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# Chapter 1

# Introduction

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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.

Throughout this manual, these terms are used to refer to either the original card or the EPM-B version or other replacement version of the card unless one of the card types is specifically required.

- E5-ENET - the original E5-ENET or the E5-ENET-B card
- E5-E1T1 - the original E5-E1T1 or the E5-E1T1-B card
- E5-ATM - the original E5-ATM or the E5-ATM-B card
- E5-IPSM - the original E5-IPSM or the E5-ENET-B card that is running the IPSHC GPL
- E5-SM4G - the original E5-SM4G or 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 5 ISS and its database to implement the Gateway Screening feature.

## 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.

## 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: Admonishments**

| Icon | Description |
|---|---|
| | **Danger**:<br>(This icon and text indicate the possibility of *personal injury*.) |
| | **Warning**:<br>(This icon and text indicate the possibility of *equipment damage*.) |
| | **Caution**:<br>(This icon and text indicate the possibility of *service interruption*.) |
| | **Topple**:<br>(This icon and text indicate the possibility of *personal injury* and *equipment damage*.) |

## My Oracle Support (MOS)

MOS (*https://support.oracle.com*) is your initial point of contact for all product support and training needs. A representative at Customer Access Support (CAS) can assist you with MOS registration.

Call the CAS main number at **1-800-223-1711** (toll-free in the US), or call the Oracle Support hotline for your local country from the list at *http://www.oracle.com/us/support/contact/index.html*. When calling, make the selections in the sequence shown below on the Support telephone menu:

1. Select **2** for New Service Request
2. Select **3** for Hardware, Networking and Solaris Operating System Support
3. Select **2** for Non-technical issue

You will be connected to a live agent who can assist you with MOS registration and provide Support Identifiers. Simply mention you are a Tekelec Customer new to MOS.

MOS is available 24 hours a day, 7 days a week, 365 days a year.

## Emergency Response

In the event of a critical service situation, emergency response is offered by the Customer Access Support (CAS) main number at **1-800-223-1711** (toll-free in the US), or by calling the Oracle Support hotline for your local country from the list at *http://www.oracle.com/us/support/contact/index.html*. The

emergency response provides immediate coverage, automatic escalation, and other features to ensure that the critical situation is resolved as rapidly as possible.

A critical situation is defined as a problem with the installed equipment that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical situations affect service and/or system operation resulting in one or several of these situations:

- A total system failure that results in loss of all transaction processing capability
- Significant reduction in system capacity or traffic handling capability
- Loss of the system's ability to perform automatic system reconfiguration
- Inability to restart a processor or the system
- Corruption of system databases that requires service affecting corrective actions
- Loss of access for maintenance or recovery operations
- Loss of the system ability to provide any required critical or major trouble notification

Any other problem severely affecting service, capacity/traffic, billing, and maintenance capabilities may be defined as critical by prior discussion and agreement with Oracle.

## Related Publications

For information about additional publications that are related to this document, refer to the *Related Publications Reference* document, which is published as a separate document on the Oracle Technology Network (OTN) site. See *Locate Product Documentation on the Oracle Technology Network Site* for more information.

## Documentation Availability, Packaging, and Updates

Tekelec provides documentation with each system and in accordance with contractual agreements. For General Availability (GA) releases, Tekelec publishes a complete EAGLE 5 ISS documentation set. For Limited Availability (LA) releases, Tekelec may publish a documentation subset tailored to specific feature content or hardware requirements. Documentation Bulletins announce a new or updated release.

The Tekelec EAGLE 5 ISS documentation set is released on an optical disc. This format allows for easy searches through all parts of the documentation set.

The electronic file of each manual is also available from the *Tekelec Customer Support* site. This site allows for 24-hour access to the most up-to-date documentation, including the latest versions of Feature Notices.

Printed documentation is available for GA releases on request only and with a lead time of six weeks. The printed documentation set includes pocket guides for commands and alarms. Pocket guides may also be ordered separately. Exceptions to printed documentation are:

- Hardware or Installation manuals are printed without the linked attachments found in the electronic version of the manuals.
- The Release Notice is available only on the Customer Support site.

**Note:** Customers may print a reasonable number of each manual for their own use.

Documentation is updated when significant changes are made that affect system operation. Updates resulting from Severity 1 and 2 Problem Reports (PRs) are made to existing manuals. Other changes are included in the documentation for the next scheduled release. Updates are made by re-issuing an electronic file to the customer support site. Customers with printed documentation should contact their Sales Representative for an addendum. Occasionally, changes are communicated first with a Documentation Bulletin to provide customers with an advanced notice of the issue until officially released in the documentation. Documentation Bulletins are posted on the Customer Support site and can be viewed per product and release.

## Locate Product Documentation on the Oracle Technology Network Site

Oracle customer documentation is available on the web at the Oracle Technology Network (OTN) 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 *www.adobe.com*.

1. Log into the Oracle Technology Network site at *http://docs.oracle.com*.
2. Under **Applications**, click the link for **Communications**.
   The **Oracle Communications Documentation** window opens with Tekelec shown near the top.
3. Click **Oracle Communications Documentation for Tekelec Products**.
4. Navigate to your Product and then the Release Number, and click the **View** link (the **Download** link will retrieve the entire documentation set).
5. To download a file to your location, right-click the PDF link and select **Save Target As**.

## Maintenance and Administration Subsystem

The Maintenance and Administration Subsystem (MAS) is the central management point for the EAGLE 5. 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 5 control shelf. The control cards must be E5-based cards.

### E5-based Control Cards

The E5-based set of EAGLE 5 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 Master clocks throughout the EAGLE 5, and distributes Shelf ID to the EAGLE 5. 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 5 ISS Database Partitions

The data that the EAGLE 5 uses to perform its functions are stored in two separate areas: the fixed disk drives, and the removable cartridge. The following sections describe these areas and data that is stored on them. These areas and their partitions are shown in *Figure 1: EAGLE 5 ISS Database Partitions (E5-Based Control Cards)*.

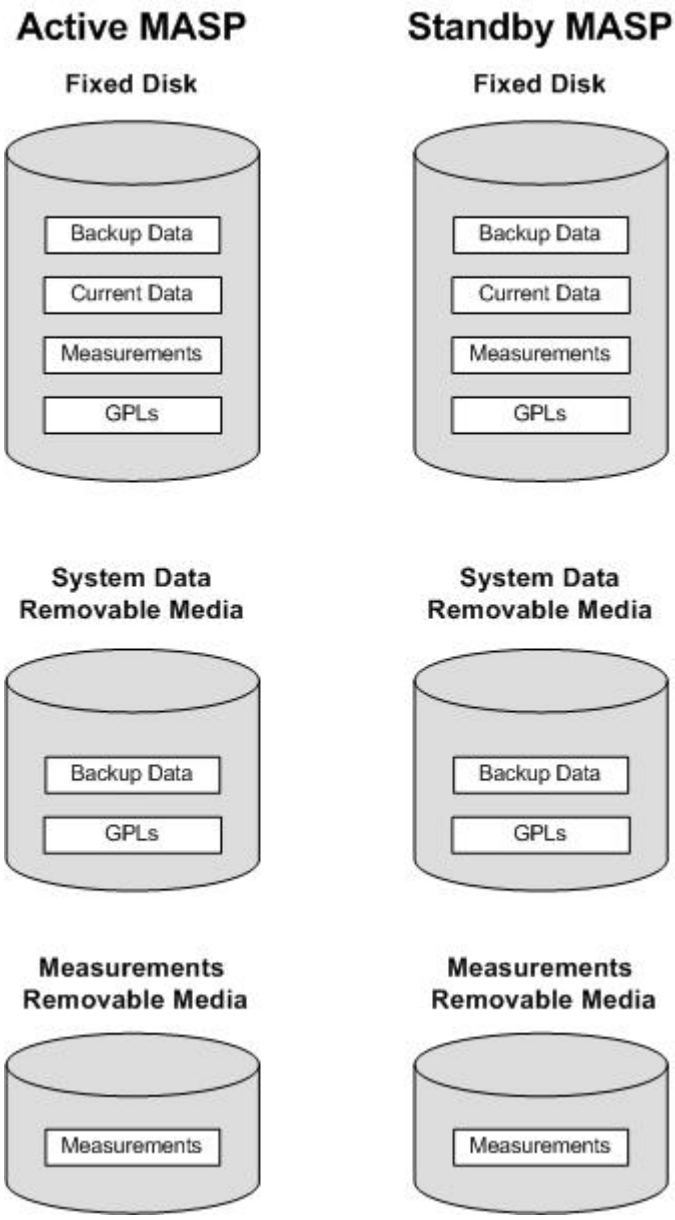


**Figure 1: EAGLE 5 ISS Database Partitions (E5-Based Control Cards)**

### Fixed Disk Drive

There are two fixed disk drives on the EAGLE 5. The fixed disk drives contain the "master" set of data and programs for the EAGLE 5. The two fixed disk drives are located on the terminal disk modules (E5-TDMs). Both disks have the same files. The data stored on the fixed disks is partially replicated on the various cards in the EAGLE 5. 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 GPLs 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 GPLs are downloaded to the EAGLE 5 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 5 provides the user the ability to format a removable media for either of these purposes. A removable media can be formatted on the EAGLE 5 by using the `format-disk` command. More information on the `format-disk` command can be found in *Commands Manual*. More information on the removable media drives can be found in *Hardware*.

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

# Chapter 2

# Gateway Screening (GWS) Overview

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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:

- Database Services Modules (DSMs).
- EAGLE 5-Service Module 4 GB (E5-SM4G, either E5-SM4G or E5-SM8G-B cards)

The use of the service modules in the EAGLE 5 ISS is dependent on the combination of global title translation features that are being used in the EAGLE 5 ISS. for more information on the global title translation features, go to the *Database Administration Manual* - Global Title Translation.

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 the *Commands Manual* to find the required information.

The EAGLE 5 ISS's role in the SS7 network is to provide SS7 message transport between originating and destination signaling points. EAGLE 5 ISSs 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 5 ISS, and the contents of the EAGLE 5 ISS screening tables.

Gateway screening functions on the EAGLE 5 ISS 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 `gwsa=on` and `scrn` parameters. Like an EAGLE 5 ISS 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 5 ISS terminal. The linkset attributes of a gateway linkset can be displayed on an EAGLE 5 ISS terminal with the `rtrv-ls` command. A gateway linkset is shown by the entry `SEAS` in the `SCRN` field of the `rtrv-ls` 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 5 ISS 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 5 ISS currently uses these gateways screening stop actions.

- `COPY` – copy the MSU for the STPLAN feature
- `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 `si02` for either ISUP or TUP messages. ISUP messages are further screened by the allowed DPC screen `dpc5` and TUP messages are screened by the allowed DPC screen `dpc4`. The ISUP messages containing the ANSI point code 001-002-003 are passed onto the allowed ISUP screen `is01`. The TUP messages containing the ANSI point code 007-001-000 are passed onto the allowed ISUP screen `tu01`.

**Note:** 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 `gwsa=off` and `gwsm=off` parameters of the `ent-ls` or `chg-ls` 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 `gwsa=on` and `gwsm=on` parameters of the `ent-ls` or `chg-ls` 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 `gwsa=on` and `gwsm=off` parameters of the `ent-ls` or `chg-ls` 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 `gwsa=off` and `gwsm=on` parameters of the `ent-ls` or `chg-ls` 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 5 ISS.
- The screen set is to 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.

  **Note:** 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 5 ISS.

Refer to the *Commands Manual* 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 5 ISS 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 the *Database Administration Manual - SS7*.

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 the *Database Administration Manual - SS7*. 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 5 ISS 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

  **Note:** 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 `pcst` and `npcst` 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: Valid Value Combinations for ANSI Point Code Parameters* shows the valid combinations of these parameter values.

**Table 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 for the H0 and H1 heading codes can be specified with asterisks (*) or single values for other heading code parameter. *Table 3: Valid Value Combinations for H0 and H1 Parameters* shows the valid combinations of these parameter values.

**Table 3: Valid Value Combinations for H0 and H1 Parameters**

| H0 | H1 |
|---|---|
| Single Value | Single Value |
| 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 `opc1`. If an attempt is made to remove or change Allowed OPC screening reference `opc1` 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 `opc1`, these point code parameters must be specified with the command, `ni=010`, `nc=010`, `ncm=010&&100`.

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 `ent-scr-opc` command is entered with the point code 010-010-050 assigned to screening reference `opc1`. If the database contains the range of point codes 010-010-010 to 010-010-100, specified as `ni=010`, `nc=010`, `ncm=010&&100`, 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, `ni=010`, `nc=010`, `ncm=*`, 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 4: Valid Parameter Combinations for ANSI Point Code Parameters* shows the valid combinations of the ANSI point code parameters.

**Table 4: 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
SR    NI       NC       NCM      NSFI    NSR/ACT
IEC   240      001      010&&020 STOP    -------
```

```
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  H0     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
SR    TYPE     NSFI   NSR/ACT
IEC   005&&010 STOP   ------
IEC   012      STOP   ------
IEC   016      CDPA   IEC
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 5: Valid Value Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I parameter values. *Table 6: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* shows the valid combinations of the 24-bit ITU-N parameter values.

**Table 5: 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: 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 |

*Table 7: Valid Parameter Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I point code parameters used with the retrieve commands when displaying ITU-I gateway screening entries.

**Table 7: 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 8: Valid Parameter Combinations for 24-bit ITU-N Point Code Parameters* 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 8: 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 the *Commands Manual*.

- 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 `NSR/ACT` field.

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

```
rlghncxa03w 06-10-25 15:25:30 GMT 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 5 ISS screen sets being used
- The screen set name (SCRN)
- The next screening function that should be used in the gateway screening process (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
ss02  OPC     opc2       2%  75     22      Y
ss03  OPC     opc3       2%  75     22      Y
ss04  OPC     opc1      51%  2075   22      N
ss07  OPC     opc1      51%  2075   22      Y
ss09  OPC     opc1      51%  2075   22      N
ss28  OPC     opc1      51%  2075   22      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.

**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.

**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 `zone-area-id`. 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.

**Note:** 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.

**2.** 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.

1. 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 (00001010110111) 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.
   a) 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

**Note:** 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: Sample Network Showing Gateway Screening Using Duplicate ITU National Point Codes*, 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.

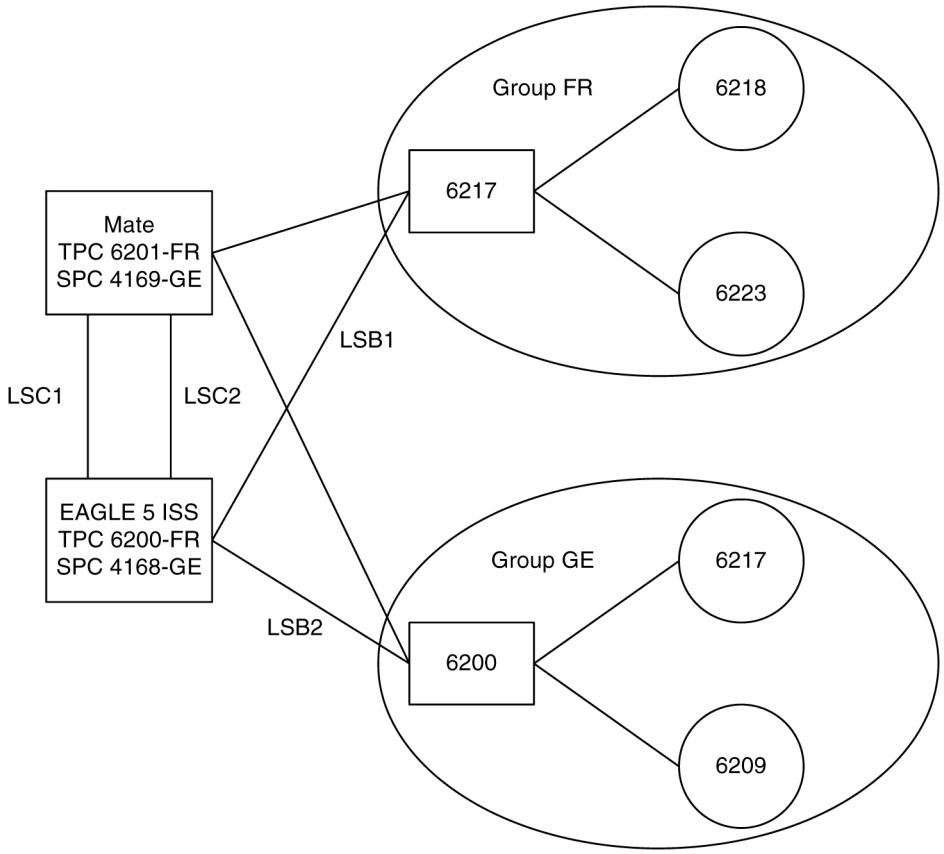



**Figure 2: Sample Network Showing Gateway Screening Using Duplicate ITU National Point Codes**

## 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 4: Gateway Screening Configuration - Example 1* through *Figure 10: Gateway Screening Configuration - Example 7*). Each example configuration shows the screening order used by the EAGLE 5 ISS, 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.

**Note:** The gateway screening rules table can contain a maximum of 362,700 rules.

The EAGLE 5 ISS 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 the `chg-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=gls: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 5 ISS that was not supposed to be allowed in, or a message blocked from the EAGLE 5 ISS 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 parameters `gwsa=off` and `gwsm=on`, 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.

8. The word `SEAS` cannot be used as a value for the `scrn` parameter of the `ent-scrset`, `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 5 ISS 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`, `ssa=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 5 ISS 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 3: The Gateway Screening*

*Process*). 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 9: Gateway Screening Process and Provisioning Order* 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 9: Gateway Screening Process and Provisioning Order**

| MTPGateway Screening Order | | SCCPGateway Screening Order | |
|---|---|---|---|
| Screening Order | Order of Entry into the Database | Screening Order | Order of Entry into the Database |
| 1. Screen Set | 1. Allowed DESTFLD | 1. Screen Set | 1. Allowed AFTPC |
| 2. Allowed OPC | or Allowed ISUP* | 2. Allowed OPC | 2. Allowed CDPA |
| 3. Blocked OPC | 2. Blocked DPC | 3. Blocked OPC | 3. Allowed TT |
| 4. Allowed SIO | 3. Allowed DPC | 4. Allowed SIO | 4. Allowed CGPA |
| 5. Allowed DPC | 4. Allowed SIO | 5. Allowed DPC | 5. Blocked DPC |
| 6. Blocked DPC | 5. Blocked OPC | 6. Blocked DPC | 6. Allowed DPC |
| 7. Allowed DESTFLD | 6. Allowed OPC | 7. Allowed CGPA | 7. Allowed SIO |
| or Allowed ISUP* | 7. Screen Set | 8. Allowed TT | 8. Blocked OPC |
| | | 9. Allowed CDPA | 9. Allowed OPC |
| | | 10. Allowed AFTPC | 10. Screen Set |
| * The allowed ISUP screen can contain ISUP and TUP message types. | | | |

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

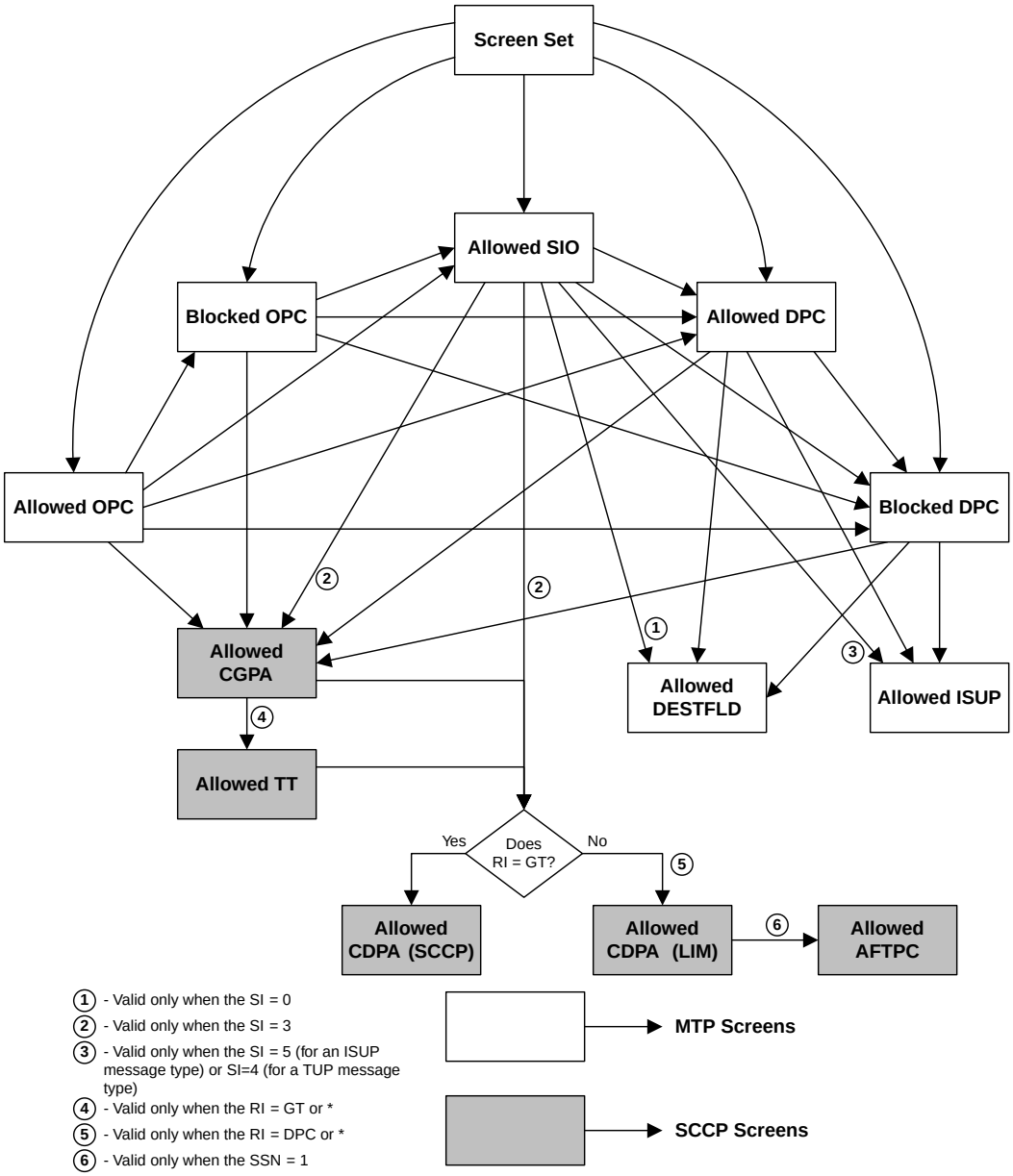



**Figure 3: The Gateway Screening Process**

## Gateway Screening Configuration Examples

### Example 1

Example 1 screens the messages in a linkset for the following criteria. *Figure 4: Gateway Screening Configuration - Example 1* shows the screening order the EAGLE 5 ISS uses and the order that the screens must be entered into the database.

- Allow into the EAGLE 5 ISS messages containing the following items

  The OPC 001-001-001

  The DPC 003-003-003

  The calling party address (CGPA) 006-006-006, 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 5 ISS messages containing these items

  The OPC 001-002-002

  The DPC 004-004-004

- The message that passes the gateway screening criteria is copied for the STPLAN application (specified with the `actname` parameter and the name of the gateway screening stop action set containing the `COPY` gateway screening stop action).

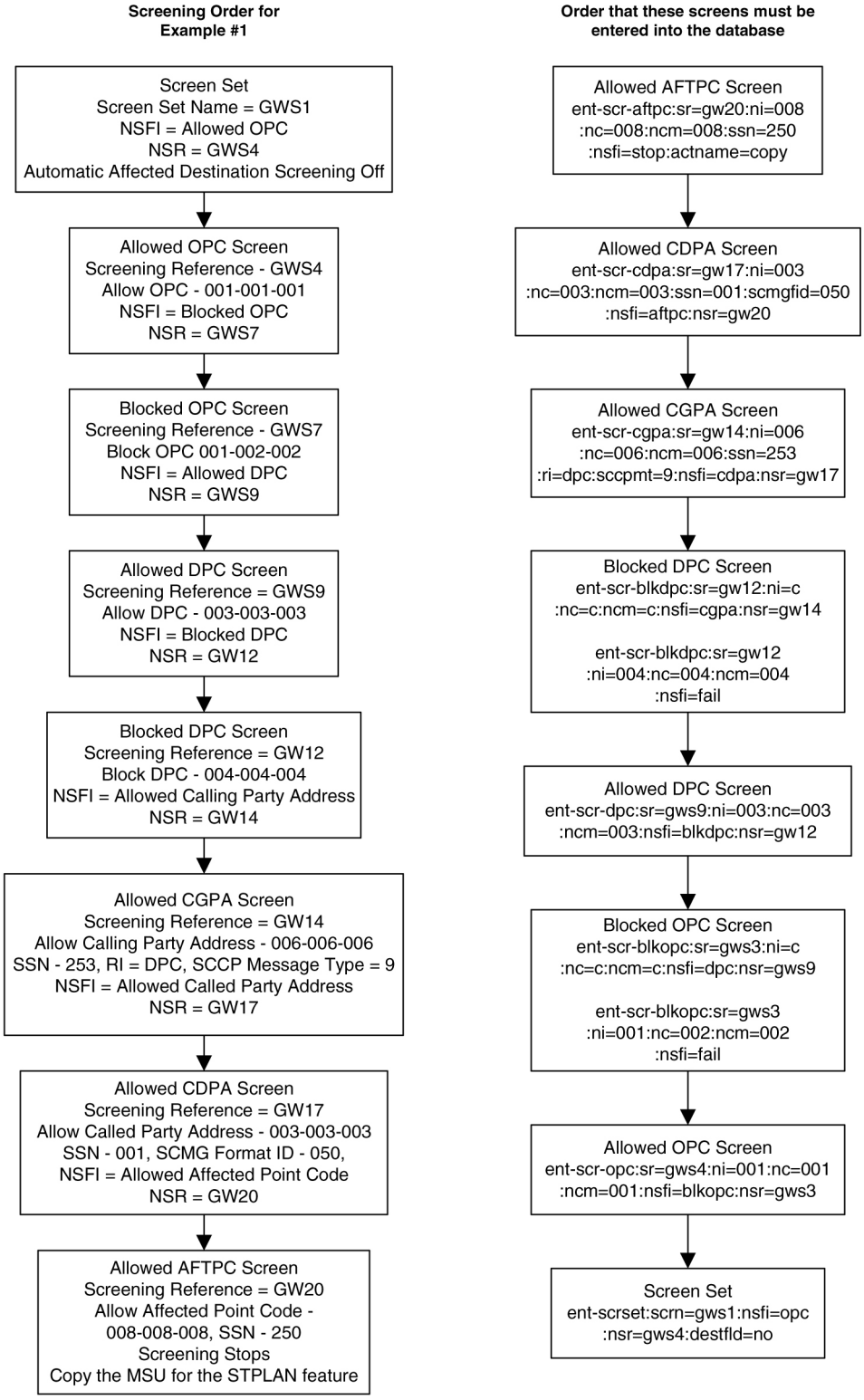



**Figure 4: Gateway Screening Configuration - Example 1**

### Example 2

Example 2 screens the messages in a linkset for the following criteria. *Figure 5: Gateway Screening Configuration - Example 2* shows the screening order the EAGLE 5 ISS uses and the order that the screens must be entered into the database.

- Allow messages containing the following items into the EAGLE 5 ISS

  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 `*`, 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 5 ISS

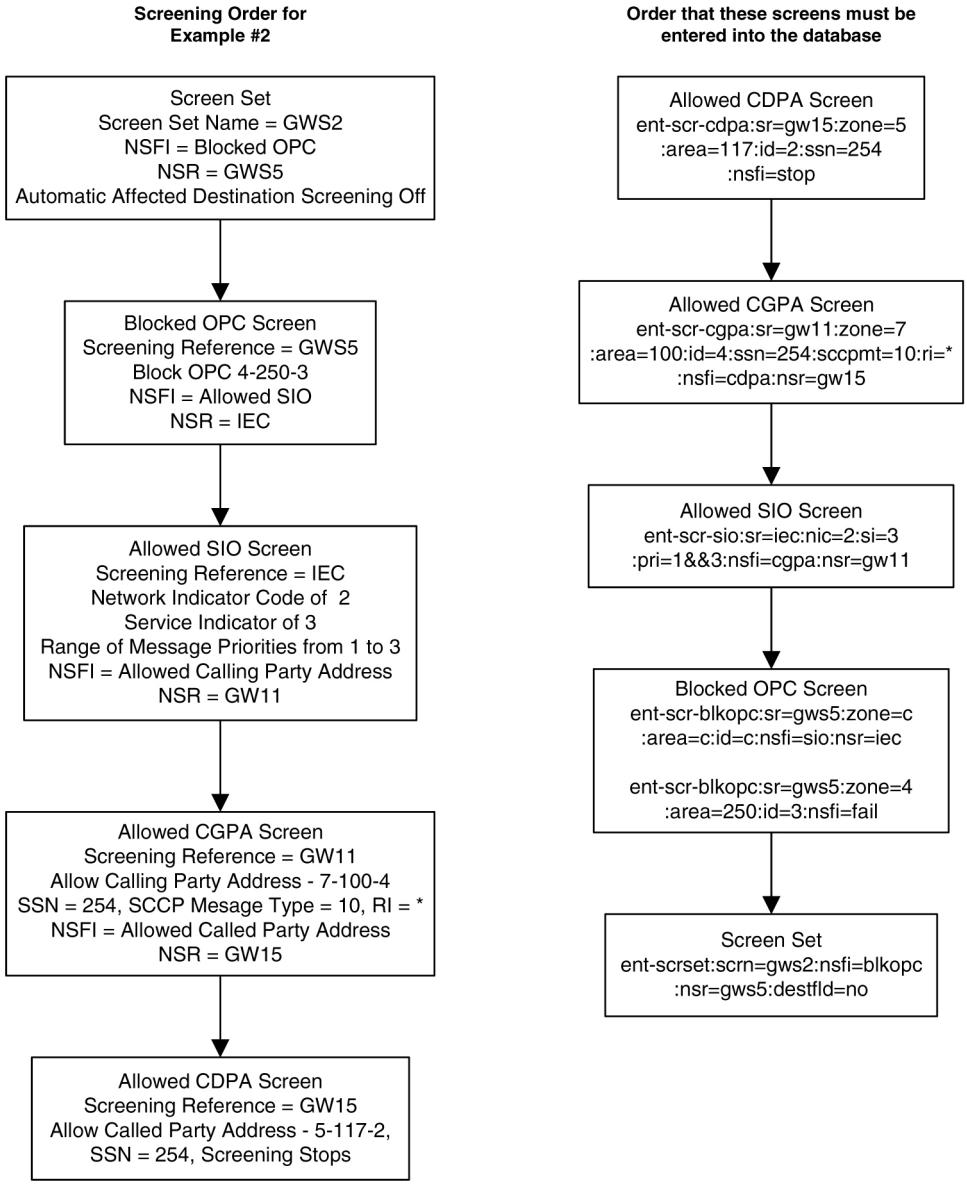



**Figure 5: Gateway Screening Configuration - Example 2**

## Example 3

Example 3 screens the messages in a linkset for the following criteria. *Figure 6: Gateway Screening Configuration - Example 3* shows the screening order the EAGLE 5 ISS uses and the order that the screens must be entered into the database.

- Allow into the EAGLE 5 ISS 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 `gt` 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 5 ISS
- Automatic Destination Field screening is on.

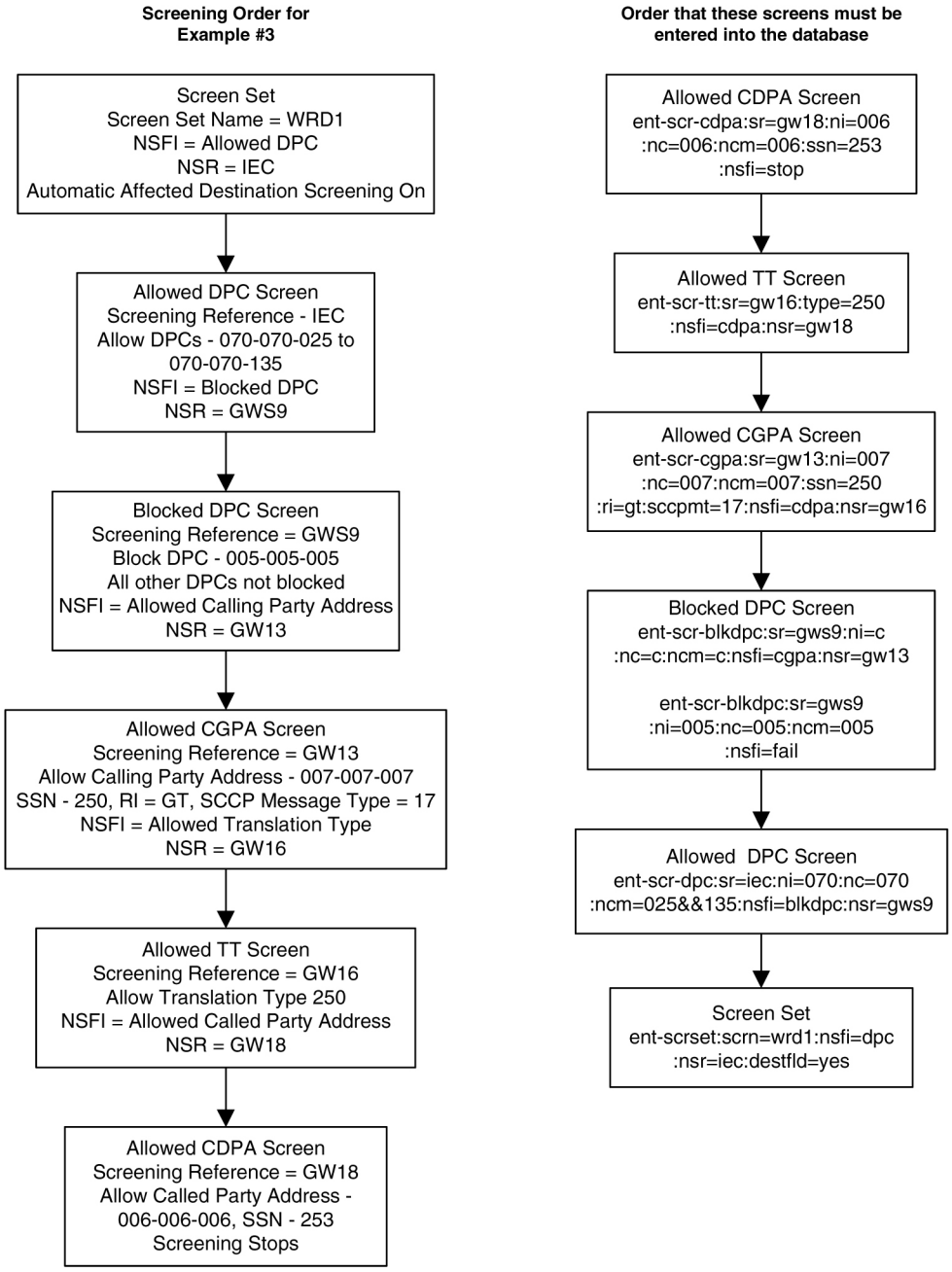



**Figure 6: Gateway Screening Configuration - Example 3**

### Example 4

Example 4 screens the messages in a linkset for the following criteria. *Figure 7: Gateway Screening Configuration - Example 4* shows the screening order the EAGLE 5 ISS uses and the order that the screens must be entered into the database.

- Allow messages containing the following items into the EAGLE 5 ISS

  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

- The message that passes the gateway screening criteria is copied for the STPLAN application (specified with the `actname` parameter and the name of the gateway screening stop action set containing the `COPY` gateway screening stop action).
- Automatic Destination Field screening is on.

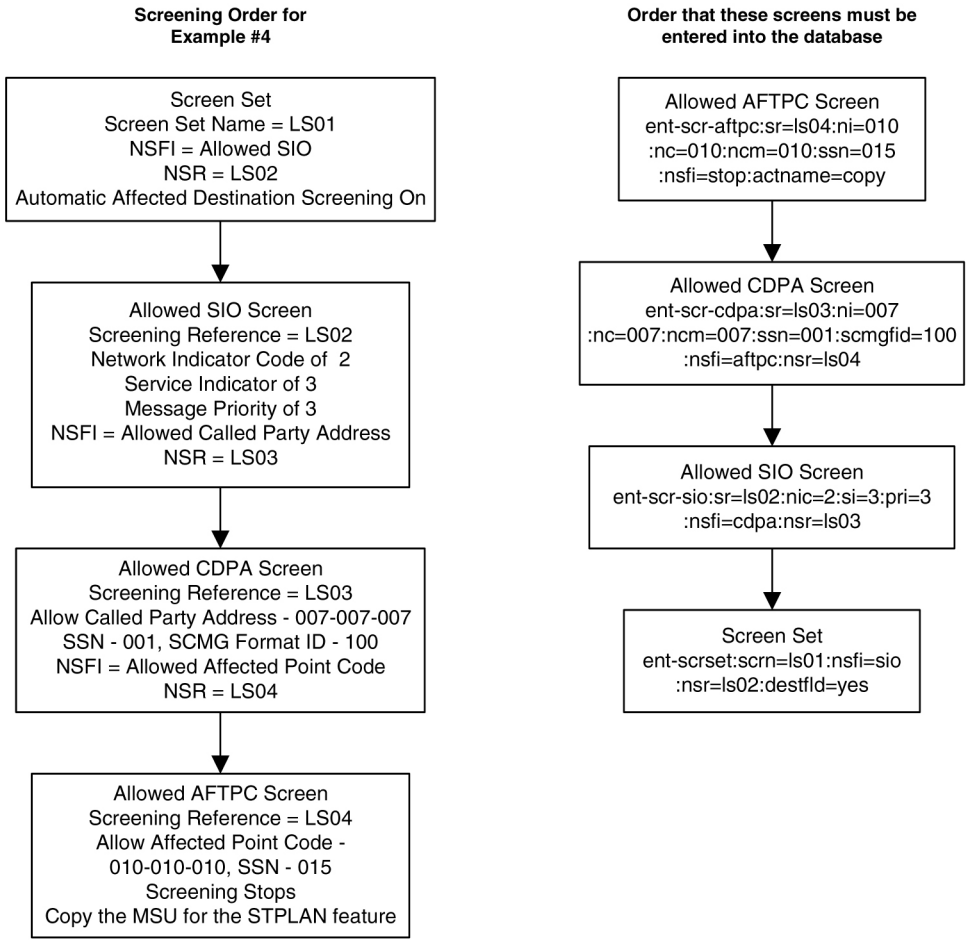



**Figure 7: Gateway Screening Configuration - Example 4**

## Example 5

Example 5 screens the messages in a linkset for the following criteria. *Figure 8: Gateway Screening Configuration - Example 5* shows the screening order the EAGLE 5 ISS uses and the order that the screens must be entered into the database.

- Allow into the EAGLE 5 ISS 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 5 ISS

- The message that passes the gateway screening criteria is copied for the STPLAN application and is redirected for the gateway screening redirect function (specified with the `actname` parameter and the name of the gateway screening stop action set containing the `COPY` and `RDCT` gateway screening stop actions).

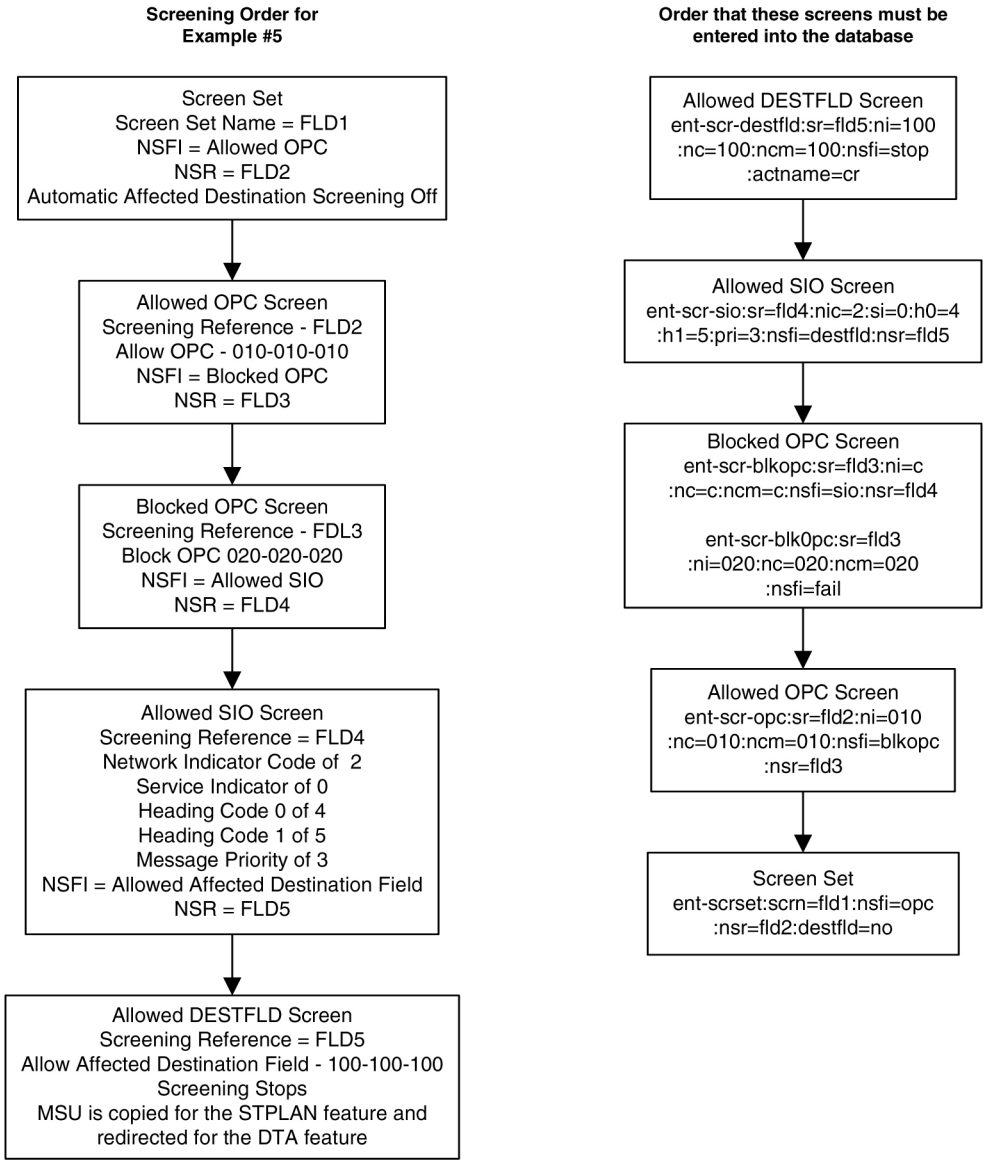



**Figure 8: Gateway Screening Configuration - Example 5**

## Example 6

Example 6 screens the messages in a linkset for the following criteria. *Figure 9: Gateway Screening Configuration - Example 6* shows the screening order the EAGLE 5 ISS uses and the order that the screens must be entered into the database.

- Allow into the EAGLE 5 ISS 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 5 ISS
- The message that passes the gateway screening criteria is copied for the STPLAN application and is redirected for the gateway screening redirect function (specified with the `actname` parameter and the name of the gateway screening stop action set containing the `COPY` and `RDCT` gateway screening stop actions).

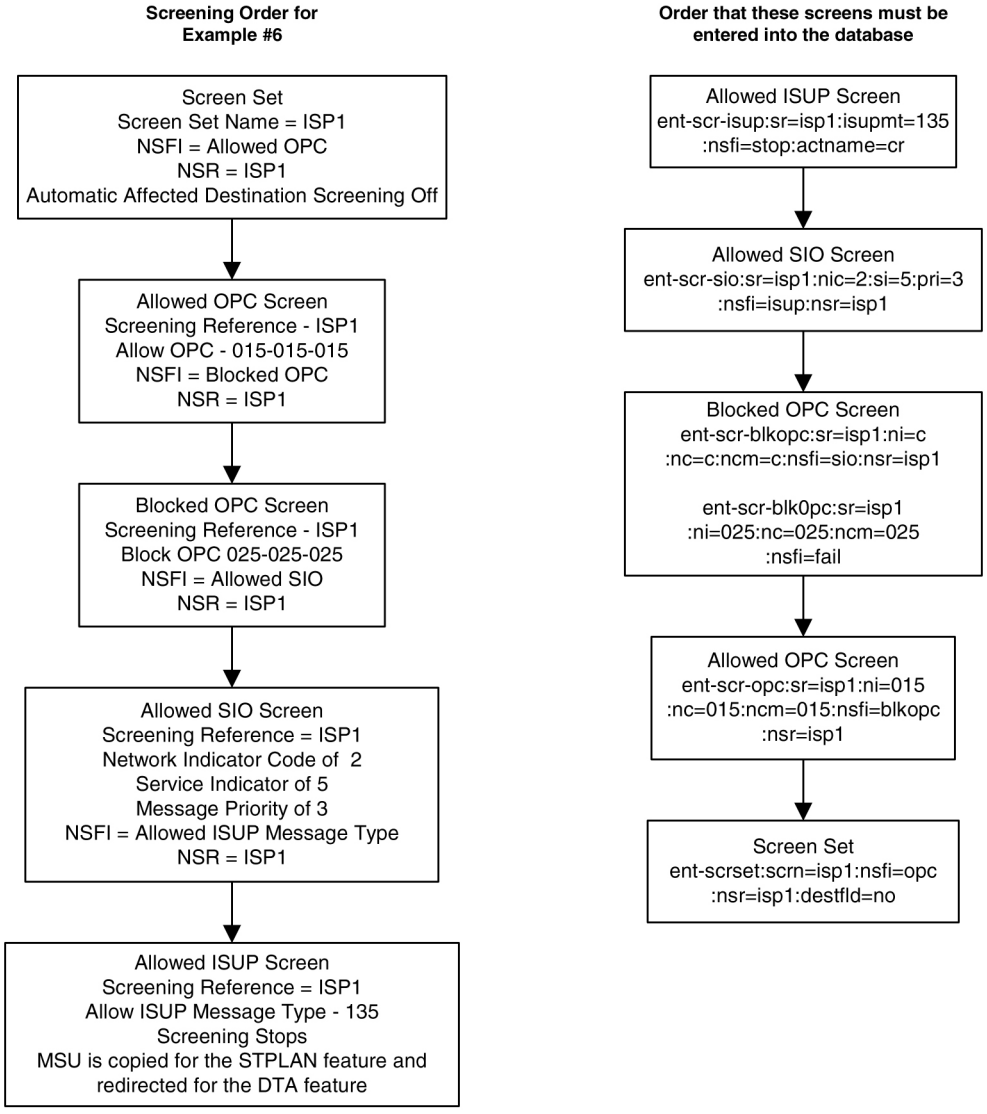



**Figure 9: Gateway Screening Configuration - Example 6**

### Example 7

Example 7 screens the messages in a linkset for the following criteria. *Figure 10: Gateway Screening Configuration - Example 7* shows the screening order the EAGLE 5 ISS uses and the order that the screens must be entered into the database.

- Allow into the EAGLE 5 ISS messages containing the following items:
  - TUP messages containing these items:

    The OPC 017-017-017

    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

- The messages, both TUP and ISUP, that pass the gateway screening criteria are copied for the STPLAN application and are redirected for the gateway screening redirect function (specified with the `actname` parameter and the name of the gateway screening stop action set containing the `COPY` and `RDCT` gateway screening stop actions).

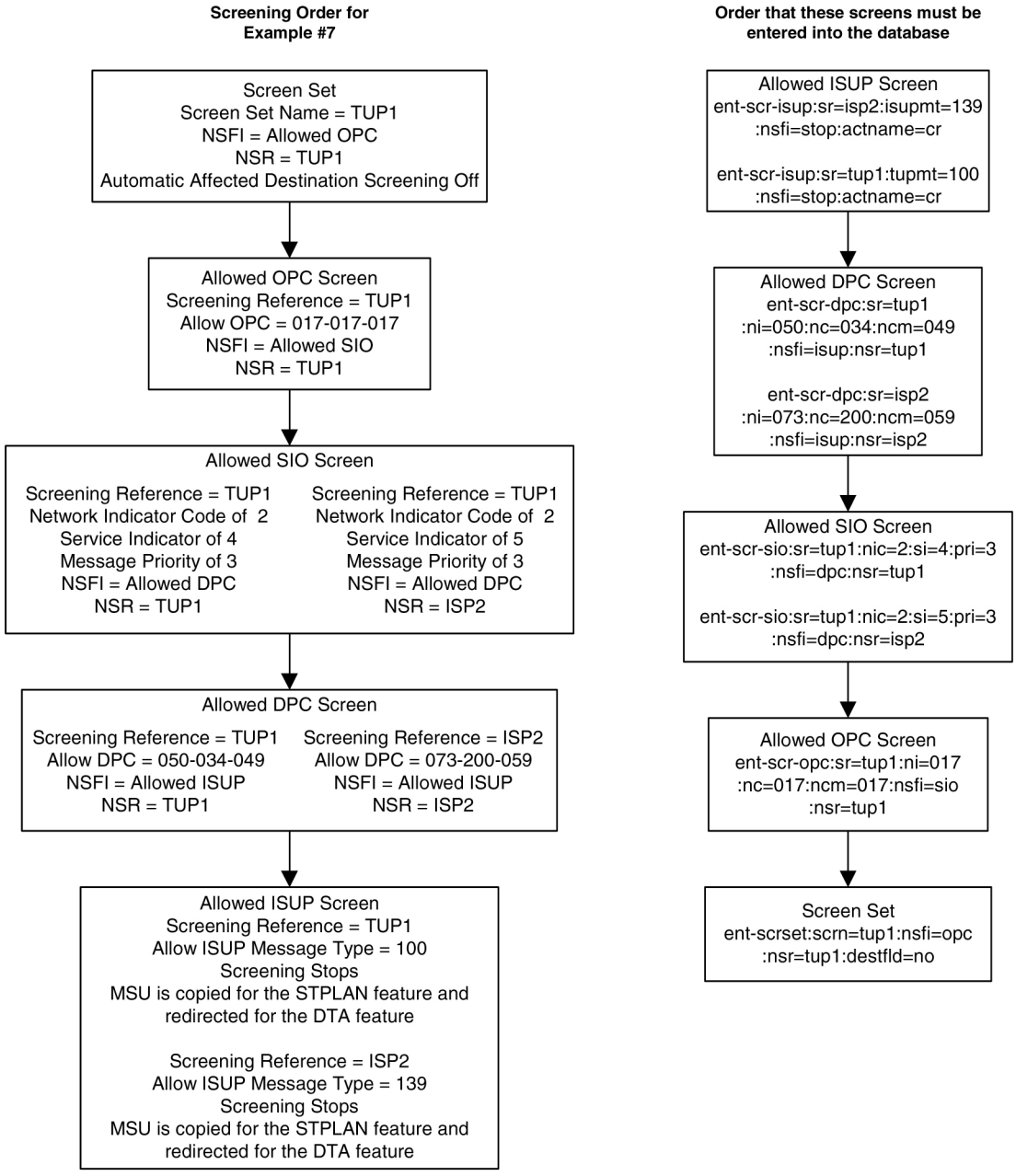



**Figure 10: Gateway Screening Configuration - Example 7**

## Adding a GLS Card

This procedure is used to add a card to support the gateway screening feature (a GLS card), shown in *Table 10: GLS Card Types*, using the `ent-card` command.

**Table 10: GLS Card Types**

| Card Type | Part Number |
|---|---|
| E5-TSM | 870-2943-01 |

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`.

`: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 5. 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 Manual – System Management*.

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.

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

The E5-TSM requires two HIPR cards or two HIPR2 cards in the shelf where it is installed.

The EAGLE 5 ISS 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 5 using the `rtrv-card` command.

   This is an example of the possible output. Cards should be distributed throughout the EAGLE 5 for proper power distribution. Refer to *Installation* for the shelf power distribution. 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   sp2           A    0    sp1           B    0
1203   LIMDS0    SS7ANSI   sp3           A    0
1204   LIMDS0    SS7ANSI   sp3           A    1
1206   LIMDS0    SS7ANSI   nsp3          A    1    nsp4          B    1
```

```
1211   TSM       GLS
1216   DCM       STPLAN
1308   LIMDS0    SS7ANSI   sp6          A    1    sp7          B    0
1314   LIMDS0    SS7ANSI   sp7          A    1    sp5          B    1
1317   DCM       STPLAN
```

