        75 22
                                   YES
ss04 OPC
         opc1
                 51% 2075 22
                                   NO
ss07 OPC opc1
                  51% 2075 22
                                   YES
ss09 OPC opc1
                 51% 2075 22
                                   NO
                  51% 2075 22
                                   YES
ss28 OPC
         opc1
```

2. The screen set to be removed cannot be referenced by a linkset.

1%

1%

To verify this, enter the rtrv-ls command. If the output shows a reference to the screen set to be removed, perform the Changing an SS7 Linkset procedure in the Database Administration Manual – SS7 and change the scrn parameter to reference another screen set, or to none to remove the reference to the screen set.

8 5

6 5

NΟ

YES

3. Remove the screen set from the database using the dlt-scrset command.

For this example, enter this command.

tup1

iec

```
dlt-scrset:scrn=gws1
```

tup1 OPC

wrd1 DPC

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 DLT-SCRSET: SCREEN SET AFFECTED - GWS1 0% FULL DLT-SCRSET: MASP A - COMPLTD
```

4. Verify the changes using the rtrv-scrset command with the screen set name used in step 3.

For this example, enter this command.

```
rtrv-scrset:scrn=gws1
```



The following is an example of the possible output.

```
E2573 Cmd Rej: SR or NSR does not reference an existing SR
```

This message shows that the specified screen set name is not in the database and the action of the dlt-scrset command in step 3 was successful.

5. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

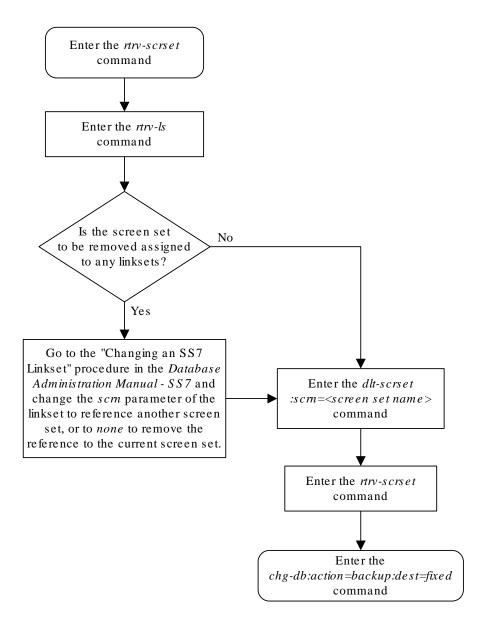
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Figure 13-4 Remove a Screen Set



Changing a Screen Set

This procedure is used to change the attributes of a screen set in the database using the chg-scrset command. The parameters used by the chg-scrset command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure is used to change screen set ls01 to screen set ls05 with the nsfi=blkopc and nsr=ls08.

If the screen set name is being changed, the new screen set name cannot already exist in the database.

The screen set can reference one of the following screens.

- Allowed OPC
- Blocked OPC
- Allowed SIO
- Allowed DPC
- Blocked DPC

Verifying the Gateway Screening Configuration

Enter the following commands to verify that these screens are in the database.

- rtrv-scr-opc:all=yes
- rtrv-scr-blkopc:all=yes
- rtrv-scr-sio:all=yes
- rtrv-scr-dpc:all=yes
- rtrv-scr-blkdpc:all=yes

Gateway Screening Configuration Procedures

If the desired screen is not in the database, perform one of the following procedures to add the desired screen to the database or change an existing screen in the database.

- Adding an Allowed OPC Screen
- Adding a Blocked OPC Screen
- Adding an Allowed SIO Screen
- Adding an Allowed DPC Screen
- Adding a Blocked DPC Screen
- Changing an Allowed OPC Screen
- Changing a Blocked OPC Screen
- Changing an Allowed SIO Screen
- Changing an Allowed DPC Screen
- Changing a Blocked DPC Screen
- 1. Display all screen sets in the database using the rtrv-scrset command.



The following is an example of the possible output.

rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 ENTIRE GWS DATABASE IS 1% FULL CDPA + AFTPC TABLES ARE 1% FULL THERE ARE 242 SCREEN SETS AVAILABLE

THE FOLLOWING ARE OVER 80% FULL: SCRN NSFI NSR/ACT FULL RULES TABLES DESTFLD SCRN NSFI NSR/ACT FULL RULES TABLES DESTFLD fld1 OPC fld2 1% 5 4 NO gws1 OPC gws4 1% 9 7 NO gws2 BLKOPC gws5 1% 4 NO isp1 1% 4 NO isp1 OPC 6 ls01 SIO ls02 1% 3 3 YES ss01 OPC 51% 2075 22 opc1 YES ss02 OPC opc2 2% 75 22 YES 2% 75 ss03 OPC opc3 22 YES ss04 OPC opc1 51% 2075 22 NO ss07 OPC 51% 2075 22 opc1 YES 51% 2075 22 ss09 OPC opc1 NO ss28 OPC opc1 51% 2075 22 YES tup1 OPC 1% tup1 8 5 NO wrd1 DPC iec 1% 6 5 YES

2. The screen set being changed cannot be referenced by a linkset.

To verify this, enter the rtrv-ls command. If the output shows a reference to the screen set to be removed, perform the Changing an SS7 Linkset procedure in *Database Administration - SS7 User's Guide* and change the scrn parameter to reference another screen set, or to none to remove the reference to the screen set.



If a new gateway screening stop action set will not be assigned to the screen set being changed, skip step 3 and go to step 4.

Display the gateway screening stop action sets in the database with the rtrvgws-actset command.

This is an example of the possible output.

rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 ACT ID NAME 3 4 5 7 8 9 10 6 1 сору сору 2 rdct rdct 3 cr copy rdct 4 cncf cncf 5 cpcncf copy cncf cncfrd cncf rdct



```
7
     cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the required gateway screening stop action set is not in the database, go to the Configuring Gateway Screening Stop Action Sets procedure and configure the required gateway screening stop action set.



If the NSFI of the screen set being changed in this procedure will be STOP, or if the NSFI of the screen set is not being changed, skip step 4 and go to step 5.

4. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen that will be specified by the NSFI/NSR parameter combination in step 5 is in the database.

If the desired screen is not in the database, perform one of the procedures shown in the Gateway Screening Configuration Procedures section to add the desired screen to the database or change an existing screen in the database.

5. Change the attributes of a screen set using the chg-scrset command.

If a gateway screening stop action is to be assigned to the screen set being changed, enter the chq-scrset command with the nsfi=stop parameter and the actname parameter with the name of a gateway screening stop action set shown in the output of the rtrv-gws-actset command executed in step 2.

For this example, enter this command.

```
chg-scrset:scrn=ls01:nscrn=ls05:nsfi=blkopc:nsr=ls08
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0
CHG-SCRSET: SCREEN SET AFFECTED - LS01 1% FULL
CHG-SCRSET: MASP A - COMPLTD
```

6. Verify the changes using the rtrv-scrset command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
ENTIRE GWS DATABASE IS 1% FULL
CDPA + AFTPC TABLES ARE 1% FULL
THERE ARE 242 SCREEN SETS AVAILABLE
THE FOLLOWING ARE OVER 80% FULL:
SCRN NSFI NSR/ACT FULL RULES TABLES DESTFLD
SCRN NSFI
            NSR/ACT FULL RULES TABLES DESTFLD
fld1 OPC
            fld2
                      1%
                            5
                                       NO
                                4
                      1%
                                7
gws1 OPC
            gws4
                            9
                                       NO
gws2 BLKOPC gws5
                     1%
                           5 4
                                       NO
isp1 OPC
            isp1
                      1%
                           6
                                4
                                       NO
ls05 BLKOPC ls08
                      3%
```

45

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YES



| ss01 | OPC | opc1 | 51% | 2075 | 22 | YES |
|------|-----|------|-----|------|----|-----|
| ss02 | OPC | opc2 | 2% | 75 | 22 | YES |
| ss03 | OPC | opc3 | 2% | 75 | 22 | YES |
| ss04 | OPC | opc1 | 51% | 2075 | 22 | NO |
| ss07 | OPC | opc1 | 51% | 2075 | 22 | YES |
| ss09 | OPC | opc1 | 51% | 2075 | 22 | NO |
| ss28 | OPC | opc1 | 51% | 2075 | 22 | YES |
| tup1 | OPC | tup1 | 1% | 8 | 5 | NO |
| wrd1 | DPC | iec | 1% | 6 | 5 | YES |

7. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Enter the rtrv-scrset command Enter the rtrv-ls command Go the the "Changing an SS7 Linkset" procedure to Do any links et reference this remove the screen set association with the screen? :scm=none parameter No Is a gateway screening stop action set to be assigned to the Yes No stop with this screen set? screen set? No Yes Enter the To rtrv-gws-actset Sheet 2 command Is the required gateway screening stop action set in the Yes database? No Go to the "Configuring Gateway Screening Stop Action Sets" To procedure to configure the required Sheet 3 gateway screening stop action set in the database

Figure 13-5 Change a Screen Set - Sheet 1 of 3



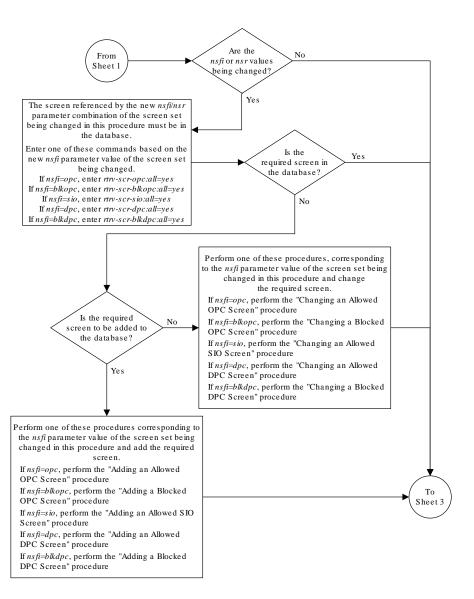
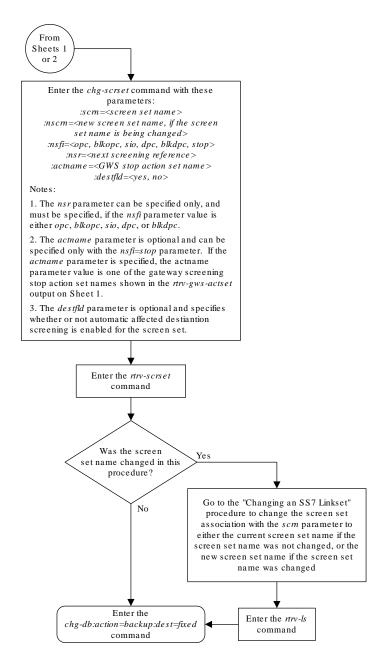


Figure 13-6 Change a Screen Set - Sheet 2 of 3



Figure 13-7 Change a Screen Set - Sheet 3 of 3





14

Calling Name Conversion Facility (CNCF) Configuration

Chapter 14, Calling Name Conversion Facility (CNCF) Configuration, contains a description of the Calling Name Conversion Facility feature the procedure necessary to configure this feature.

Introduction

This feature provides a conversion of ISUP IAM messages using two versions of calling name identification presentation (CNIP) for calling name information delivery. One version of the CNIP uses the non-standard proprietary ISUP party information (PIP) parameter. The other version uses the ANSI standard ISUP generic name (GN) parameter. The conversion will either replace the PIP parameter with the GN parameter or the GN parameter with the PIP parameter in the ISUP IAM message.

The gateway screening feature is used to select the ISUP messages that are converted. The incoming messages are selected based on the OPC and DPC in the routing label of the message, and the message type in the service information octet. The message type is defined by the value of the service indicator (SI) field of the SIO. ISUP messages contain the value 5 in the service indicator field of the SIO. Screening rules for Allowed OPC, Allowed DPC, and the Allowed SIO entities must be configured in the database for this feature.

This feature is an optional feature and must be turned on with the <code>chg-feat</code> command and the <code>cncf=on</code> parameter. The <code>rtrv-feat</code> command can be used to verify if this feature is on or not. This feature applies to only ANSI networks.

Figure 14-1 shows an example network which contains these two separate ISUP versions. Based on this example, Table 14-1 shows when the ISUP IAM message conversion by the CNCF feature occurs.



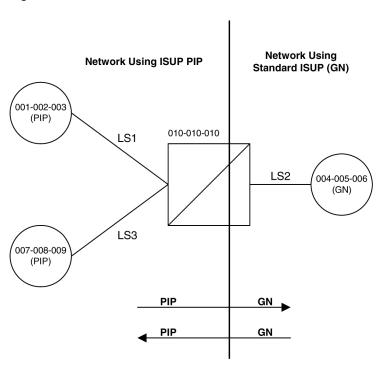


Figure 14-1 PIP/GN Parameter Conversion

Table 14-1 ISUP IAM Message Conversion Examples

| Origination Point Code | Destination Point Code | ISUP IAM Message Conversion |
|------------------------|------------------------|--------------------------------|
| 001-002-003 | 004-005-006 | Yes |
| 001-002-003 | 007-008-009 | No |
| 004-005-006 | 001-002-003 | Yes |
| 004-005-006 | 007-008-009 | Yes |
| 007-008-009 | 001-002-003 | No |
| 007-008-009 | 004-005-006 | Yes |

Great care must be taken when configuring the gateway screening rules for this feature. The CNCF feature has no way to validate the gateway screening rules to detect errors in converting messages between compatible networks. For example, using the example network in Figure 14-1, the ISUP IAM message traffic from node 001-002-003 to node 007-008-009 does not need to be converted because they are using the same calling name delivery parameter, PIP. If the gateway screening rules are not carefully configured, these messages could be converted when they do not need to be.

No measurements are collected showing the number of MSUs converted by this feature.

If both the \mathtt{COPY} and \mathtt{CNCF} gateway screening stop actions are specified as the stop actions for the gateway screening process, the MSU is converted by the CNCF feature.



If both the RDCT and CNCF gateway screening stop actions are specified as the stop actions for the gateway screening process, the MSU is converted by the CNCF feature, then redirected for the DTA feature.

If there are multiple PIP parameters or GN parameters with calling name information within a single ISUP IAM, only the first occurrence of the parameter in the ISUP IAM message is converted.

Only GN IAM messages containing calling name information (Type of Name = Calling Name, Presentation = Allowed, Parameter Length >1) are converted to PIP IAM messages.

Only PIP IAM messages containing Calling Name Information (Sub-Parameter Code = Name Information, Name Element Indicator = Calling Party) are converted to GN IAM messages.

If the received IAM message contains both a GN and a PIP parameter with calling name information, the GN parameter is retransmitted and the PIP parameter is deleted.

Any MSU that is not converted is simply retransmitted. These MSUs include non-ISUP MSUs, non-IAM MSUs, and any IAM MSU received that does not contain either a GN or PIP parameter.

If the PIP parameter contains other information in addition to the calling party name information, only a GN parameter containing calling party name information is generated.

The linkset being screened for this feature should not contain C links (lst=c parameter of the ent-ls and chg-ls commands). This would result in the double conversion of the ISUP IAM messages.

Configuring the EAGLE for the CNCF Feature

To configure the EAGLE for the CNCF feature, gateway screening rules for Allowed OPC, Allowed DPC, and the Allowed SIO entities must be configured in the database for this feature. The last entity in the screening process (nsfi=stop) must have a gateway screening stop action set containing the CNCF gateway screening stop action.

The allowed OPC screening rules must contain the OPCs that the ISUP IAM messages are being sent from.

The allowed DPC screening rules must contain the DPCs that the ISUP IAM messages are being sent to.

The allowed SIO screening rules must contain the ISUP message type, defined by the si=5 parameter.

The CNCF feature must be turned on. Before the CNCF feature can be turned on, the gateway screening feature must be on. This can be verified with the rtrv-feat command.

The examples in this procedure are based on these figures and tables.