If the APPL field of the rtrv-card command output shows no cards assigned to the GLS application continue the procedure with *Step 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.

   **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, see the rtrv-feat command description in *Commands Manual*.

   If the Gateway Screening feature is on, continue the procedure with *Step 4*

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

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

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

   **Note:** After 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 15:27:30 GMT EAGLE5 36.0.0
CHG-FEAT: MASP A - COMPLTD
```

   Continue the procedure with *Step 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.

```
rlghncxa03w 08-11-01 16:07:48 GMT  EAGLE5 40.0.0
CARD   VERSION      TYPE      GPL        PST            SST        AST
1102   131-010-000  TSM       GLS        IS-NR          Active     -----
1211   131-010-000  TSM       GLSHC      IS-NR          Active     -----

Command Completed.
```

   E5-TSMs are shown by the entry GLSHC in the GPL column of the rept-stat-gpl output. TSMs are shown by the entry GLS in the GPL column of the rept-stat-gpl output. Continue the procedure by performing one of these actions.

   - If E5-TSMs are shown in the rept-stat-card output, and an E5-TSM is being added to the same shelf as the E5-TSMs shown in the rept-stat-card output, continue the procedure with *Step 7*.

- If E5-TSMs are shown in the `rept-stat-card` output, and an E5-TSM is being added to a different shelf as the E5-TSMs shown in the `rept-stat-card` output, continue the procedure with *Step 5*.
- If E5-TSMs are not shown in the `rept-stat-card` output, and an E5-TSM is being added, continue the procedure with *Step 5*.

5. Verify that HIPR cards are installed at card locations 9 and 10 in the shelf where the E5-TSM will be installed. Enter this command.

   `rept-stat-gpl:gpl=hipr`

   This is an example of the possible output.

```
rlghncxa03w 08-12-01 11:40:26 GMT  EAGLE5 40.0.0
GPL        CARD      RUNNING            APPROVED      TRIAL
HIPR       1109      126-002-000        126-002-000   126-003-000
HIPR       1110      126-002-000        126-002-000   126-003-000
HIPR       1209      126-002-000        126-002-000   126-003-000
HIPR       1210      126-002-000        126-002-000   126-003-000
HIPR       1309      126-002-000        126-002-000   126-003-000
HIPR       1310      126-002-000        126-002-000   126-003-000
Command Completed
```

   If HIPR cards are installed at card locations 9 and 10 in the shelf where the E5-TSM will be installed, continue the procedure with *Step 7*.

   If HIPR cards are not installed in the shelf where the E5-TSM will be installed, continue the procedure with *Step 6*.

6. Verify that HIPR2 cards are installed at card locations 9 and 10 in the shelf where the E5-TSM will be installed. Enter this command.

   `rept-stat-gpl:gpl=hipr2`

   This is an example of the possible output.

```
rlghncxa03w 09-07-01 11:40:26 GMT  EAGLE5 41.1.0
GPL        CARD      RUNNING            APPROVED      TRIAL
HIPR2      1109      126-002-000        126-002-000   126-003-000
HIPR2      1110      126-002-000        126-002-000   126-003-000
HIPR2      1209      126-002-000        126-002-000   126-003-000
HIPR2      1210      126-002-000        126-002-000   126-003-000
HIPR2      1309      126-002-000        126-002-000   126-003-000
HIPR2      1310      126-002-000        126-002-000   126-003-000
HIPR2      2109      126-002-000        126-002-000   126-003-000
HIPR2      2110      126-002-000        126-002-000   126-003-000
Command Completed
```

   If HIPR2 cards are installed at card locations 9 and 10 in the shelf where the E5-TSM will be installed, continue the procedure with *Step 7*.

   If HIPR or HIPR2 cards are not installed in the shelf where the E5-TSM will be installed, refer to *Installation* to install the HIPR or HIPR2 cards. Once the HIPR or HIPR2 cards have been installed, continue the procedure with *Step 7*.

7. 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 *Step 8*.

If the GLS card is not in the required card location, continue with *Step 8*.

**Caution:** If the versions of the flash GPLs on the E5-TSM do not match the flash GPL versions in the database when the E5-TSM 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 Manual* before proceeding with this procedure.

8. Add the GLS card to the database using the `ent-card` command.

   For this example, enter this command.

   ```
   ent-card:loc=1212:type=tsm: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
```

9. 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      APPL      LSET NAME     LINK SLC  LSET NAME     LINK SLC
1212   TSM       GLS
```

10. Put the card in service using the `rst-card` command with the card location specified in *Step 8* . For this example, enter this command.

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

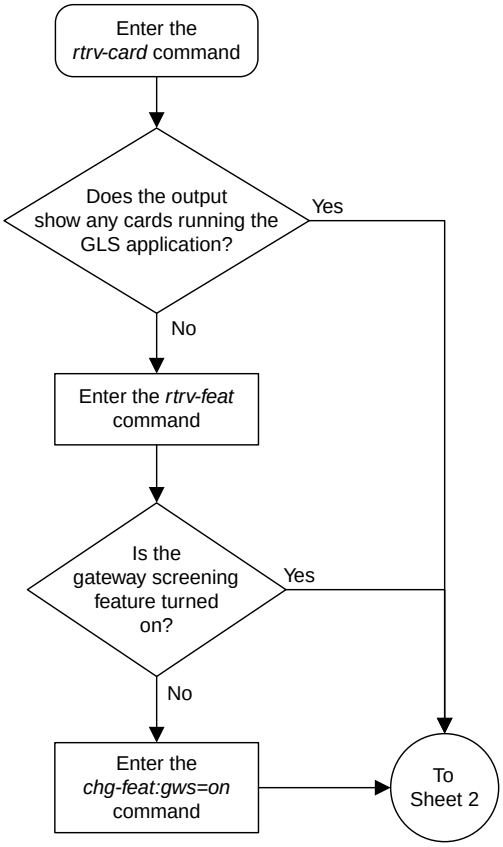
    When this command has successfully completed, this message should appear.

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

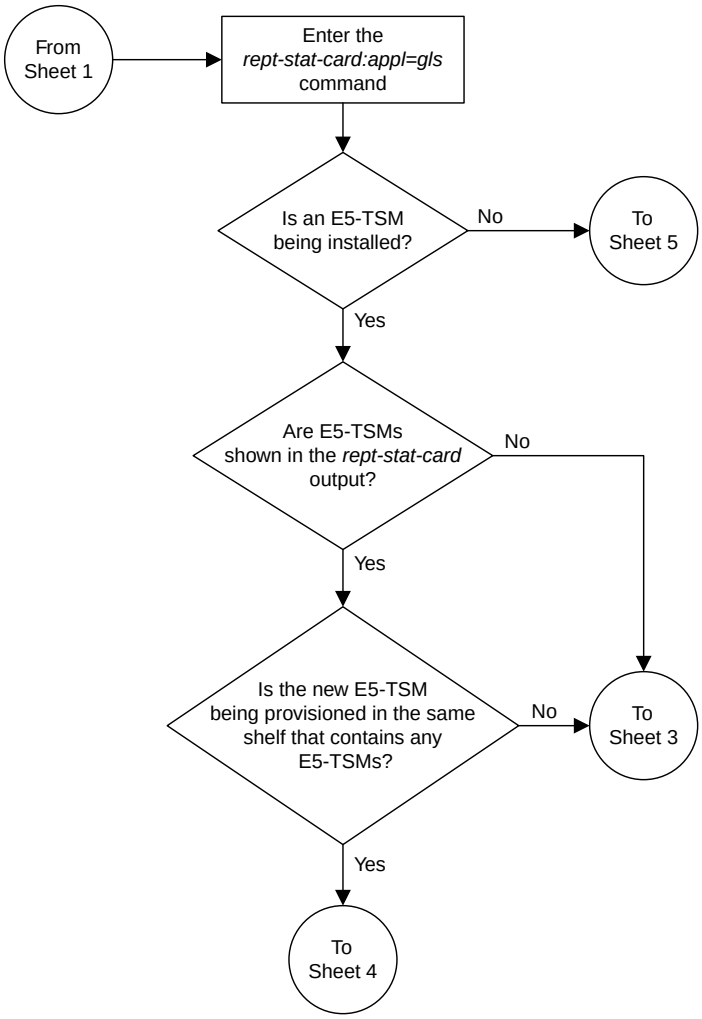
11. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

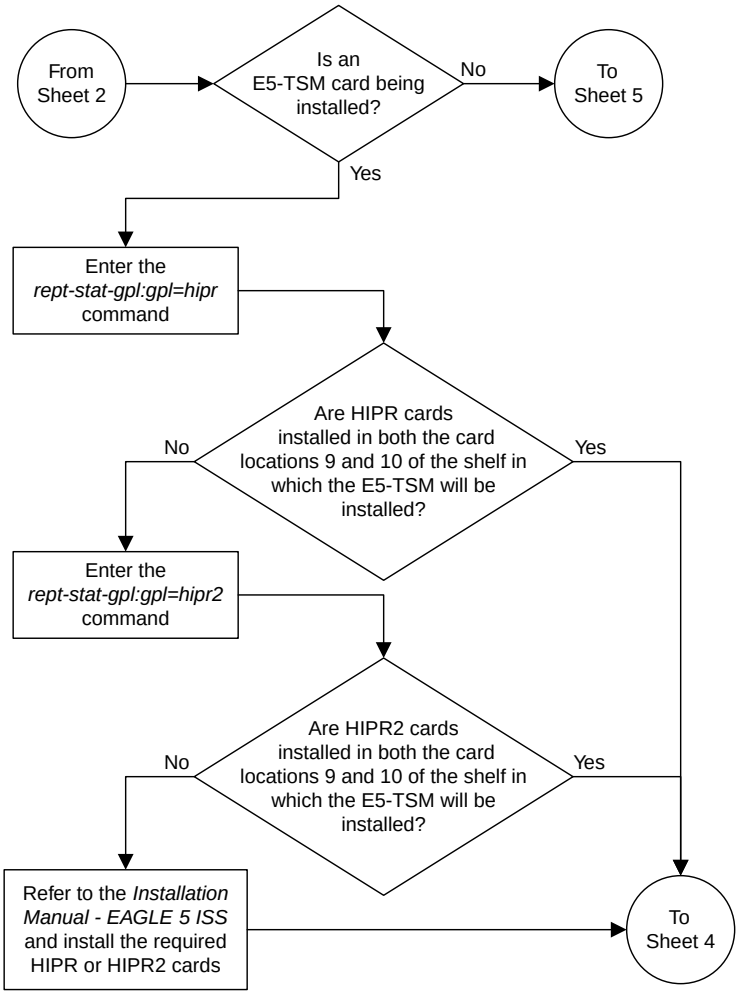
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


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

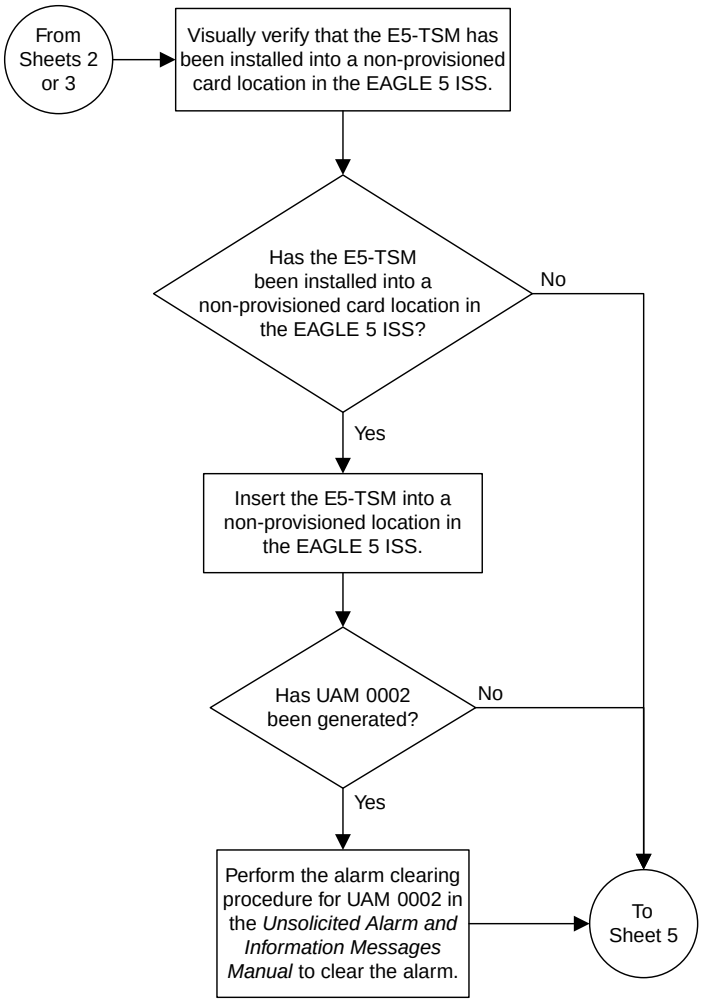
Sheet 1 of 5


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

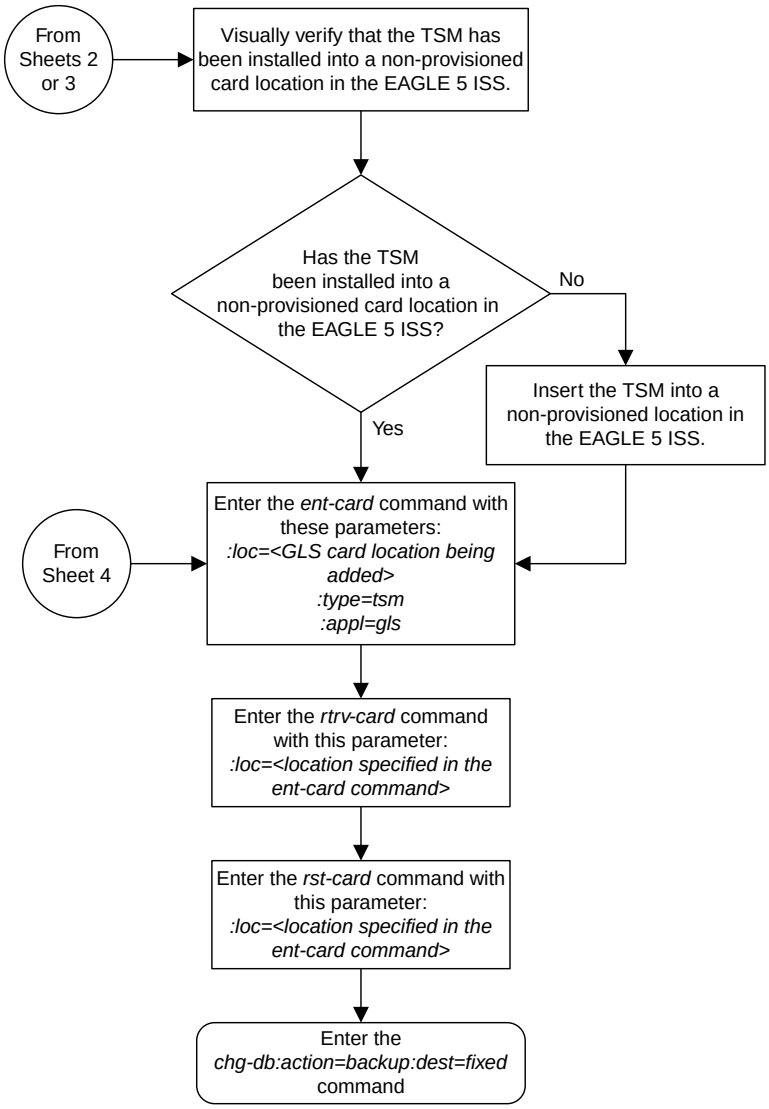
Sheet 2 of 5


From Sheet 2
Is an E5-TSM card being installed?
No
To Sheet 5
Yes
Enter the *rept-stat-gpl:gpl=hipr* command
Are HIPR cards installed in both the card locations 9 and 10 of the shelf in which the E5-TSM will be installed?
No
Yes
Enter the *rept-stat-gpl:gpl=hipr2* command
Are HIPR2 cards installed in both the card locations 9 and 10 of the shelf in which the E5-TSM will be installed?
No
Yes
Refer to the *Installation Manual - EAGLE 5 ISS* and install the required HIPR or HIPR2 cards
To Sheet 4

Sheet 3 of 5


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

Sheet 4 of 5


From Sheets 2 or 3
Visually verify that the TSM has been installed into a non-provisioned card location in the EAGLE 5 ISS.
Has the TSM been installed into a non-provisioned card location in the EAGLE 5 ISS?
No
Yes
Insert the TSM into a non-provisioned location in the EAGLE 5 ISS.
From Sheet 4
Enter the ent-card command with these parameters:
:loc=<GLS card location being added>
:type=tsm
:appl=gls
Enter the rtrv-card command with this parameter:
:loc=<location specified in the ent-card command>
Enter the rst-card command with this parameter:
:loc=<location specified in the ent-card command>
Enter the chg-db:action=backup:dest=fixed command

Sheet 5 of 5

**Figure 11: Adding a GLS Card to the Database**

## 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 `rept-stat-card` command can be canceled.

- Press the `F9` function key on the keyboard at the terminal where the `rept-stat-card` command was entered.
- Enter the `canc-cmd` without the `trm` parameter at the terminal where the `rept-stat-card` command was entered.
- Enter the `canc-cmd:trm=<xx>`, where `<xx>` is the terminal where the `rept-stat-card` command was entered, from another terminal other that the terminal where the `rept-stat-card` 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 the *Commands Manual*.

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
1103   DCM       STPLAN
1104   DCM       STPLAN
1113   E5MCAP    OAMHC
1114   E5TDM-A
1115   E5MCAP    OAMHC
1116   E5TDM-B
1117   E5MDAL
1201   LIMDS0    SS7ANSI   lsn1          A    0    lsn2          B    1
1203   LIMDS0    SS7ANSI   lsn2          A    0    lsn1          B    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.

```
rlghncxa03w 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    -----
1103  110-002-000  DCM     STPLAN    IS-NR         Active    -----
1104  110-002-000  DCM     STPLAN    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 `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.
```

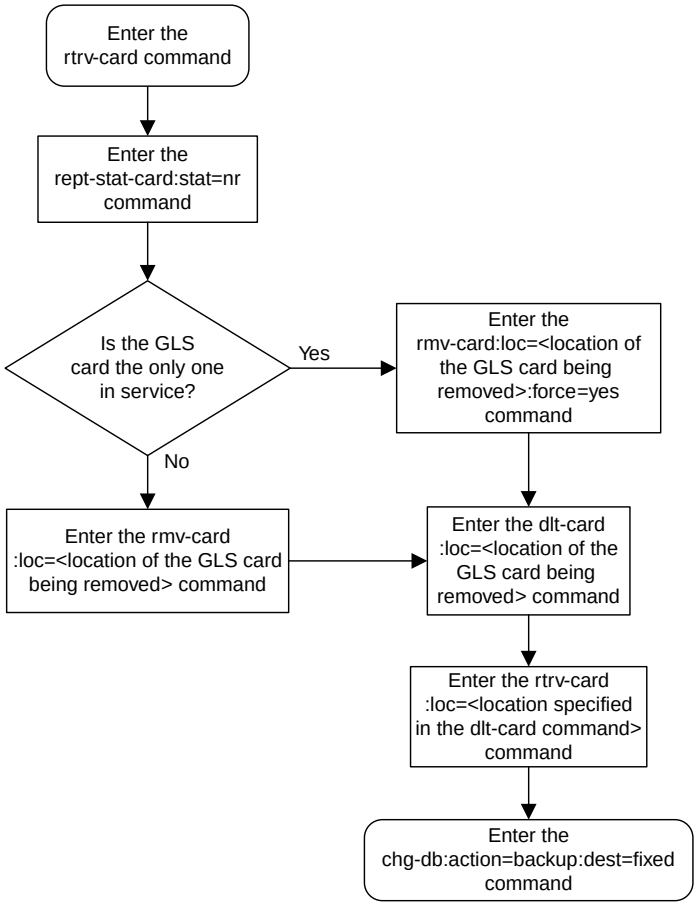



**Figure 12: Removing a GLS Card**

## 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 Manual*.

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 TSM and 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.
2. 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=89305601:fak=<Feature Access Key>`.
4. Enter `chg-ctrl-feat:partnum=8935601: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 `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. 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.

- COPY – copy the MSU for the STPLAN feature
- 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 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
- 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.

**Caution:** When Gateway Screening is in the screen test mode, as defined by the linkset parameters `gwsa=off` and `gwsm=on`, 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.

`:act1` to `:act10` – The ten gateway screening stop actions for each gateway screening stop action set. Gateway screening stop action 1 (`act1`) is the first stop action to be performed and gateway screening stop action 10 (`act10`) 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 11: Gateway Screening Stop Action Definitions If the CNCF Feature Is Off*.

**Table 11: 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 |
|---|---|---|---|---|
| 1 | copy | copy | — | copy the MSU for the STPLAN feature |
| 2 | rdct | rdct | — | redirect the MSU for the DTA feature |
| 3 | cr | copy | rdct | copy the MSU for the STPLAN feature and 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 12: Gateway Screening Stop Action Set Parameter Combinations* 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 12: Gateway Screening Stop Action Set Parameter Combinations**

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

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

   **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, see the `rtrv-feat` command description in *Commands Manual*.

   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
   ```

   **Note:** 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.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0
ACT  ACT    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

GWS action set table is (3 of 16) 19% full
```

   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 *Step 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 *Step 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 *Step 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 12: Gateway Screening Stop Action Set Parameter Combinations* 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 *Step 5*. If only the TIF, TIF2, or TIF3 stop actions will be specified for a gateway screening stop action set, continue the procedure with *Step 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 *Step 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 *Step 3*, or if the `rtrv-feat` output in *Step 1* shows that the CNCF feature is on, continue the procedure with *Step 6*. If the CNCF feature is not turned on, shown by the `CNCF = off` entry in the `rtrv-feat` command output in *Step 1*, turn it on by entering this command.

   `chg-feat:cncf=on`

   **Note:** Once the calling name conversion facility 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 15:29:30 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 *Step 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 *Step 3*, continue the procedure with *Step 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 *Step 3*, continue the procedure with *Step 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

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 *Step 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 *Step 7*.

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

   *Table 12: Gateway Screening Stop Action Set Parameter Combinations* 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-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 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 in this manual.

   **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.

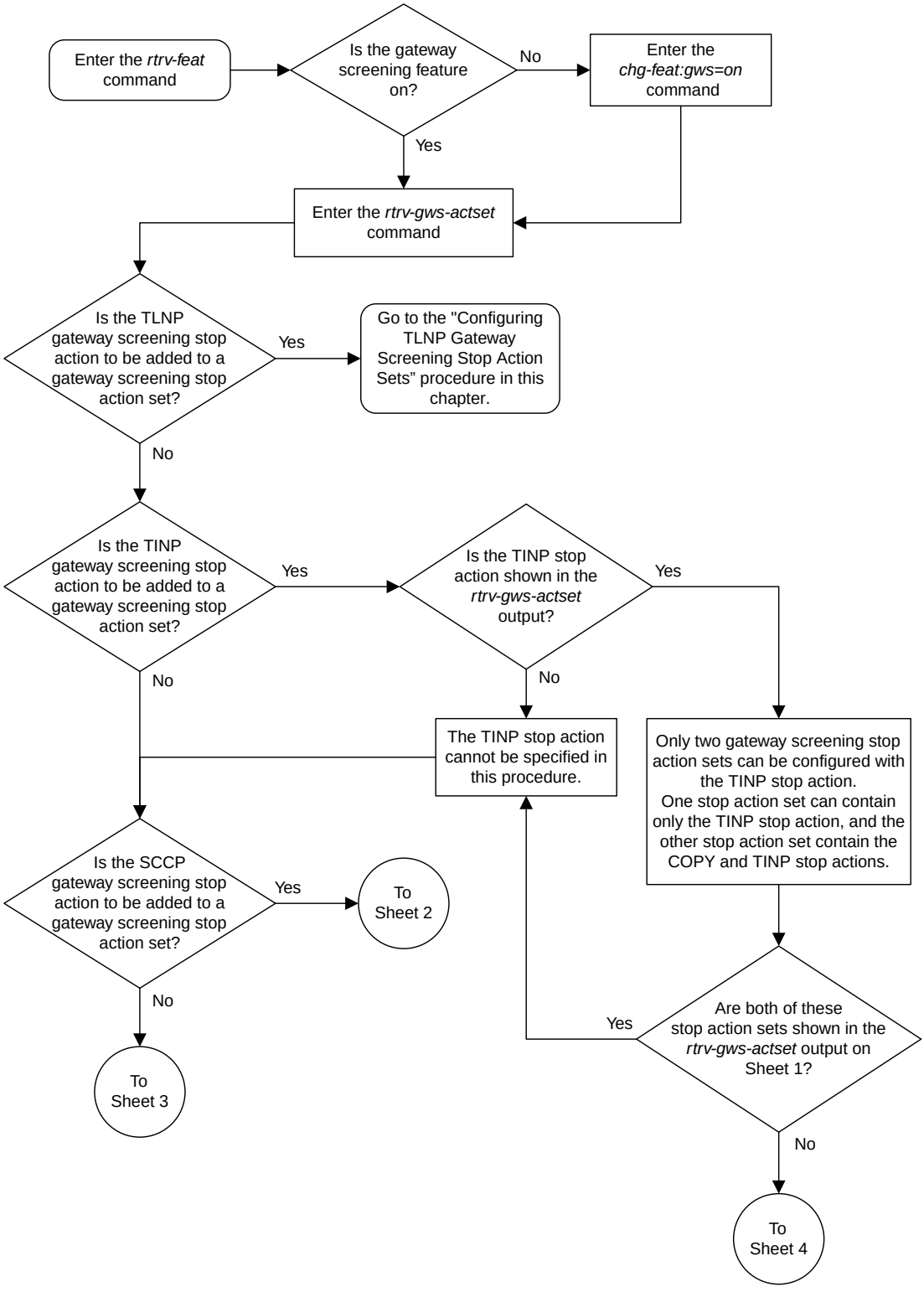
   This is an example of the possible output.

```
rlghncxa03w 09-07-25 15:31:30 GMT EAGLE5 41.1.0
ACT  ACT    ACT  ACT  ACT  ACT  ACT  ACT  ACT  ACT  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    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
```

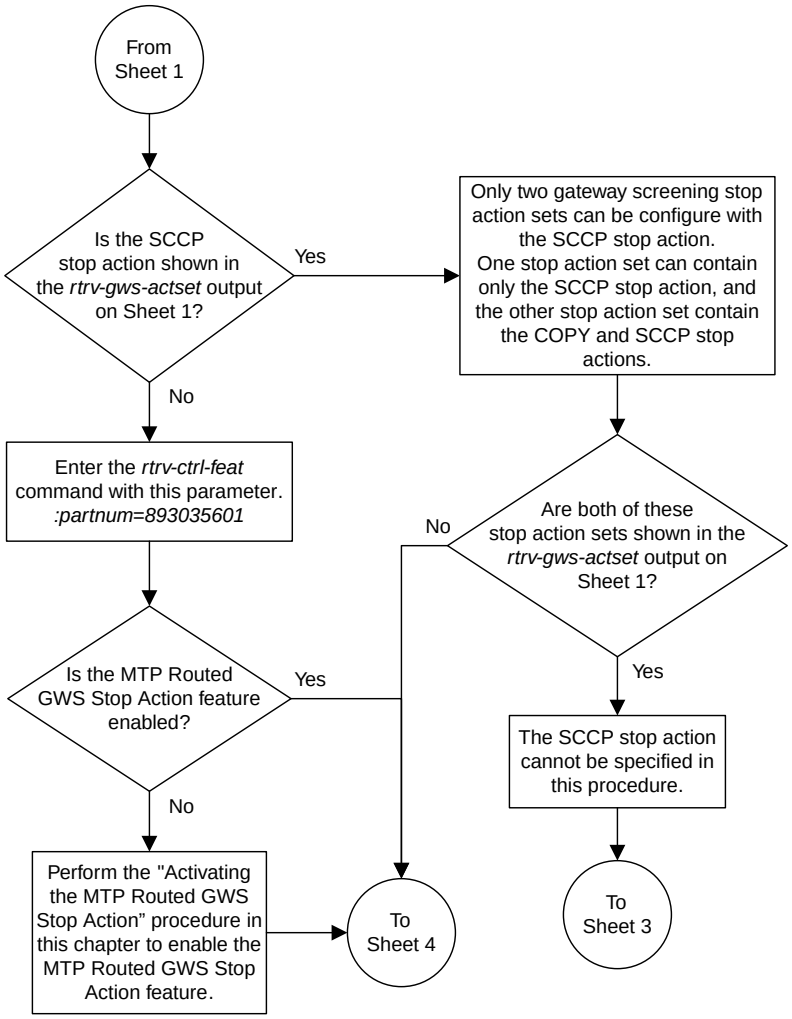
9. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

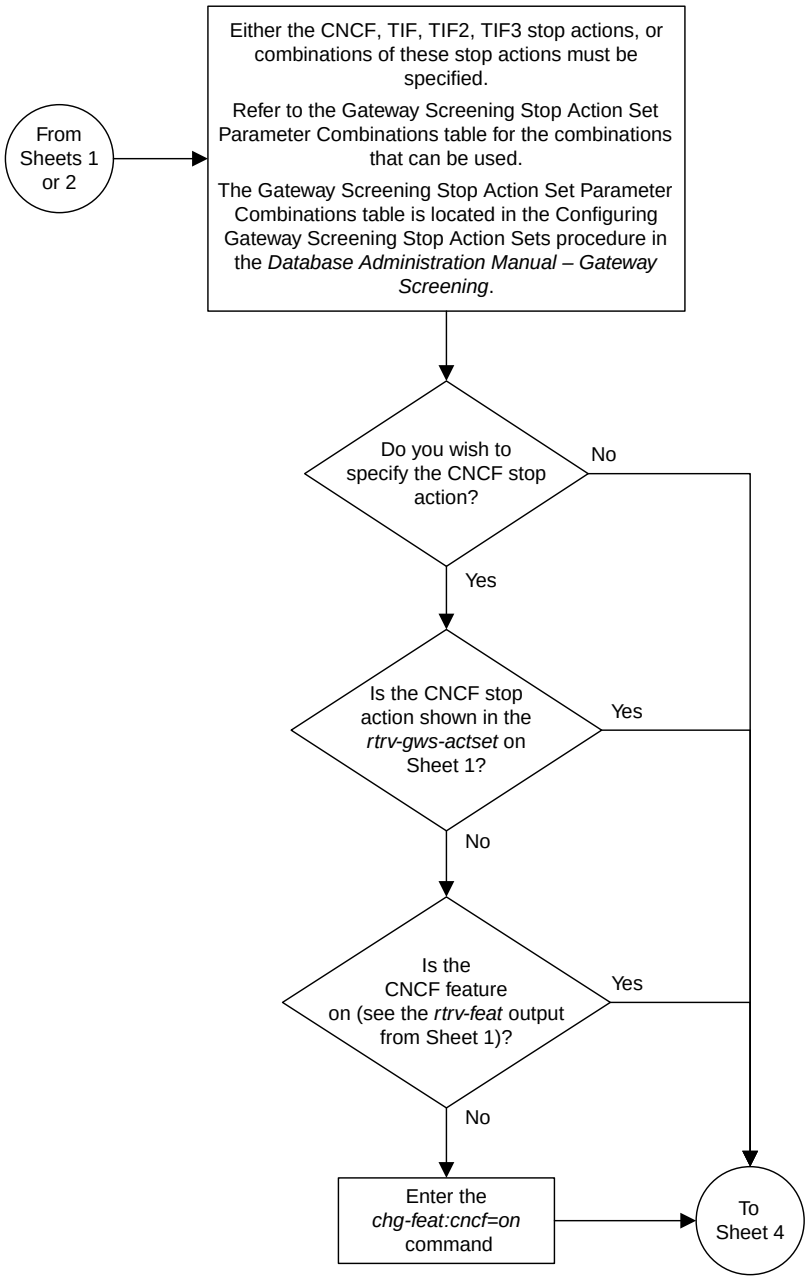
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the *rtrv-feat* command
Is the gateway screening feature on?
No
Enter the *chg-feat:gws=on* command
Yes
Enter the *rtrv-gws-actset* command
Is the TLNP gateway screening stop action to be added to a gateway screening stop action set?
Yes
Go to the "Configuring TLNP Gateway Screening Stop Action Sets" procedure in this chapter.
No
Is the TINP gateway screening stop action to be added to a gateway screening stop action set?
Yes
Is the TINP stop action shown in the *rtrv-gws-actset* output?
Yes
No
No
The TINP stop action cannot be specified in this procedure.
Only two gateway screening stop action sets can be configured with the TINP stop action.
One stop action set can contain only the TINP stop action, and the other stop action set contain the COPY and TINP stop actions.
Is the SCCP gateway screening stop action to be added to a gateway screening stop action set?
Yes
To Sheet 2
No
To Sheet 3
Yes
Are both of these stop action sets shown in the *rtrv-gws-actset* output on Sheet 1?
No
To Sheet 4

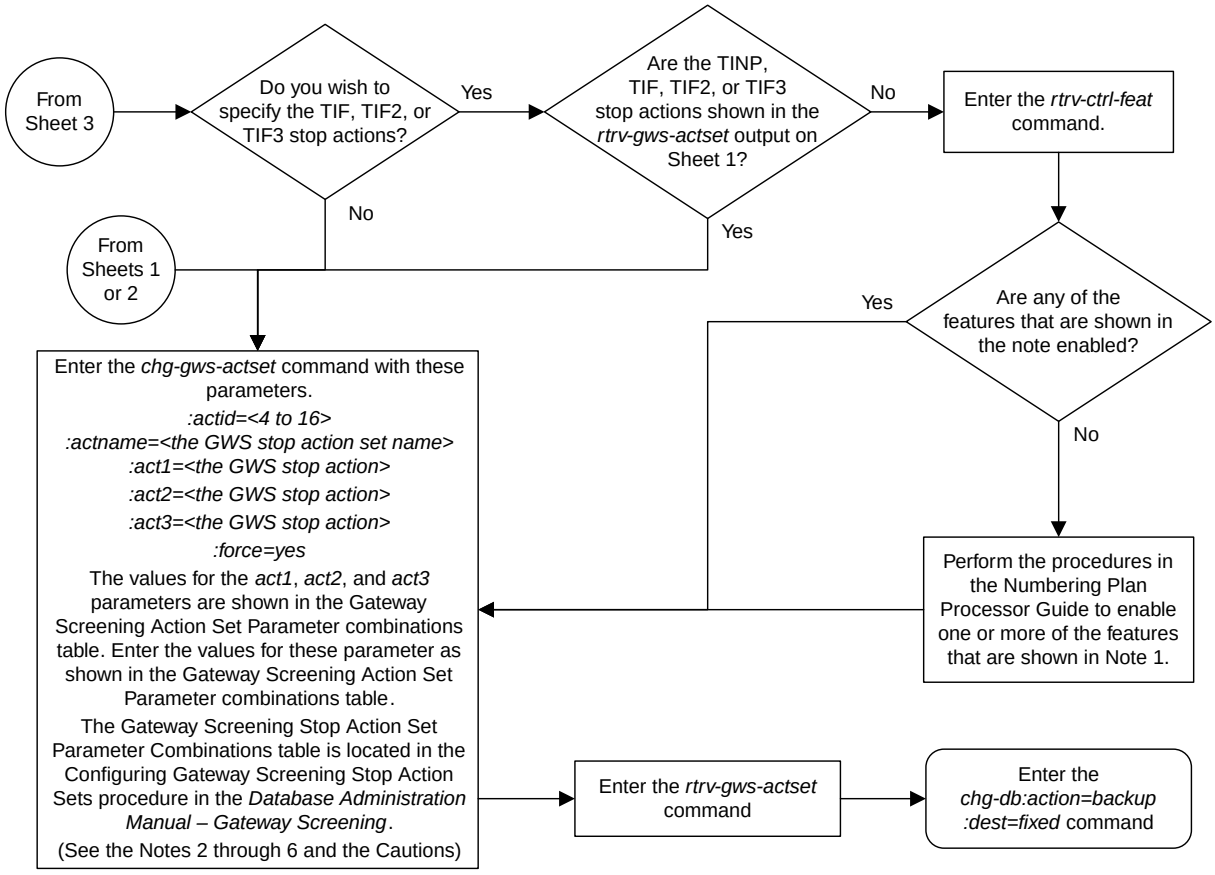
Sheet 1 of 4


From Sheet 1
Is the SCCP stop action shown in the *rtrv-gws-actset* output on Sheet 1?
Yes
Only two gateway screening stop action sets can be configure with the SCCP stop action. One stop action set can contain only the SCCP stop action, and the other stop action set contain the COPY and SCCP stop actions.
No
Enter the *rtrv-ctrl-feat* command with this parameter. *:partnum=893035601*
Are both of these stop action sets shown in the *rtrv-gws-actset* output on Sheet 1?
No
Is the MTP Routed GWS Stop Action feature enabled?
Yes
Yes
The SCCP stop action cannot be specified in this procedure.
No
Perform the "Activating the MTP Routed GWS Stop Action" procedure in this chapter to enable the MTP Routed GWS Stop Action feature.
To Sheet 4
To Sheet 3

Sheet 2 of 4


From Sheets 1 or 2
Either the CNCF, TIF, TIF2, TIF3 stop actions, or combinations of these stop actions must be specified.
Refer to the Gateway Screening Stop Action Set Parameter Combinations table for the combinations that can be used.
The Gateway Screening Stop Action Set Parameter Combinations table is located in the Configuring Gateway Screening Stop Action Sets procedure in the *Database Administration Manual – Gateway Screening*.
Do you wish to specify the CNCF stop action?
No
Yes
Is the CNCF stop action shown in the *rtrv-gws-actset* on Sheet 1?
Yes
No
Is the CNCF feature on (see the *rtrv-feat* output from Sheet 1)?
Yes
No
Enter the *chg-feat:cncf=on* command
To Sheet 4

Sheet 3 of 4




Notes:

1. The features that must be enabled to specify the TIF, TIF2, or TIF3 stop actions in this procedure are:

   893018901 – TIF Number Portability

   893022202 – TIF SCS Forwarding

   893024001 – TIF Simple Number Substitution.

2. The *force=yes* parameter must be specified with the *chg-gws-actset* command if an existing GWS stop action set is being changed.