- Figure 14-2
- Figure 14-3
- Figure 14-4
- Figure 14-5
- Table 14-1
- Table 14-2



- Table 14-3
- Table 14-4
- Table 14-5
- Table 14-6

Figure 14-2 CNCF Gateway Screening Configuration - Example 1

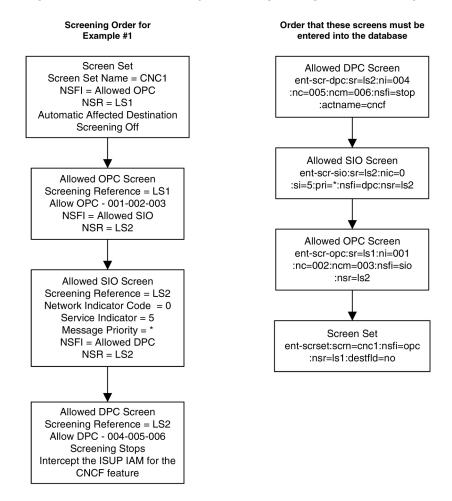




Figure 14-3 CNCF Gateway Screening Configuration - Example 2

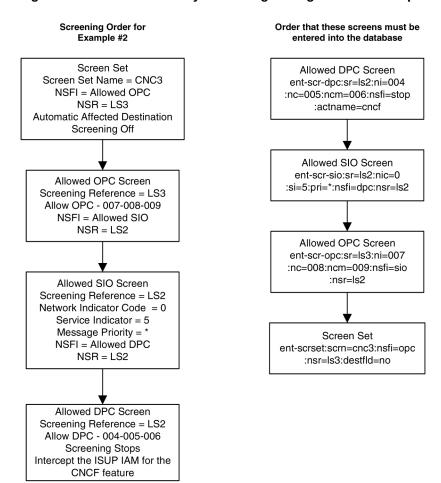
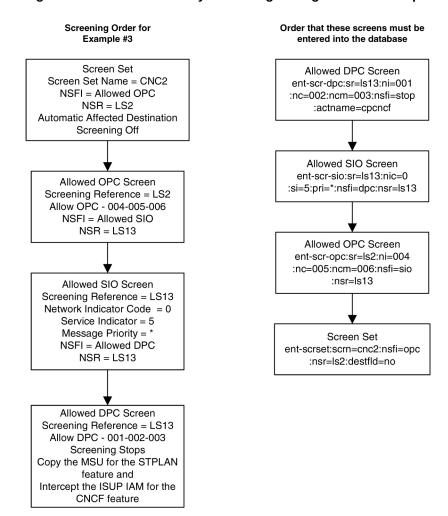




Figure 14-4 CNCF Gateway Screening Configuration - Example 3





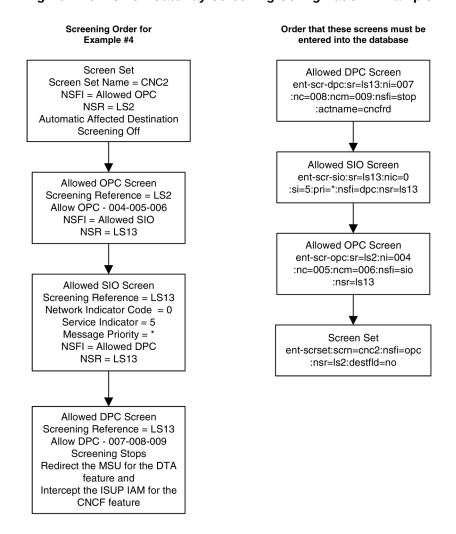


Figure 14-5 CNCF Gateway Screening Configuration - Example 4

Canceling the RTRV-LS Command

Because the rtrv-ls command used in this procedure can output information for a long period of time, the rtrv-ls command can be canceled and the output to the terminal stopped. There are three ways that the rtrv-ls command can be canceled.

- Press the F9 function key on the keyboard at the terminal where the rtrv-ls command was entered.
- Enter the canc-cmd without the trm parameter at the terminal where the rtrv-ls command was entered.
- Enter the canc-cmd:trm=<xx>, where <xx> is the terminal where the rtrv-ls command was entered, from another terminal other that the terminal where the rtrv-ls command was entered. To enter the canc-cmd:trm=<xx> command, the terminal must allow Security Administration commands to be entered from it and the user must be allowed to enter Security Administration commands. The terminal's permissions can be verified with the rtrv-secu-trm command. The user's permissions can be verified with the rtrv-user or rtrv-secu-user commands.

For more information about the canc-cmd command, go to Commands User's Guide.

1. Verify that the gateway screening and the calling name conversion facility features are on, by entering the rtrv-feat command.

If the gateway screening feature is on, the GWS field should be set to on. If the calling name conversion facility feature is on, the CNCF field should be set to on. For this example, the gateway screening and the calling name conversion facility features are off.



Thertry-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by thertry-feat command, see thertry-feat command description in *Commands User's Guide*.

If both features are on, go to step 4. If the gateway screening feature is on, but the calling name conversion facility feature is off, go to step 3. If the gateway screening feature is off, go to step 2.

2. If the gateway screening feature is not on, shown by the GWS = off entry in the rtrv-feat command output in step 1, turn the gateway screening feature on by entering this command.

chq-feat: gws=on



Once the gateway screening feature is turned on with the chg-feat command, it cannot be turned off.

When the chg-feat has successfully completed, this message should appear.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

3. If the calling name conversion facility feature is not on, shown by the CNCF = off entry in the rtrv-feat command output in step 1, turn the calling name conversion facility feature on by entering this command.

chg-feat:cncf=on



Once the calling name conversion facility feature is turned on with thechg-feat command, it cannot be turned off.



When the chg-feat has successfully completed, this message should appear.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

4. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
         ACT ACT ACT ACT ACT ACT ACT ACT
                  3
ID
    NAME 1
                      4 5
                              6
                                   7
                                       8 9
                                                10
1
    сору сору
    rdct rdct
2
3
    cr
         copy rdct
4
   cncf cncf
5 cpcncf copy cncf
6 cncfrd cncf rdct
    cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the <code>cncf</code> gateway screening stop action is not shown in the <code>rtrv-gws-actset</code> command output, perform the Configuring Gateway Screening Stop Action Sets procedure to create a new gateway screening stop action set containing the <code>cncf</code> gateway screening stop action, or change an existing gateway screening stop action set to contain the <code>cncf</code> gateway screening stop action.

5. Display all allowed **DPC** screens in the database using the rtrv-scr-dpc command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED DPC
SR    REF    RULES
IEC    YES      2
WRD2    YES      1
WRD4    YES      9
```

If the necessary screening reference name is shown in the rtrv-scr-dpc command output, make sure the screening data you wish to enter is not already in the database by entering the rtrv-scr-dpc command with the screening reference name. For example, enter the rtrv-scr-dpc: sr=iec command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED DPC
SR
     ΝI
             NC
                      NCM
                               NSFI
                                       NSR/ACT
     240
              001
                       010
                               STOP
                                       ----
IEC
IEC
    241
              010
                               CGPA
                                       cg04
SR
     NPC
                               NSFI
                                      NSR/ACT
IEC
       00235
                               CGPA
                                       cg04
```



| IEC | 00240 | | | CGPA | cg01 |
|-----|-------|------|----|--------|---------|
| SR | ZONE | AREA | ID | NSFI | NSR/ACT |
| IEC | 1 | 003 | 4 | BLKDPC | blk1 |
| IEC | 1 | 003 | 5 | STOP | |

6. If the required screen is not in the database, perform the Adding an Allowed DPC Screen procedure to add the required allowed DPC screen.

For this example, enter the screening information in Table 14-2.

Table 14-2 Example Gateway Screening Allowed DPC Configuration Table for the CNCF Feature

| Screening Reference | NI | NC | NCM | NSFI | ACTNAME* |
|------------------------|-----|-----|-----|------|----------|
| ls2 | 004 | 005 | 006 | Stop | CNCF |
| ls13 | 001 | 002 | 003 | Stop | CPCNCF |
| ls13 | 007 | 800 | 009 | Stop | CNCFRD |

^{*} The value of the actname parameter is shown in the rtrv-gws-actset command output example shown in step 4.

If you wish to change an existing allowed DPC screen, instead of adding a new allowed DPC screen, perform the Changing an Allowed DPC Screen procedure to change an existing allowed DPC screen. For this example, change the screens with the screening information in Table 14-2.

Display all allowed SIO screens in the database using the rtrv-scr-sio command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:31:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED SIO
SR    REF    RULES
IEC    YES     2
WRD2    YES     1
WRD4    YES     9
```

If the necessary screening reference name is shown in the rtrv-scr-sio command output, make sure the screening data you wish to enter is not already in the database by entering the rtrv-scr-sio command with the screening reference name. For example, enter the rtrv-scr-sio: sr=iec command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:32:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED SIO
     NIC PRI SI HO H1
SR
                              NSFI
                                      NSR/ACT
IEC 2 0&&3 0 0
                       0
                              BLKDPC WDB2
IEC 2 0&&2 0 1
IEC 2 0&&1 0 2
IEC 2 0&&3 4 --
                       1
                              DPC
                                      WDB3
                       2
                              STOP
                                      _____
                              STOP
IEC 2 0&&2 1 *
                              DPC
                                      WDB3
```



8. If the required screen is not in the database, perform the Adding an Allowed SIO Screen procedure to add the required allowed SIO screen.

For this example, enter the screening information in Table 14-3.

Table 14-3 Example Gateway Screening Allowed SIO Configuration Table for the CNCF Feature

| Screenin g Referenc e | NIC | SI | Н0 | H1 | PRI | NSFI | NSR |
|--------------------------------|-----|----|----|----|-----|------|------|
| ls2 | 0 | 5 | | | * | dpc | ls2 |
| ls13 | 0 | 5 | | | * | dpc | ls13 |

If you wish to change an existing allowed SIO screen, instead of adding a new allowed SIO screen, perform the Changing an Allowed SIO Screen procedure to change an existing allowed SIO screen. For this example, change the screens with the screening information in Table 14-3.

9. Display all allowed OPC screens in the database using the rtrv-scr-opc command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:33:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED OPC SR REF RULES IEC YES 2 WRD2 YES 1 WRD4 YES 9
```

If the necessary screening reference name is shown in the rtrv-scr-opc command output, make sure the screening data you wish to enter is not already in the database by entering the rtrv-scr-opc command with the screening reference name. For example, enter the rtrv-scr-opc:sr=iec command.

The following is an example of the possible output.

| rlghn | cxa03w | 06-10-25 | 15:34:30 | GMT EAGLE | 5 36.0.0 | | | |
|----------------------|--------|----------|----------|-----------|----------|--|--|--|
| SCREEN = ALLOWED OPC | | | | | | | | |
| SR | NI | NC | NCM | NSFI | NSR/ACT | | | |
| IEC | 240 | 001 | 010 | STOP | | | | |
| IEC | 241 | 010 | * | CGPA | cg04 | | | |
| SR | NPC | | | NSFI | NSR/ACT | | | |
| IEC | 0023 | 5 | | CGPA | cg04 | | | |
| IEC | 0024 | 0 | | CGPA | cg01 | | | |
| SR | ZONE | AREA | ID | NSFI | NSR/ACT | | | |
| IEC | 1 | 003 | 4 | BLKOPC | blk1 | | | |
| IEC | 1 | 003 | 5 | STOP | | | | |

10. If the required screen is not in the database, perform the Adding an Allowed OPC Screen procedure to add the required allowed OPC screen.

For this example, enter the screening information in Table 14-4.



Table 14-4 Example Gateway Screening Allowed OPC Configuration Table for the CNCF Feature

| Screening Reference | NI | NC | NCM | NSFI | NSR |
|------------------------|-----|-----|-----|------|------|
| ls1 | 001 | 002 | 003 | sio | ls2 |
| ls2 | 004 | 005 | 006 | sio | ls13 |
| ls3 | 007 | 800 | 009 | sio | ls2 |

If you wish to change an existing allowed OPC screen, instead of adding a new allowed OPC screen, perform the Changing an Allowed OPC Screen procedure to change an existing allowed OPC screen. For this example, change the screens with the screening information in Table 14-4.

11. Display all the screen sets in the database using the rtrv-scrset command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:35:30 GMT EAGLE5 36.0.0 ENTIRE GWS DATABASE IS 1% FULL CDPA + AFTPC TABLES ARE 1% FULL THERE ARE 248 SCREEN SETS AVAILABLE
```

| THE FO | OLLOWING | ARE OVER | 80% F | JLL: | | |
|--------|----------|----------|-------|-------|--------|---------|
| SCRN | NSFI | NSR/ACT | FULL | RULES | TABLES | DESTFLD |
| | | | | | | |
| SCRN | NSFI | NSR/ACT | FULL | RULES | TABLES | DESTFLD |
| ss01 | OPC | opc1 | 51% | 2075 | 22 | YES |
| ss02 | OPC | opc2 | 2% | 75 | 22 | YES |
| ss03 | OPC | opc3 | 2% | 75 | 22 | YES |
| ss04 | OPC | opc1 | 51% | 2075 | 22 | NO |
| ss07 | OPC | opc1 | 51% | 2075 | 22 | YES |
| ss09 | OPC | opc1 | 51% | 2075 | 22 | NO |
| ss28 | OPC | opc1 | 51% | 2075 | 22 | YES |

12. If the required screen set is not in the database, perform the Adding a Screen Set procedure to add the required screen set.

For this example, enter the screening information in Table 14-5.

Table 14-5 Example Gateway Screening Screen Set Configuration Table for the CNCF Feature

| Screen Set Name | Next Screening Function Identifier | Next Screening Reference | DESTFLD |
|-----------------|---------------------------------------|-----------------------------|---------|
| cnc1 | орс | ls1 | No |
| cnc2 | орс | ls2 | No |
| cnc3 | орс | ls3 | No |

If you wish to change an existing screen set, instead of adding a new screen set, perform the Changing a Screen Set procedure to change an existing screen set. For this example, change the screen sets with the screening information in Table 14-5.

13. Display the current linkset configuration using the rtrv-ls command.

This is an example of the possible output.

rlghncxa03w 09-05-25 15:36:30 GMT EAGLE5 41.0.0

| LSN | APCA | (SS7) | SCRN | | SLT SET | BEI | LST | LNKS | | GWS MES | | SLSCI |
|--------------------|-------------|---------|------|-----|------------|-----|-----|------|-----|------------|-----|-------|
| NIS lsa1 off | 240-02 | 0-000 | scr1 | 1 | 1 | yes | A | 1 | off | off | off | no |
| lsa2 off | 240-030-000 | | scr2 | 1 | 2 | no | С | 3 | on | on | on | yes |
| lsa3 off | 240-040-000 | | scr3 | 1 | 3 | yes | С | 5 | off | off | off | yes |
| | | | | L3T | SLT | | | | GWS | GWS | GWS | |
| LSN NIS | APCI | (SS7) | SCRN | SET | SET | BEI | LST | LNKS | ACT | MES | DIS | SLSCI |
| lsi1 | 1-111-1 | | scr1 | 1 | 1 | yes | A | 1 | off | off | off | |
| lsi2 | 1-111- | 1-111-2 | | 1 | 2 | no | С | 3 | on | on | on | |
| lsi3 | 1-111-3 | | scr3 | 1 | 3 | yes | С | 5 | off | off | off | |
| | | | | L3T | SLT | | | | GWS | GWS | GWS | |
| LSN NIS | APCN | (SS7) | SCRN | SET | SET | BEI | LST | LNKS | ACT | MES | DIS | SLSCI |
| lsn1 off | 11111 | | scr1 | 1 | 1 | yes | A | 1 | off | off | off | |
| lsn2 off | 11112 | | scr2 | 1 | 2 | no | С | 3 | on | on | on | |
| lsn3 off | 11113 | | scr3 | 1 | 3 | yes | С | 5 | off | off | off | |

Link set table is (9 of 1024) 1% full

14. If the required linkset is not in the database, perform the Adding an SS7 Linkset in *Database Administration - SS7 User's Guide* to add the required linkset.

For this example, enter the linkset information in Table 14-6.

Table 14-6 Linkset Configuration Table for the CNCF Feature

| Linkset Name | Linkset APC | # LINKS | LST | GWSA | GWSM | SCRN |
|-----------------|----------------|---------|-----|------|------|------|
| ls1 | 001-002-003 | 2 | В | on | off | cnc1 |
| ls2 | 004-005-006 | 2 | В | on | off | cnc2 |
| ls3 | 007-008-009 | 2 | В | on | off | cnc3 |

If you wish to change an existing linkset, instead of adding a new linkset, perform the Changing an SS7 Linkset procedure in *Database Administration - SS7 User's Guide* to change an existing linkset. For this example, change the linksets with the information in Table 14-6.

15. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

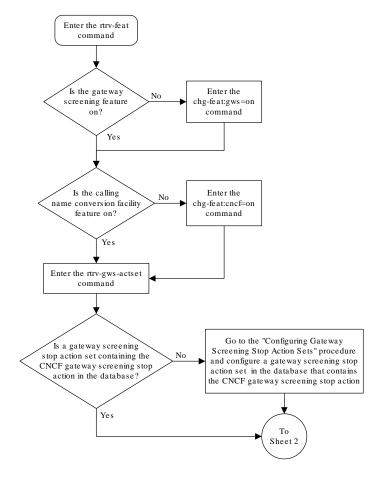
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```

Figure 14-6 Calling Name Conversion Facility Configuration - Sheet 1 of 4





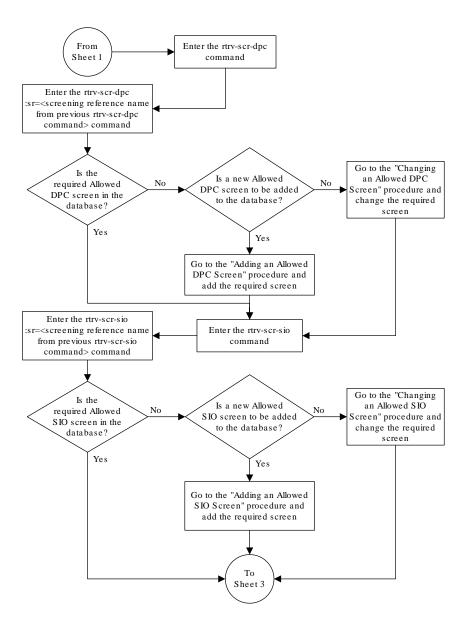


Figure 14-7 Calling Name Conversion Facility Configuration - Sheet 2 of 4



From Enter the rtrv-scr-opc Sheet 2 command Enter the rtrv-scr-opc sr=<screening reference name from previous rtrv-scr-opc command> command Go to the "Changing Is a new Allowed an Allowed OPC required Allowed OPC screen to be added creen" procedure and OPC screen in the to the database? change the required database? screen Ye s $Ye\,s$ Go to the "Adding an Allowed OPC Screen" procedure and add the required screen Enter the rtrv-scrset :scrn=<screen set name from Enter the rtrv-scrset previous rtrv-scrset command> command command Go to the "Changing a Is the Is a new screen Screen Set" procedure required screen set in set to be added to the and change the the database? database? required screen Yes Yes Go to the "Adding a Screen Set" procedure and add the required screen Sheet 4

Figure 14-8 Calling Name Conversion Facility Configuration - Sheet 3 of 4



From $Sheet\ 3$ Enter the rtrv-ls command Is the Yes required linkset in the database? No Go to the "Changing an SS7 Linkset" procedure in the Database Is a new linkset No to be added to the Administration Manual - SS7 and database? change the required linkset with the gwsa=on and scrn parameters. Yes Go to the "Adding an SS7 Linkset" procedure in the Enter the Database Administration Manual chg-db:action=backup:dest=fixed - SS7 and add the required command linkset with the gwsa=on and scrn parameters.

Figure 14-9 Calling Name Conversion Facility Configuration - Sheet 4 of 4



15

Allowed ISUP Message Type Screen Configuration

Chapter 15, Allowed ISUP Message Type Screen Configuration, contains the procedures necessary to configure allowed ISUP message type screens.

Introduction

The ISUP Message Type screen identifies which ISUP messages, using the ISUP message type, that are allowed into the EAGLE. The gray shaded areas in Figure 15-4 shows the fields of the SS7 message that are checked by the ISUP Message Type screening function.

Gateway Screening Actions

The Gateway Screening process stops with this screen. The nsfi parameter value can only be stop.

If a match is not found, the message is discarded.

If a match is found, the message is processed. If a gateway screening stop action set is specified with the screen, shown by the actname parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

- If the rdct (redirect) gateway screening stop action is specified, the message is diverted from the original destination and sent to another destination with the Database Transport Access feature, specified by global title translation, for further processing.
- If the cncf gateway screening stop action is specified, the PIP parameter in the incoming ISUP IAM message is converted to the GN parameter. The GN parameter in the incoming ISUP IAM message is converted to the PIP parameter. The message is then sent to the node specified by the DPC in the routing label in the message. For more information on the Calling Name Conversion Facility feature, see Calling Name Conversion Facility (CNCF) Configuration.
- If the tlnp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are processed either by the ISUP NP with EPAP feature (if the ISUP NP with EPAP feature is enabled and turned on) or by the Triggerless LNP feature (if the Triggerless LNP feature is turned on). The ISUP NP with EPAP feature is discussed in more detail in *G-Port User's Guide*. The Triggerless LNP feature is discussed in more detail in *ELAP Administration and LNP Feature Activation Guide*.
- If the tinp gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in *G-Port User's Guide*.
- If the tif, tif2, or tif3 gateway screening stop actions are specified, TIF processing is applied to the message.



 If the sccp gateway screening stop action is specified, MTP routed SCCP UDT/ XUDT are forwarded to the service modules for further processing.

TUP Message Screening

TUP messages are screened using the Allowed ISUP Message Type screen. The TUP protocol is an obsolete predecessor to the ISUP protocol that remains in use in some areas. To screen for TUP messages, a screen set must be defined to screen for messages containing the service indicator value of 4. This is accomplished by defining an allowed SIO screen in the screen set containing the si=4 parameter.

Since both ISUP and TUP messages are screened using the allowed ISUP message type screen, it is recommended that the screen set contain an allowed SIO screen to screen for ISUP messages, messages containing the service indicator value of 5. Each of these entries in the allowed SIO screen should have separate next screening functions. This allows the screening rules after the allowed SIO screen to have two separate streams, one that ends with screening ISUP messages, the other that ends with screening TUP messages.

The TUP messages can be screened for point codes before the allowed SIO screen with the allowed and blocked OPC screens, and after the SIO screen with the allowed and blocked DPC screens. However, if the screen set does not contain an allowed SIO screen that screens for TUP messages (messages with the service indicator value of 4), the message will be treated by the allowed ISUP message type screen as an ISUP message.

The following commands show how a screen set can be provisioned to screen for TUP and ISUP messages.

```
ent-scr-isup:sr=is01:isupmt=10:nsfi=stop
ent-scr-isup:sr=tu01:tupmt=1:nsfi=stop
ent-scr-dpc:sr=dpc4:ni=1:nc=2:ncm=3:nsfi=isup:nsr=tu01
ent-scr-dpc:sr=dpc5:ni=7:nc=1:ncm=0:nsfi=isup:nsr=is01
ent-scr-sio:sr=si02:nic=2:pri=0:si=4:nsfi=dpc:nsr=dpc4
ent-scr-sio:sr=si02:nic=2:pri=0:si=5:nsfi=dpc:nsr=dpc5
ent-scrset:scrn=ist2:nsr=si02:nsfi=sio
```

In this example screen set configuration, messages are screened by the allowed SIO screen $\pm i02$ for either ISUP or TUP messages. ISUP messages are further screened by the allowed DPC screen $\pm i02$ and TUP messages are screened by the allowed DPC screen $\pm i02$. The ISUP messages containing the ANSI point code 001-002-003 are passed onto the allowed ISUP screen $\pm i02$. The TUP messages containing the ANSI point code 007-001-000 are passed onto the allowed ISUP screen $\pm i02$.

Note:

The gateway screening rules are entered in reverse of the order that the screening process takes place.



Allowed ISUP Message Type Screening Actions

Figure 15-1 through Figure 15-3 show the screening actions of the allowed ISUP message type screen.