3. 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.

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*, *trv-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 in this chapter.**

**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.**

**3. 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.**

Sheet 4 of 4

**Figure 13: Configuring Gateway Screening Stop Action Sets**

## 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.

- COPY – copy the MSU for the STPLAN feature
- 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 *Feature Manual - G-Port*. The Triggerless LNP feature is discussed in more detail in *ELAP Administration and LNP Feature Activation*.

  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 *Feature Manual - G-PORT*.

**Caution:** When Gateway Screening is in the screen test mode, as defined by the linkset parameters `gwsa=off` and `gwsm=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 13: Sample TLNP Gateway Screening Stop Action Set Configuration**

| ACTID | ACTNAME | ACT1 | ACT2 | ACT3 |
|---|---|---|---|---|
| 4 | TLNP | tlnp | — | — |
| 5 | CPNP | copy | 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.

   **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, see the rtrv-feat command description in *Commands Manual*.

   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
   ```

   **Note:** 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.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0
ACT  ACT    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

GWS action set table is (3 of 16) 19% full
```

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 ISUPNP 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              Partnum
Zero entries found.
```

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*.

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* 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 the *Feature Manual - G-Port* and enable the G-Port feature. Then go to step 5.

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

**Note:** If the `rtrv-ctrl-feat` output in step 4 shows any controlled features, skip steps 5, 6, 7, and 8, and go to step 9.

**Note:** If the `rtrv-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 = ntxxxxxxxxxxxx

System serial number is not locked.

rlghncxa03w 06-10-30 21:15:37 GMT EAGLE5 36.0.0
Command Completed
```

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

   **Note:** 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 5 ISS'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
```

7. 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 5 ISS'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
```

9. 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>
   ```

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

   When the `enable-ctrl-feat` 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         ----
```

    **Note:** If the TLNP feature is on, shown in the `rtrv-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
    ```

    **Note:** 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 `chg-gws-actset` command.

    For this example, enter these commands based on the sample configuration shown in *Table 13: Sample TLNP Gateway Screening Stop Action Set Configuration*.

    `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 14: Gateway Screening Retrieve Commands* 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 14: 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.

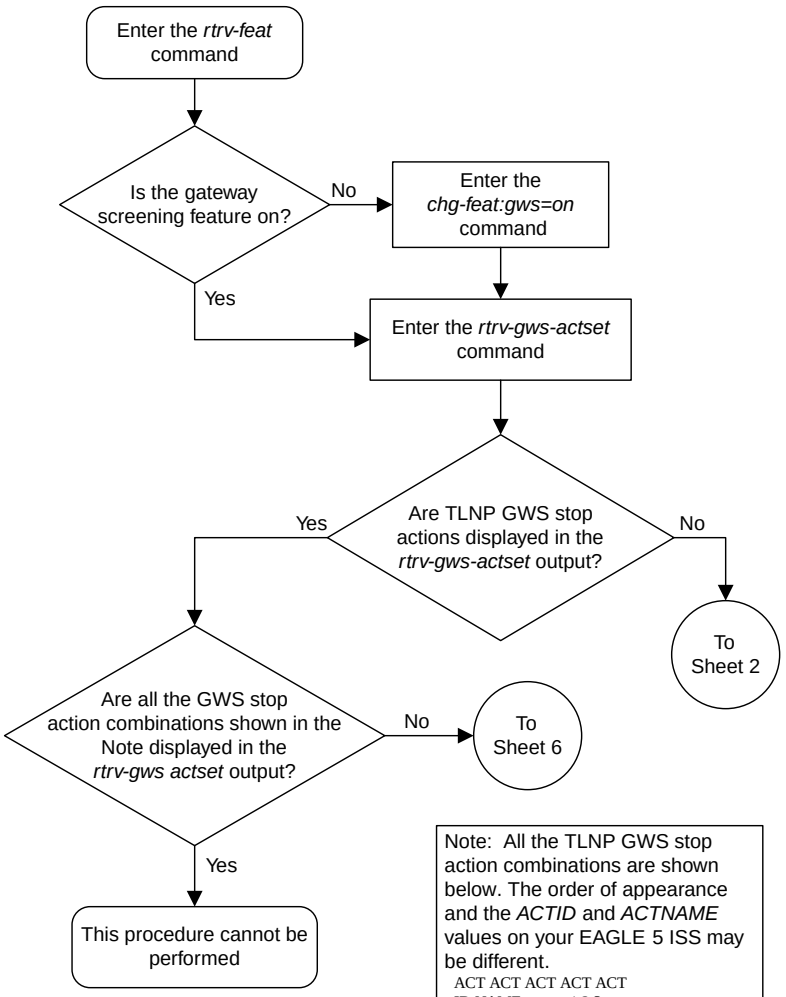
This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:31:30 GMT EAGLE5 36.0.0
ACT  ACT    ACT  ACT  ACT  ACT  ACT  ACT  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    tlnp   tlnp
5    cpnp   copy tlnp

GWS action set table is (5 of 16) 31% full
```

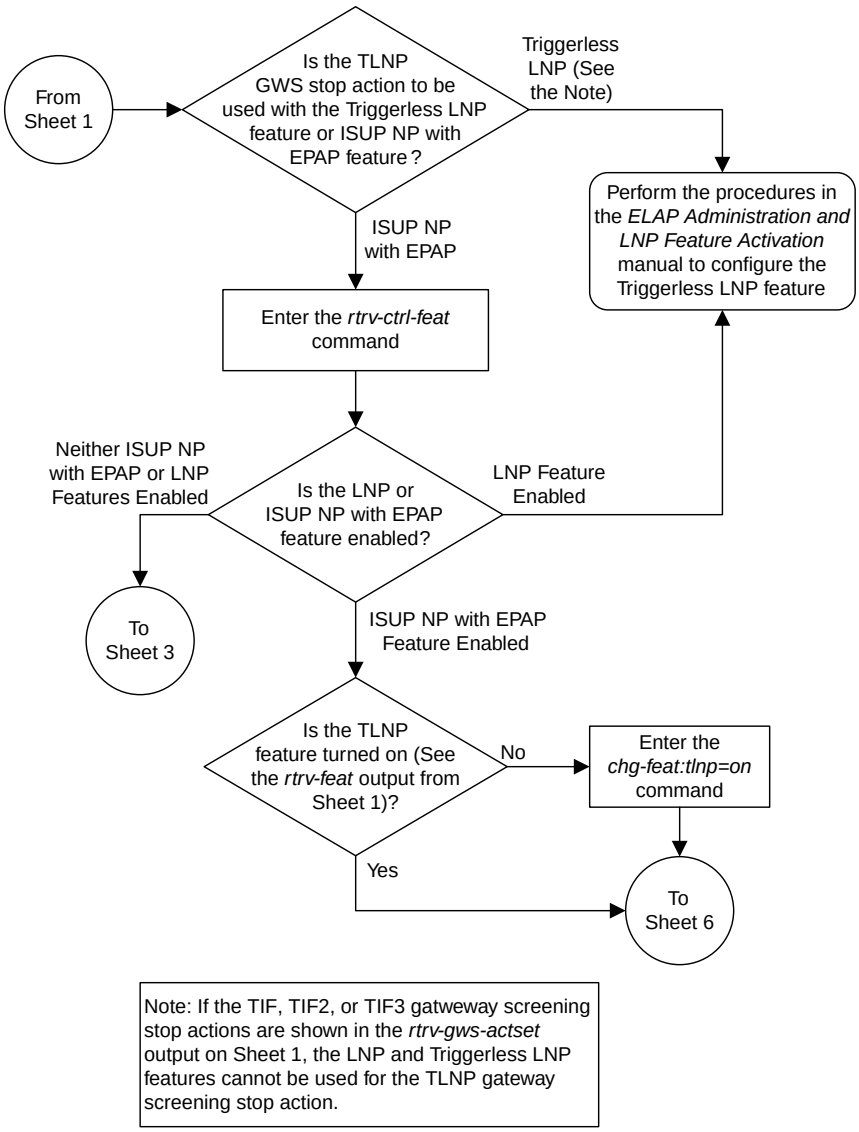
14. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

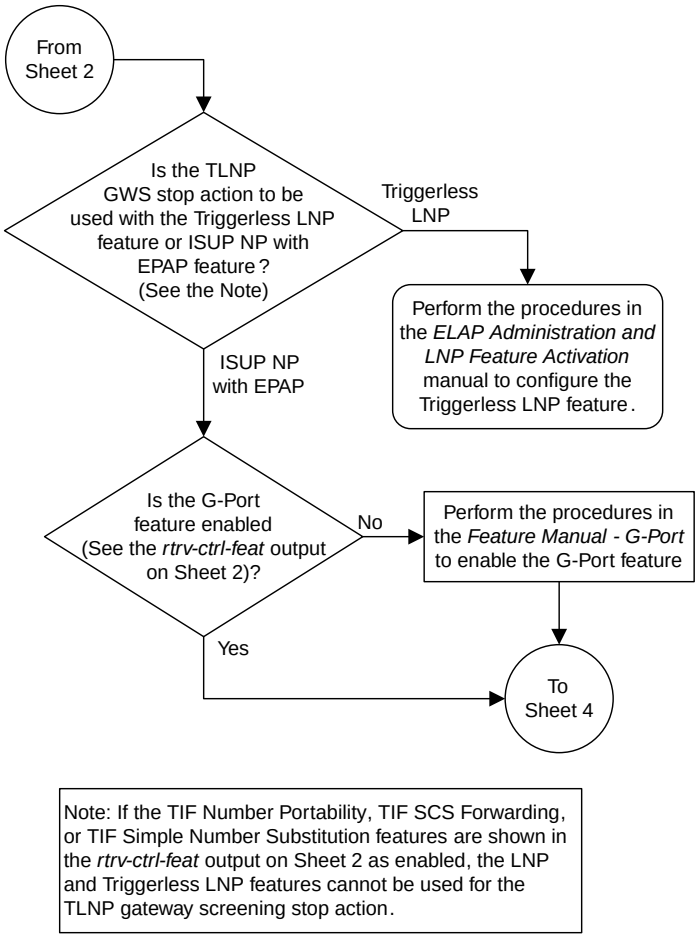
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the *rtrv-feat* command
Is the gateway screening feature on?
No
Enter the *chg-feat:gws=on* command
Yes
Enter the *rtrv-gws-actset* command
Are TLNP GWS stop actions displayed in the *rtrv-gws-actset* output?
Yes
No
To Sheet 2
Are all the GWS stop action combinations shown in the Note displayed in the *rtrv-gws actset* output?
No
To Sheet 6
Yes
This procedure cannot be performed
Note: All the TLNP GWS stop action combinations are shown below. The order of appearance and the *ACTID* and *ACTNAME* values on your EAGLE 5 ISS may be different.
ACT ACT ACT ACT ACT
ID NAME 1 2 3
-- ------ ---- ---- ----
5 tlnp tlnp ---- ----
6 tlcp copy tlnp ----

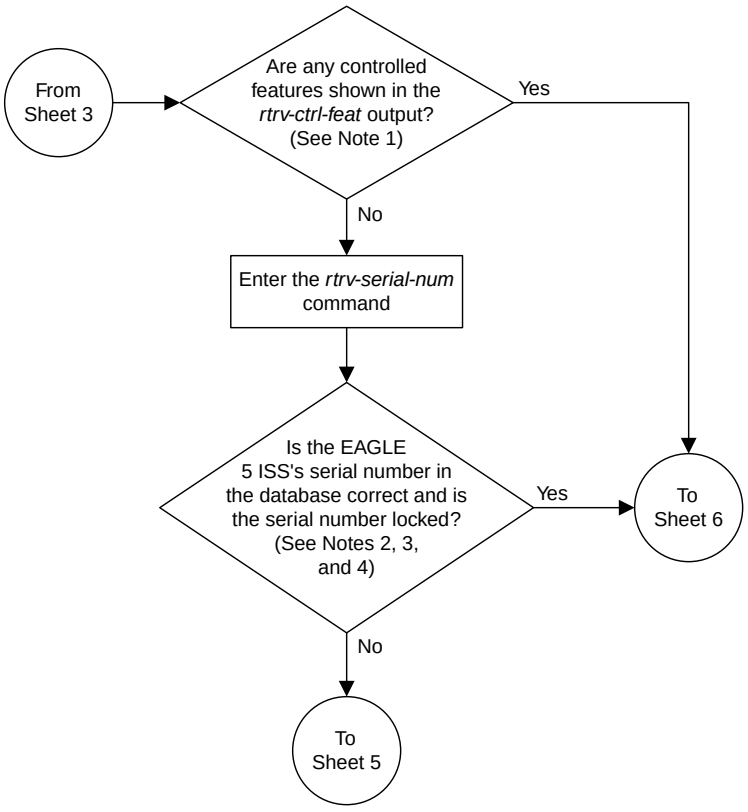
Sheet 1 of 7


From Sheet 1
Is the TLNP GWS stop action to be used with the Triggerless LNP feature or ISUP NP with EPAP feature ?
Triggerless LNP (See the Note)
Perform the procedures in the *ELAP Administration and LNP Feature Activation* manual to configure the Triggerless LNP feature
ISUP NP with EPAP
Enter the *rtrv-ctrl-feat* command
Neither ISUP NP with EPAP or LNP Features Enabled
Is the LNP or ISUP NP with EPAP feature enabled?
LNP Feature Enabled
To Sheet 3
ISUP NP with EPAP Feature Enabled
Is the TLNP feature turned on (See the *rtrv-feat* output from Sheet 1)?
No
Enter the *chg-feat:tlnp=on* command
Yes
To Sheet 6
Note: If the TIF, TIF2, or TIF3 gatweway screening stop actions are shown in the *rtrv-gws-actset* output on Sheet 1, the LNP and Triggerless LNP features cannot be used for the TLNP gateway screening stop action.

Sheet 2 of 7


From Sheet 2
Is the TLNP GWS stop action to be used with the Triggerless LNP feature or ISUP NP with EPAP feature? (See the Note)
Triggerless LNP
Perform the procedures in the *ELAP Administration and LNP Feature Activation* manual to configure the Triggerless LNP feature.
ISUP NP with EPAP
Is the G-Port feature enabled (See the *rtrv-ctrl-feat* output on Sheet 2)?
No
Perform the procedures in the *Feature Manual - G-Port* to enable the G-Port feature
Yes
To Sheet 4
Note: If the TIF Number Portability, TIF SCS Forwarding, or TIF Simple Number Substitution features are shown in the *rtrv-ctrl-feat* output on Sheet 2 as enabled, the LNP and Triggerless LNP features cannot be used for the TLNP gateway screening stop action.

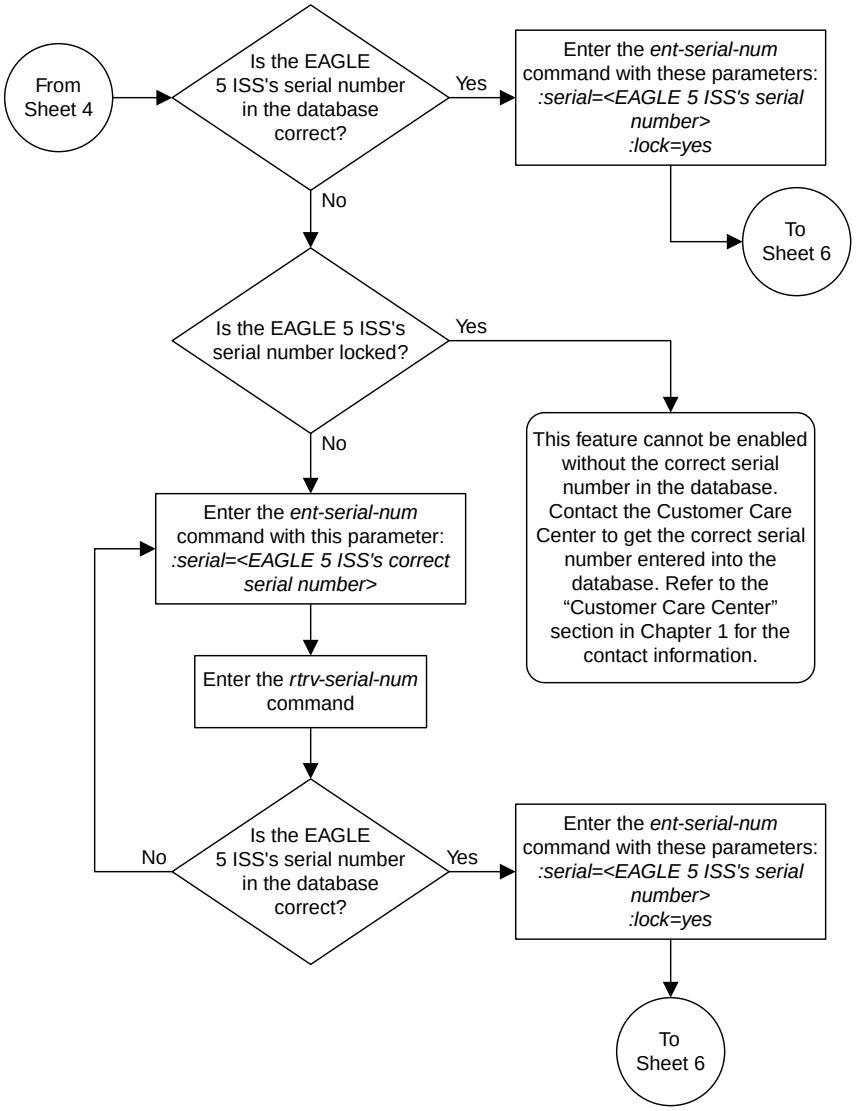
Sheet 3 of 7



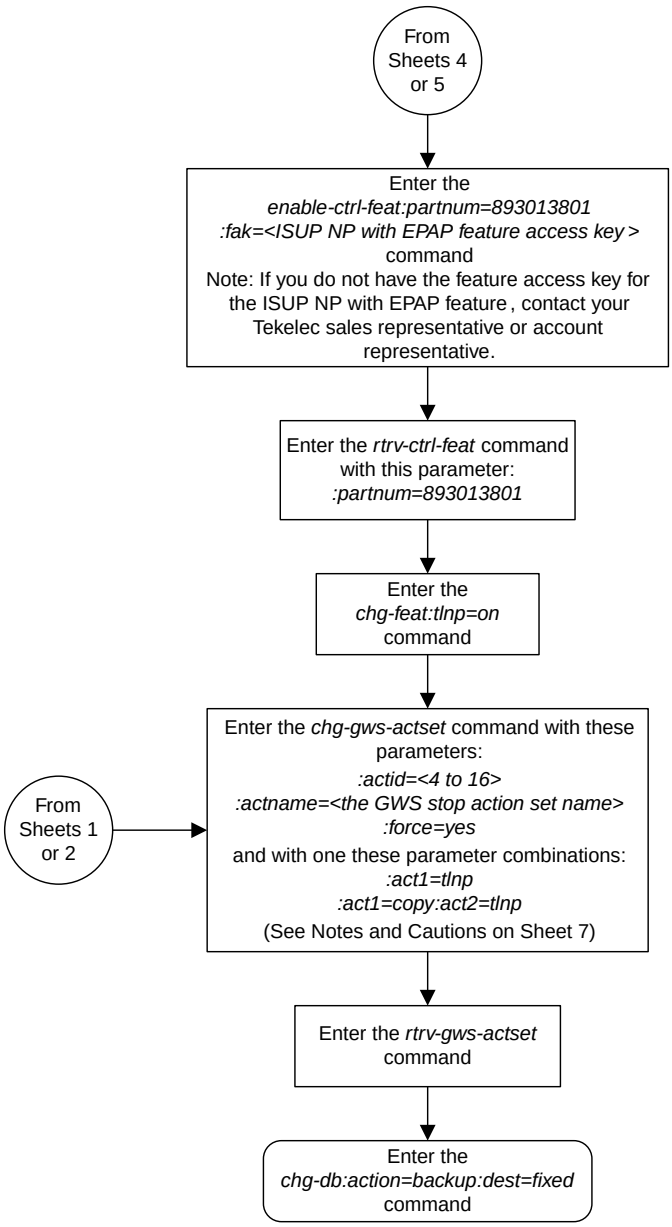

Notes:

1. If the *rtrv-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 *rtrv-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).

Sheet 4 of 7


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

Sheet 5 of 7


From Sheets 4 or 5
Enter the *enable-ctrl-feat:partnum=893013801 :fak=<ISUP NP with EPAP feature access key >* command
Note: If you do not have the feature access key for the ISUP NP with EPAP feature , contact your Tekelec sales representative or account representative.
Enter the *rtrv-ctrl-feat* command with this parameter: *:partnum=893013801*
Enter the *chg-feat:tlnp=on* command
From Sheets 1 or 2
Enter the *chg-gws-actset* command with these parameters:
*:actid=<4 to 16>*
*:actname=<the GWS stop action set name>*
*:force=yes*
and with one these parameter combinations:
*:act1=tlnp*
*:act1=copy:act2=tlnp*
(See Notes and Cautions on Sheet 7)
Enter the *rtrv-gws-actset* command
Enter the *chg-db:action=backup:dest=fixed* command

Sheet 6 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*, r*trv-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.**

Sheet 7 of 7

**Figure 14: Configuring TLNP Gateway Screening Stop Action Sets**

## 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 `chg-gws-actset` 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  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    cncf   cncf
5    cpnf   copy cncf
6    cfrd   copy cncf rdct
7    cnrd   cncf rdct
8    tlnp   tlnp
9    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 `chg-gws-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 `chg-gws-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.

```
rlghncxa03w 06-10-25 15:31:30 GMT EAGLE5 36.0.0
ACT  ACT    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
9    cpnp   copy tlnp

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

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.
```

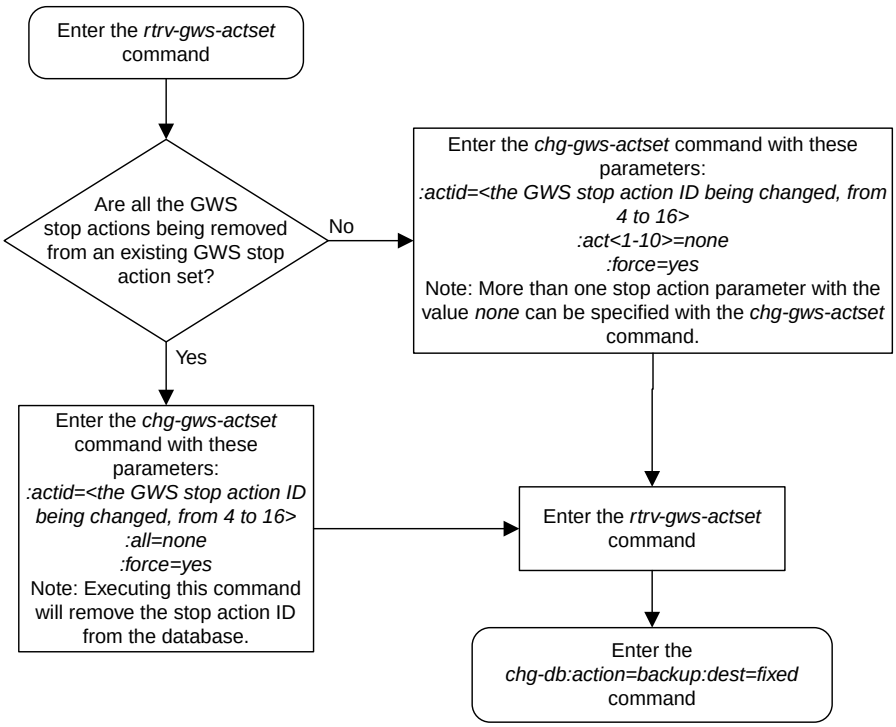



**Figure 15: Removing Gateway Screening Stop Action Sets**

## 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 the *Commands Manual*.

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 15:26:30 GMT EAGLE5 41.0.0
                              L3T SLT                GWS GWS GWS
LSN          APCA   (SS7)  SCRN  SET SET BEI LST LNKS ACT MES DIS SLSCI NIS
lsa1         240-020-000   ss01  1   1   yes A   1    off off off no    off
lsa2         240-030-000   ss02  1   2   no  C   3    on  on  on  yes   off
lsa3         240-040-000   ss03  1   3   yes C   5    off off off yes   off
ln123556     240-050-000   ss01  1   8   yes C   5    on  on  on  yes   off
op239900     240-060-000   ss01  1   7   yes C   5    on  on  on  yes   off
wy234456     240-070-000   ss01  1   6   yes C   5    on  on  on  yes   off
wy644368     240-080-000   ss01  1   5   yes C   5    on  on  on  yes   off

                              L3T SLT                GWS GWS GWS
LSN          APCI   (SS7)  SCRN  SET SET BEI LST LNKS ACT MES DIS SLSCI NIS
lsi1         1-111-1       ss01  1   1   yes A   1    off off off ---   ---
lsi2         1-111-2       ss02  1   2   no  C   3    on  on  on  ---   ---
lsi3         1-111-3       ss03  1   3   yes C   5    off off off ---   ---

                              L3T SLT                GWS GWS GWS
LSN          APCN   (SS7)  SCRN  SET SET BEI LST LNKS ACT MES DIS SLSCI NIS
lsn1         11111         ss01  1   1   yes A   1    off off off ---   off
lsn2         11112         ss02  1   2   no  C   3    on  on  on  ---   off
lsn3         11113         ss03  1   3   yes C   5    off off off ---   off

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 the *Database Administration Manual - SS7* to change the GWSA value of the linkset. Continue the procedure with *Step 3*.

If the GWSA value of the linkset is yes, continue the procedure with *Step 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.
```

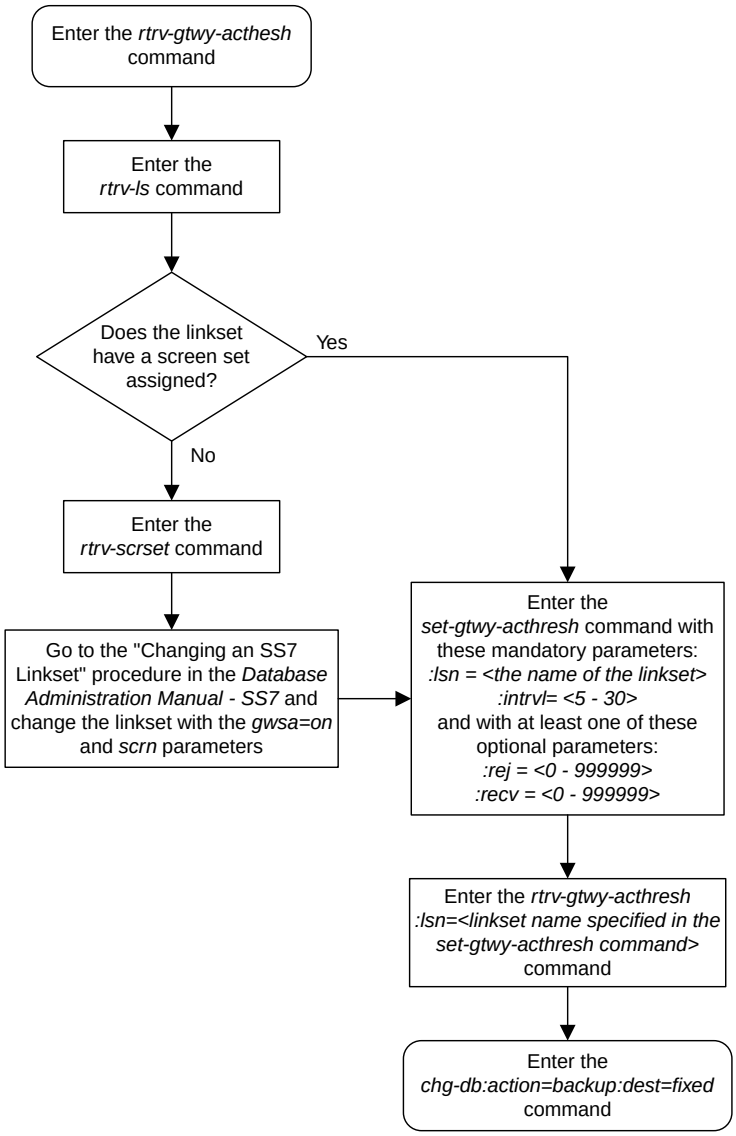



**Figure 16: Setting the Threshold for Reporting Gateway Screening Activity**

## 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 5 ISS 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 5 ISS 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 5 ISS 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
```

2. 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 `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.
```

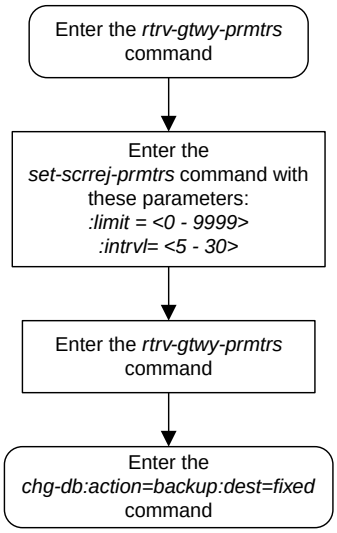



**Figure 17: Setting the Maximum Number of Gateway Screening Rejected Messages**

## 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.

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 5 ISS, making the feature access key site-specific.

The `enable-ctrl-feat` 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 Tekelec. The feature access key contains 13 alphanumeric characters and is not case sensitive.

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

The `enable-ctrl-feat` command requires that the database contain a valid serial number for the EAGLE 5 ISS, and that this serial number is locked. This can be verified with the `rtrv-serial-num` command. The EAGLE 5 ISS 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 5 ISS is on-site, with the `ent-serial-num` command. The `ent-serial-num` command uses these parameters.

`:serial` – The serial number assigned to the EAGLE 5 ISS. 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 5 ISS's serial number, the `ent-serial-num` command must be entered twice, once to add the correct serial number to the database with the `serial` parameter, then again with the `serial` and the `lock=yes` 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 `chg-ctrl-feat` command. The `chg-ctrl-feat` command uses these parameters.

`:partnum` – The Tekelec-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 5 ISS 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.

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

```
The following features have been permanently enabled:

Feature Name              Partnum    Status  Quantity
Command Class Management  893005801  on      ----
LNP Short Message Service 893006601  on      ----
Intermed GTT Load Sharing 893006901  on      ----
XGTT Table Expansion      893006101  on      400000
XMAP Table Expansion      893007710  off     ----
Large System # Links      893005910  on      2000
Routesets                 893006401  on      6000
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 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 *Step 8*.

If the MTP Routed GWS Stop Action feature is not enabled, continue the procedure with *Step 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 the *Commands Manual*.

   If the GTT feature is off, perform the "Adding a Service Module" procedure in the *Database Administration Manual - Global Title Translation* 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 *Step 7*.
   - If the `rtrv-ctrl-feat` output shows only the HC-MIM SLK Capacity feature with a quantity of 64, continue the procedure with *Step 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 *Step 7*. If the serial number is correct but not locked, continue the procedure with *Step 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 5 ISS'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 *Step 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 *Step 4* and *Step 5* and re-enter the correct serial number.

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

   For this example, enter this command.

   `ent-serial-num:serial=<EAGLE 5 ISS'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 Tekelec. If you do not have the feature access key for the MTP Routed GWS Stop Action feature, contact your Tekelec 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 in *Step 8*.

8. Turn the MTP Routed GWS Stop Action feature on with the `chg-ctrl-feat` 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-feat`command with the MTP Routed GWS Stop Action feature part number. Enter this command.

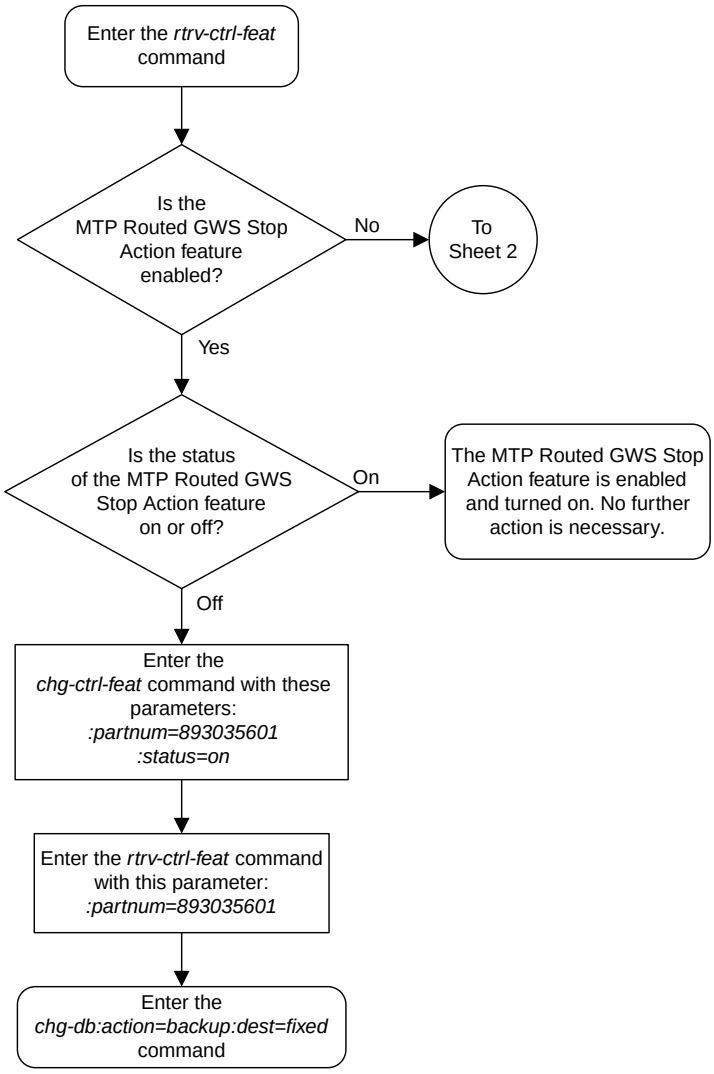
   ```
   rtrv-ctrl-feat:partnum=893035601
   ```

   The following is an example of the possible output.

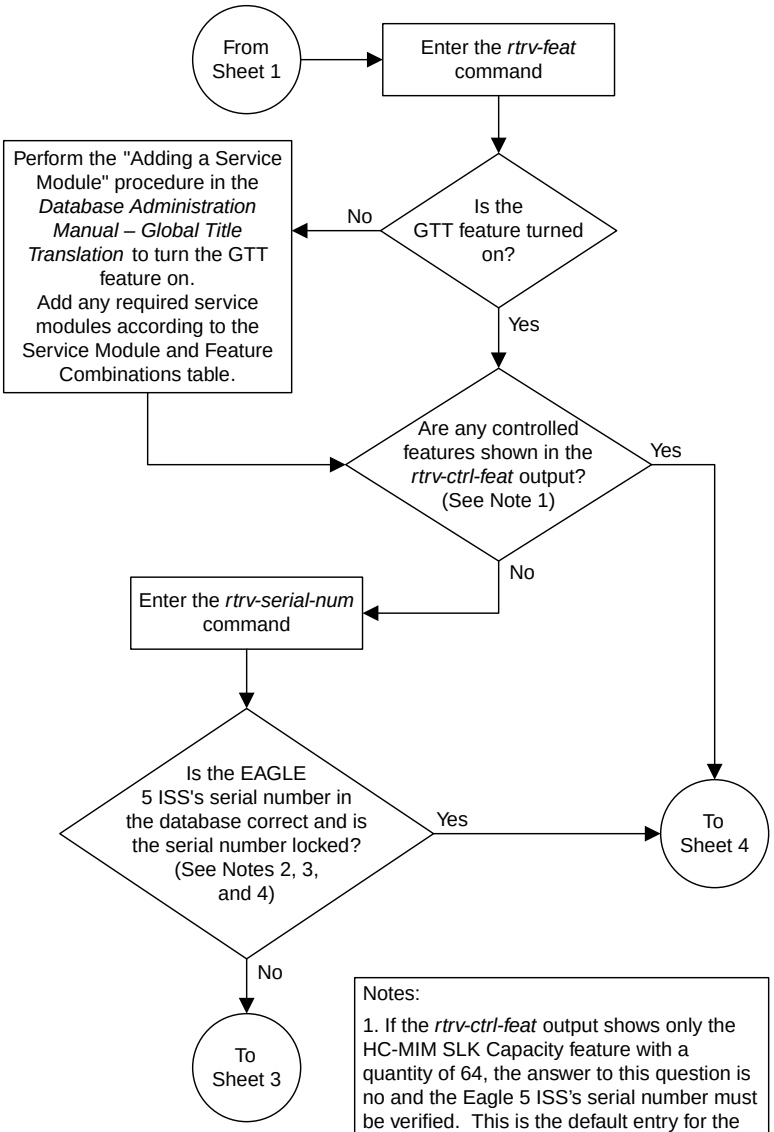
   ```
   rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
   The following features have been permanently enabled:

   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.

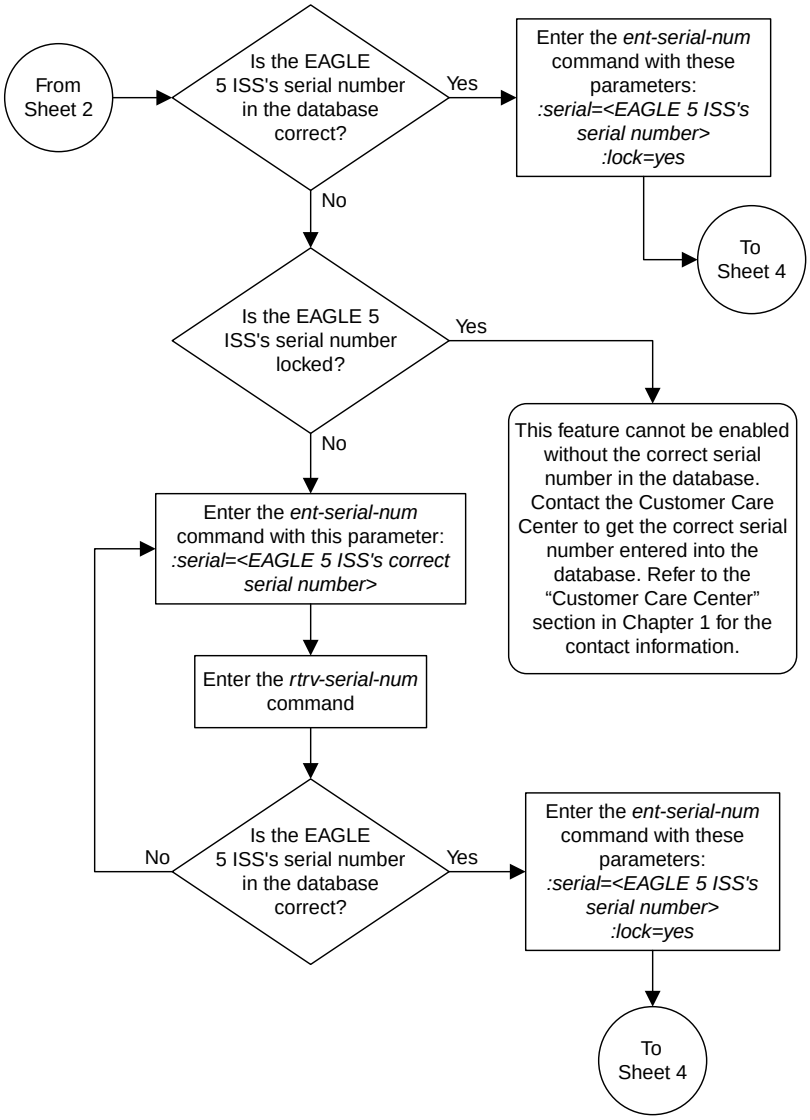
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the *rtrv-ctrl-feat* command
Is the MTP Routed GWS Stop Action feature enabled?
No
To Sheet 2
Yes
Is the status of the MTP Routed GWS Stop Action feature on or off?
On
The MTP Routed GWS Stop Action feature is enabled and turned on. No further 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

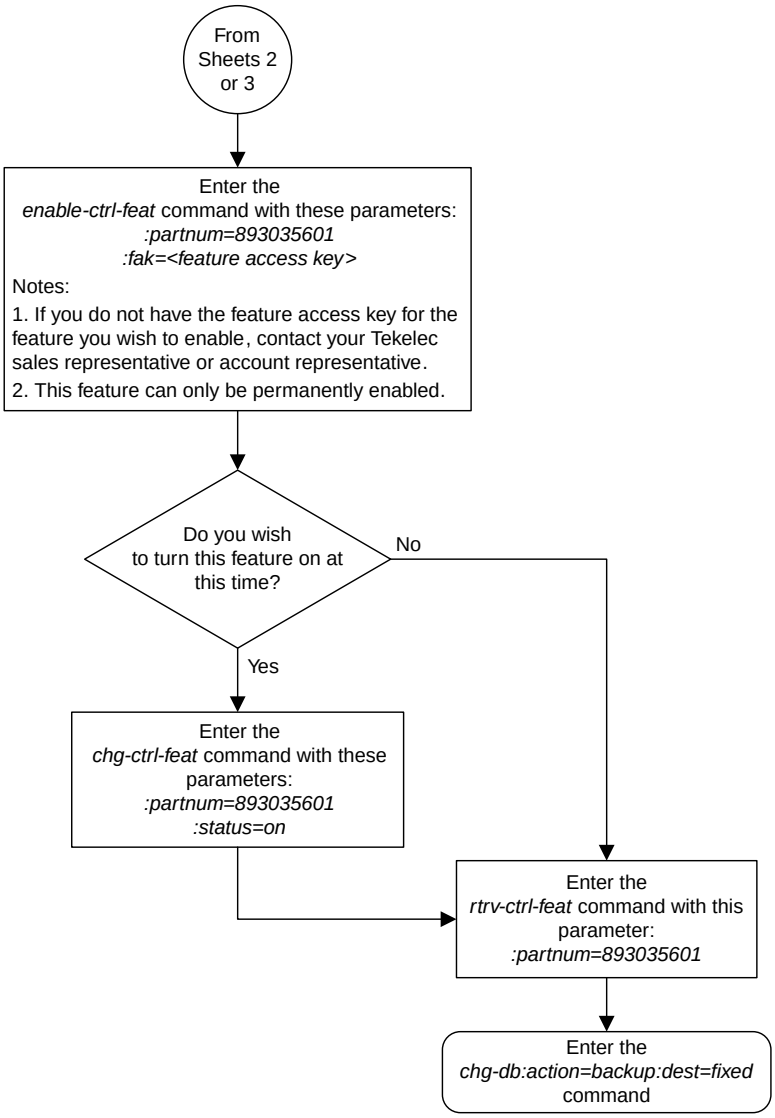
Sheet 1 of 4


From Sheet 1
Enter the *rtrv-feat* command
Is the GTT feature turned on?
No
Perform the "Adding a Service Module" procedure in the *Database Administration Manual – Global Title Translation* to turn the GTT feature on.
Add any required service modules according to the Service Module and Feature Combinations table.
Yes
Are any controlled features shown in the *rtrv-ctrl-feat* output? (See Note 1)
Yes
No
Enter the *rtrv-serial-num* command
Is the EAGLE 5 ISS's serial number in the database correct and is the serial number locked? (See Notes 2, 3, and 4)
Yes
To Sheet 4
No
To Sheet 3
Notes:
1. If the *rtrv-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 *rtrv-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).

Sheet 2 of 4


From Sheet 2
Is the EAGLE 5 ISS's serial number in the database correct?
Yes
Enter the ent-serial-num command with these parameters: :serial=<EAGLE 5 ISS's serial number> :lock=yes
To Sheet 4
No
Is the EAGLE 5 ISS's serial number locked?
Yes
This feature cannot be enabled without the correct serial number in the database. Contact the Customer Care Center to get the correct serial number entered into the database. Refer to the "Customer Care Center" section in Chapter 1 for the contact information.
No
Enter the ent-serial-num command with this parameter: :serial=<EAGLE 5 ISS's correct serial number>
Enter the rtrv-serial-num command
Is the EAGLE 5 ISS's serial number in the database correct?
No
Yes
Enter the ent-serial-num command with these parameters: :serial=<EAGLE 5 ISS's serial number> :lock=yes
To Sheet 4

Sheet 3 of 4


From Sheets 2 or 3
Enter the *enable-ctrl-feat* command with these parameters:
*:partnum=893035601*
*:fak=<feature access key>*
Notes:
1. If you do not have the feature access key for the feature you wish to enable, contact your Tekelec sales representative or account representative.
2. This feature can only be permanently enabled.
Do you wish to turn this feature on at this time?
No
Yes
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

Sheet 4 of 4

**Figure 18: Activating the MTP Routed GWS Stop Action Feature**

## 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-ctrl-feat` 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.
```

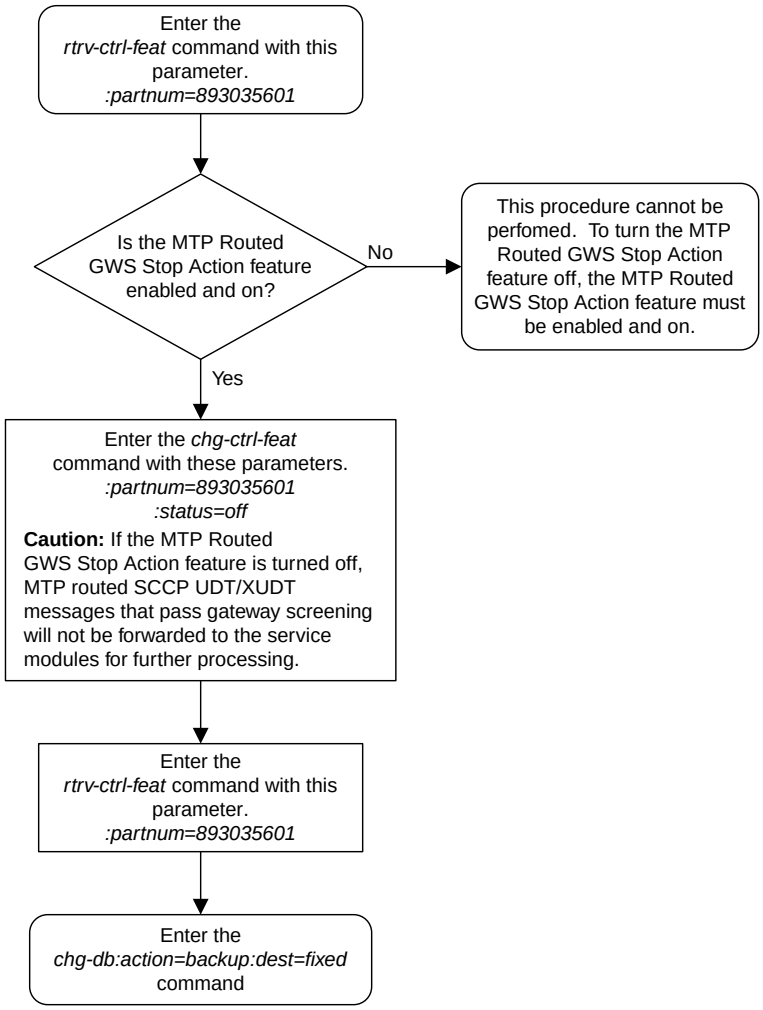



**Figure 19: Turning Off the MTP Routed GWS Stop Action Feature**

# Chapter 3

# Allowed Affected Point Code (AFTPC) Screen Configuration

**Topics:**


- *Introduction.....126*
- *Adding an Allowed Affected Point Code Screen.....128*
- *Removing an Allowed Affected Point Code Screen.....138*
- *Changing an Allowed Affected Point Code Screen.....142*


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 5 ISS for further processing. The gray shaded areas in *Figure 21: Allowed Affected Point Code Screening Function* 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.

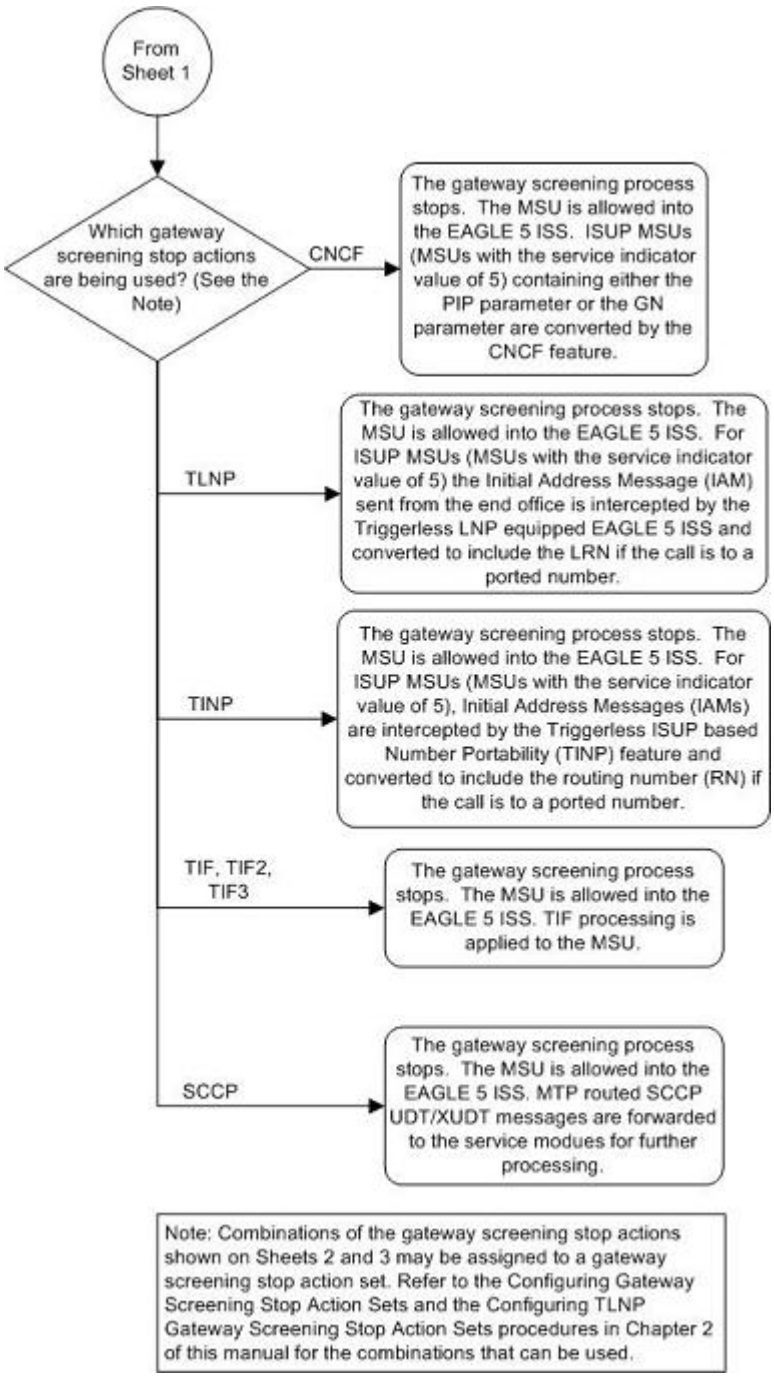
- If the `copy` gateway screening stop action is specified, the message is processed and a copy of the message is sent by the STPLAN feature to an external application.
- If the `rdct` (redirect) gateway screening stop action is specified, the message is diverted from the original destination and sent 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.

## Allowed AFTPC Screening Actions

*Figure 20: Allowed AFTPC Screening Actions* shows the screening actions of the allowed AFTPC screen.

Sheet 1 of 2

**Figure 20: Allowed AFTPC Screening Actions**




Sheet 2 of 2

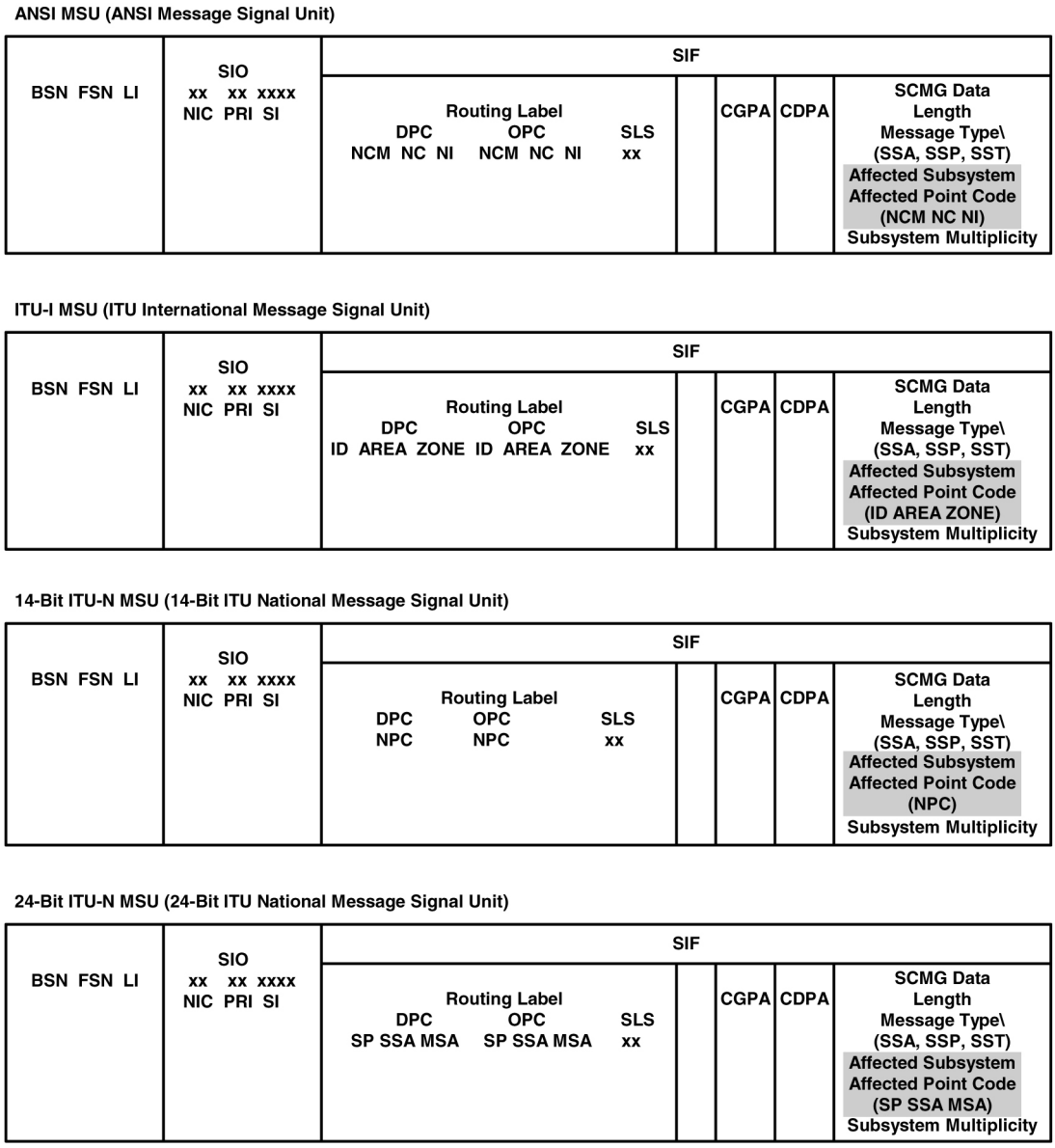



**Figure 21: Allowed Affected Point Code Screening Function**

## 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 15: Example Gateway Screening Allowed AFTPC Configuration Table* and based on the example configurations

shown in *Figure 4: Gateway Screening Configuration - Example 1* and *Figure 7: Gateway Screening Configuration - Example 4*.

**Table 15: Example Gateway Screening Allowed AFTPC Configuration Table**

| Screening Reference | NI | NC | NCM | SSN | NSFI | ACTNAME |
|---|---|---|---|---|---|---|
| gw20 | 008 | 008 | 008 | 250 | stop | COPY |
| ls04 | 010 | 010 | 010 | 015 | stop | COPY |

**Note:** 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 `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 16: Valid Value Combinations for ANSI Point Code Parameters* shows the valid combinations of these parameter values.

**Table 16: 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 17: Valid Value Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I parameter values. *Table 18: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* shows the valid combinations of the 24-bit ITU-N parameter values.

**Table 17: 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 18: 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`.

   **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, see the `rtrv-feat` command description in the *Commands Manual*.

   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 `chg-feat` command. If you are not sure if you have purchased the gateway screening feature, contact your Tekelec 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    NI       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  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    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 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 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 6.

6. Add the new allowed AFTPC screen to the database using the `ent-scr-aftpc` command.

   **Caution:** The EAGLE 5 ISS 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 the *Unsolicited Alarm and Information Messages Manual* .

   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-gws-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 `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-aftpc:sr=gw20:ni=008:nc=008:ncm=008:ssn=250:nsfi=stop :actname=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=copy
```

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
   ```

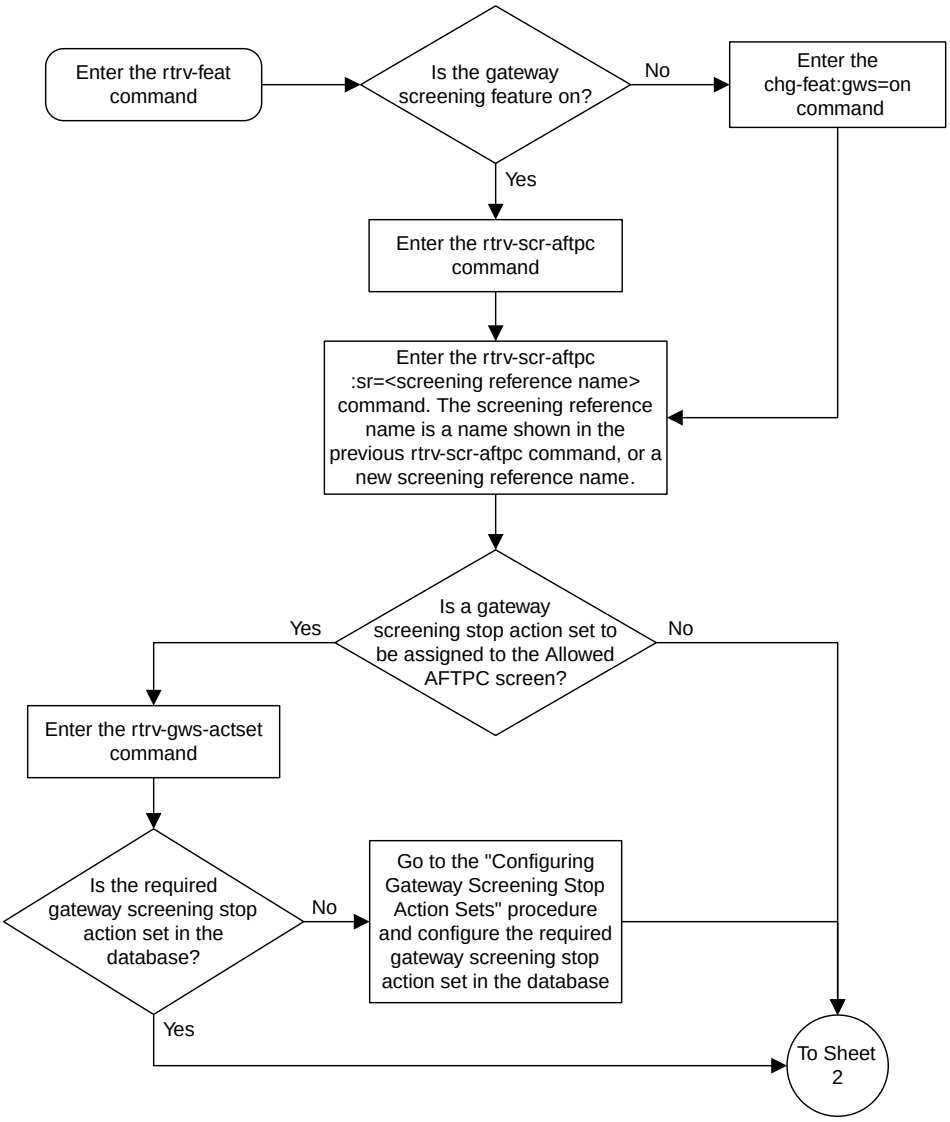
The following is an example of the possible output.

```
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
```

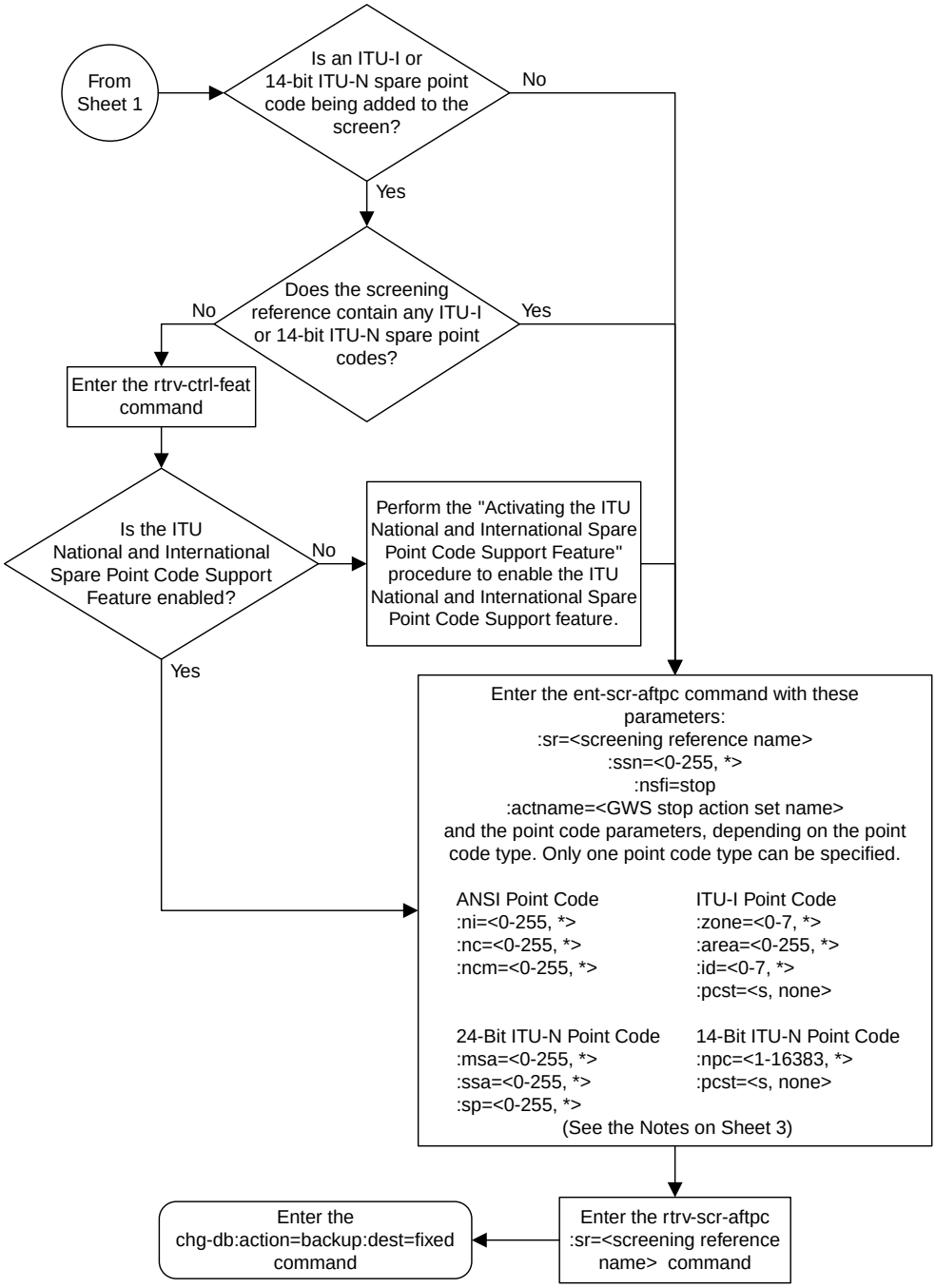
8. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

   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.
```


Enter the rtrv-feat command
Is the gateway screening feature on?
No
Enter the chg-feat:gws=on command
Yes
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, or a new screening reference name.
Is a gateway screening stop action set to be assigned to the Allowed AFTPC screen?
Yes
No
Enter the rtrv-gws-actset command
Is the required gateway screening stop action set in the database?
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database
Yes
To Sheet 2

Sheet 1 of 3


From Sheet 1
Is an ITU-I or 14-bit ITU-N spare point code being added to the screen?
No
Yes
Does the screening reference contain any ITU-I or 14-bit ITU-N spare point codes?
No
Yes
Enter the rtrv-ctrl-feat command
Is the ITU National and International Spare Point Code Support Feature enabled?
No
Perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure to enable the ITU National and International Spare Point Code Support feature.
Yes
Enter the ent-scr-aftpc command with these parameters:
:sr=<screening reference name>
:ssn=<0-255, *>
:nsfi=stop
: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.
ANSI Point Code
:ni=<0-255, *>
:nc=<0-255, *>
:ncm=<0-255, *>
ITU-I Point Code
:zone=<0-7, *>
:area=<0-255, *>
:id=<0-7, *>
:pcst=<s, none>
24-Bit ITU-N Point Code
:msa=<0-255, *>
:ssa=<0-255, *>
:sp=<0-255, *>
14-Bit ITU-N Point Code
:npc=<1-16383, *>
:pcst=<s, none>
(See the Notes on Sheet 3)
Enter the rtrv-scr-aftpc :sr=<screening reference name> command
Enter the chg-db:action=backup:dest=fixed command

Sheet 2 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 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.

Sheet 3 of 3

**Figure 22: Adding an Allowed Affected Point Code Screen**

## 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 `dlt-scr-aftpc` command. The parameters used by the `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.

**Note:** If you using multiple-part ITU national point codes with gateway screening, see the *14-Bit ITU National Point Code Formats* section.

1. Display the 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
GW20  YES     1
IEC   YES     2
LS04  YES     1
WRD0  YES     1
WRD2  YES     1
WRD4  YES     9
```

   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.

```
rlghncxa03w 06-10-25 15:26:30 GMT  EAGLE5 36.0.0
SCREEN = ALLOWED CDPA
SR      ZONE    AREA    ID       SSN      SCMGFID  NSFI    NSR/ACT
IEC     1       134     *        001      002      AFTPC   IEC

SR      ZONE    AREA    ID       SSN      SCMGFID  NSFI    NSR/ACT
WRD1    1       004     6        001      005      AFTPC   WRD0
```

```
SR      NPC                     SSN     SCMGFID  NSFI    NSR/ACT
WRD4    12345                   001     100      AFTPC   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 `pcst` parameter does not have to be specified with the `dlt-scr-aftpc` command. If the `pcst` 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.
```

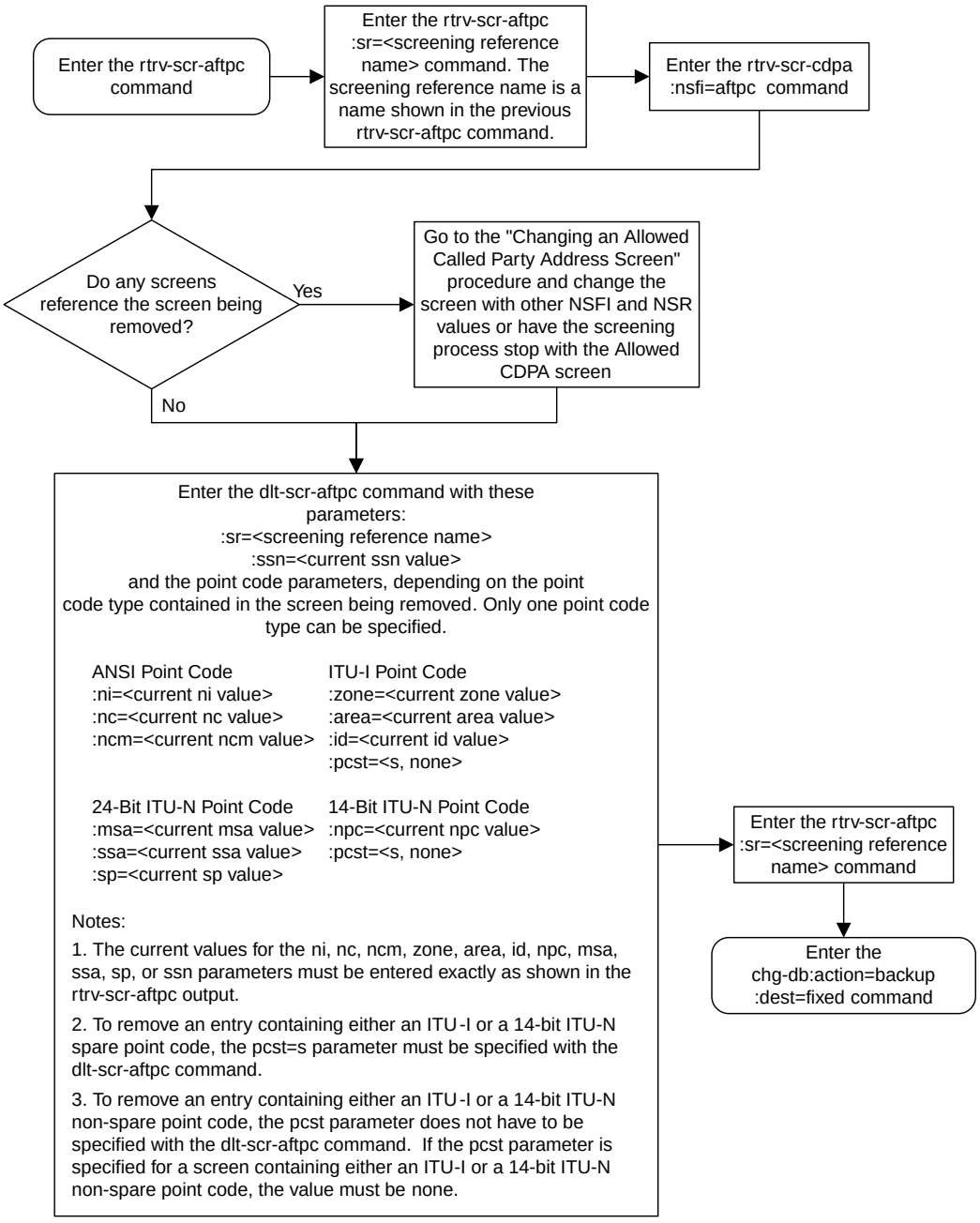



**Figure 23: Removing an Allowed Affected Point Code Screen**

# 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 `chg-scr-aftpc` command. The parameters used by the `chg-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 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.

**Note:** 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 `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 19: Valid Value Combinations for ANSI Point Code Parameters* shows the valid combinations of these parameter values.

**Table 19: 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 20: Valid Value Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I parameter values. *Table 21: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* shows the valid combinations of the 24-bit ITU-N parameter values.

**Table 20: 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 21: 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 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
GW20  YES     1
GW21  YES     1
IEC   YES     2
LS04  YES     1
WRD0  YES     1
WRD2  YES     1
WRD4  YES     9
```

   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      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  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    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 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 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 `chg-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-gws-actset` 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 `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-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 `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`.

For this example, enter this command.

```
chg-scr-aftpc:sr=gw21:ni=009:nc=009:ncm=009:ssn=253:nni=100
:nnc=100:nncm=100:nssn=150
```

**Caution:** The EAGLE 5 ISS does not support redirecting MSUs for the DTA feature or intercepting ISUPIAM 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 `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 ISUPIAMMSUs are intercepted from the allowed AFTPC screen. For more information on UIMs 1127 and 1217, go to the *Unsolicited Alarm and Information Messages Manual* .

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
   ```

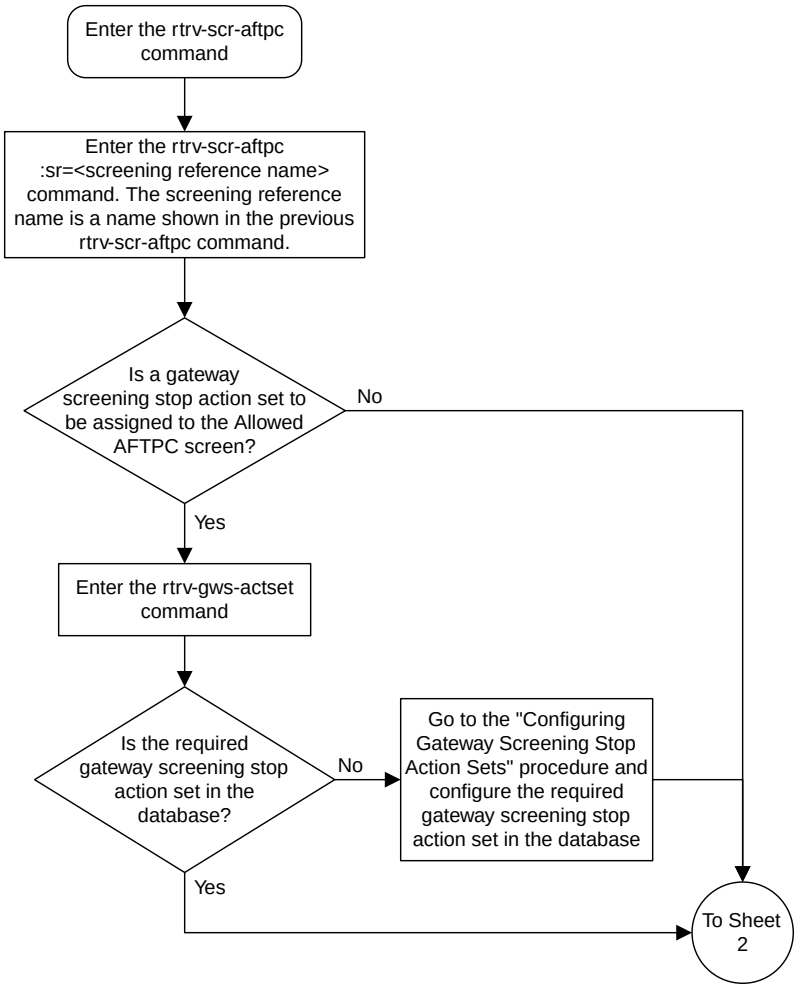
   The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:28:30 GMT  EAGLE5 36.0.0
SCREEN = ALLOWED AFTPC
SR    NI       NC       NCM      SSN      NSFI    NSR/ACT
GW21  100      100      100      150      STOP    ------
```

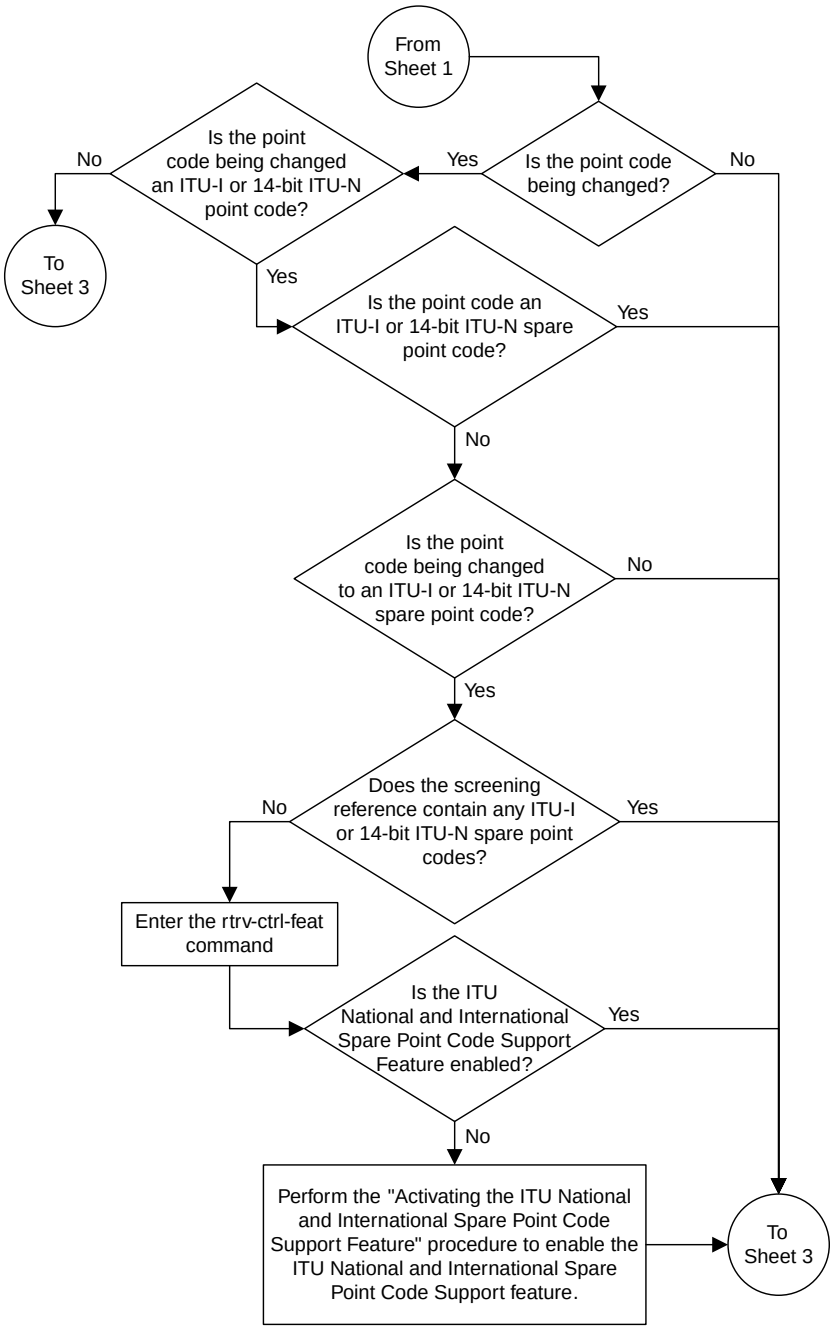
6. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

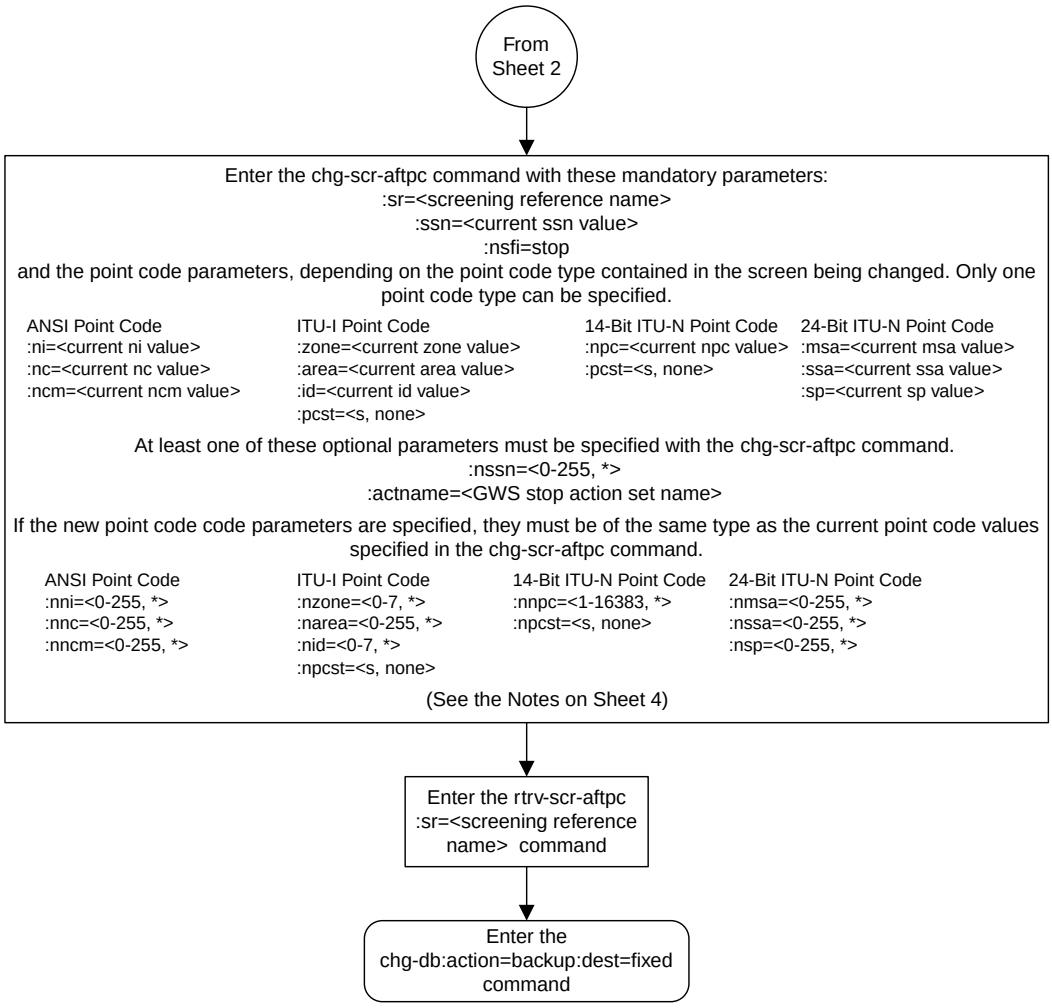
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


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 be assigned to the Allowed AFTPC screen?
No
Yes
Enter the rtrv-gws-actset command
Is the required gateway screening stop action set in the database?
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database
Yes
To Sheet 2

Sheet 1 of 4


From Sheet 1
Is the point code being changed?
Yes
No
Is the point code being changed an ITU-I or 14-bit ITU-N point code?
No
To Sheet 3
Yes
Is the point code an ITU-I or 14-bit ITU-N spare point code?
Yes
No
Is the point code being changed to an ITU-I or 14-bit ITU-N spare point code?
No
Yes
Does the screening reference contain any ITU-I or 14-bit ITU-N spare point codes?
No
Yes
Enter the rtrv-ctrl-feat command
Is the ITU National and International Spare Point Code Support Feature enabled?
Yes
No
Perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure to enable the ITU National and International Spare Point Code Support feature.
To Sheet 3

Sheet 2 of 4


From Sheet 2
Enter the chg-scr-aftpc command with these mandatory parameters:
:sr=<screening reference name>
:ssn=<current ssn value>
:nsfi=stop
and the point code parameters, depending on the point code type contained in the screen being changed. Only one point code type can be specified.
ANSI Point Code
:ni=<current ni value>
:nc=<current nc value>
:ncm=<current ncm 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>
24-Bit ITU-N Point Code
:msa=<current msa value>
:ssa=<current ssa value>
:sp=<current sp value>
At least one of these optional parameters must be specified with the chg-scr-aftpc command.
:nssn=<0-255, *>
:actname=<GWS stop action set name>
If the new point code code parameters are specified, they must be of the same type as the current point code values specified in the chg-scr-aftpc command.
ANSI Point Code
:nni=<0-255, *>
:nnc=<0-255, *>
:nncm=<0-255, *>
ITU-I Point Code
:nzone=<0-7, *>
:narea=<0-255, *>
:nid=<0-7, *>
:npcst=<s, none>
14-Bit ITU-N Point Code
:nnpc=<1-16383, *>
:npcst=<s, none>
24-Bit ITU-N Point Code
:nmsa=<0-255, *>
:nssa=<0-255, *>
:nsp=<0-255, *>
(See the Notes on Sheet 4)
Enter the rtrv-scr-aftpc :sr=<screening reference name> command
Enter the chg-db:action=backup:dest=fixed command

Sheet 3 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.

Sheet 4 of 4

**Figure 24: Changing an Allowed Affected Point Code Screen**

# Chapter 4

# Allowed Called Party (CDPA) Screen Configuration

**Topics:**


- *Introduction.....153*
- *Adding an Allowed Called Party Address Screen.....158*
- *Removing an Allowed Called Party Address Screen.....170*
- *Changing an Allowed Called Party Address Screen.....175*


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 26: Allowed Called Party Address Screening Function* 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.

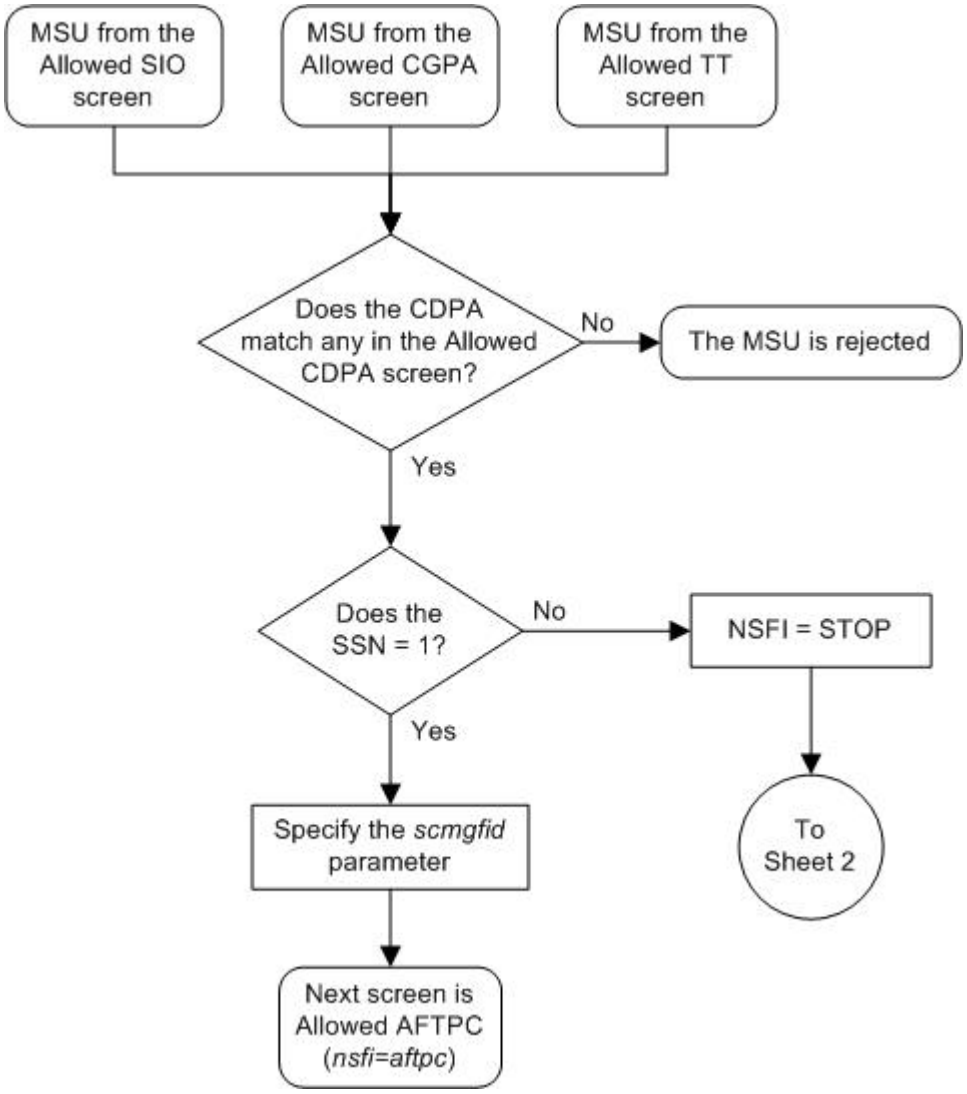
If a match is found, the `nsfi` is examined to determine the next step in the screening process. If the `nsfi` value is any value other than `stop`, the next screening reference (`nsr`) is identified and the screening process continues to the next screen identified by the `nsfi` and `nsr` parameter values.

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 `copy` gateway screening stop action is specified, the message is processed and a copy of the message is sent by the STPLAN feature to an external application.
- 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.

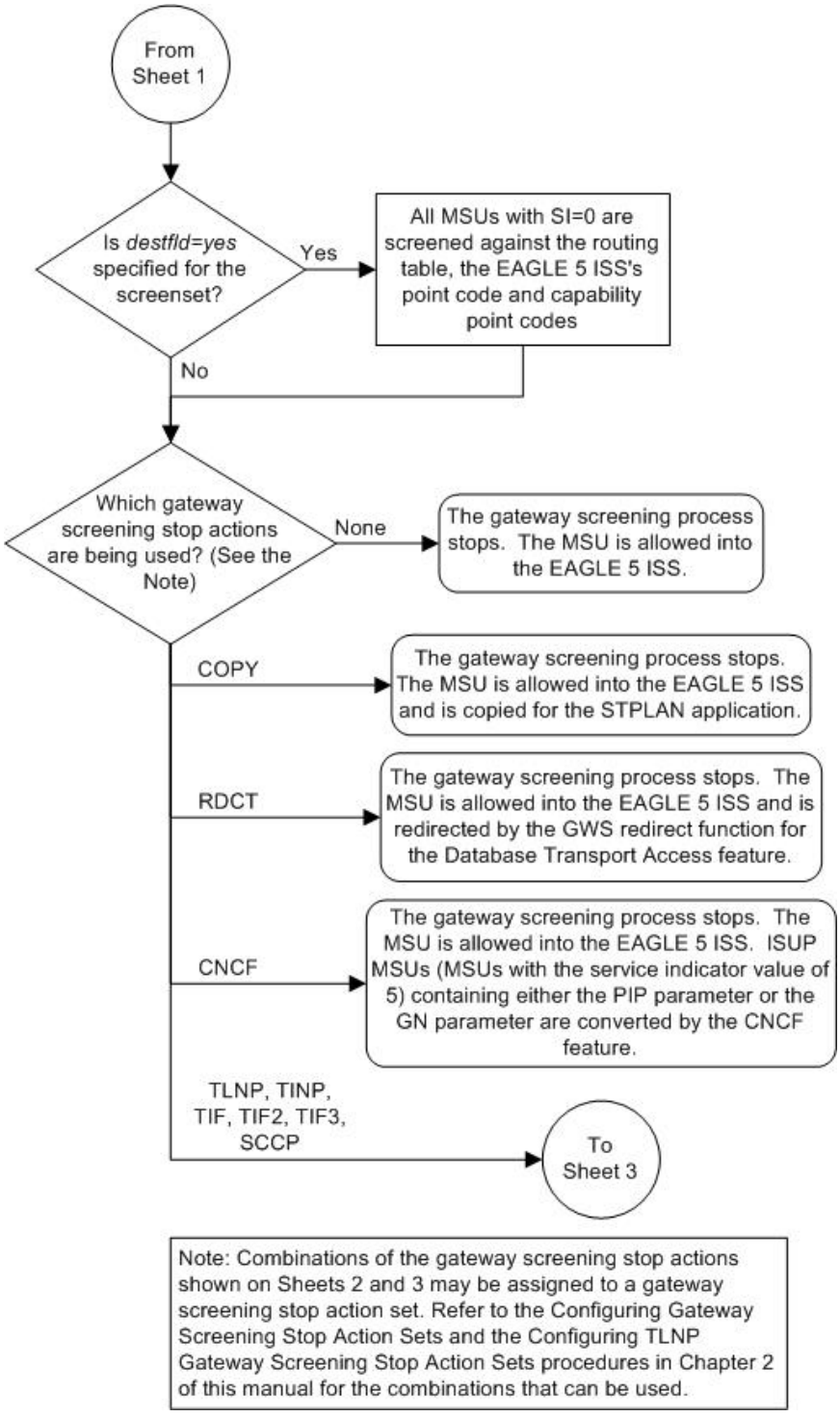
## Allowed CDPA Screening Actions

*Figure 25: Allowed CDPA Screening Actions* shows the screening actions of the allowed CDPA screen.