MSU from the MSU from the MSU from the Allowed SIO Allowed DPC Blocked DPC screen screen screen Does the ISUP Message Type No The MSU is match any in the Allowed rejected ISUP screen? Yes Is destfld=yes No specified for the screenset? Yes All MSUs with SI=0 are screened against the routing To table, the EAGLE 5 ISS's Sheet 2 point code and capability point codes

Figure 15-1 Allowed ISUP Message Type Screening Actions - Sheet 1 of 3



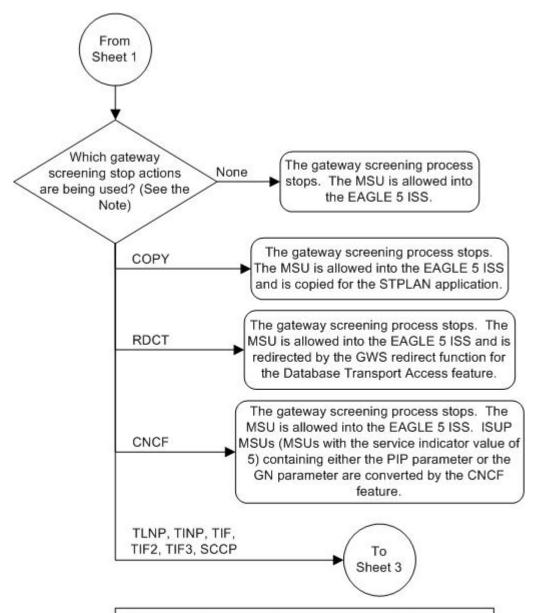


Figure 15-2 Allowed ISUP Message Type Screening Actions - Sheet 2 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.



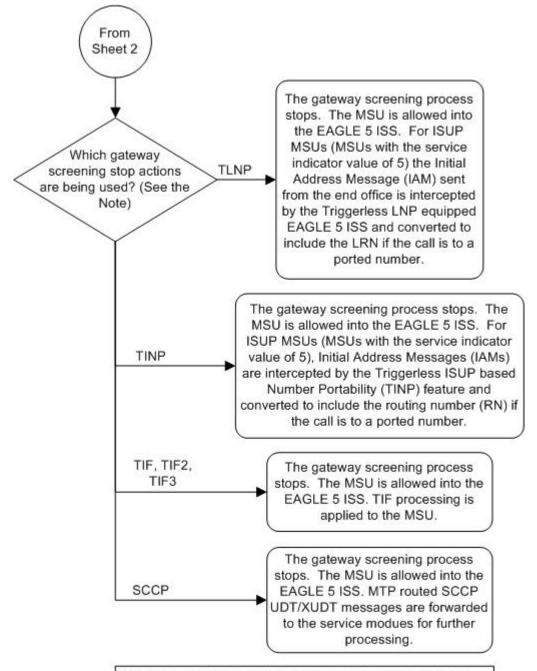


Figure 15-3 Allowed ISUP Message Type Screening Actions - Sheet 3 of 3

Note: Combinations of the gateway screening stop actions shown on Sheets 2 and 3 may be assigned to a gateway screening stop action set. Refer to the Configuring Gateway Screening Stop Action Sets and the Configuring TLNP Gateway Screening Stop Action Sets procedures in Chapter 2 of this manual for the combinations that can be used.



Figure 15-4 Allowed ISUP Message Type Screening Function

ANSI MSU (ANSI Message Signal Unit)

| | sio | | SIF | | | |
|------------|--------------------------|-----------------------------------|-------------------------------|----------|----------------------|-----------|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing L DPC NCM NC NI NCN | abel OPC SLS I NC NI xx | CIC Code | ISUP Message Type | ISUP Data |

ITU-I MSU (ITU International Message Signal Unit)

| | sio | | SIF | | | |
|------------|--------------------------|-----------------------------------|--------------------------------------|----------|----------------------|-----------|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Routing DPC ID AREA ZONE ID | J Label OPC SLS O AREA ZONE xx | CIC Code | ISUP Message Type | ISUP Data |

14-Bit ITU-N MSU (14-Bit ITU National Message Signal Unit)

| | SIO | | | SIF | | | |
|------------|--------------------------|------------------|----------------------------|-----------|----------|----------------------|-----------|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Re DPC NPC | outing Label OPC NPC | SLS xx | CIC Code | ISUP Message Type | ISUP Data |

24-Bit ITU-N MSU (24-Bit ITU National Message Signal Unit)

| | SIO | | | SIF | | | |
|------------|--------------------------|-------------------------|----------------------------------|-----------|----------|----------------------|-----------|
| BSN FSN LI | XX XX XXXX NIC PRI SI | Ro DPC SP SSA MSA | uting Label OPC SP SSA MSA | SLS xx | CIC Code | ISUP Message Type | ISUP Data |

Adding an Allowed ISUP Message Type Screen

This procedure is used to add an allowed ISUP message type (ISUP) screen to the database using the <code>ent-scr-isup</code> command. The parameters used by the <code>ent-scr-isup</code> command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

Since both ISUP and TUP messages are screened by the allowed ISUP message type screen, the ent-scr-isup command contains a parameter for the ISUP message type (isupmt) and a parameter for the TUP message type (tupmt). Only one of these parameters can be specified for the allowed ISUP screen being entered into the database. The isupmt parameter should be specified in screen sets that contain allowed SIO screens that are screening messages for the service indicator value of 5 (SI=5). The tupmt parameter should be specified in screen sets that contain allowed SIO screens that are screening messages for the service indicator value of 4 (SI=4). If you wish to screen for TUP messages, make sure that the screen set being configured contains an allowed SIO screen that screens messages for the service indicator value of 4 (SI=4). If you do not do this, the EAGLE will treat the message as an ISUP message, even if the message contains the service indicator value of 4.

The examples in this procedure are used to add the allowed ISUP screen data shown in Table 15-1 and based on the example configuration shown in Figure 2-8 and Figure 2-9.



| Table 15-1 | Example Gateway | v Screening Allowe | ed ISUP Configuration Table |
|-------------------|-----------------|--------------------|-----------------------------|
| | | | |

| Screening Reference | ISUPMT | NSFI | ACTNAME |
|---------------------|--------|------|---------|
| isp1 | 135 | stop | CR |
| isp2 | 139 | stop | CR |
| Screening Reference | TUPMT | NSFI | ACTNAME |
| tup1 | 100 | stop | CR |

1. Verify that the gateway screening feature is on, by entering the rtrv-feat command. If the gateway screening feature is on, the GWS field is set to on.



Thertry-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by thertry-feat command, see thertry-feat command description in *Commands User's Guide*.

If the gateway screening feature is on, shown by the entry GWS = on in the rtrv-feat command output, skip step 2, and go to step 3.

2. Turn the gateway screening feature on by entering this command.

chg-feat:gws=on

Note:

Once the gateway screening feature is turned on with the chg-feat command, it cannot be turned off.

The gateway screening feature must be purchased before you turn this feature on with the <code>chg-feat</code> command. If you are not sure if you have purchased the gateway screening feature, contact your Oracle Sales Representative or Account Representative.

When the chg-feat has successfully completed, this message should appear.

```
rlghncxa03w 06-10-28 11:43:04 GMT EAGLE5 36.0.0 CHG-FEAT: MASP A - COMPLTD
```

3. Display all allowed ISUP screens in the database using the rtrv-scr-isup command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0 SCREEN = ALLOWED ISUP SR REF RULES IEC YES 2
```



```
WRD2 YES 1
WRD4 YES 1
```

If the screening reference names that you wish to add with this procedure are not shown in the rtrv-scr-isup command output, go to step 4. For this example, the screening reference names are not shown. If these screening reference names are shown in the rtrv-scr-isup command output, make sure the screening data you wish to enter is not already in the database by entering the rtrv-scr-isup command with the screening reference name. For example, enter the rtrv-scr-isup:sr=iec command. The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED ISUP
SR ISUPMT/ NSFI NSR/ACT
    TUPMT
iec 100 STOP cr
iec 197 STOP cr
```

If a gateway screening stop action set is to be assigned to the allowed ISUP screen being added to the database, go to step 4. Otherwise, go to step 5.

4. Display the gateway screening stop action sets in the database with the rtrv-gws-actset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
ACT ACT
       ACT ACT ACT ACT ACT ACT ACT ACT
ID
   NAME
               3
                   4
                       5
                          6
                              7
                                  8
                                         10
   1
   сору сору
2
   rdct rdct
3
   cr
       copy rdct
4 cncf cncf
5 cpcncf copy cncf
6 cncfrd cncf rdct
   cpcfrd copy cncf rdct
GWS action set table is (7 of 16) 44% full
```

If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.

5. Add a new allowed ISUP screen to the database using the ent-scr-isup command.

For this example, enter this command.