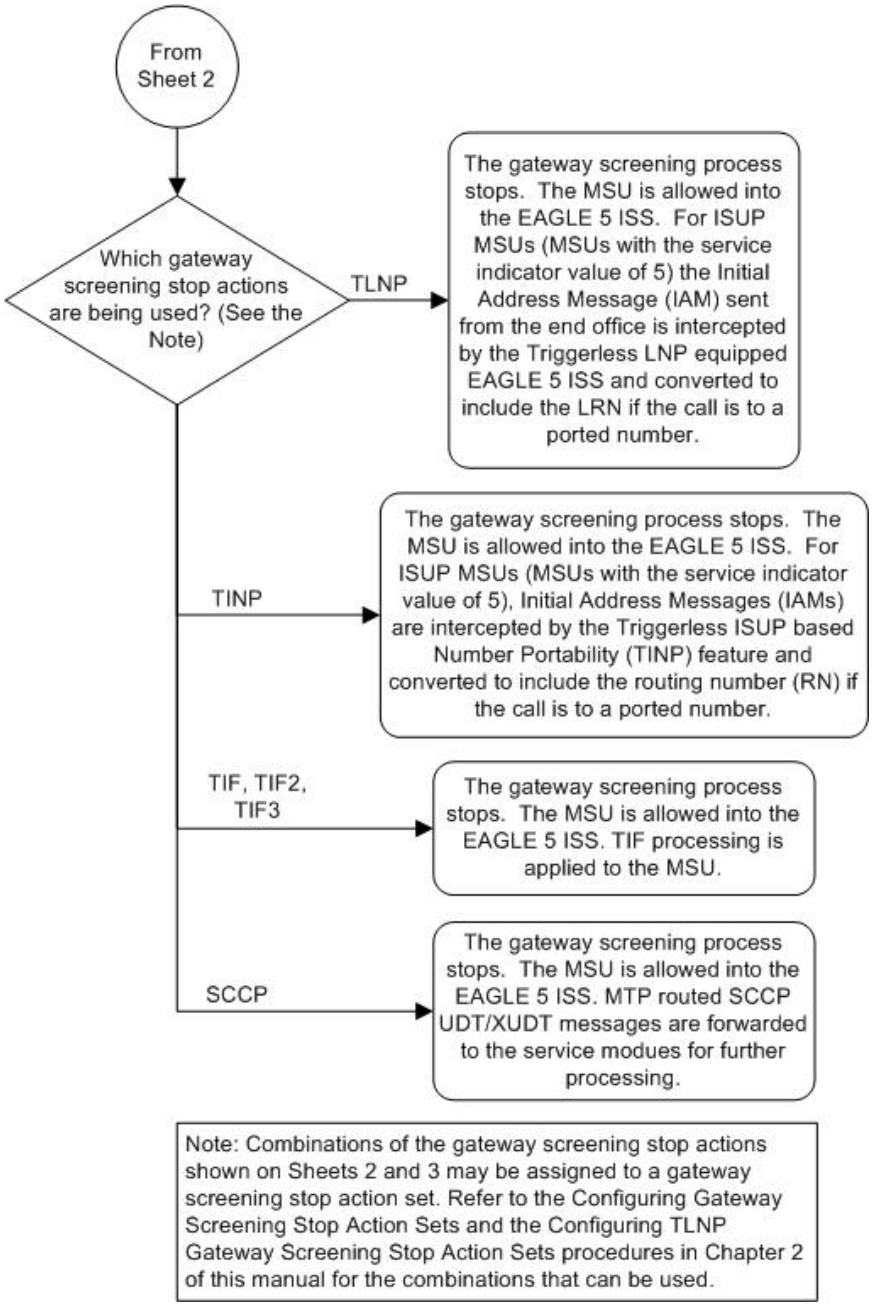



Sheet 1 of 3

**Figure 25: Allowed CDPA Screening Actions**


From Sheet 1
Is destfld=yes specified for the screenset?
Yes
All MSUs with SI=0 are screened against the routing table, the EAGLE 5 ISS's point code and capability point codes
No
Which gateway screening stop actions are being used? (See the Note)
None
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS.
COPY
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS and is copied for the STPLAN application.
RDCT
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS and is redirected by the GWS redirect function for the Database Transport Access feature.
CNCF
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. ISUP MSUs (MSUs with the service indicator value of 5) containing either the PIP parameter or the GN parameter are converted by the CNCF feature.
TLNP, TINP, TIF, TIF2, TIF3, SCCP
To Sheet 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.

Sheet 2 of 3


From Sheet 2
Which gateway screening stop actions are being used? (See the Note)
TLNP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. For ISUP MSUs (MSUs with the service indicator value of 5) the Initial Address Message (IAM) sent from the end office is intercepted by the Triggerless LNP equipped EAGLE 5 ISS and converted to include the LRN if the call is to a ported number.
TINP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. For ISUP MSUs (MSUs with the service indicator value of 5), Initial Address Messages (IAMs) 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.
TIF, TIF2, TIF3
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. TIF processing is applied to the MSU.
SCCP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. MTP routed SCCP UDT/XUDT messages are forwarded to the service modues for further processing.
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.

Sheet 3 of 3

ANSI MSU (ANSI Message Signal Unit)

| BSN FSN LI | SIO<br>xx xx xxxx<br>NIC PRI SI | SIF | | | |
|---|---|---|---|---|---|
| | | Routing Label<br>DPC<br>NCM NC NI<br>OPC<br>NCM NC NI<br>SLS<br>xx | CGPA<br>Length<br>Address Indicator<br>Subsystem<br>Point Code<br>(NCM NC NI) | CDPA<br>Length<br>Address Indicator<br>(x x xxxx xx)<br>(x RI xxxx xx)<br>Subsystem<br>Point Code<br>(NCM NC NI) | SCMG Data<br>Length<br>SCMG Format<br>(xxxx xxxx)<br><br>Point Code<br>(NCM NC NI)<br>Subsystem |

ITU-I MSU (ITU International Message Signal Unit)

| BSN FSN LI | SIO<br>xx xx xxxx<br>NIC PRI SI | SIF | | | |
|---|---|---|---|---|---|
| | | Routing Label<br>DPC<br>ID AREA ZONE<br>OPC<br>ID AREA ZONE<br>SLS<br>xx | CGPA<br>Length<br>Address Indicator<br>Subsystem<br>Point Code<br>(ID AREA ZONE) | CDPA<br>Length<br>Address Indicator<br>(x x xxxx xx)<br>(x RI xxxx xx)<br>Subsystem<br>Point Code<br>(ID AREA ZONE) | SCMG Data<br>Length<br>SCMG Format<br>(xxxx xxxx)<br><br>Point Code<br>(ID AREA ZONE)<br>Subsystem |

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

| BSN FSN LI | SIO<br>xx xx xxxx<br>NIC PRI SI | SIF | | | |
|---|---|---|---|---|---|
| | | Routing Label<br>DPC<br>NPC<br>OPC<br>NPC<br>SLS<br>xx | CGPA<br>Length<br>Address Indicator<br>Subsystem<br>Point Code<br>(NPC) | CDPA<br>Length<br>Address Indicator<br>(x x xxxx xx)<br>(x RI xxxx xx)<br>Subsystem<br>Point Code<br>(NPC) | SCMG Data<br>Length<br>SCMG Format<br>(xxxx xxxx)<br><br>Point Code<br>(NPC)<br>Subsystem |

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

| BSN FSN LI | SIO<br>xx xx xxxx<br>NIC PRI SI | SIF | | | |
|---|---|---|---|---|---|
| | | Routing Label<br>DPC<br>SP SSA MSA<br>OPC<br>SP SSA MSA<br>SLS<br>xx | CGPA<br>Length<br>Address Indicator<br>Subsystem<br>Point Code<br>(SP SSA MSA) | CDPA<br>Length<br>Address Indicator<br>(x x xxxx xx)<br>(x RI xxxx xx)<br>Subsystem<br>Point Code<br>(SP SSA MSA) | SCMG Data<br>Length<br>SCMG Format<br>(xxxx xxxx)<br><br>Point Code<br>(SP SSA MSA)<br>Subsystem |

**Figure 26: Allowed Called Party Address Screening Function**

## 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 `ent-scr-cdpa` command. The parameters used by the `ent-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 examples in this procedure are used to add the allowed CDPA screen data shown in *Table 22: Example Gateway Screening Allowed CDPA Configuration Table* and based on the example configurations shown in *Figure 4: Gateway Screening Configuration - Example 1* through *Figure 7: Gateway Screening Configuration - Example 4*.

**Table 22: Example Gateway Screening Allowed CDPA Configuration Table**

| Screening Reference | ZONE | AREA | ID | SSN | SCMGFID | NSFI | NSR |
|---|---|---|---|---|---|---|---|
| gw15 | 5 | 117 | 2 | 254 | ---- | stop | ---- |
| Screening Reference | 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 |

**Note:** 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 `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       SCMGFID  NSFI    NSR/ACT
SCR1  240      001      010       012       ------   STOP    ------
SCR1  241      010      020       001       002      AFTPC   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 23: Valid Value Combinations for ANSI Point Code Parameters* shows the valid combinations of these parameter values.

**Table 23: 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 24: Valid Value Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I parameter values. *Table 25: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* shows the valid combinations of the 24-bit ITU-N parameter values.

**Table 24: 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 25: 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.

**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, see the rtrv-feat command description in the *Commands Manual*.

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 chg-feat command. If you are not sure if you have purchased the gateway screening feature, contact your Tekelec 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.

```
rlghncxa03w 06-10-25 15:26:30 GMT  EAGLE5 36.0.0
SCREEN = ALLOWED 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  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    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 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*.

   **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 6 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 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 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 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 `ent-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 4.

   **Caution:** The EAGLE 5 ISS 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 Manual* .

   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 in *Table 26: CDPA Parameter Combinations*.

**Table 26: 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=ls03`

   The following is an example of the possible output.

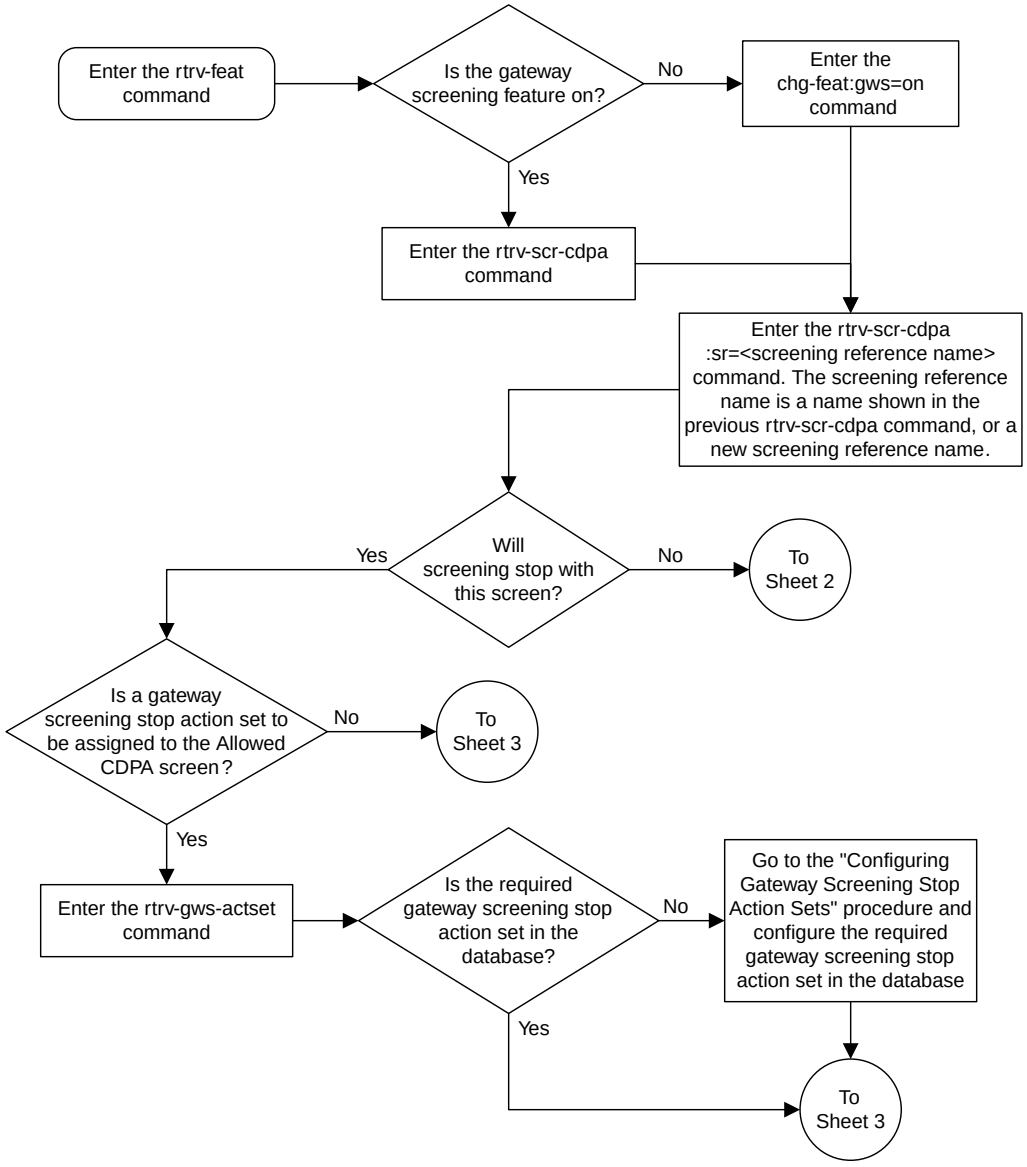
```
rlghncxa03w 06-10-25 15:35:30 GMT  EAGLE5 36.0.0
SCREEN = ALLOWED CDPA
SR    NI       NC      NCM       SSN      SCMGFID  NSFI    NSR/ACT
LS03  007      007     007       001      100      AFTPC   ------
```

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

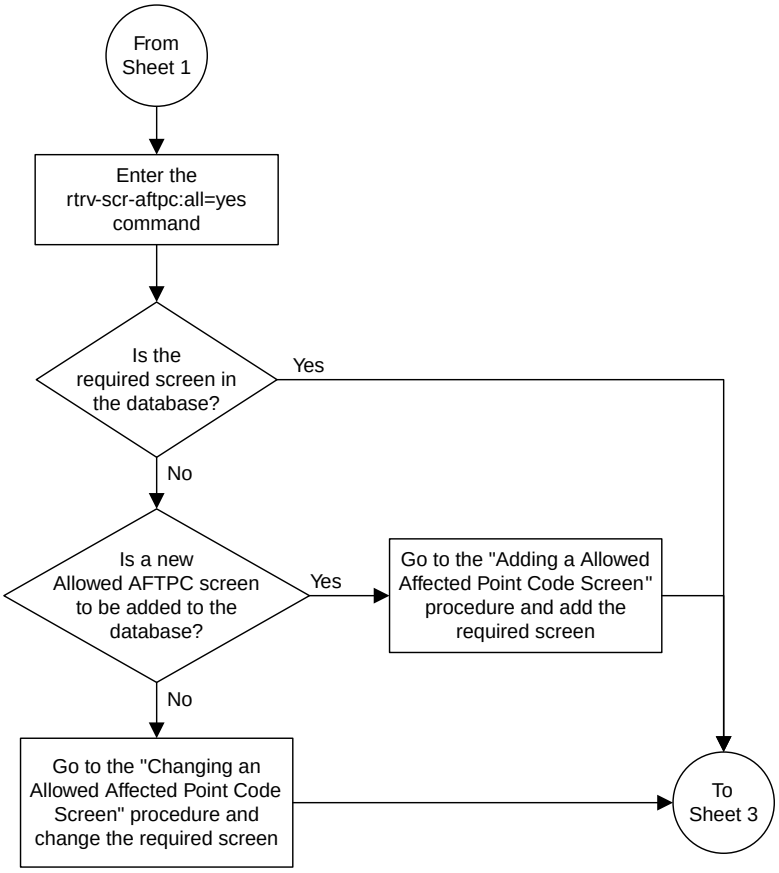
   The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

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

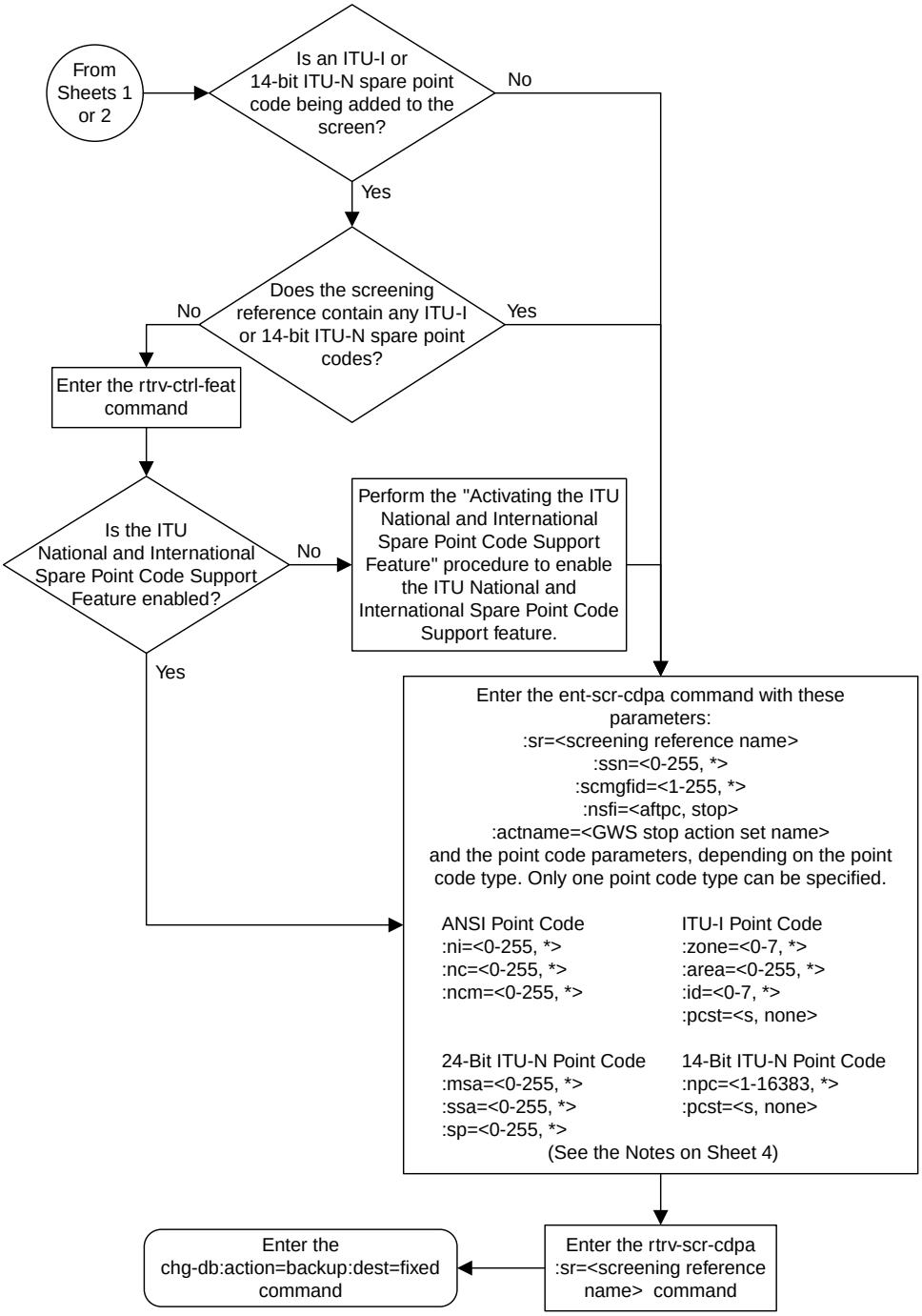
```
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the rtrv-feat command
Is the gateway screening feature on?
No
Enter the chg-feat:gws=on 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 screening stop with this screen?
Yes
No
To Sheet 2
Is a gateway screening stop action set to be assigned to the Allowed CDPA screen?
No
To Sheet 3
Yes
Enter the rtrv-gws-actset command
Is the required gateway screening stop action set in the database?
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database
Yes
To Sheet 3

Sheet 1 of 4


From Sheet 1
Enter the rtrv-scr-aftpc:all=yes command
Is the required screen in the database?
Yes
No
Is a new Allowed AFTPC screen to be added to the database?
Yes
Go to the "Adding a Allowed Affected Point Code Screen" procedure and add the required screen
No
Go to the "Changing an Allowed Affected Point Code Screen" procedure and change the required screen
To Sheet 3

Sheet 2 of 4


From Sheets 1 or 2
Is an ITU-I or 14-bit ITU-N spare point code being added to the screen?
No
Yes
Does the screening reference contain any ITU-I or 14-bit ITU-N spare point codes?
No
Yes
Enter the rtrv-ctrl-feat command
Is the ITU National and International Spare Point Code Support Feature enabled?
No
Perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure to enable the ITU National and International Spare Point Code Support feature.
Yes
Enter the ent-scr-cdpa command with these parameters:
:sr=<screening reference name>
:ssn=<0-255, *>
:scmgfid=<1-255, *>
:nsfi=<aftpc, stop>
: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.
ANSI Point Code
:ni=<0-255, *>
:nc=<0-255, *>
:ncm=<0-255, *>
ITU-I Point Code
:zone=<0-7, *>
:area=<0-255, *>
:id=<0-7, *>
:pcst=<s, none>
24-Bit ITU-N Point Code
:msa=<0-255, *>
:ssa=<0-255, *>
:sp=<0-255, *>
14-Bit ITU-N Point Code
:npc=<1-16383, *>
:pcst=<s, none>
(See the Notes on Sheet 4)
Enter the rtrv-scr-cdpa :sr=<screening reference name> command
Enter the chg-db:action=backup:dest=fixed command

Sheet 3 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* paramter 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 *rtrv-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.

Sheet 4 of 4

**Figure 27: Adding an Allowed Called Party Address Screen**

## 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.

**Note:** 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*

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     1
WRD2  YES     1
WRD4  YES     9
```

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
SR    NI       NC      NCM       SSN      SCMGFID  NSFI    NSR/ACT
GW17  003      003     003       001      050      AFTPC   GW20
```

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 *Step 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 `pcst` parameter does not have to be specified with the `dlt-scr-cdpa` command. If the `pcst` 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 *Step 3* .

   For this example, enter this command.

   `rtrv-scr-cdpa:sr=gw17`

   The following is an example of the possible output.

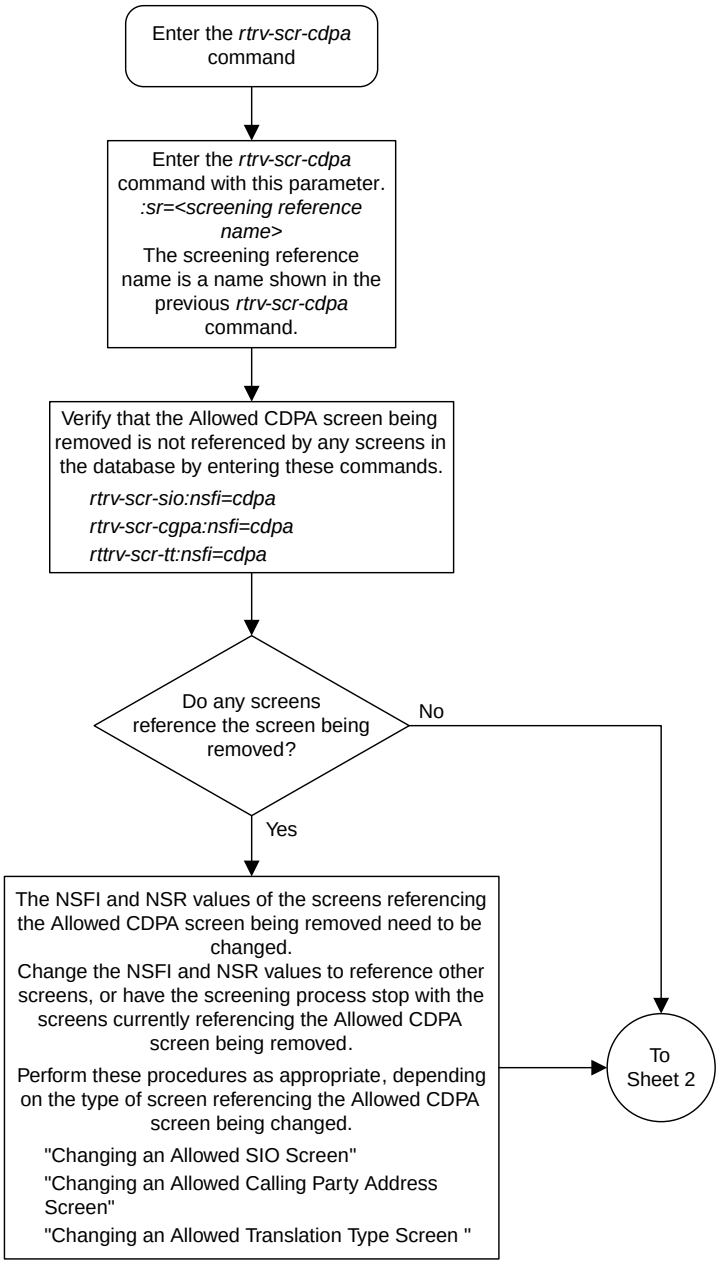
```
E2573 Cmd Rej: SR or NSR does not reference an existing SR
```

   This message shows that the specified screening reference name is not in the database and the action of the `dlt-scr-cdpa` command in *Step 3* was successful. If the specified screening reference name contained more than one entry when the `dlt-scr-cdpa` command was executed in *Step 3* , the `rtrv-scr-cdpa:sr=` command output would show the remaining entries in the screening reference instead of error message E2573.

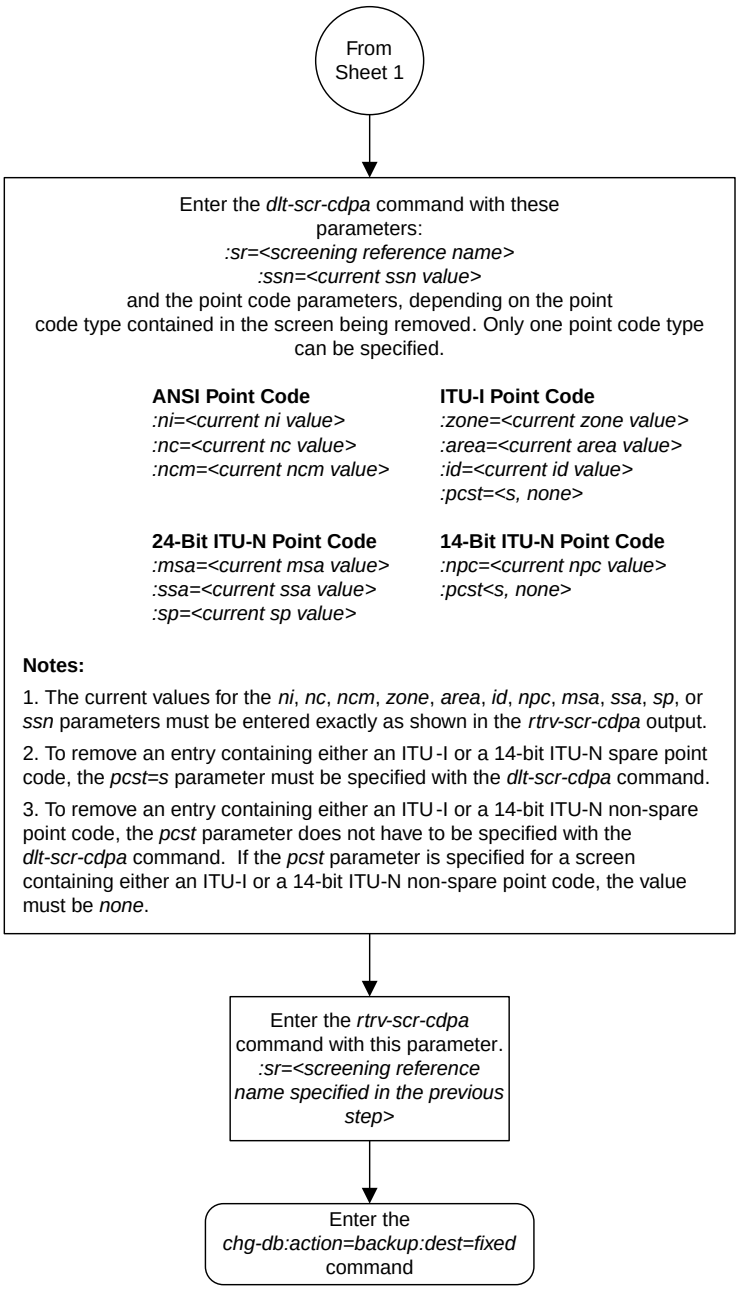
5. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

   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.
```


Enter the *rtrv-scr-cdpa* command
Enter the *rtrv-scr-cdpa* command with this parameter.
*:sr=<screening reference name>*
The screening reference name is a name shown in the previous *rtrv-scr-cdpa* command.
Verify that the Allowed CDPA screen being removed is not referenced by any screens in the database by entering these commands.
*rtrv-scr-sio:nsfi=cdpa*
*rtrv-scr-cgpa:nsfi=cdpa*
*rttrv-scr-tt:nsfi=cdpa*
Do any screens reference the screen being removed?
No
Yes
The NSFI and NSR values of the screens referencing the Allowed CDPA 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 CDPA screen being removed.
Perform these procedures as appropriate, depending on the type of screen referencing the Allowed CDPA screen being changed.
"Changing an Allowed SIO Screen"
"Changing an Allowed Calling Party Address Screen"
"Changing an Allowed Translation Type Screen "
To Sheet 2

Sheet 1 of 2


From Sheet 1
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>
ITU-I Point Code
:zone=<current zone value>
:area=<current area value>
:id=<current id value>
:pcst=<s, none>
24-Bit ITU-N Point Code
:msa=<current msa value>
:ssa=<current ssa value>
:sp=<current sp value>
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.
Enter the rtrv-scr-cdpa command with this parameter.
:sr=<screening reference name specified in the previous step>
Enter the chg-db:action=backup:dest=fixed command

Sheet 2 of 2

**Figure 28: Removing an Allowed Called Party Address Screen**

## 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 `chg-scr-cdpa` command. The parameters used by the `chg-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 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.

**Note:** 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 `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 `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 27: Valid Value Combinations for ANSI Point Code Parameters* shows the valid combinations of these parameter values.

**Table 27: 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 28: Valid Value Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I parameter values. *Table 29: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* shows the valid combinations of the 24-bit ITU-N parameter values.

**Table 28: 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 29: 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     1
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  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    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 and configure the required gateway screening stop action set.

**Note:** 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 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 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 5 ISS does not support redirecting MSUs for the DTA feature or intercepting ISUPIAM 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 ISUPIAMMSUs are intercepted from the allowed CDPA screen. For more information on UIMs 1125 and 1215, go to the *Unsolicited Alarm and Information Messages Manual* .

   The current values for the `ni`, `nc`, `ncm`, `zone`, `area`, `id`, `npc`, `msa`, `ssa`, and `sp`, `ssn`, and `scmgfid` 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:** The `nsfi=aftpc` parameter can be specified only if the `ssn` value (new or current) is 1. *Table 30: CDPA Parameter Combinations* shows the valid parameter combinations for the `ssn`, `scmgfid`, `nsfi`, and `nsr` parameter values.

**Table 30: 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 `pcst=s` and `npcst=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 `pcst=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 `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`.

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
   ```

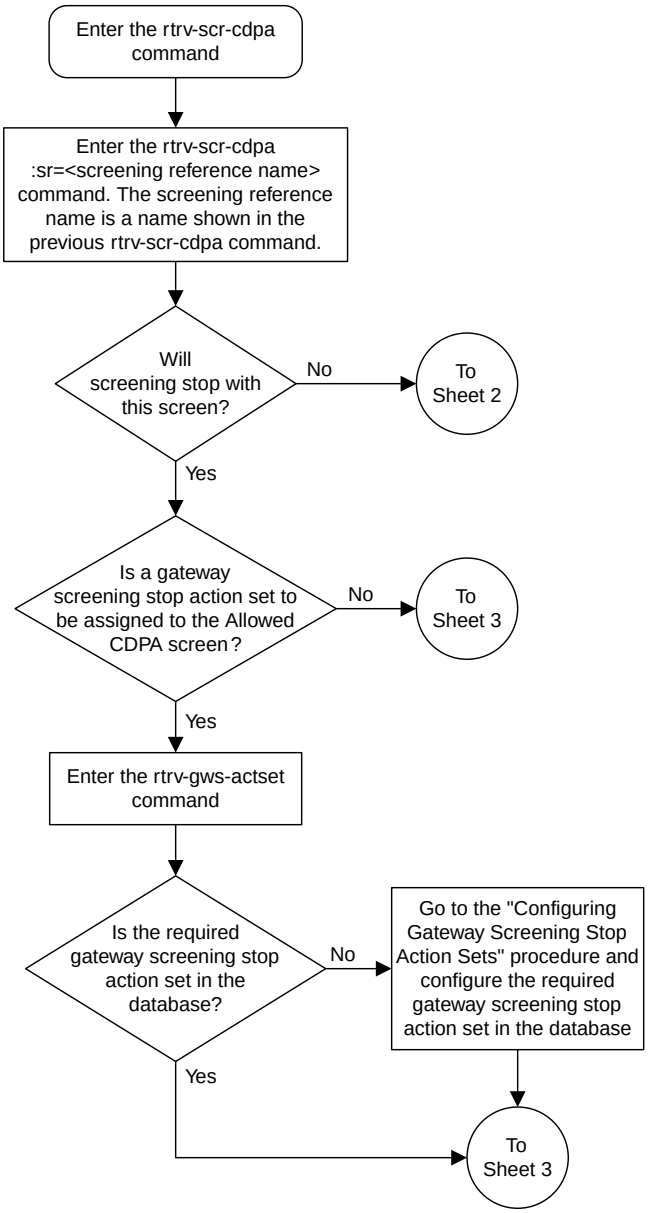
   The following is an example of the possible output.

   ```
   rlghncxa03w 06-10-25 15:28:30 GMT  EAGLE5 36.0.0
   SCREEN = ALLOWED CDPA
   SR      ZONE   AREA    ID        SSN      SCMGFID  NSFI    NSR/ACT
   GW15    2      230     7         001      150      AFTPC   ITU1
   ```

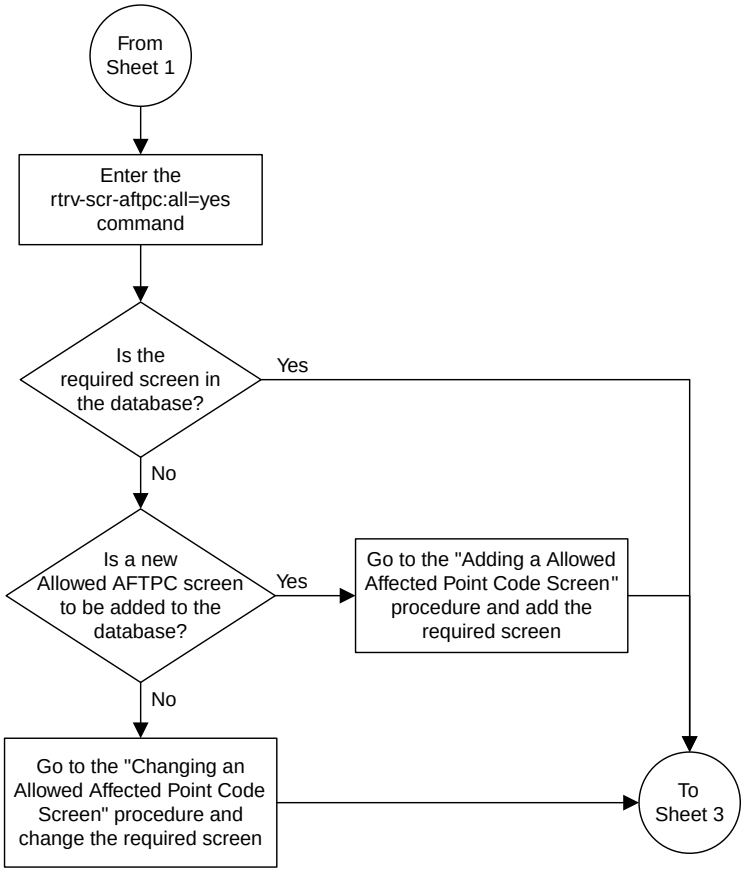
7. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

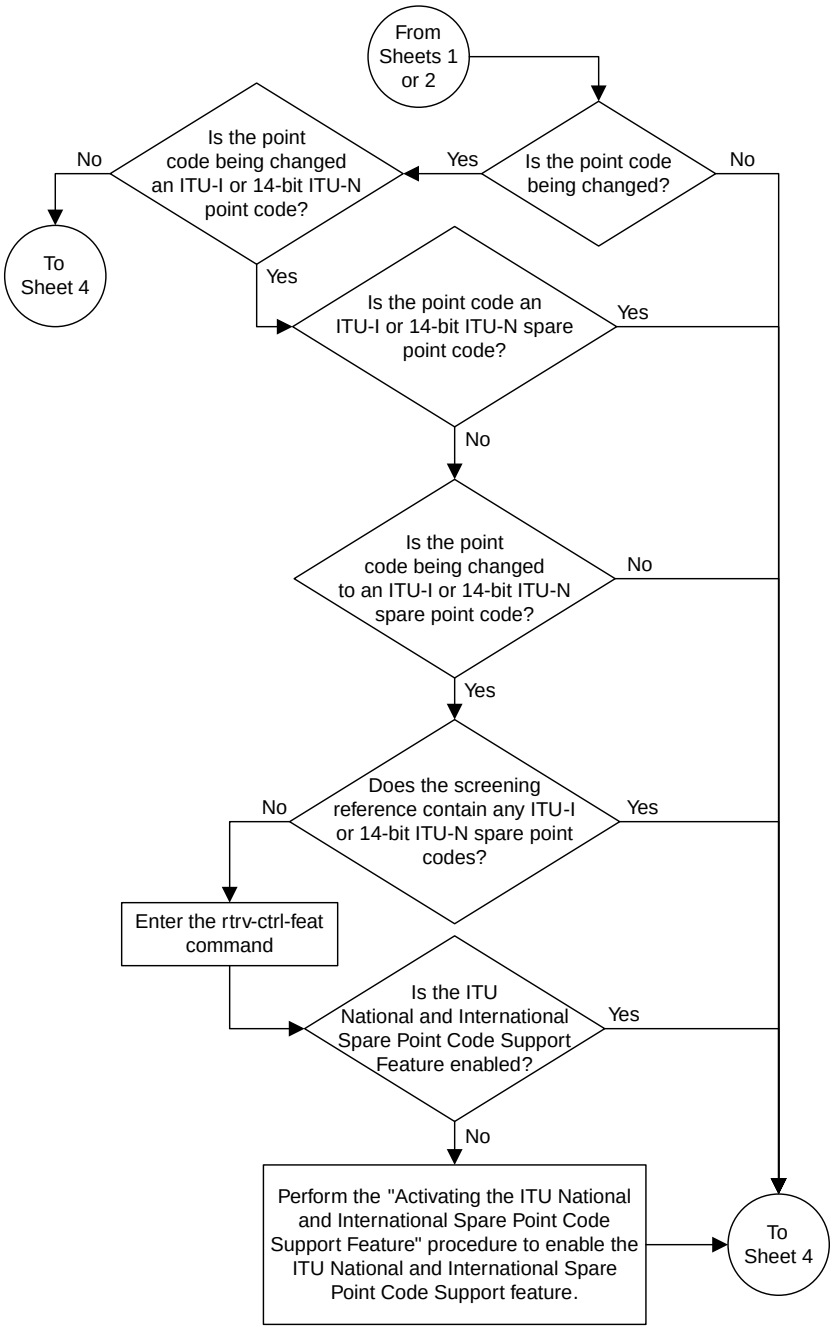
   ```
   BACKUP (FIXED) : MASP A - Backup starts on active MASP.
   BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
   BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
   BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
   ```


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.
Will screening stop with this screen?
No
To Sheet 2
Yes
Is a gateway screening stop action set to be assigned to the Allowed CDPA screen?
No
To Sheet 3
Yes
Enter the rtrv-gws-actset command
Is the required gateway screening stop action set in the database?
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database
Yes
To Sheet 3

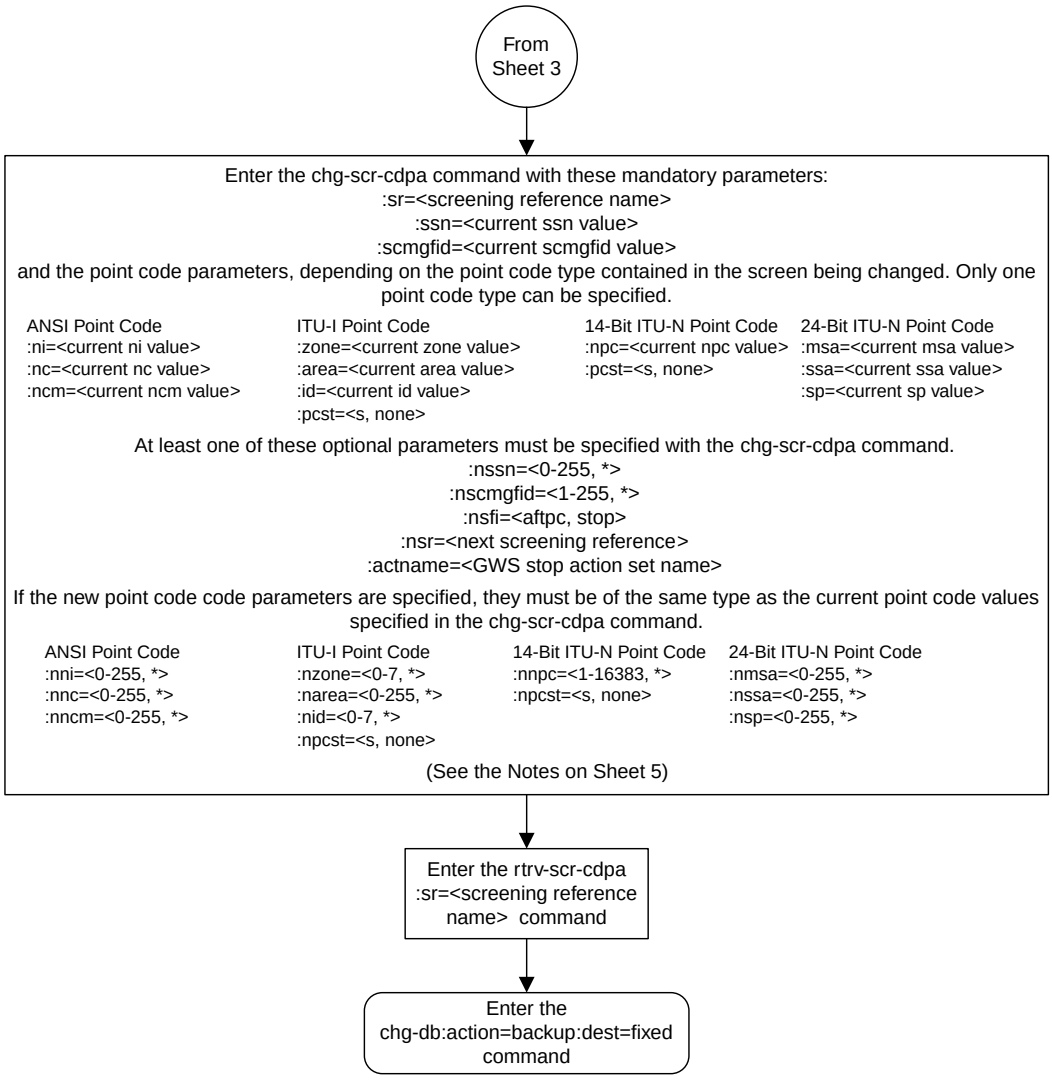
Sheet 1 of 5


From Sheet 1
Enter the rtrv-scr-aftpc:all=yes command
Is the required screen in the database?
Yes
No
Is a new Allowed AFTPC screen to be added to the database?
Yes
Go to the "Adding a Allowed Affected Point Code Screen" procedure and add the required screen
No
Go to the "Changing an Allowed Affected Point Code Screen" procedure and change the required screen
To Sheet 3

Sheet 2 of 5


From Sheets 1 or 2
Is the point code being changed?
Yes
No
Is the point code being changed an ITU-I or 14-bit ITU-N point code?
No
To Sheet 4
Yes
Is the point code an ITU-I or 14-bit ITU-N spare point code?
Yes
No
Is the point code being changed to an ITU-I or 14-bit ITU-N spare point code?
No
Yes
Does the screening reference contain any ITU-I or 14-bit ITU-N spare point codes?
No
Yes
Enter the rtrv-ctrl-feat command
Is the ITU National and International Spare Point Code Support Feature enabled?
Yes
No
Perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure to enable the ITU National and International Spare Point Code Support feature.
To Sheet 4

Sheet 3 of 5


From Sheet 3
Enter the chg-scr-cdpa command with these mandatory parameters:
:sr=<screening reference name>
:ssn=<current ssn value>
:scmgfid=<current scmgfid value>
and the point code parameters, depending on the point code type contained in the screen being changed. Only one point code type can be specified.
ANSI Point Code
:ni=<current ni value>
:nc=<current nc value>
:ncm=<current ncm 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>
24-Bit ITU-N Point Code
:msa=<current msa value>
:ssa=<current ssa value>
:sp=<current sp value>
At least one of these optional parameters must be specified with the chg-scr-cdpa command.
:nssn=<0-255, *>
:nscmgfid=<1-255, *>
:nsfi=<aftpc, stop>
:nsr=<next screening reference>
:actname=<GWS stop action set name>
If the new point code code parameters are specified, they must be of the same type as the current point code values specified in the chg-scr-cdpa command.
ANSI Point Code
:nni=<0-255, *>
:nnc=<0-255, *>
:nncm=<0-255, *>
ITU-I Point Code
:nzone=<0-7, *>
:narea=<0-255, *>
:nid=<0-7, *>
:npcst=<s, none>
14-Bit ITU-N Point Code
:nnpc=<1-16383, *>
:npcst=<s, none>
24-Bit ITU-N Point Code
:nmsa=<0-255, *>
:nssa=<0-255, *>
:nsp=<0-255, *>
(See the Notes on Sheet 5)
Enter the rtrv-scr-cdpa :sr=<screening reference name> command
Enter the chg-db:action=backup:dest=fixed command

Sheet 4 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 *nsfi* parameter value must be *stop*.