```
ent-scr-isup:sr=isp1:isupmt=135:nsfi=stop:actname=cr
```



A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0
ENT-SCR-ISUP: SCREEN SET AFFECTED - ISP1 1% FULL
ENT-SCR-ISUP: MASP A - COMPLTD
ent-scr-isup:sr=isp2:isupmt=139:nsfi=stop:actname=cr
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0
ENT-SCR-ISUP: SCREEN SET AFFECTED - ISP2 1% FULL
ENT-SCR-ISUP: MASP A - COMPLTD

ent-scr-isup:sr=tup1:tupmt=100:nsfi=stop:actname=cr
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0 ENT-SCR-ISUP: SCREEN SET AFFECTED - TUP1 1% FULL ENT-SCR-ISUP: MASP A - COMPLTD
```

If a gateway screening stop action is to be assigned to the allowed ISUP screen being changed, enter the <code>ent-scr-isup</code> command with the <code>nsfi=stop</code> parameter and the <code>actname</code> parameter with the name of a gateway screening stop action set shown in the output of the <code>rtrv-gws-actset</code> command executed in step 4. The <code>isupmt</code> or <code>tupmt</code> parameters can have these values: 0 - 255, or an asterisk (*). A range of ISUP or TUP message types can be specified with the <code>ent-scr-isup</code> command. If a range of ISUP message types is specified, the range of ISUP message types cannot include any ISUP message types that are currently provisioned for the screening reference name. If a range of TUP message types is specified, the range of TUP message types cannot include any TUP message types that are currently provisioned for the screening reference name. For example, screening reference name <code>scr1</code> contains these entries:

```
SR ISUPMT/ NSFI NSR/ACT
TUPMT
scr1 115 STOP cr
scr1 203 STOP cr
```

Another entry for screening reference scr1 cannot be specified if the range of ISUP message types includes the values 115 and 203.

6. Verify the changes using the rtrv-scr-isup command with the screening reference name used in step 5.

For this example, enter this command.

```
rtrv-scr-isup:sr=isp1
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED ISUP
SR ISUPMT/ NSFI NSR/ACT
```



```
TUPMT isp1 135 STOP cr
```

rtrv-scr-isup:sr=isp2

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED ISUP
SR ISUPMT/ NSFI NSR/ACT
    TUPMT
isp2 139 STOP cr
```

rtrv-scr-isup:sr=tup1

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED ISUP
SR ISUPMT/ NSFI NSR/ACT
    TUPMT
tup1 100 STOP cr
```

7. Backup the new changes using the <code>chg-db:action=backup:dest=fixed command.</code>

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.

BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED) : MASP A - Backup starts on standby MASP.

BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```



Enter the rtrv-feat command Is the gateway Enter the No screening feature chg-feat:gws=on command Yes Enter the rtrv-scr-isup command Enter the rtrv-scr-isup :sr=<screening reference name> command. The screening reference name is a name shown in the previous rtrv-scr-isup command, or a new screening reference name. Are ISUP message types or TUP message types being added to the database? ISUP Message Type s To Sheet 2 TUP Message Types To Sheet 3

Figure 15-5 Add an Allowed ISUP Message Type Screen - Sheet 1 of 3



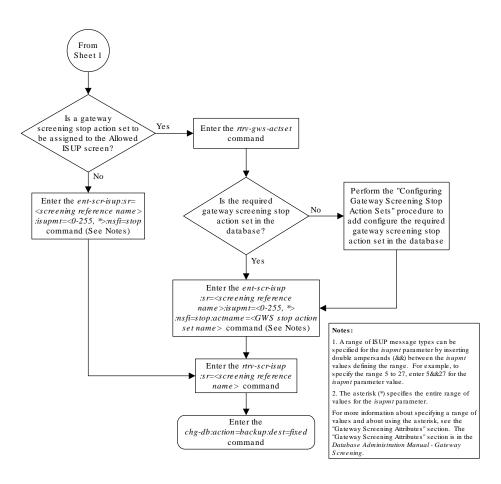


Figure 15-6 Add an Allowed ISUP Message Type Screen - Sheet 2 of 3



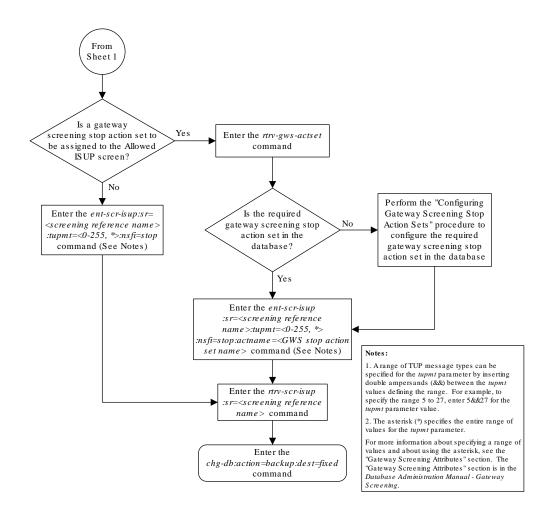


Figure 15-7 Add an Allowed ISUP Message Type Screen - Sheet 3 of 3

Removing an Allowed ISUP Message Type Screen

This procedure is used to remove an allowed ISUP message type (ISUP) screen from the database using the dlt-scr-isup command. The parameters used by the dlt-scr-isup command are shown in the Gateway Screening Attributes section. The general rules that

apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

Since both ISUP and TUP messages are screened by the allowed ISUP message type screen, the dlt-scr-isup command contains a parameter for the ISUP message type (isupmt) and a parameter for the TUP message type (tupmt). Only one of these parameters can be specified for the allowed ISUP screen being removed from the database.

The example in this procedure removes the allowed ISUP screen isp2 from the database.

The allowed ISUP screen can be referenced by one of the following screens.

- Allowed SIO
- Allowed DPC
- Blocked DPC

Verifying the Gateway Screening Configuration

Enter the following commands to verify that none of these screens reference the allowed ISUP screen being removed from the database.

```
rtrv-scr-sio:nsfi=isuprtrv-scr-dpc:nsfi=isuprtrv-scr-blkdpc:nsfi=isup
```

Gateway Screening Configuration Procedures

To change the NSFI of any of these screens, perform to one of these procedures.

- Changing an Allowed SIO Screen
- Changing an Allowed DPC Screen
- Changing a Blocked DPC Screen
- 1. Display the allowed ISUP screens in the database using the rtrv-scr-isup command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED ISUP
    REF RULES
IEC
    YES
             2
ISP1 YES
             1
ISP2 YES
             2
TUP1 YES
             1
WRD2 YES
             1
WRD4 YES
             1
```

From the rtrv-scr-isup output, display the allowed ISUP screen you wish to remove using the rtrv-scr-isup command with the screening reference name. For this example, enter this command.

```
rtrv-scr-isup:sr=isp2
```



The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED ISUP
SR ISUPMT/ NSFI NSR/ACT
          TUPMT
isp2 055 STOP cr
```

2. Enter the commands in the Verifying the Gateway Screening Configuration section to verify that the screen being removed is not referenced by other screens in the database.

If the screen being removed is referenced by other screens, perform the procedures shown in the Gateway Screening Configuration Procedures section to change the NSFI of those screens to reference other screens or change the NSFI of these screens to STOP.

3. Remove the allowed ISUP screen from the database using the dlt-scr-isup command.

The current value of the <code>isupmt</code> parameter must be entered exactly as shown in the <code>rtrv-scr-isup</code> output in step 1. For this example, enter this command.

```
dlt-scr-isup:sr=isp2:isupmt=055
```

A message similar to the following should appear.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0 DLT-SCR-ISUP: SCREEN SET AFFECTED - FLD5 0% FULL DLT-SCR-ISUP: MASP A - COMPLTD
```

4. Verify the changes using the rtrv-scr-isup command with the screening reference name used in step 3.

For this example, enter this command.

```
rtrv-scr-isup:sr=isp2
```

The following is an example of the possible output.