6. 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 *nsfi* value is *stop* (either the current *nsfi* value is *stop* and not being changed, or 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 *rtrv-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 *rtrv-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*.

Sheet 5 of 5

**Figure 29: Changing an Allowed Called Party Address Screen**

# Chapter 5

# Allowed Translation Type (TT) Screen Configuration

**Topics:**


- *Introduction.....188*
- *Adding an Allowed Translation Type Screen...193*
- *Removing an Allowed Translation Type Screen.....200*
- *Changing an Allowed Translation Type Screen.....203*


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 31: Allowed Translation Type Screening Function* 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.

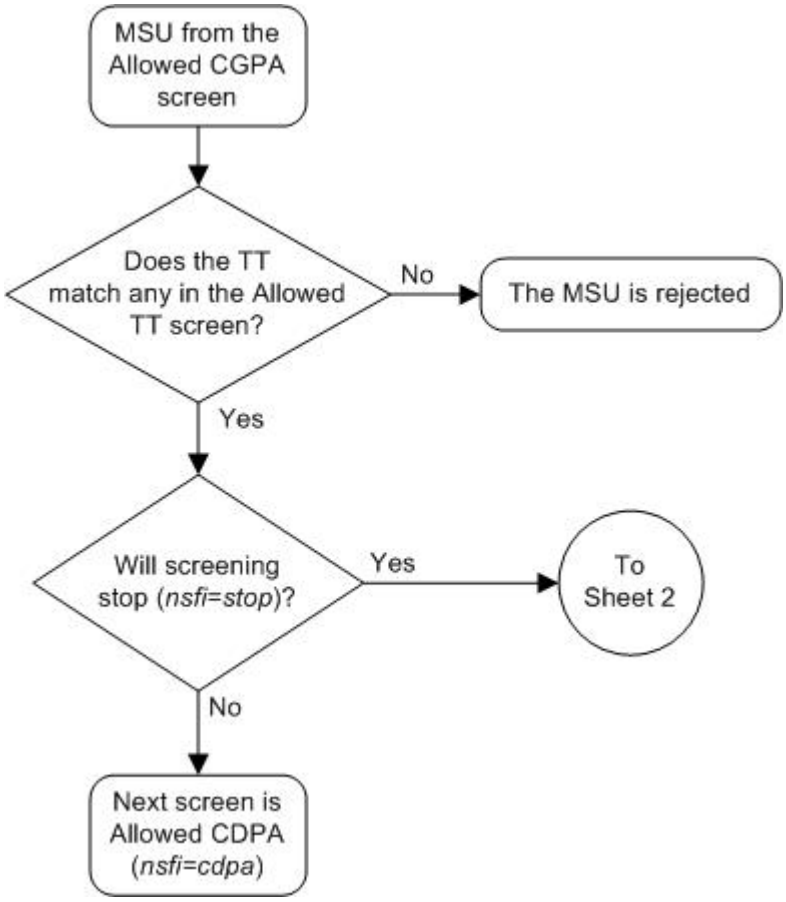
If a match is found, the `nsfi` is examined to determine the next step in the screening process. If the `nsfi` value is any value other than `stop`, the next screening reference (`nsr`) is identified and the screening process continues to the next screen identified by the `nsfi` and `nsr` parameter values.

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 `copy` gateway screening stop action is specified, the message is processed and a copy of the message is sent by the STPLAN feature to an external application.
- 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.

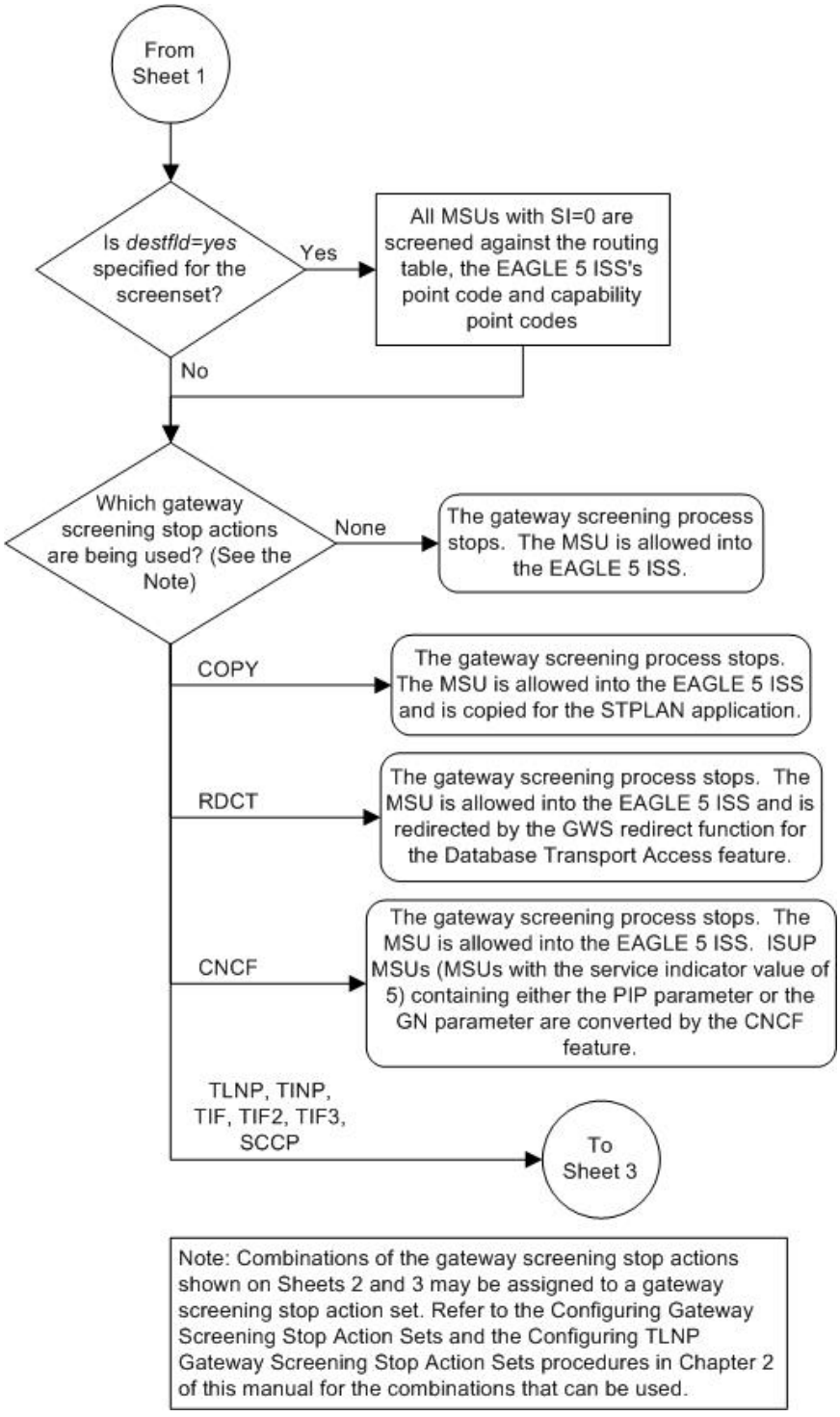
## Allowed TT Screening Actions

*Figure 30: Allowed TT Screening Actions* shows the screening actions of the allowed TT screen.

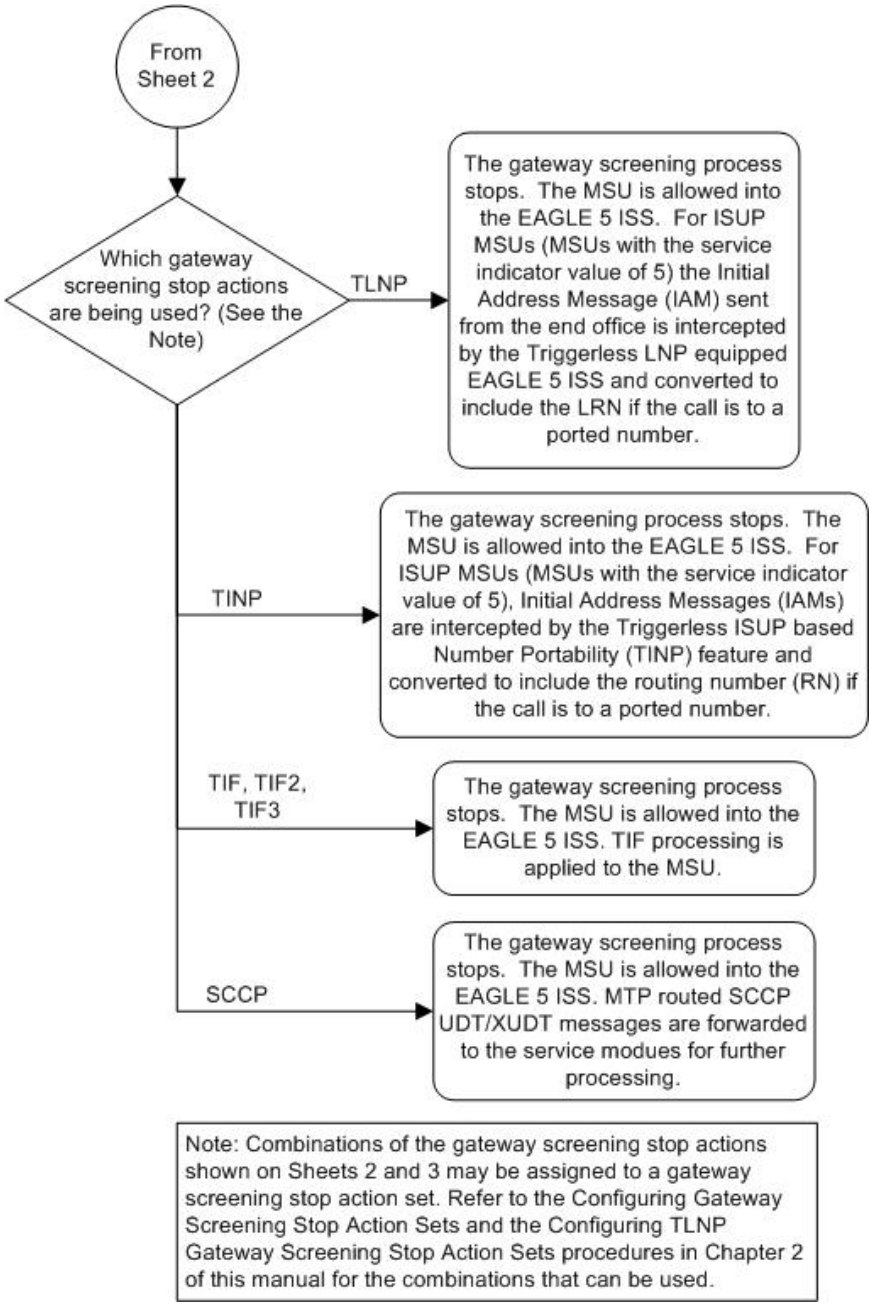



Sheet 1 of 3

**Figure 30: Allowed TT Screening Actions**


From Sheet 1
Is destfld=yes specified for the screenset?
Yes
All MSUs with SI=0 are screened against the routing table, the EAGLE 5 ISS's point code and capability point codes
No
Which gateway screening stop actions are being used? (See the Note)
None
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS.
COPY
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS and is copied for the STPLAN application.
RDCT
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS and is redirected by the GWS redirect function for the Database Transport Access feature.
CNCF
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. ISUP MSUs (MSUs with the service indicator value of 5) containing either the PIP parameter or the GN parameter are converted by the CNCF feature.
TLNP, TINP, TIF, TIF2, TIF3, SCCP
To Sheet 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.

Sheet 2 of 3


From Sheet 2
Which gateway screening stop actions are being used? (See the Note)
TLNP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. For ISUP MSUs (MSUs with the service indicator value of 5) the Initial Address Message (IAM) sent from the end office is intercepted by the Triggerless LNP equipped EAGLE 5 ISS and converted to include the LRN if the call is to a ported number.
TINP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. For ISUP MSUs (MSUs with the service indicator value of 5), Initial Address Messages (IAMs) 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.
TIF, TIF2, TIF3
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. TIF processing is applied to the MSU.
SCCP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. MTP routed SCCP UDT/XUDT messages are forwarded to the service modues for further processing.
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.

Sheet 3 of 3

ANSI MSU (ANSI Message Signal Unit)

| BSN FSN LI | SIO<br>xx xx xxxx<br>NIC PRI SI | SIF | | | |
|---|---|---|---|---|---|
| | | Routing Label<br>DPC OPC SLS<br>NCM NC NI NCM NC NI xx | | CGPA<br>Length<br>Address Indicator<br>Subsystem<br>Point Code<br>(NCM NC NI) | CDPA<br>Length<br>Address Indicator<br>(x x xxxx xx)<br>(x RI xxxx xx)<br>Subsystem<br>Point Code<br>(NCM NC NI)<br>Address<br>(Translation Type)<br>(Digits ) |

ITU-I MSU (ITU International Message Signal Unit)

| BSN FSN LI | SIO<br>xx xx xxxx<br>NIC PRI SI | SIF | | | |
|---|---|---|---|---|---|
| | | Routing Label<br>DPC OPC SLS<br>ID AREA ZONE ID AREA ZONE xx | | CGPA<br>Length<br>Address Indicator<br>Subsystem<br>Point Code<br>(ID AREA ZONE) | CDPA<br>Length<br>Address Indicator<br>(x x xxxx xx)<br>(x RI xxxx xx)<br>Subsystem<br>Point Code<br>(ID AREA ZONE)<br>Address<br>(Translation Type)<br>(Digits ) |

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

| BSN FSN LI | SIO<br>xx xx xxxx<br>NIC PRI SI | SIF | | | |
|---|---|---|---|---|---|
| | | Routing Label<br>DPC OPC SLS<br>NPC NPC xx | | CGPA<br>Length<br>Address Indicator<br>Subsystem<br>Point Code<br>(NPC) | CDPA<br>Length<br>Address Indicator<br>(x x xxxx xx)<br>(x RI xxxx xx)<br>Subsystem<br>Point Code<br>(NPC)<br>Address<br>(Translation Type)<br>(Digits ) |

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

| BSN FSN LI | SIO<br>xx xx xxxx<br>NIC PRI SI | SIF | | | |
|---|---|---|---|---|---|
| | | Routing Label<br>DPC OPC SLS<br>SP SSA MSA SP SSA MSA xx | | CGPA<br>Length<br>Address Indicator<br>Subsystem<br>Point Code<br>(SP SSA MSA) | CDPA<br>Length<br>Address Indicator<br>(x x xxxx xx)<br>(x RI xxxx xx)<br>Subsystem<br>Point Code<br>(SP SSA MSA)<br>Address<br>(Translation Type)<br>(Digits ) |

**Figure 31: Allowed Translation Type Screening Function**

## Adding an Allowed Translation Type Screen

This procedure is used to add an allowed translation type (TT) screen to the database using the `ent-scr-tt` command. The parameters used by the `ent-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 examples in this procedure are used to add the allowed TT screen data shown in *Table 31: Example Gateway Screening Allowed TT Configuration Table* and based on the example configuration shown in *Figure 6: Gateway Screening Configuration - Example 3*.

**Table 31: 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`.

   **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, see the `rtrv-feat` command description in the *Commands Manual*.

   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 `chg-feat` command. If you are not sure if you have purchased the gateway screening feature, contact your Tekelec 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 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
SR    TYPE     NSFI   NSR/ACT
IEC   005&&010 STOP   ------
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  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    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 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 `ent-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 4.

   **Caution:** The EAGLE 5 ISS 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 Manual* .

   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
   ```

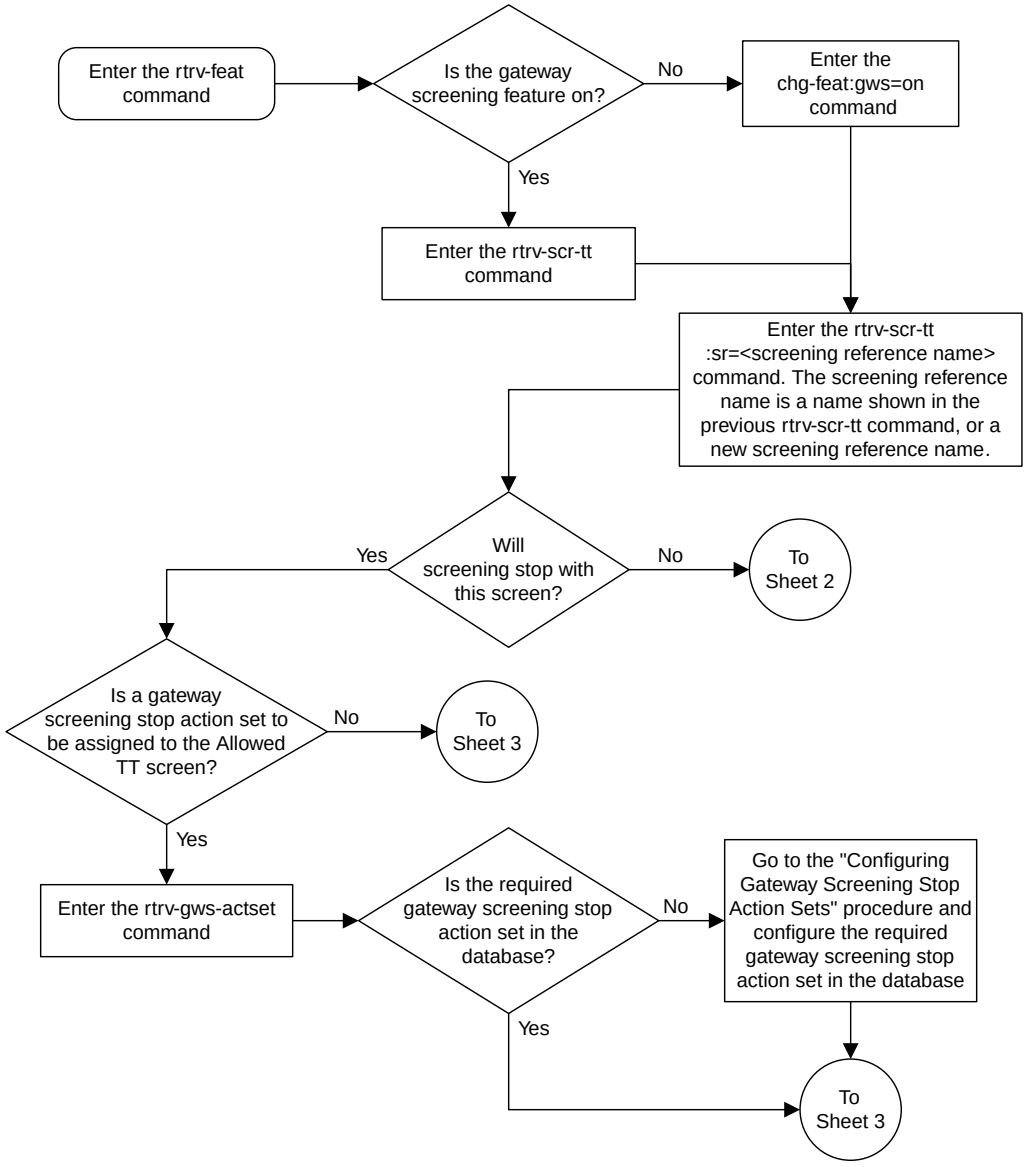
   The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:29:30 GMT  EAGLE5 36.0.0
SCREEN = ALLOWED TT
SR    TYPE     NSFI   NSR/ACT
GW16  250      CDPA   GW18
```

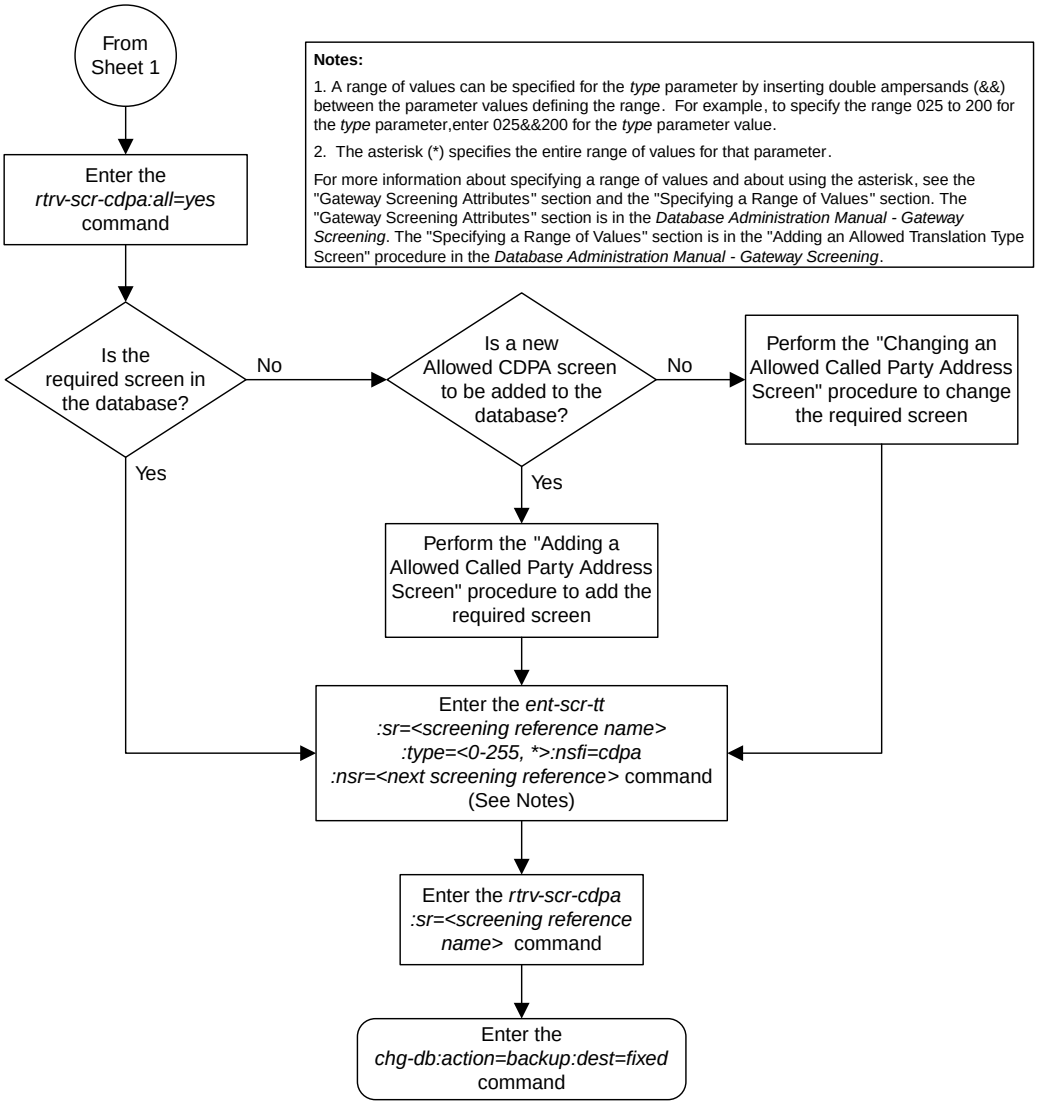
8. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

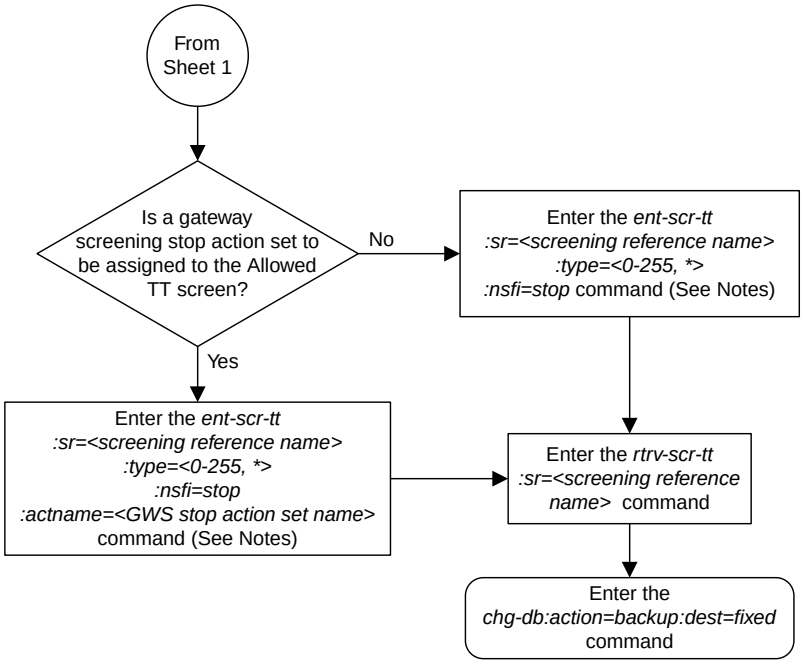
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the rtrv-feat command
Is the gateway screening feature on?
No
Enter the chg-feat:gws=on command
Yes
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, or a new screening reference name.
Will screening stop with this screen?
Yes
No
To Sheet 2
Is a gateway screening stop action set to be assigned to the Allowed TT screen?
No
To Sheet 3
Yes
Enter the rtrv-gws-actset command
Is the required gateway screening stop action set in the database?
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database
Yes
To Sheet 3

Sheet 1 of 3


From Sheet 1
Enter the *rtrv-scr-cdpa:all=yes* command
**Notes:**
1. A range of values can be specified for the *type* parameter by inserting double ampersands (&&) 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*.
Is the required screen in the database?
No
Is a new Allowed CDPA screen to be added to the database?
No
Perform the "Changing an Allowed Called Party Address Screen" procedure to change the required screen
Yes
Yes
Perform the "Adding a Allowed Called Party Address Screen" procedure to add the required screen
Enter the *ent-scr-tt :sr=<screening reference name> :type=<0-255, *>:nsfi=cdpa :nsr=<next screening reference>* command (See Notes)
Enter the *rtrv-scr-cdpa :sr=<screening reference name>* command
Enter the *chg-db:action=backup:dest=fixed* command

Sheet 2 of 3




**Notes:**

1. A range of values can be specified for the *type* parameter by inserting double ampersands (&&) 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*.

Sheet 3 of 3

**Figure 32: Adding an Allowed Translation Type Screen**

## Removing an Allowed Translation Type Screen

This procedure is used to remove an allowed translation type (TT) screen from the database using the `dlt-scr-tt` command. The parameters used by the `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 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.

```
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   ------
```

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.
```

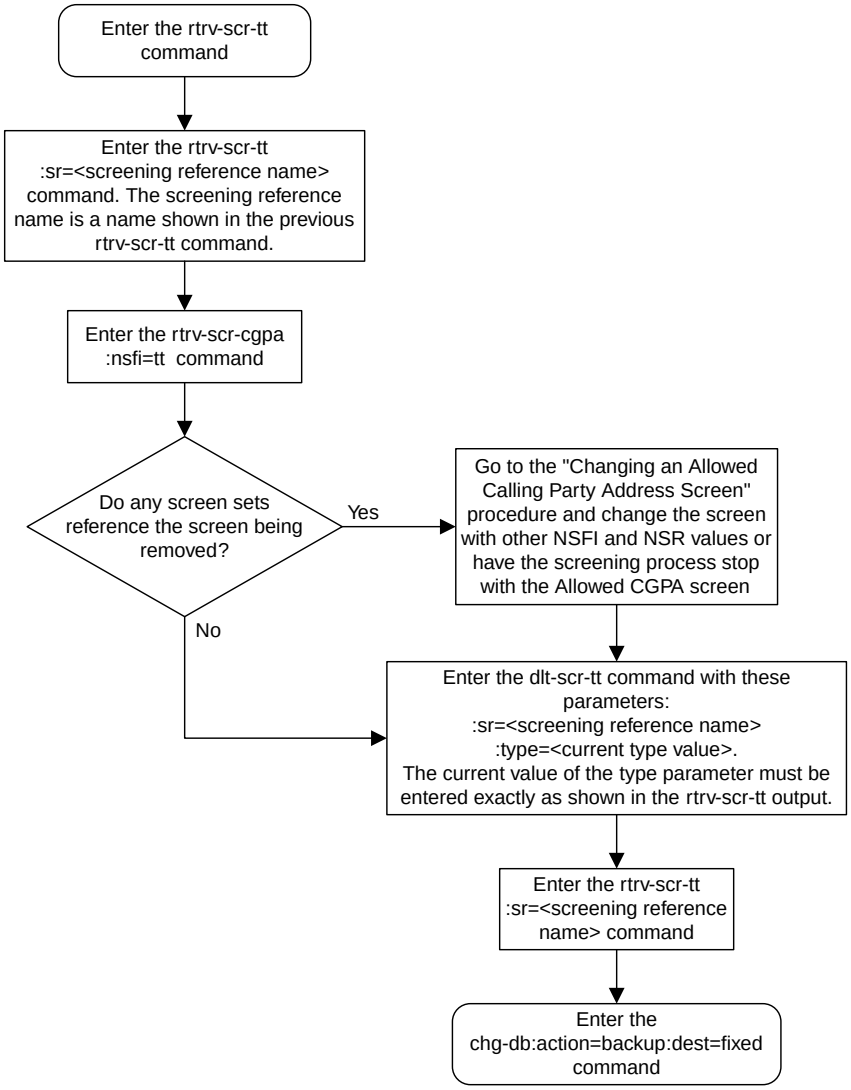



**Figure 33: Removing an Allowed Translation Type Screen**

## 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 `chg-scr-tt` command. The parameters used by the `chg-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 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.

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.

```
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  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    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 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 `chg-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 5 ISS does not support redirecting MSUs for the DTA feature or intercepting ISUPIAM 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 ISUPIAMMSUs are intercepted from the allowed TT screen. For more information on UIMs 1128 and 1218, go to the *Unsolicited Alarm and Information Messages Manual* .

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   4% FULL
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
   ```

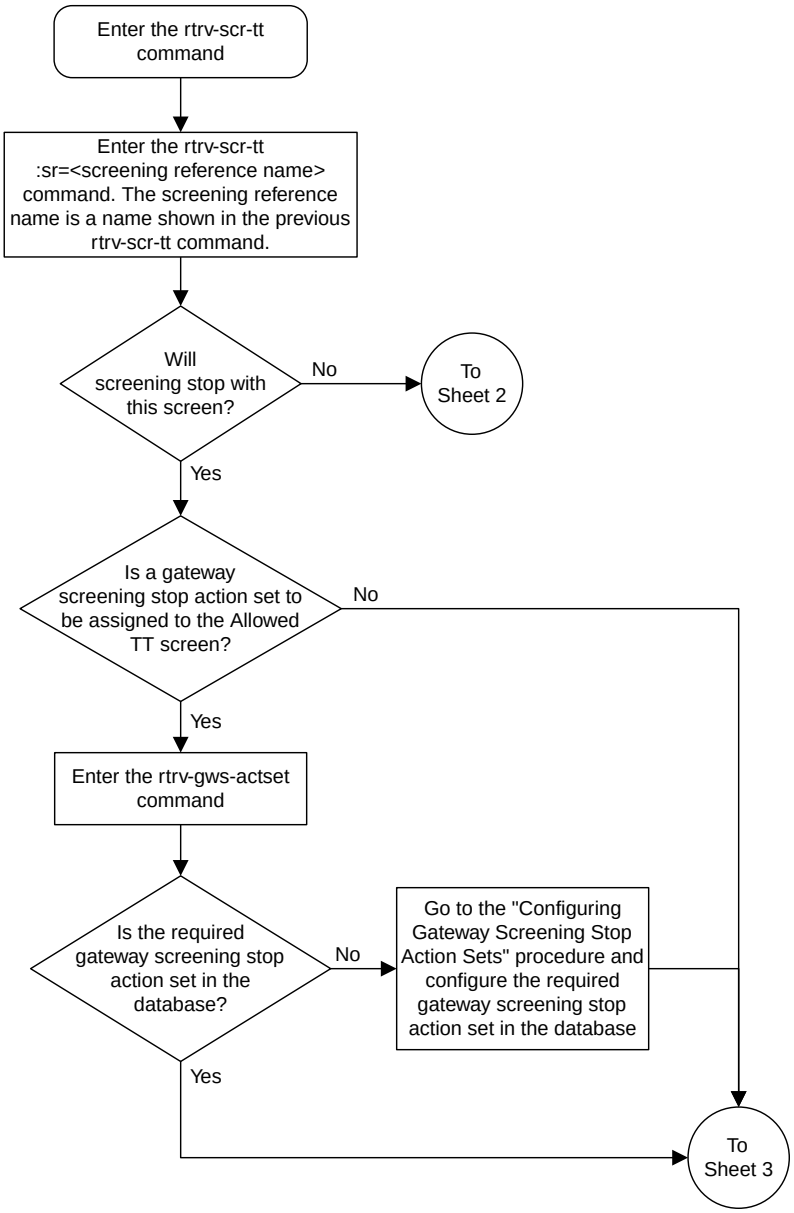
   The following is an example of the possible output.

   ```
   rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
   SCREEN = ALLOWED TT
   SR    TYPE     NSFI   NSR/ACT
   IEC   005&&010 STOP   ------
   IEC   012      STOP   ------
   IEC   210      STOP   ------
   ```

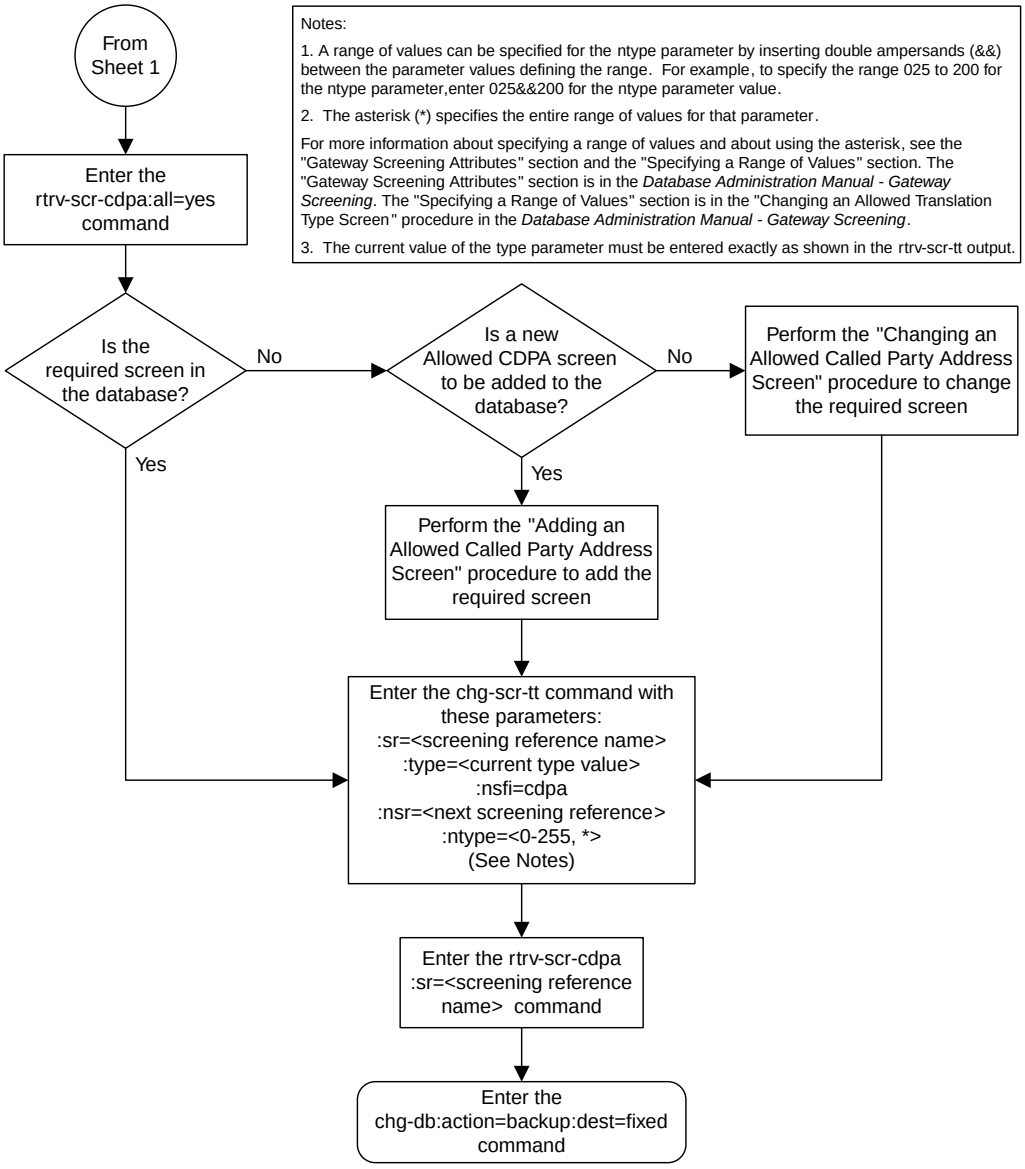
6. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

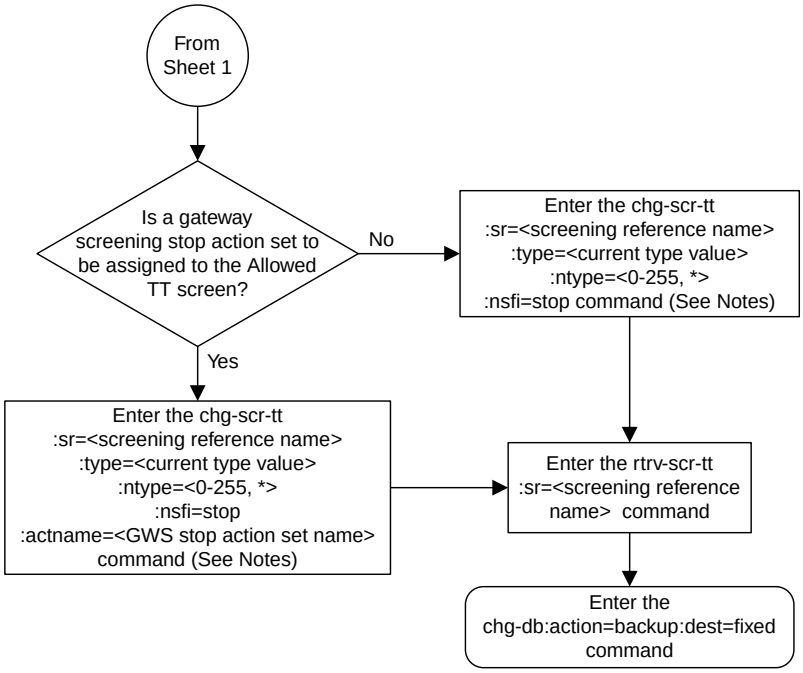
   ```
   BACKUP (FIXED) : MASP A - Backup starts on active MASP.
   BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
   BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
   BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
   ```


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 screening stop with this screen?
No
To Sheet 2
Yes
Is a gateway screening stop action set to be assigned to the Allowed TT screen?
No
Yes
Enter the rtrv-gws-actset command
Is the required gateway screening stop action set in the database?
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database
Yes
To Sheet 3

Sheet 1 of 3


From Sheet 1
Enter the rtrv-scr-cdpa:all=yes command
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 rtrv-scr-tt output.
Is the required screen in the database?
No
Is a new Allowed CDPA screen to be added to the database?
No
Perform the "Changing an Allowed Called Party Address Screen" procedure to change the required screen
Yes
Yes
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

Sheet 2 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 *rtrv-scr-tt* output.

Sheet 3 of 3

**Figure 34: Changing an Allowed Translation Type Screen**

# Chapter 6

# Allowed Calling Party (CGPA) Screen Configuration

**Topics:**


- *Introduction.....211*
- *Adding an Allowed Calling Party Address Screen.....217*
- *Removing an Allowed Calling Party Address Screen .....228*
- *Changing an Allowed Calling Party Address Screen.....233*


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 36: Allowed Calling Party Address Screening Function* 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 `copy` gateway screening stop action is specified, the message is processed and a copy of the message is sent by the STPLAN feature to an external application.
- 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.

## Allowed CGPA Screening Actions

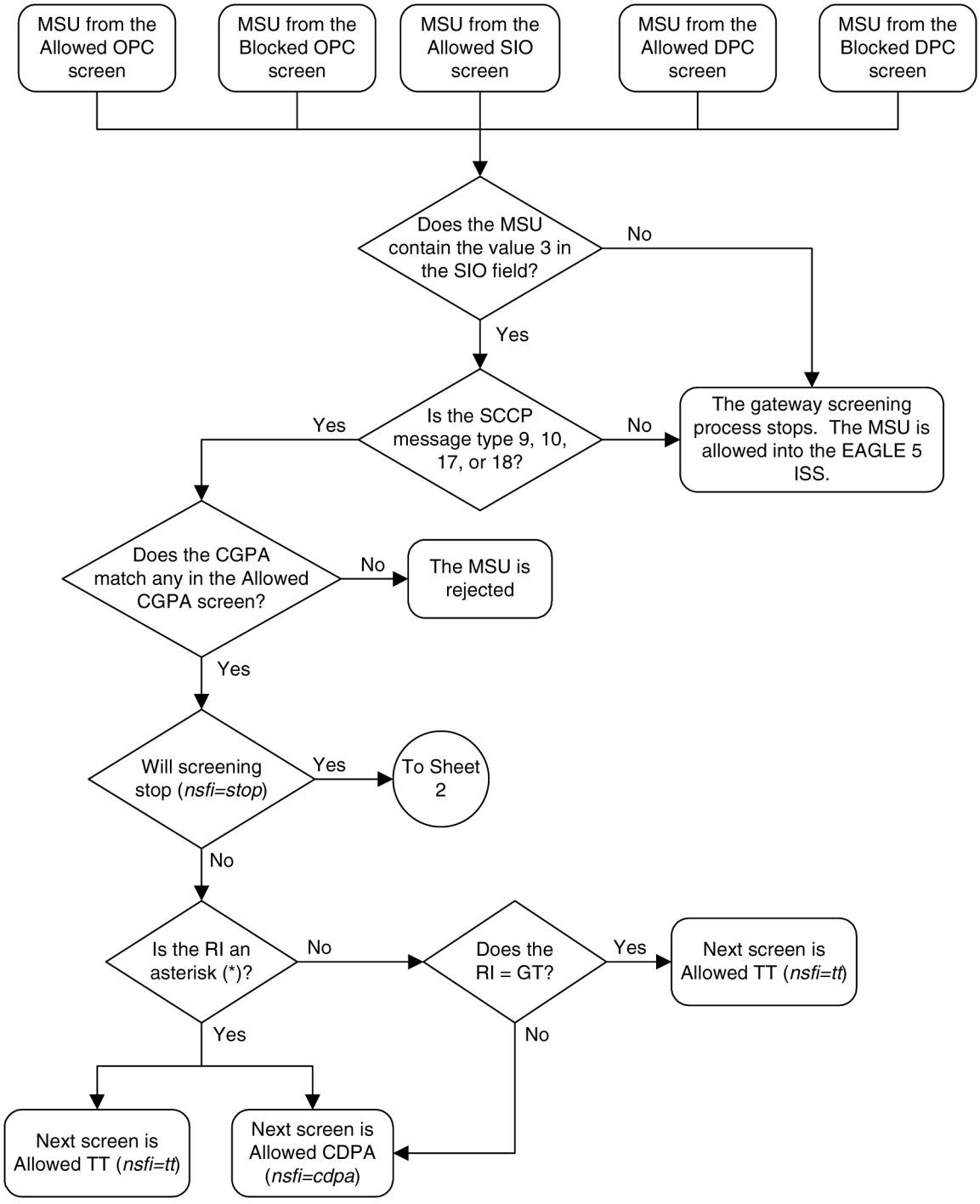
Any MSU that does not contain a service indicator of 3 in the SIO field and does not contain the SCCP message types 9, 10, 17, or 18 and reaches this screen in the gateway screening process automatically passes gateway screening and is allowed into the EAGLE 5 ISS.

The value of the `nsfi` parameter is based on the value of the routing indicator (`ri`) parameter. *Table 32: Valid Parameter Combinations for the Allowed CGPA Screening Function* shows the valid combinations of `nsfi` values and routing indicator values.

**Table 32: Valid Parameter Combinations for the Allowed CGPA Screening Function**

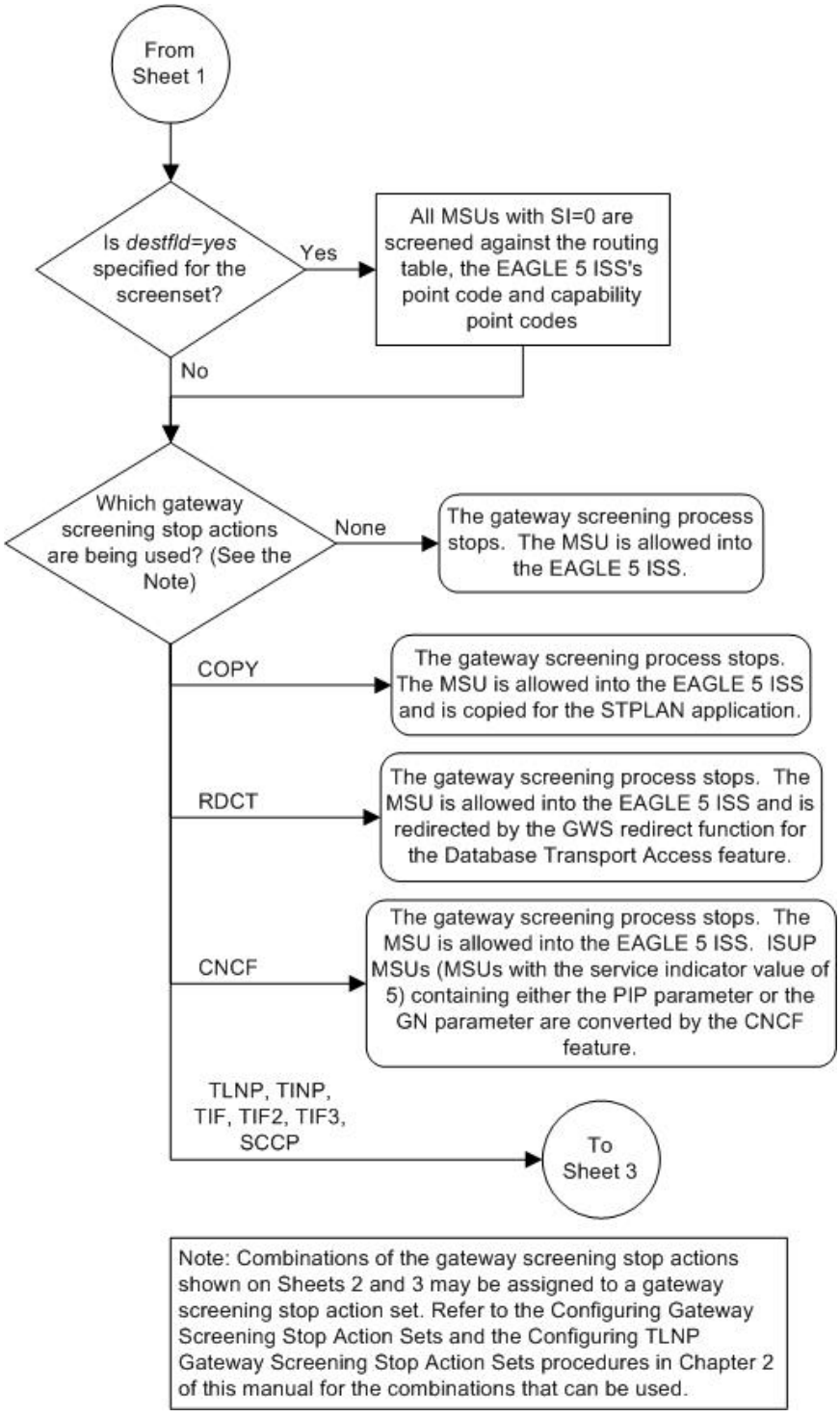
| Routing Indicator (RI) Values | Nest Screening Function Identifier (NSFI) Values |
|---|---|
| GT | TT |
| DPC | CDPA |
| * (asterisk) | TT, CDPA |

*Figure 35: Allowed CGPA Screening Actions* shows the screening actions of the allowed CGPA screen.

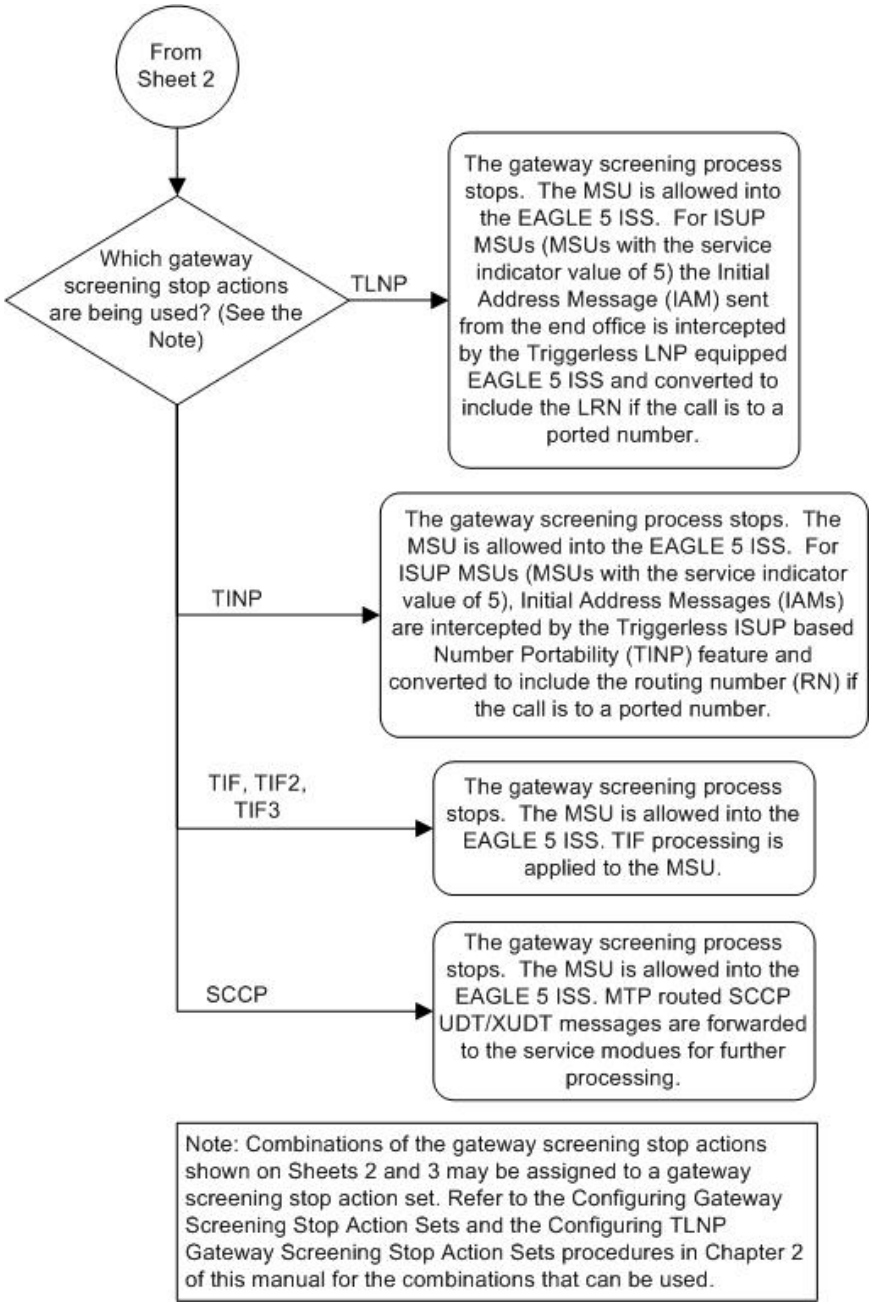



Sheet 1 of 3

**Figure 35: Allowed CGPA Screening Actions**


From Sheet 1
Is destfld=yes specified for the screenset?
Yes
All MSUs with SI=0 are screened against the routing table, the EAGLE 5 ISS's point code and capability point codes
No
Which gateway screening stop actions are being used? (See the Note)
None
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS.
COPY
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS and is copied for the STPLAN application.
RDCT
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS and is redirected by the GWS redirect function for the Database Transport Access feature.
CNCF
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. ISUP MSUs (MSUs with the service indicator value of 5) containing either the PIP parameter or the GN parameter are converted by the CNCF feature.
TLNP, TINP, TIF, TIF2, TIF3, SCCP
To Sheet 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.

Sheet 2 of 3


From Sheet 2
Which gateway screening stop actions are being used? (See the Note)
TLNP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. For ISUP MSUs (MSUs with the service indicator value of 5) the Initial Address Message (IAM) sent from the end office is intercepted by the Triggerless LNP equipped EAGLE 5 ISS and converted to include the LRN if the call is to a ported number.
TINP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. For ISUP MSUs (MSUs with the service indicator value of 5), Initial Address Messages (IAMs) 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.
TIF, TIF2, TIF3
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. TIF processing is applied to the MSU.
SCCP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. MTP routed SCCP UDT/XUDT messages are forwarded to the service modues for further processing.
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.

Sheet 3 of 3

ANSI MSU (ANSI Message Signal Unit)

| BSN FSN LI | SIO<br>xx xx xxxx<br>NIC PRI SI | SIF | | | |
|---|---|---|---|---|---|
| | | Routing Label<br>DPC OPC SLS<br>NCM NC NI NCM NC NI xx | SCCP Message Type<br>xxxx xxxx | CGPA<br>Length<br>Address Indicator<br>Subsystem Point Code<br>(NCM NC NI) | CDPA<br>Length<br>Address Indicator<br>(x x xxxx xx)<br>(x RI xxxx xx)<br>Subsystem Point Code<br>(NCM NC NI) |

ITU-I MSU (ITU International Message Signal Unit)

| BSN FSN LI | SIO<br>xx xx xxxx<br>NIC PRI SI | SIF | | | |
|---|---|---|---|---|---|
| | | Routing Label<br>DPC OPC SLS<br>ID AREA ZONE ID AREA ZONE xx | SCCP Message Type<br>xxxx xxxx | CGPA<br>Length<br>Address Indicator<br>Subsystem Point Code<br>(ID AREA ZONE) | CDPA<br>Length<br>Address Indicator<br>(x x xxxx xx)<br>(x RI xxxx xx)<br>Subsystem Point Code<br>(ID AREA ZONE) |

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

| BSN FSN LI | SIO<br>xx xx xxxx<br>NIC PRI SI | SIF | | | |
|---|---|---|---|---|---|
| | | Routing Label<br>DPC OPC SLS<br>NPC NPC xx | SCCP Message Type<br>xxxx xxxx | CGPA<br>Length<br>Address Indicator<br>Subsystem Point Code<br>(NPC) | CDPA<br>Length<br>Address Indicator<br>(x x xxxx xx)<br>(x RI xxxx xx)<br>Subsystem Point Code<br>(NPC) |

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

| BSN FSN LI | SIO<br>xx xx xxxx<br>NIC PRI SI | SIF | | | |
|---|---|---|---|---|---|
| | | Routing Label<br>DPC OPC SLS<br>SP SSA MSA SP SSA MSA xx | SCCP Message Type<br>xxxx xxxx | CGPA<br>Length<br>Address Indicator<br>Subsystem Point Code<br>(SP SSA MSA) | CDPA<br>Length<br>Address Indicator<br>(x x xxxx xx)<br>(x RI xxxx xx)<br>Subsystem Point Code<br>(SP SSA MSA) |

**Figure 36: Allowed Calling Party Address Screening Function**

## 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 33: Example Gateway Screening Allowed CGPA Configuration Table* and based on the example configurations shown in *Figure 4: Gateway Screening Configuration - Example 1* through *Figure 6: Gateway Screening Configuration - Example 3*.

**Table 33: Example Gateway Screening Allowed CGPA Configuration Table**

| Screening Reference | ZONE | AREA | ID | SSN | RI | SCCPMT | NSFI | NSR |
|---|---|---|---|---|---|---|---|---|
| gw11 | 7 | 100 | 4 | 254 | * | 010 | cdpa | gw15 |
| Screening Reference | NI | NC | NCM | SSN | RI | SCCPMT | NSFI | NSR |
| gw13 | 007 | 007 | 007 | 250 | gt | 017 | tt | gw16 |
| gw14 | 006 | 006 | 006 | 253 | dpc | 009 | cdpa | gw17 |

**Note:** 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 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 34: Valid Value Combinations for ANSI Point Code Parameters* shows the valid combinations of these parameter values.

**Table 34: 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 35: Valid Value Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I parameter values. *Table 36: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* shows the valid combinations of the 24-bit ITU-N parameter values.

**Table 35: 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 36: 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`.

   **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, see the `rtrv-feat` command description in the *Commands Manual*.

   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 `chg-feat` command. If you are not sure if you have purchased the gateway screening feature, contact your Tekelec 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.