```
E2573 Cmd Rej: SR or NSR does not reference an existing SR
```

This message shows that the specified screening reference name is not in the database and the action of the dlt-scr-isup command in step 3 was successful. If the specified screening reference name contained more than one entry when the dlt-scr-isup command was executed in step 3, the rtrv-scr-isup:sr= command output would show the remaining entries in the screening reference instead of error message E2573.

5. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED): MASP A - Backup starts on active MASP.

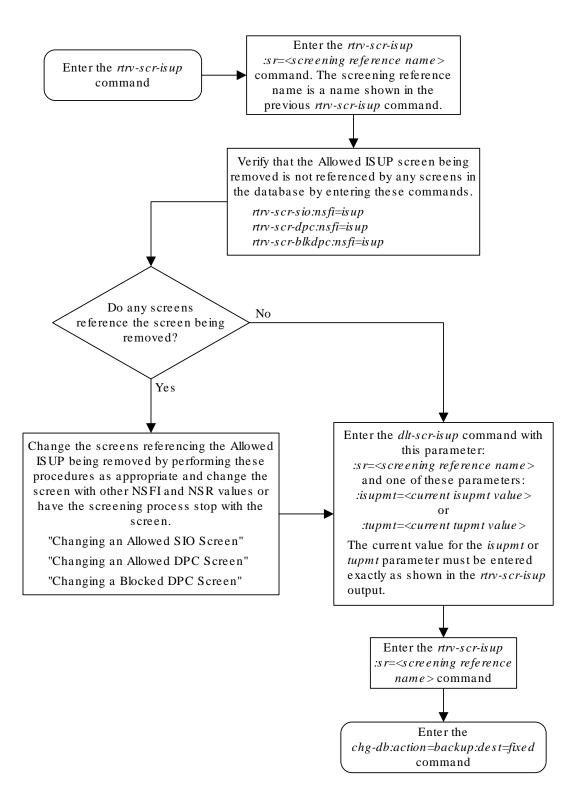
BACKUP (FIXED): MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED): MASP A - Backup starts on standby MASP.

BACKUP (FIXED): MASP A - Backup on standby MASP to fixed disk complete.
```



Figure 15-8 Remove an Allowed ISUP Message Type Screen



Changing an Allowed ISUP Message Type Screen

This procedure is used to change the attributes of an allowed ISUP message type (ISUP) screen in the database using the <code>chg-scr-isup</code> command. The parameters used by the <code>chg-scr-isup</code> command are shown in the Gateway Screening Attributes section. The general rules that apply to configuring gateway screening entities are shown in the Gateway Screening Configuration section.

The example in this procedure is used to change the ISUP message type 135 for the allowed ISUP screen isp1 to 075 and to redirect the MSU for the DTA feature.

1. Display the allowed ISUP screens in the database using the rtrv-scr-isup command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED ISUP
     REF RULES
IEC
     YES
             2
ISP1 YES
             3
ISP2 YES
             2
TUP1 YES
             1
WRD2 YES
             1
WRD4 YES
             1
```

From the rtrv-scr-isup output, display the allowed ISUP screen you wish to remove using the rtrv-scr-isup command with the screening reference name. For this example, enter this command.

```
rtrv-scr-isup:sr=isp1
```

The following is an example of the possible output.

If a gateway screening stop action set is to be assigned to the allowed ISUP screen being changed in the database, go to step 2.

Step 2 verifies the gateway screening stop action set names in the database. If a gateway screening stop action set name will not be assigned to the screen, skip step 2 and go to step 3.

Display the gateway screening stop action sets in the database with the rtrv-gwsactset command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
ACT ACT ACT ACT ACT ACT ACT ACT ACT ACT
```



If the required gateway screening stop action set is not in the database, perform the Configuring Gateway Screening Stop Action Sets procedure to configure the required gateway screening stop action set.

3. Change the attributes of an allowed ISUP screen using the chg-scr-isup command.

If a gateway screening stop action is to be assigned to the allowed ISUP screen being changed, enter the <code>chg-scr-isup</code> command with the <code>nsfi=stop</code> parameter and the <code>actname</code> parameter with the name of a gateway screening stop action set shown in the output of the <code>rtrv-gws-actset</code> command executed in step 2.

The value of the isupmt or tupmt parameter must be entered exactly as shown in the rtrv-scr-isup output in step 1.

The nisupmt or ntupmt parameter can have these values: 0 - 255, or an asterisk (*).

A range of ISUP or TUP message types can be specified with the <code>chg-scr-isup</code> command. If a range of ISUP message types is specified, the range of ISUP message types cannot include any ISUP message types that are currently provisioned for the screening reference name. If a range of TUP message types is specified, the range of TUP message types cannot include any TUP message types that are currently provisioned for the screening reference name.

For example, screening reference name scr1 contains these entries:

| SR | ISUPMT/ | NSFI | NSR/ACT |
|------|---------|------|---------|
| | TUPMT | | |
| scr1 | 115 | STOP | cr |
| scr1 | 203 | STOP | cr |

Another entry for screening reference scrl cannot be specified if the range of ISUP message types includes the values 115 and 203. For this example, enter this command.

```
chg-scr-isup:sr=isp1:isupmt=135:nisupmt=075:actname=rdct
```

The following messages appear.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0 CHG-SCR-ISUP: SCREEN SET AFFECTED - ISP1 1% FULL CHG-SCR-ISUP: MASP A - COMPLTD
```



4. Verify the changes using the rtrv-scr-isup command with screening reference name used in step 3.

For this example, enter this command.

```
rtrv-scr-isup:sr=isp1
```

The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED ISUP
SR ISUPMT/ NSFI NSR/ACT
    TUPMT
isp1 002 STOP copy
isp1 075 STOP rdct
isp1 089 STOP ------
```

5. Backup the new changes using the chg-db:action=backup:dest=fixed command.

The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
BACKUP (FIXED): MASP A - Backup starts on active MASP.

BACKUP (FIXED): MASP A - Backup on active MASP to fixed disk complete.

BACKUP (FIXED): MASP A - Backup starts on standby MASP.

BACKUP (FIXED): MASP A - Backup on standby MASP to fixed disk complete.
```



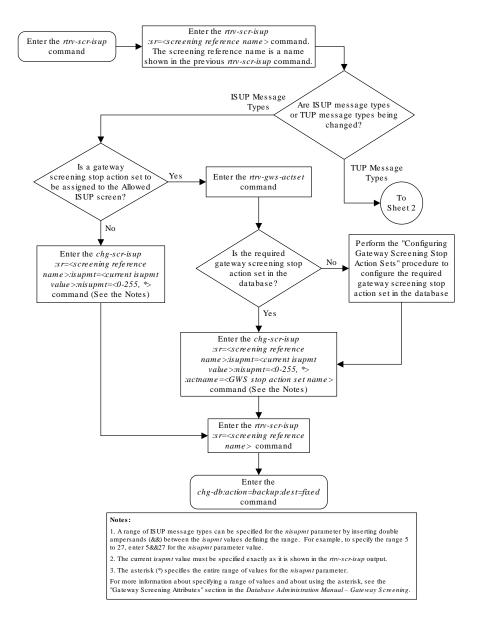


Figure 15-9 Change an Allowed ISUP Message Type Screen - Sheet 1 of 2



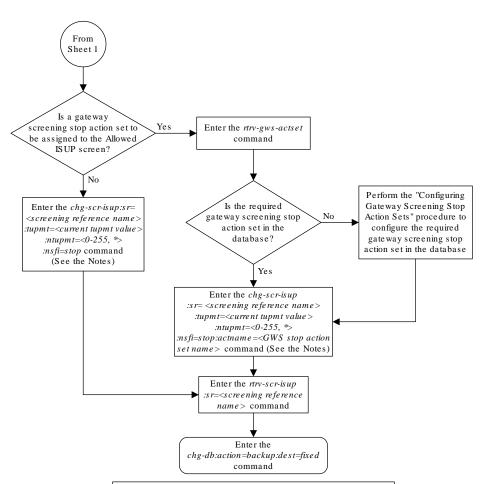


Figure 15-10 Change an Allowed ISUP Message Type Screen - Sheet 2 of 2

Notes:

- 1. A range of TUP message types can be specified for the *ntupmt* parameter by inserting double ampersands (&&) between the *tupmt* values defining the range. For example, to specify the range 5 to 27, enter 5 &&27 for the *ntupmt* parameter value.
- 2. The current tupmt value must be specified exactly as it is shown in the trv-scr-isup output.
- 3. The asterisk (*) specifies the entire range of values for the ntupmt parameter. For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section in the Database Administration Manual Gateway Screening.