```
rlghncxa03w 06-10-25 15:26:30 GMT  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  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    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 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.

   **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 6 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 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 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 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 `ent-scr-cgpa` 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 4.

   **Caution:** The EAGLE 5 ISS 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 `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 when ISUP IAM MSUs are intercepted from the allowed CGPA screen. For more information on UIMs 1126 and 1216, go to the *Unsolicited Alarm and Information Messages Manual* .

   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 the `ri=gt` or `nsfi=tt` parameter is specified, the other parameter must be specified. If either the `ri=dpc` or `nsfi=cdpa` parameter is specified, the other parameter must be specified. If the `ri=*` parameter is specified, either the `nsfi=gt` or `nsfi=dpc` parameters can be specified.

**Note:** 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=cdpa: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:nsfi=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      RI   SCCPMT   NSFI    NSR/ACT
GW11    7       100      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
SR    NI       NC       NCM      SSN      RI   SCCPMT   NSFI    NSR/ACT
GW13  007      007      007      250      SSN  017      CDPA    GW16
```

   `rtrv-scr-cgpa:sr=gw14`

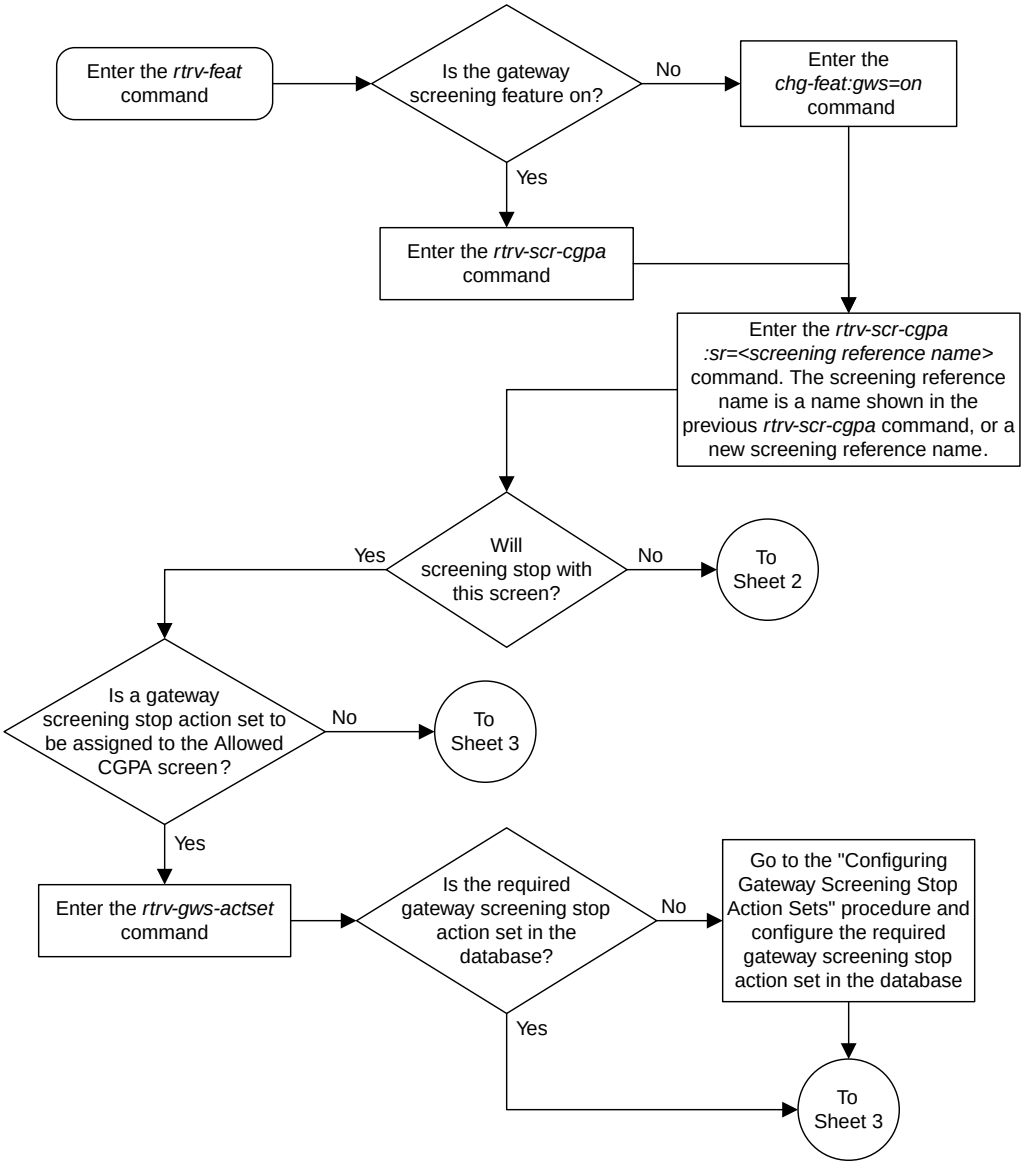
   The following is an example of the possible output.

```
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      TT      GW17
```

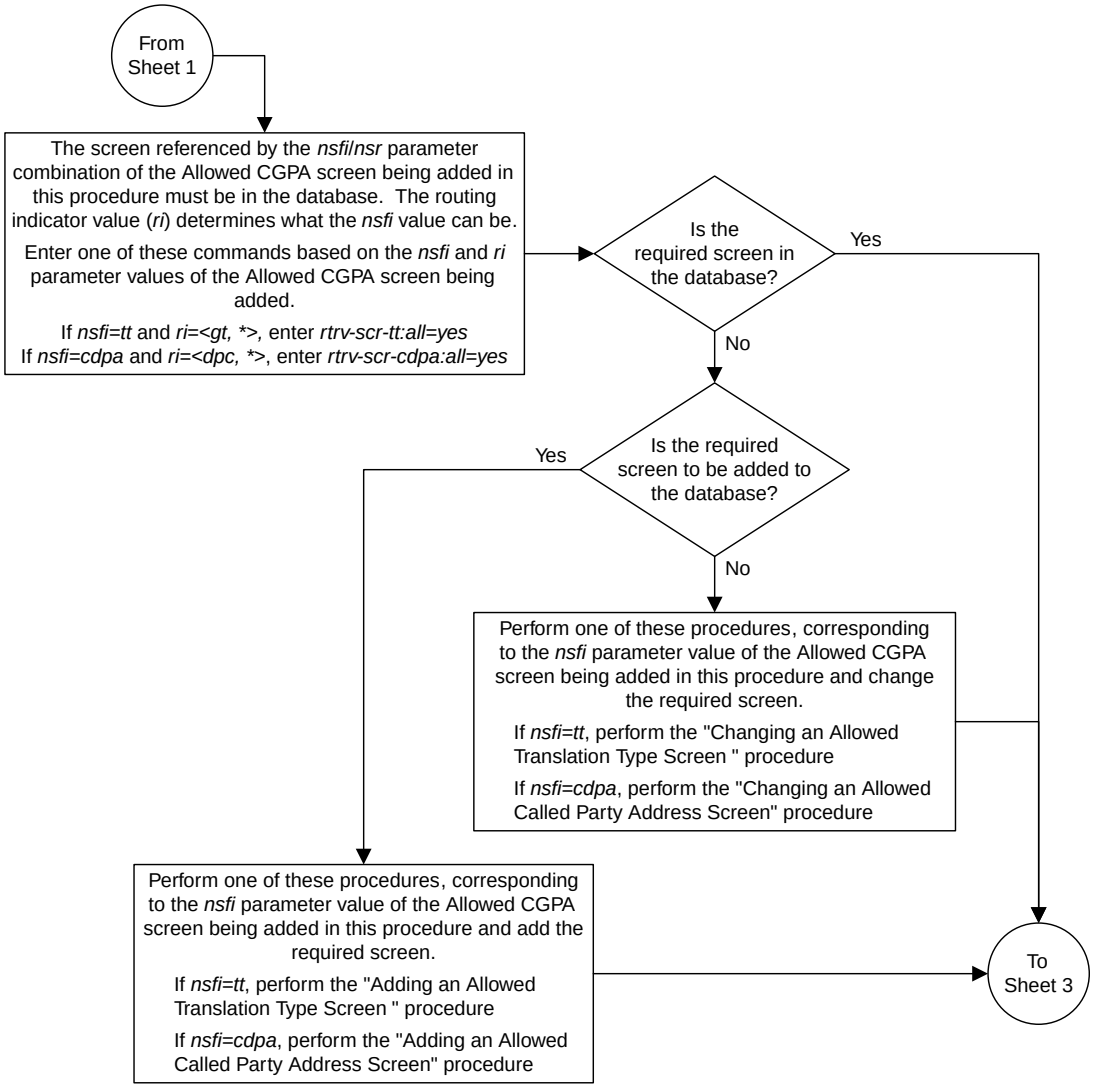
9. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

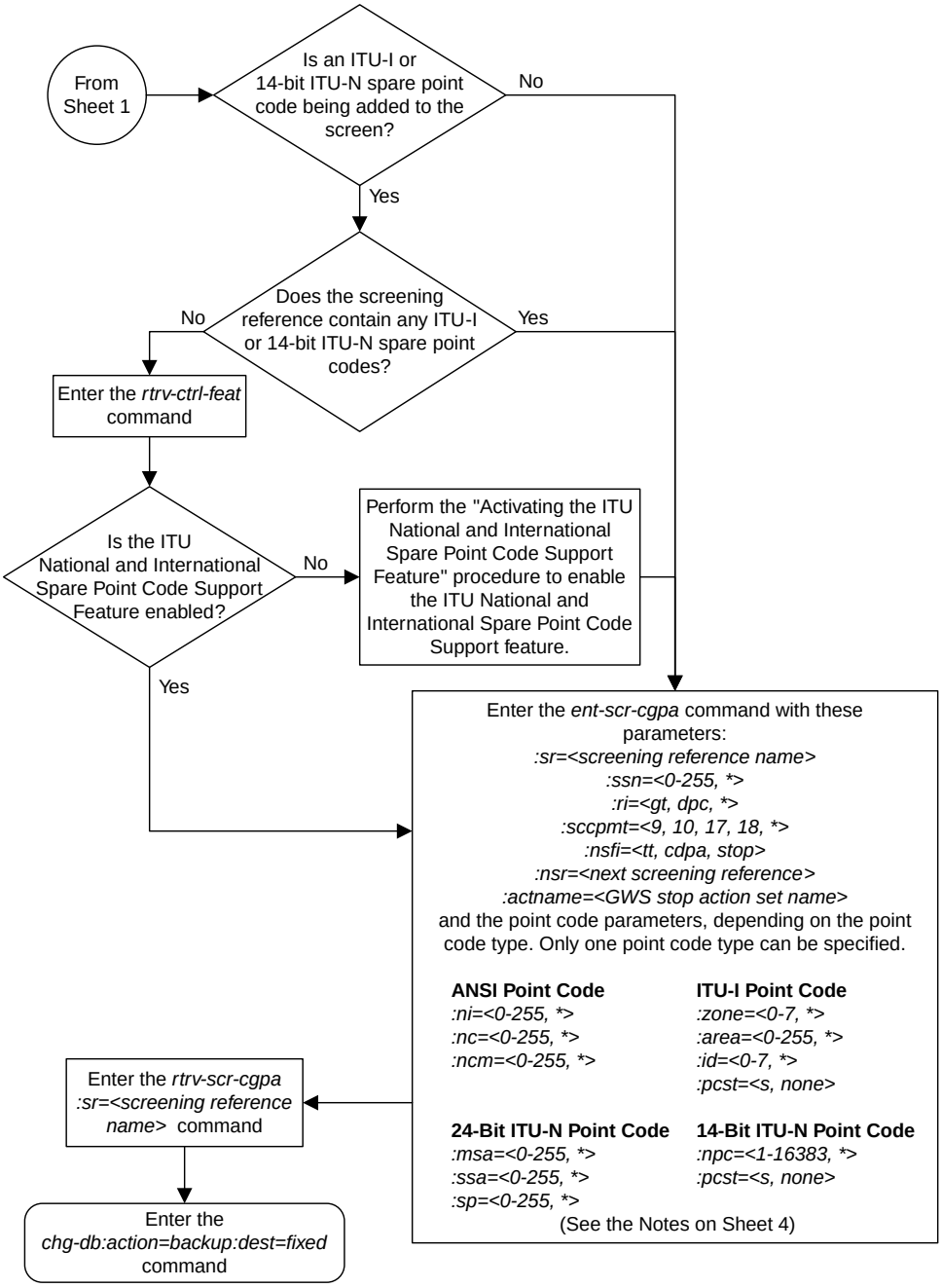
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the *rtrv-feat* command
Is the gateway screening feature on?
No
Enter the *chg-feat:gws=on* command
Yes
Enter the *rtrv-scr-cgpa* command
Enter the *rtrv-scr-cgpa :sr=<screening reference name>* command. The screening reference name is a name shown in the previous *rtrv-scr-cgpa* command, or a new screening reference name.
Will screening stop with this screen?
Yes
No
To Sheet 2
Is a gateway screening stop action set to be assigned to the Allowed CGPA screen?
No
To Sheet 3
Yes
Enter the *rtrv-gws-actset* command
Is the required gateway screening stop action set in the database?
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database
Yes
To Sheet 3

Sheet 1 of 4


From Sheet 1
The screen referenced by the nsfi/nsr parameter combination of the Allowed CGPA screen being added in this procedure must be in the database. The routing indicator value (ri) determines what the nsfi value can be.
Enter one of these commands based on the nsfi and ri parameter values of the Allowed CGPA screen being added.
If nsfi=tt and ri=<gt, *>, enter rtrv-scr-tt:all=yes
If nsfi=cdpa and ri=<dpc, *>, enter rtrv-scr-cdpa:all=yes
Is the required screen in the database?
Yes
No
Is the required screen to be added to the database?
Yes
No
Perform one of these procedures, corresponding to the nsfi parameter value of the Allowed CGPA screen being added in this procedure and change the required screen.
If nsfi=tt, perform the "Changing an Allowed Translation Type 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 CGPA screen being added in this procedure and add the required screen.
If nsfi=tt, perform the "Adding an Allowed Translation Type Screen " procedure
If nsfi=cdpa, perform the "Adding an Allowed Called Party Address Screen" procedure
To Sheet 3

Sheet 2 of 4


From Sheet 1
Is an ITU-I or 14-bit ITU-N spare point code being added to the screen?
No
Yes
Does the screening reference contain any ITU-I or 14-bit ITU-N spare point codes?
No
Yes
Enter the *rtrv-ctrl-feat* command
Is the ITU National and International Spare Point Code Support Feature enabled?
No
Perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure to enable the ITU National and International Spare Point Code Support feature.
Yes
Enter the *ent-scr-cgpa* command with these parameters:
*:sr=<screening reference name>*
*:ssn=<0-255, *>*
*:ri=<gt, dpc, *>*
*:sccpmt=<9, 10, 17, 18, *>*
*:nsfi=<tt, cdpa, 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.
**ANSI Point Code**
*:ni=<0-255, *>*
*:nc=<0-255, *>*
*:ncm=<0-255, *>*
**ITU-I Point Code**
*:zone=<0-7, *>*
*:area=<0-255, *>*
*:id=<0-7, *>*
*:pcst=<s, none>*
**24-Bit ITU-N Point Code**
*:msa=<0-255, *>*
*:ssa=<0-255, *>*
*:sp=<0-255, *>*
**14-Bit ITU-N Point Code**
*:npc=<1-16383, *>*
*:pcst=<s, none>*
(See the Notes on Sheet 4)
Enter the *rtrv-scr-cgpa :sr=<screening reference name>* command
Enter the *chg-db:action=backup:dest=fixed* command

Sheet 3 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 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 *ri* parameter value must be *gt* or *.

5. To specify the *nsfi=cdpa* parameter, the *ri* 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 *rtrv-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.

Sheet 4 of 4

**Figure 37: Adding an Allowed Calling Party Address Screen**

## 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.

**Note:** 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=cgpa`
- `rtrv-scr-blkopc:nsfi=cgpa`
- `rtrv-scr-sio:nsfi=cgpa`
- `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*

1. 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
SR    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
SR    NI       NC       NCM      SSN      RI   SCCPMT   NSFI    NSR/ACT
GW14  003      003      003      253      GT   009      TT      GW17
```

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 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 `pcst=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 `pcst` parameter does not have to be specified with the `dlt-scr-cgpa` command. If the `pcst` 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.

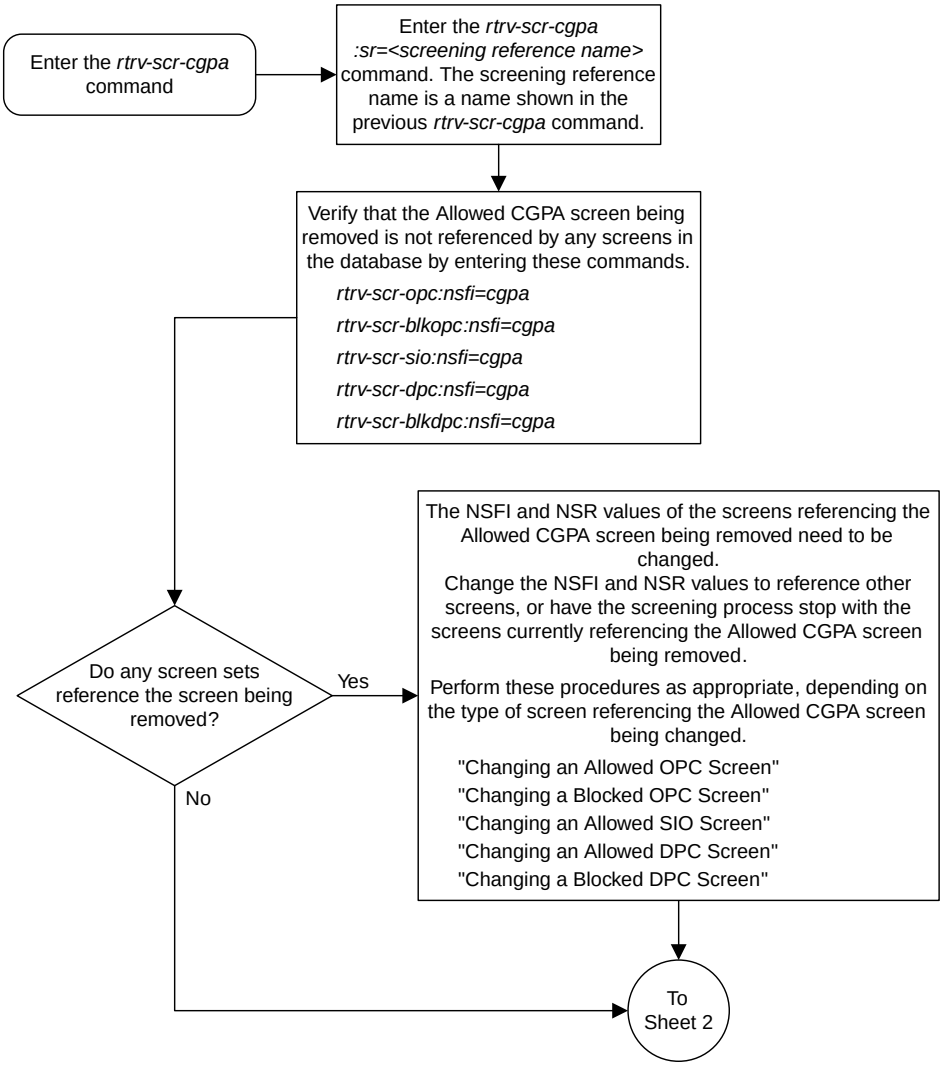
```
E2573 Cmd Rej: SR or NSR does not reference an existing SR
```

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.

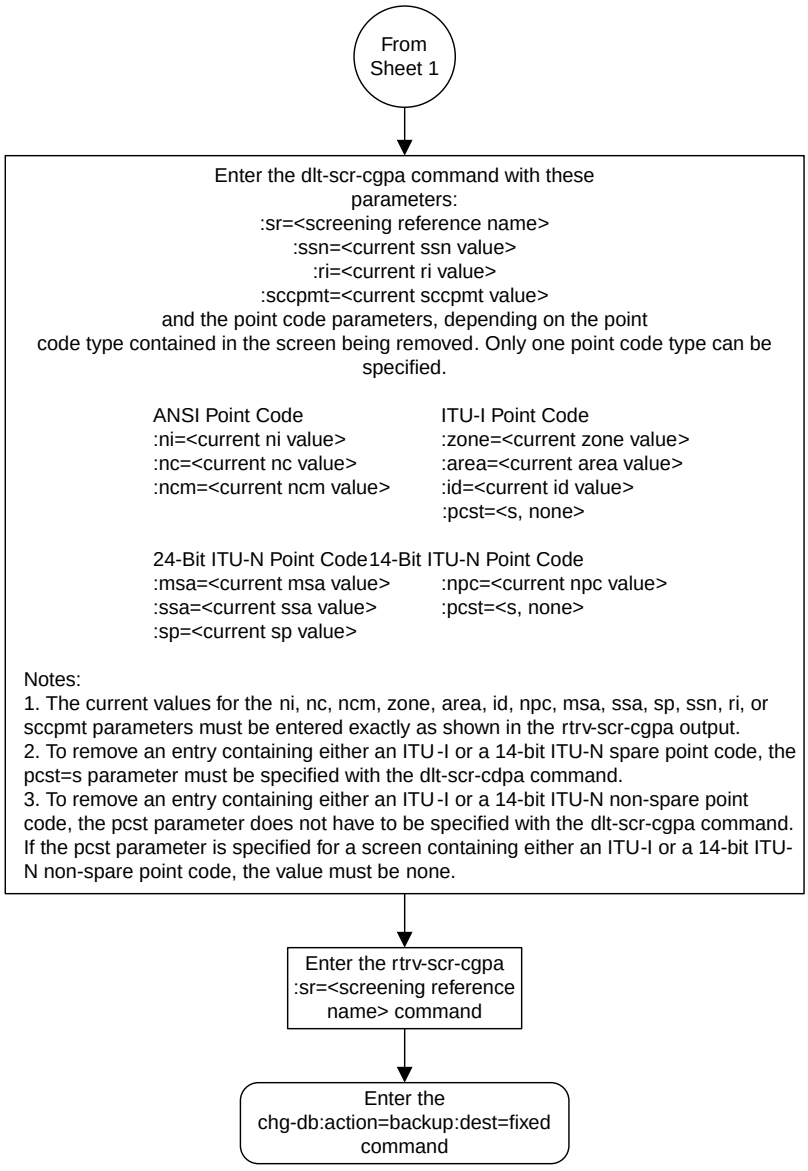
5. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

   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-cgpa* command
Enter the *rtrv-scr-cgpa :sr=<screening reference name>* command. The screening reference 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*
Do any screen sets reference the screen being removed?
Yes
No
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.
Perform these procedures as appropriate, depending on the type of screen referencing the Allowed CGPA screen being changed.
"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"
To Sheet 2

Sheet 1 of 2


From Sheet 1
Enter the dlt-scr-cgpa command with these parameters:
:sr=<screening reference name>
:ssn=<current ssn value>
:ri=<current ri value>
:sccpmt=<current sccpmt 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>
ITU-I Point Code
:zone=<current zone value>
:area=<current area value>
:id=<current id value>
:pcst=<s, none>
24-Bit ITU-N Point Code
:msa=<current msa value>
:ssa=<current ssa value>
:sp=<current sp value>
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, ssn, ri, or sccpmt parameters must be entered exactly as shown in the rtrv-scr-cgpa 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-cgpa 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-cgpa :sr=<screening reference name> command
Enter the chg-db:action=backup:dest=fixed command

Sheet 2 of 2

**Figure 38: Removing an Allowed Calling Party Address Screen**

## 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.

**Note:** 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 `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 37: Valid Value Combinations for ANSI Point Code Parameters* shows the valid combinations of these parameter values.

**Table 37: 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 38: Valid Value Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I parameter values. *Table 39: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* shows the valid combinations of the 24-bit ITU-N parameter values.

**Table 38: 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 39: 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 |

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

1. 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
SR    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 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
SR    NI       NC       NCM      SSN      RI   SCCPMT   NSFI    NSR/ACT
GW14  003      003      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  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    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 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.

   **Note:** 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 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 `chg-scr-cgpa` 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 5 ISS does not support redirecting MSUs for the DTA feature or intercepting ISUPIAM 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 ISUPIAMMSUs are intercepted from the allowed CGPA screen. For more information on UIMs 1126 and 1216, go to the *Unsolicited Alarm and Information Messages Manual* .

   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-cgpa` 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 (*)

**Note:** The `nri`, `nsfi`, and `nsr` parameters can be specified only as shown in *Table 40: CGPA Parameter Combinations*.

**Table 40: CGPA Parameter Combinations**

| New or Current RI Value | NSFI | NSR |
|---|---|---|
| GT | TT, STOP | Must be specified if NSFI=TT |

| New or Current RI Value | NSFI | NSR |
|---|---|---|
| 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:nnc=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
   ```

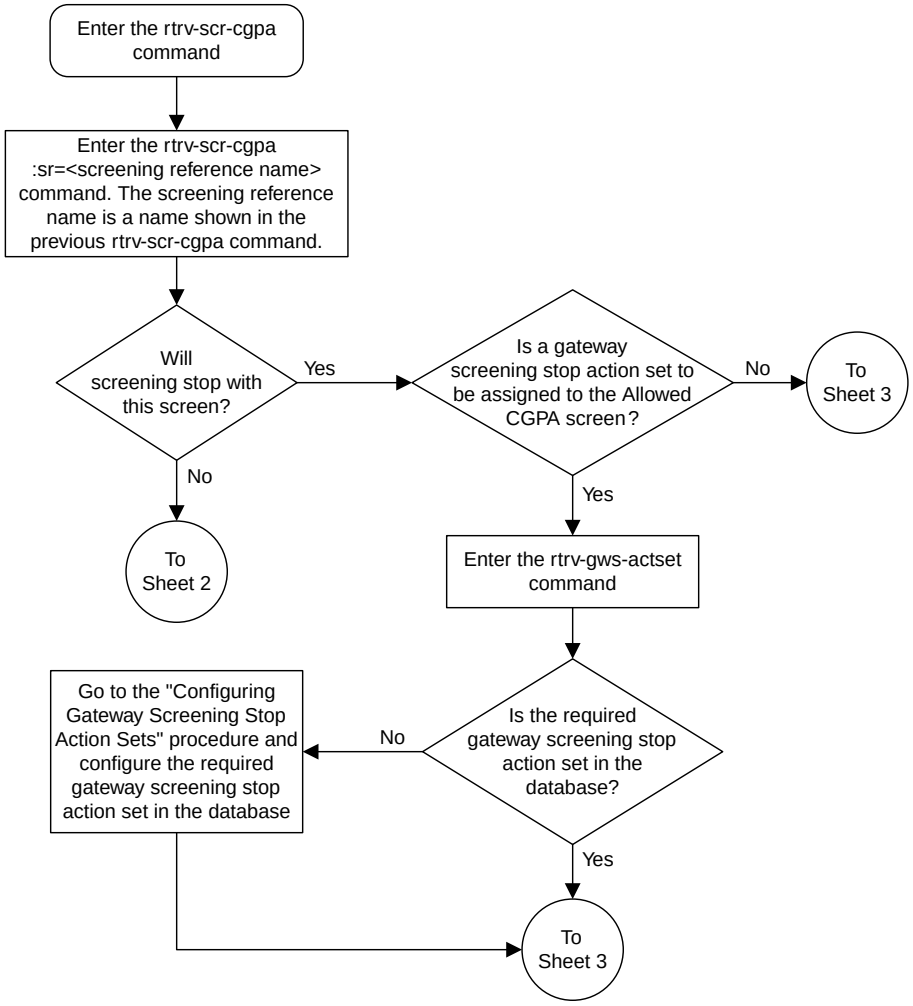
   The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:28:30 GMT  EAGLE5 36.0.0
SCREEN = ALLOWED CGPA
SR    NI       NC       NCM      SSN      RI   SCCPMT   NSFI    NSR/ACT
GW14  230      230      230      150      GT   009      TT      GW17
```

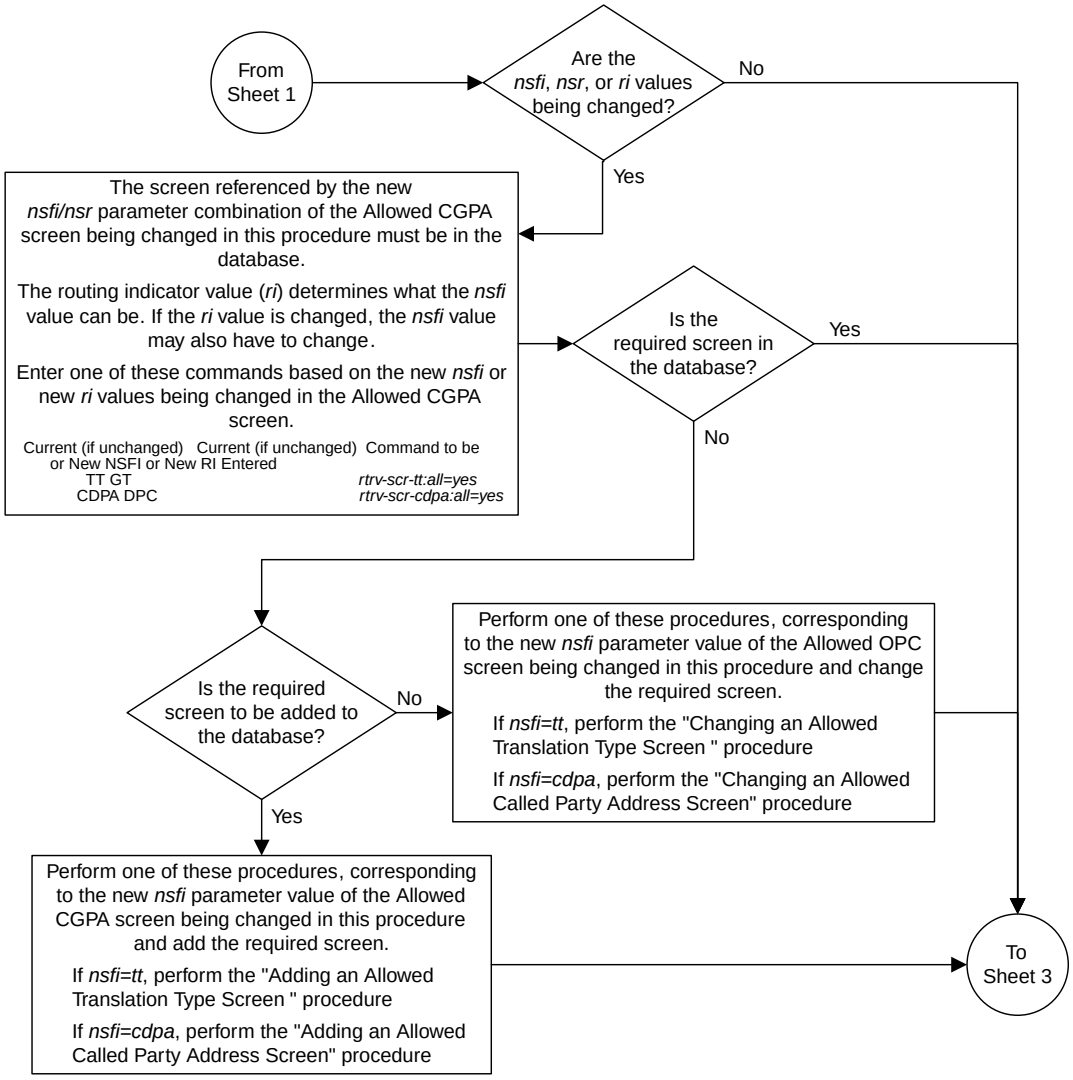
7. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

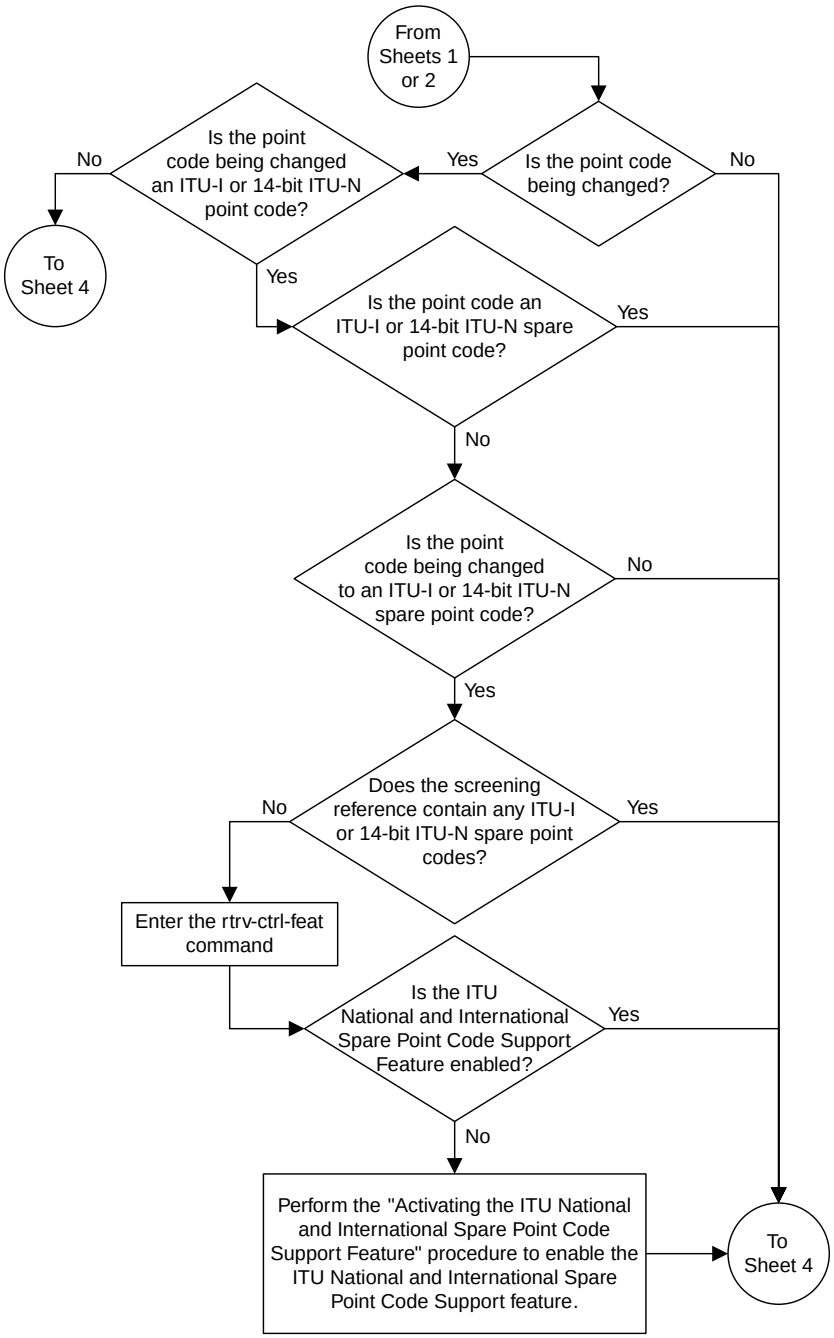
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the rtrv-scr-cgpa command
Enter the rtrv-scr-cgpa :sr=<screening reference name> command. The screening reference name is a name shown in the previous rtrv-scr-cgpa command.
Will screening stop with this screen?
Yes
No
Is a gateway screening stop action set to be assigned to the Allowed CGPA screen?
No
To Sheet 3
Yes
To Sheet 2
Enter the rtrv-gws-actset command
Is the required gateway screening stop action set in the database?
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database
Yes
To Sheet 3

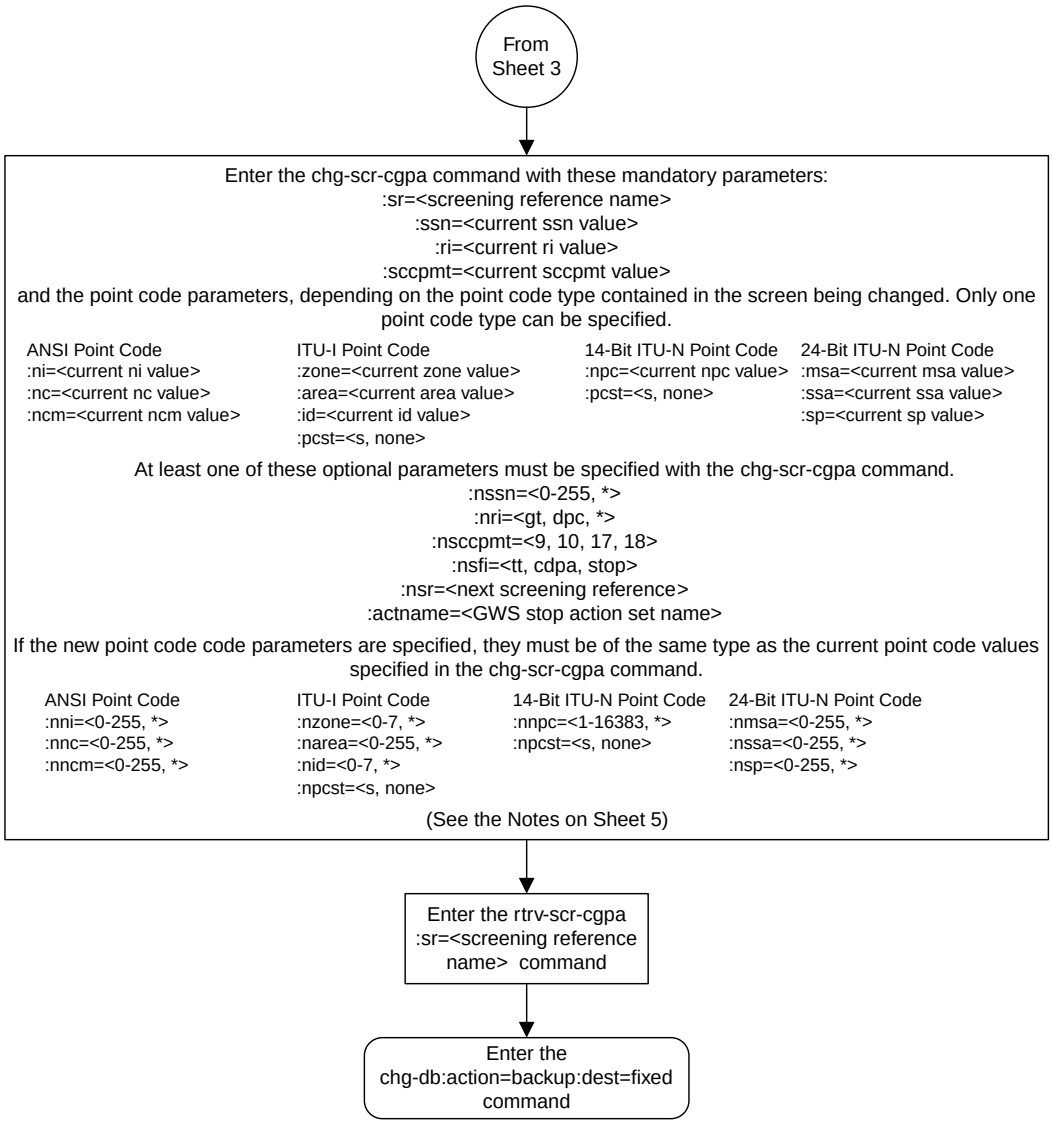
Sheet 1 of 5


From Sheet 1
Are the nsfi, nsr, or ri values being changed?
No
Yes
The screen referenced by the new nsfi/nsr parameter combination of the Allowed CGPA screen being changed in this procedure must be in the database.
The routing indicator value (ri) determines what the nsfi value can be. If the ri value is changed, the nsfi value may also have to change.
Enter one of these commands based on the new nsfi or new ri values being changed in the Allowed CGPA screen.
Current (if unchanged) or New NSFI or New RI Entered
Current (if unchanged) Command to be Entered
TT GT
rtrv-scr-tt:all=yes
CDPA DPC
rtrv-scr-cdpa:all=yes
Is the required screen in the database?
Yes
No
Is the required screen to be added to the database?
No
Perform one of these procedures, corresponding to the new nsfi parameter value of the Allowed OPC screen being changed in this procedure and change the required screen.
If nsfi=tt, perform the "Changing an Allowed Translation Type Screen " procedure
If nsfi=cdpa, perform the "Changing an Allowed Called Party Address Screen" procedure
Yes
Perform one of these procedures, corresponding to the new nsfi parameter value of the Allowed CGPA screen being changed in this procedure and add the required screen.
If nsfi=tt, perform the "Adding an Allowed Translation Type Screen " procedure
If nsfi=cdpa, perform the "Adding an Allowed Called Party Address Screen" procedure
To Sheet 3

Sheet 2 of 5


From Sheets 1 or 2
Is the point code being changed?
Yes
No
Is the point code being changed an ITU-I or 14-bit ITU-N point code?
No
To Sheet 4
Yes
Is the point code an ITU-I or 14-bit ITU-N spare point code?
Yes
No
Is the point code being changed to an ITU-I or 14-bit ITU-N spare point code?
No
Yes
Does the screening reference contain any ITU-I or 14-bit ITU-N spare point codes?
No
Yes
Enter the rtrv-ctrl-feat command
Is the ITU National and International Spare Point Code Support Feature enabled?
Yes
No
Perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure to enable the ITU National and International Spare Point Code Support feature.
To Sheet 4

Sheet 3 of 5


From Sheet 3
Enter the chg-scr-cgpa command with these mandatory parameters:
:sr=<screening reference name>
:ssn=<current ssn value>
:ri=<current ri value>
:sccpmt=<current sccpmt value>
and the point code parameters, depending on the point code type contained in the screen being changed. Only one point code type can be specified.
ANSI Point Code
:ni=<current ni value>
:nc=<current nc value>
:ncm=<current ncm 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>
24-Bit ITU-N Point Code
:msa=<current msa value>
:ssa=<current ssa value>
:sp=<current sp value>
At least one of these optional parameters must be specified with the chg-scr-cgpa command.
:nssn=<0-255, *>
:nri=<gt, dpc, *>
:nsccpmt=<9, 10, 17, 18>
:nsfi=<tt, cdpa, stop>
:nsr=<next screening reference>
:actname=<GWS stop action set name>
If the new point code code parameters are specified, they must be of the same type as the current point code values specified in the chg-scr-cgpa command.
ANSI Point Code
:nni=<0-255, *>
:nnc=<0-255, *>
:nncm=<0-255, *>
ITU-I Point Code
:nzone=<0-7, *>
:narea=<0-255, *>
:nid=<0-7, *>
:npcst=<s, none>
14-Bit ITU-N Point Code
:nnpc=<1-16383, *>
:npcst=<s, none>
24-Bit ITU-N Point Code
:nmsa=<0-255, *>
:nssa=<0-255, *>
:nsp=<0-255, *>
(See the Notes on Sheet 5)
Enter the rtrv-scr-cgpa :sr=<screening reference name> command
Enter the chg-db:action=backup:dest=fixed command

Sheet 4 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 *rtrv-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 *ri* value must be GT or *.

7. The *nri=dpc* parameter can be specified only if the *nsfi* value is CDPA. If the *nsfi=cdpa* parameter is specified, the *ri* value must be DPC or *.

8. The current values for the *ni*, *nc*, *ncm*, *zone*, *area*, *id*, *npc*, *ssn*, *ri*, and *sccpmt* parameters must be entered exactly as shown in the *rtrv-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 ITU-I or 14-bit ITU-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*.

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**Figure 39: Changing an Allowed Calling Party Address Screen**

# Chapter 7

# Allowed Affected Destination Field (DESTFLD) Screen Configuration

**Topics:**


- *Introduction.....247*
- *Adding an Allowed Affected Destination Field Screen.....251*
- *Removing an Allowed Affected Destination Field Screen.....260*
- *Changing an Allowed Affected Destination Field Screen.....265*


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 5 ISS. The gray shaded areas in *Figure 41: Allowed Affected Destination Field Screening Function* 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 set `destfld=yes` parameter, see the section *Automatic 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.

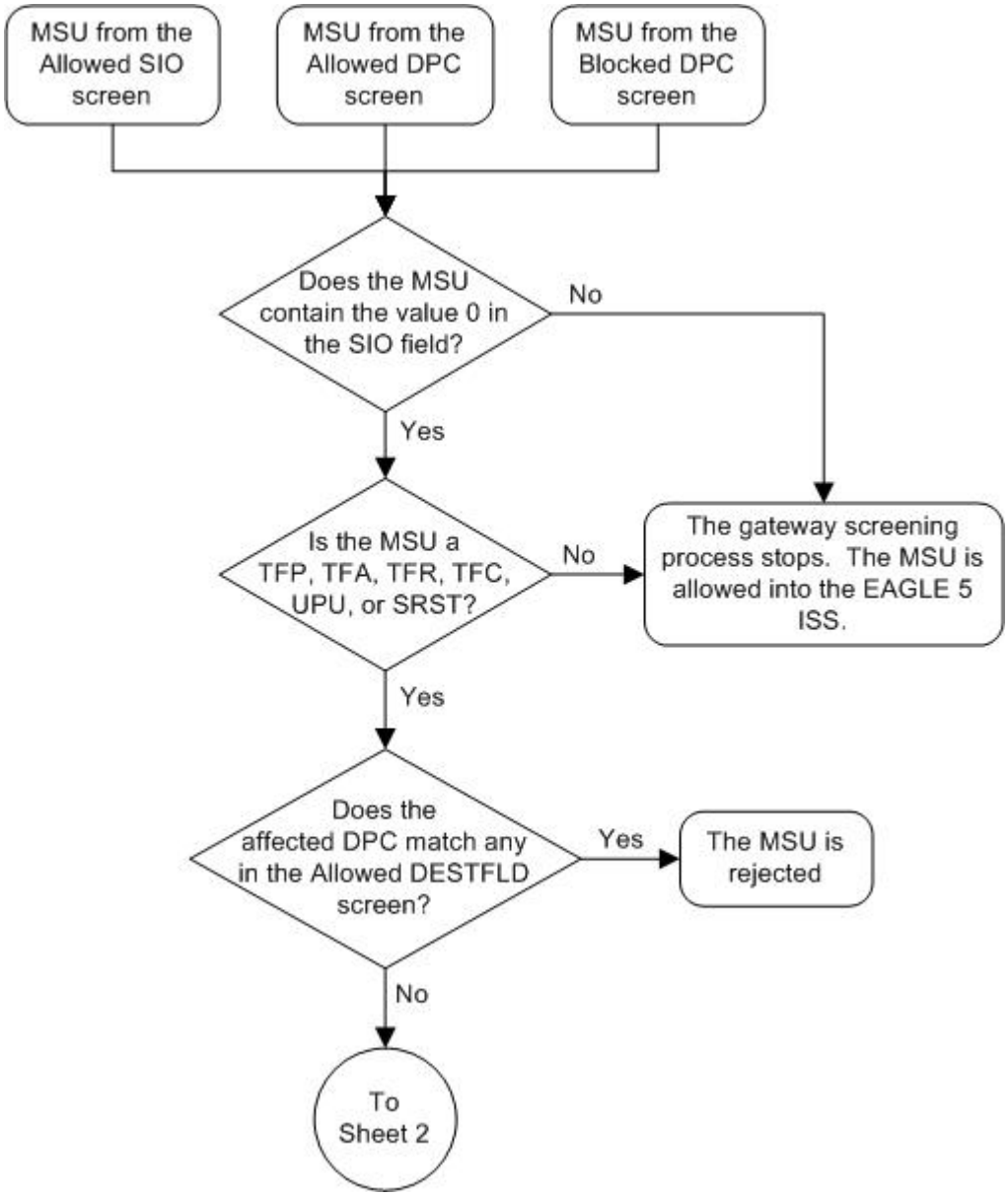
- If the `copy` gateway screening stop action is specified, the message is processed and a copy of the message is sent by the STPLAN feature to an external application.
- If the `rdct` (redirect) gateway screening stop action is specified, the message is diverted from the original destination and sent 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.

## Allowed Affected Destination Screening Actions

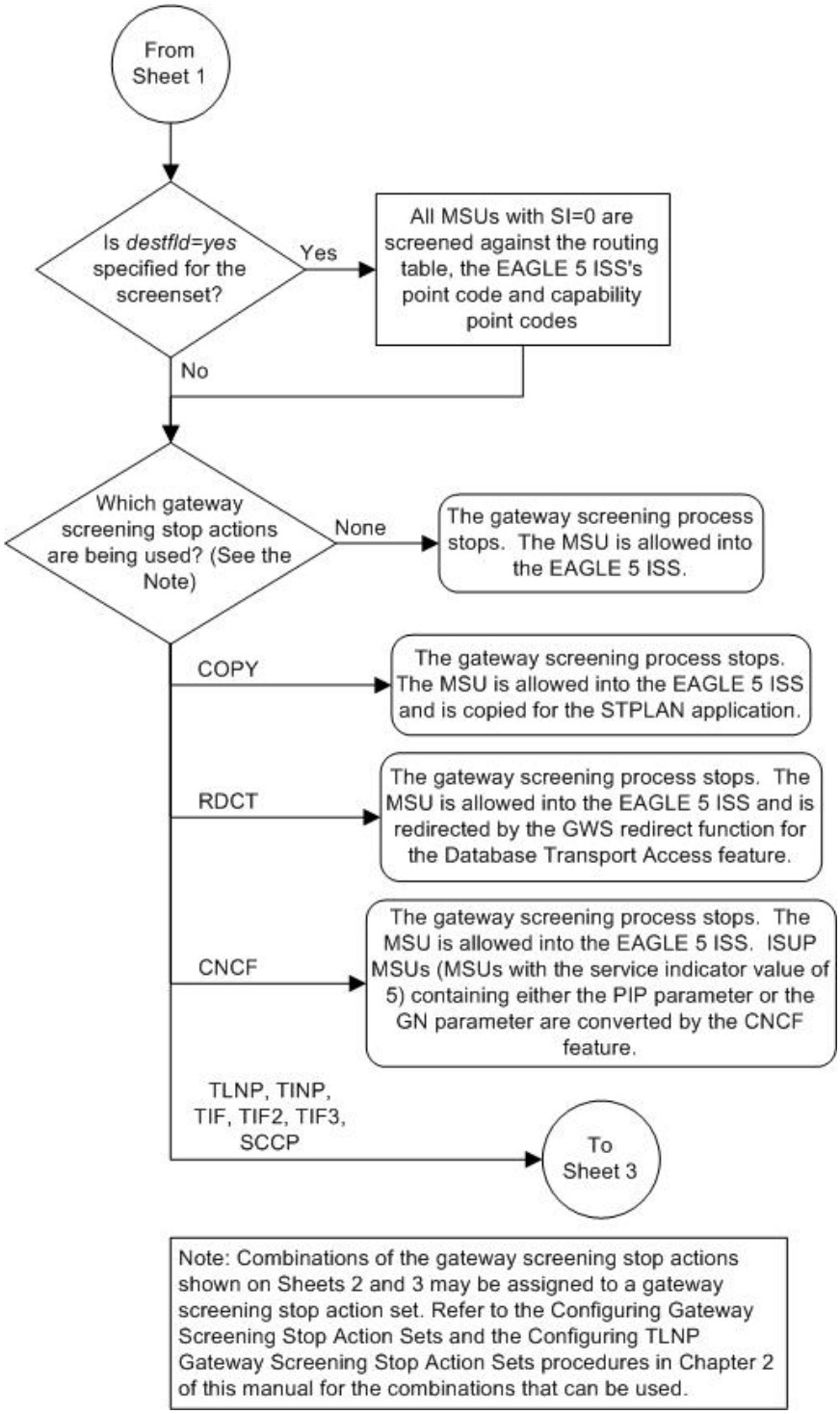
These network management messages are screened by the Allowed Affected Destination Field: TFP, TFA, TFR, TFC, UPU, and SRST (RSP, RSR). Any MSU that is not one of these network management message types, or does not contain a service indicator of 0 in the SIO field and reaches this screen in the gateway screening process automatically passes gateway screening and is allowed into the EAGLE 5 ISS.

*Figure 40: Allowed Affected Destination Screening Actions* shows the screening actions of the allowed affected destination field screen.

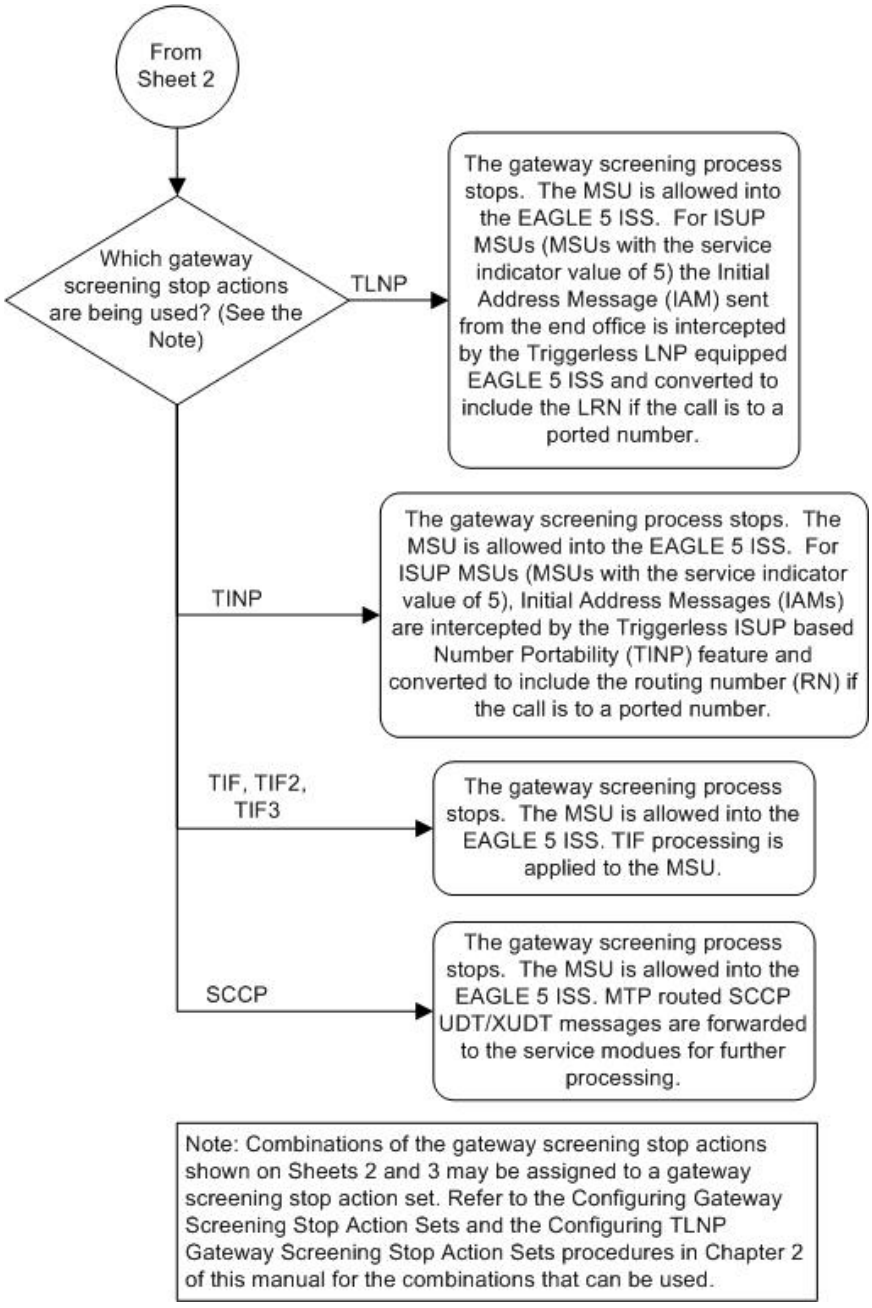


Sheet 1 of 3

**Figure 40: Allowed Affected Destination Screening Actions**



Sheet 2 of 3




Sheet 3 of 3

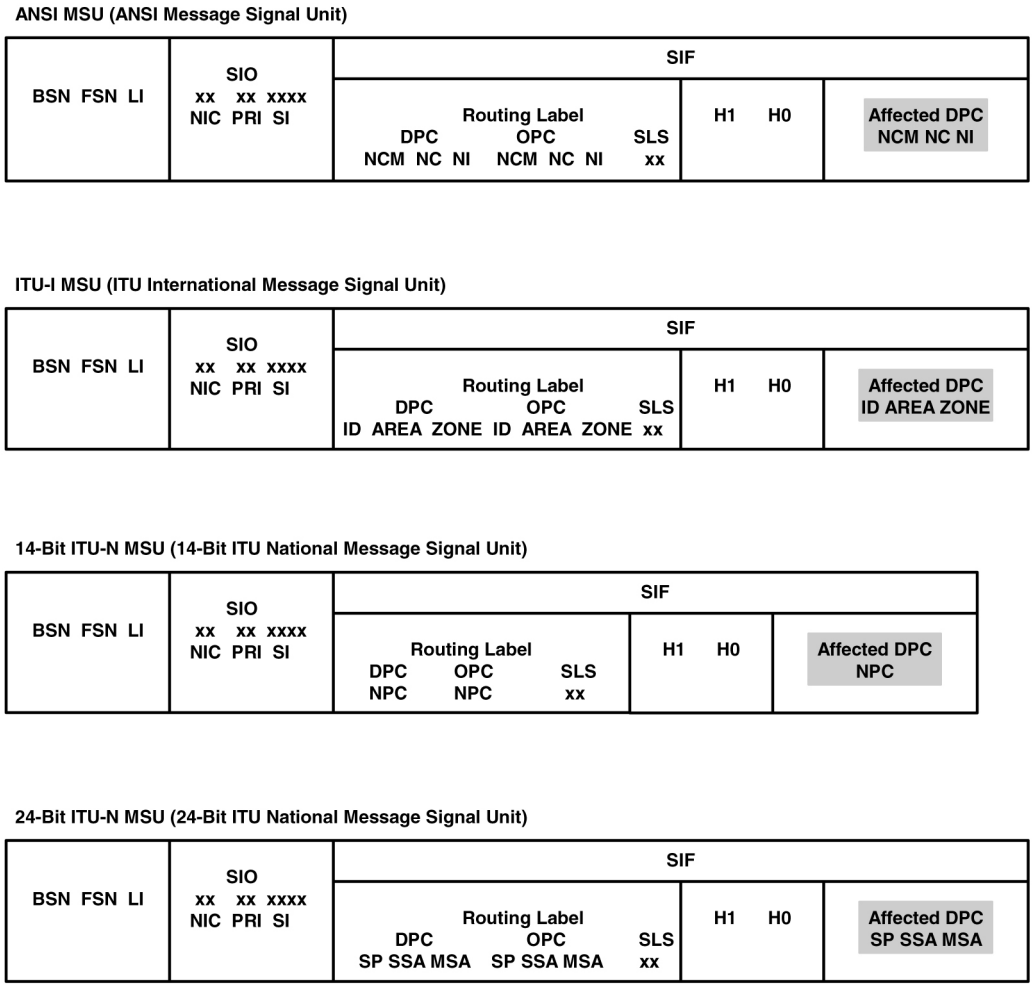



**Figure 41: Allowed Affected Destination Field Screening Function**

## 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 `ent-scr-destfld` command. The parameters used by the `ent-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 examples in this procedure are used to add the allowed DESTFLD screen data shown in *Table 41: Example Gateway Screening Allowed DESTFLD Configuration Table* and based on the example configuration shown in *Figure 8: Gateway Screening Configuration - Example 5*.

**Table 41: Example Gateway Screening Allowed DESTFLD Configuration Table**

| Screening Reference | NI | NC | NCM | NSFI | ACTNAME |
|---|---|---|---|---|---|
| fld5 | 100 | 100 | 100 | stop | CR |

**Note:** 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 `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 42: Valid Value Combinations for ANSI Point Code Parameters* shows the valid combinations of these parameter values.

**Table 42: 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 43: Valid Value Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I parameter values. *Table 44: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* shows the valid combinations of the 24-bit ITU-N parameter values.

**Table 43: 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 44: 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`.

   **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, see the `rtrv-feat` command description in the *Commands Manual*.

   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 `chg-feat` command. If you are not sure if you have purchased the gateway screening feature, contact your Tekelec 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 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: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
IEC   240      001      010      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  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    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 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 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 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 `ent-scr-destfld` 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 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
   ```

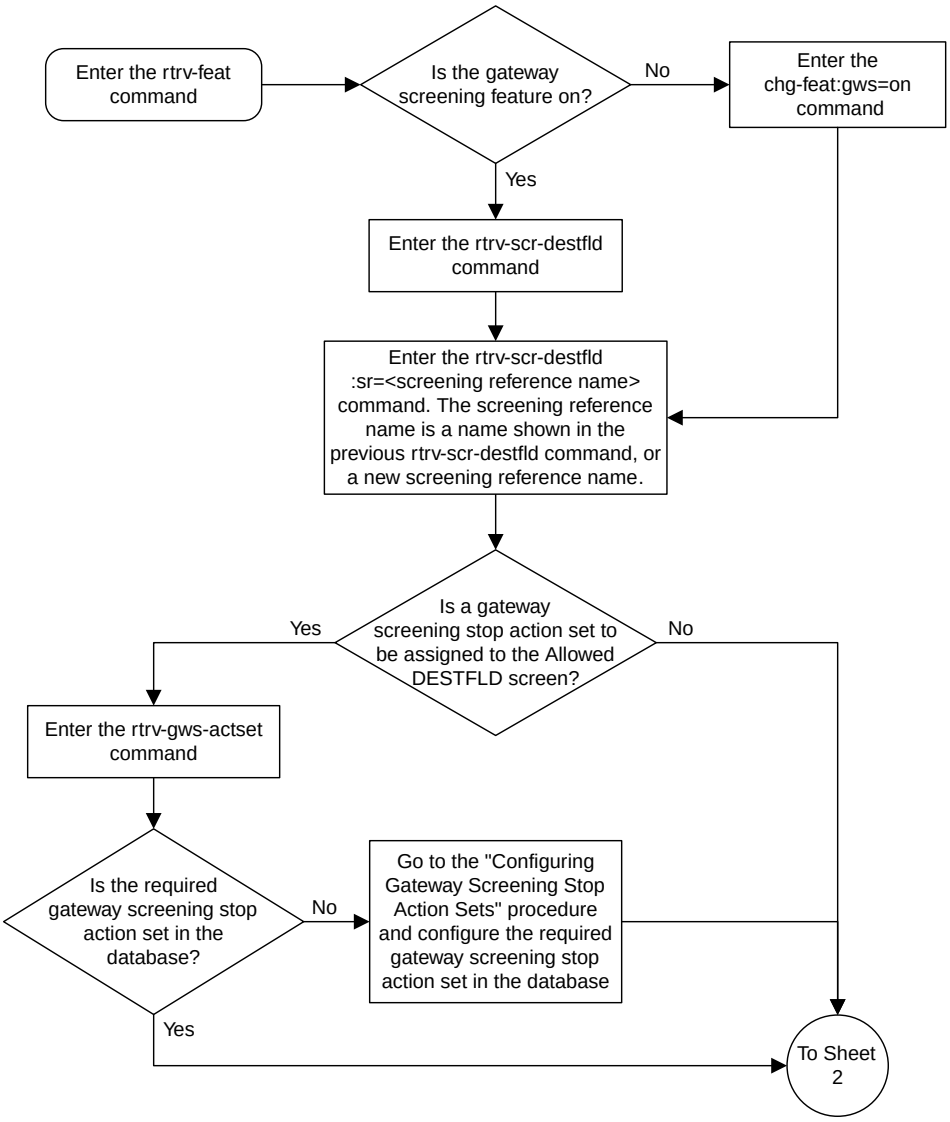
   The following is an example of the possible output.

   ```
   rlghncxa03w 06-10-25 15:30:30 GMT  EAGLE5 36.0.0
   SCREEN = ALLOWED DESTFLD
   SR    NI       NC       NCM      NSFI   NSR/ACT
   FLD5  100      100      100      STOP    CR
   ```

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 rtrv-feat command
Is the gateway screening feature on?
No
Enter the chg-feat:gws=on command
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?
Yes
No
Enter the rtrv-gws-actset command
Is the required gateway screening stop action set in the database?
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database
Yes
To Sheet 2

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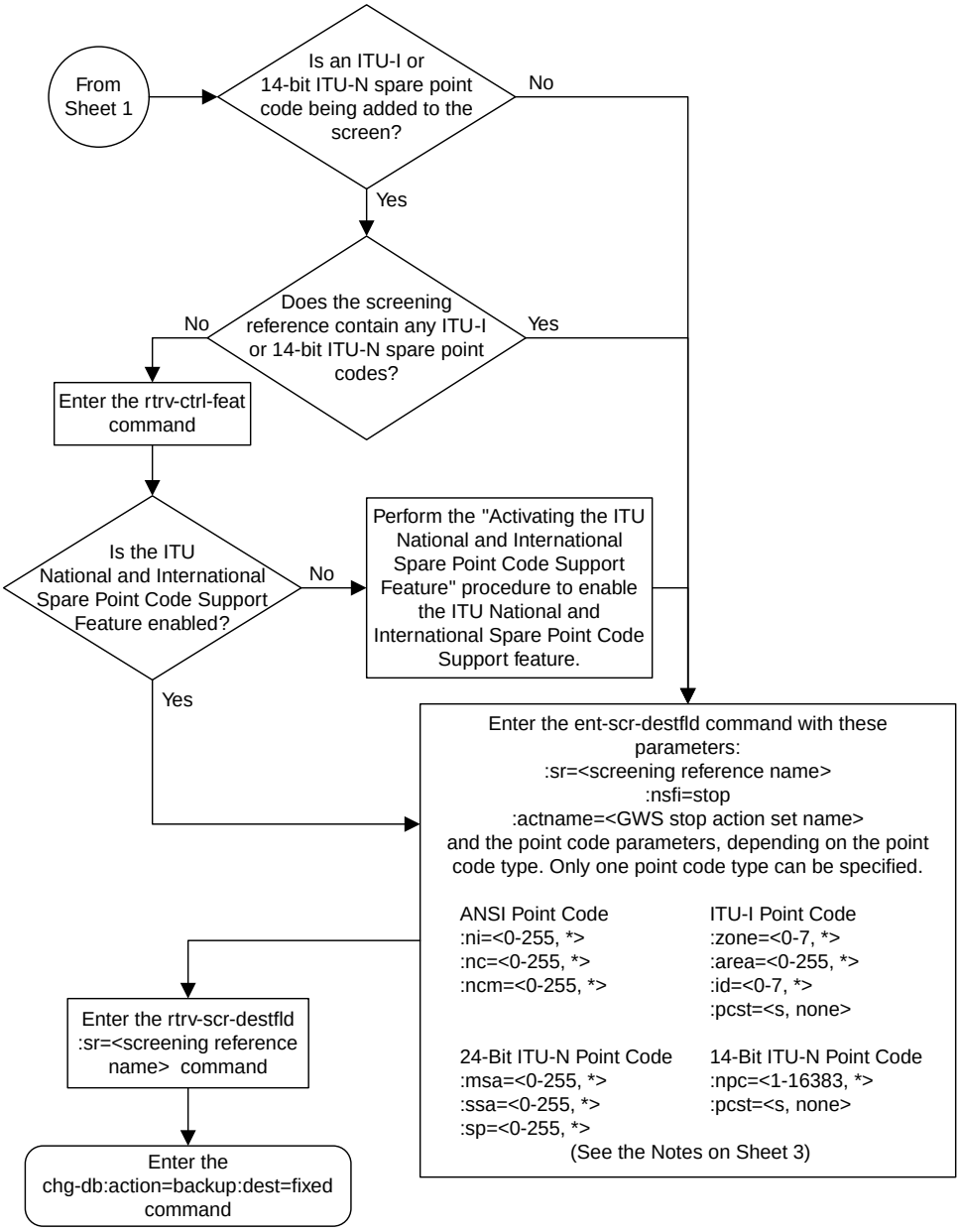

From Sheet 1
Is an ITU-I or 14-bit ITU-N spare point code being added to the screen?
No
Yes
Does the screening reference contain any ITU-I or 14-bit ITU-N spare point codes?
No
Yes
Enter the rtrv-ctrl-feat command
Is the ITU National and International Spare Point Code Support Feature enabled?
No
Perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure to enable the ITU National and International Spare Point Code Support feature.
Yes
Enter the ent-scr-destfld command with these parameters:
:sr=<screening reference name>
:nsfi=stop
: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.
ANSI Point Code
:ni=<0-255, *>
:nc=<0-255, *>
:ncm=<0-255, *>
ITU-I Point Code
:zone=<0-7, *>
:area=<0-255, *>
:id=<0-7, *>
:pcst=<s, none>
24-Bit ITU-N Point Code
:msa=<0-255, *>
:ssa=<0-255, *>
:sp=<0-255, *>
14-Bit ITU-N Point Code
:npc=<1-16383, *>
:pcst=<s, none>
(See the Notes on Sheet 3)
Enter the rtrv-scr-destfld :sr=<screening reference name> command
Enter the chg-db:action=backup:dest=fixed command

Sheet 2 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 *rtrv-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.

Sheet 3 of 3

**Figure 42: Adding an Allowed Affected Destination Field Screen**

## 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 `dlt-scr-destfld` command. The parameters used by the `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.

**Note:** 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*

1. 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 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
```

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 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 `pcst=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 `pcst` parameter does not have to be specified with the `dlt-scr-destfld` command. If the `pcst` 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
```

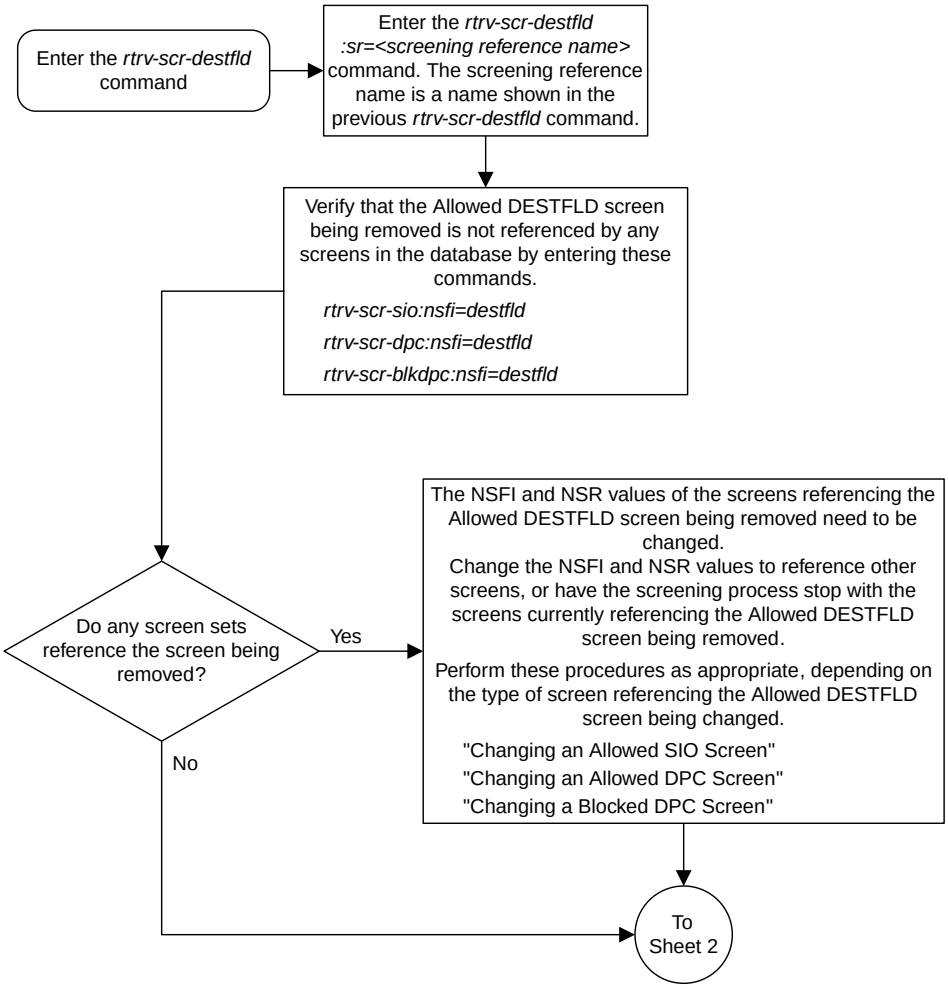
   This message shows that the specified screening reference name is not in the database and the action of the `dlt-scr-destfld` command in step 3 was successful. If the specified screening reference name contained more than one entry when the `dlt-scr-destfld` command was

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.
```


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.
Verify that the Allowed DESTFLD screen being removed is not referenced by any screens in the database by entering these commands.
*rtrv-scr-sio:nsfi=destfld*
*rtrv-scr-dpc:nsfi=destfld*
*rtrv-scr-blkdpc:nsfi=destfld*
Do any screen sets reference the screen being removed?
Yes
No
The NSFI and NSR values of the screens referencing the Allowed DESTFLD 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 DESTFLD screen being removed.
Perform these procedures as appropriate, depending on the type of screen referencing the Allowed DESTFLD screen being changed.
"Changing an Allowed SIO Screen"
"Changing an Allowed DPC Screen"
"Changing a Blocked DPC Screen"
To Sheet 2

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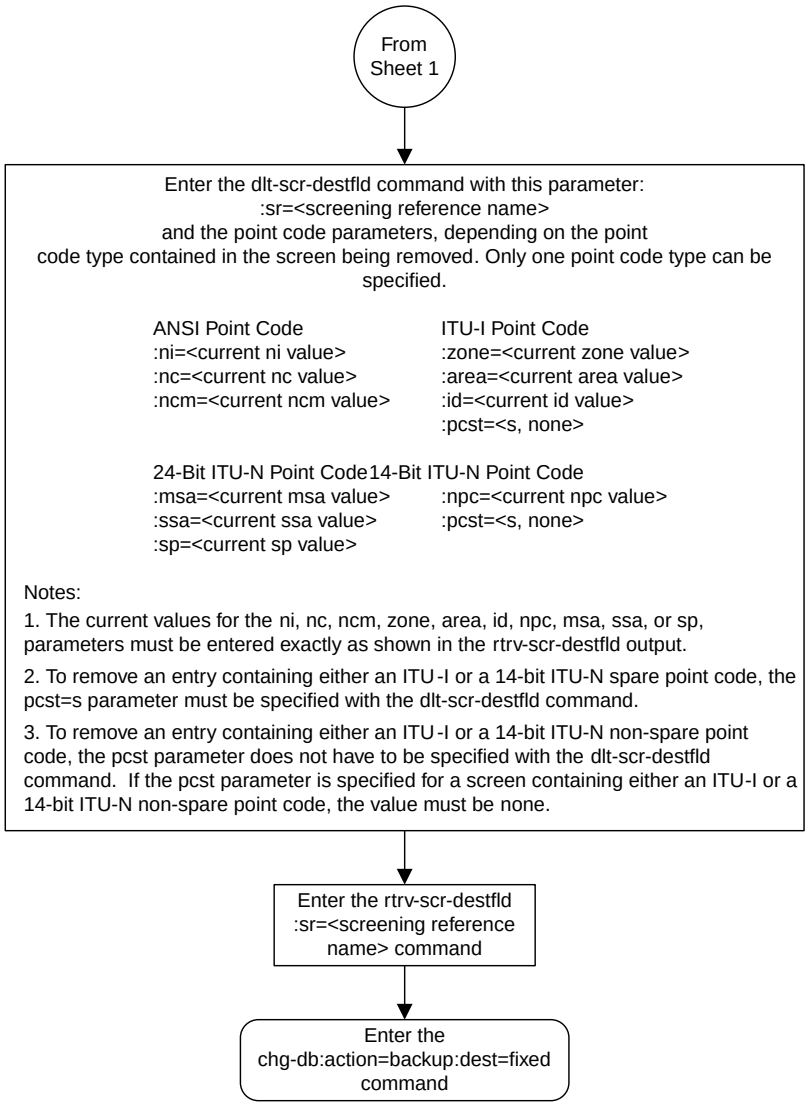

From Sheet 1
Enter the dlt-scr-destfld command with this parameter:
:sr=<screening reference name>
and the point code parameters, depending on the point code type contained in the screen being removed. Only one point code type can be specified.
ANSI Point Code
:ni=<current ni value>
:nc=<current nc value>
:ncm=<current ncm value>
ITU-I Point Code
:zone=<current zone value>
:area=<current area value>
:id=<current id value>
:pcst=<s, none>
24-Bit ITU-N Point Code
:msa=<current msa value>
:ssa=<current ssa value>
:sp=<current sp value>
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, or sp, parameters must be entered exactly as shown in the rtrv-scr-destfld 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-destfld 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-destfld 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-destfld :sr=<screening reference name> command
Enter the chg-db:action=backup:dest=fixed command

Sheet 2 of 2

**Figure 43: Removing an Allowed Affected Destination Field Screen**

## 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.

**Note:** 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 `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 45: Valid Value Combinations for ANSI Point Code Parameters* shows the valid combinations of these parameter values.

**Table 45: 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 |

| NI | NC | NCM |
|---|---|---|
| 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 46: Valid Value Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I parameter values. *Table 47: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* shows the valid combinations of the 24-bit ITU-N parameter values.

**Table 46: 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 47: 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 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.

```
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
```

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  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    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 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 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:actname=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
   ```

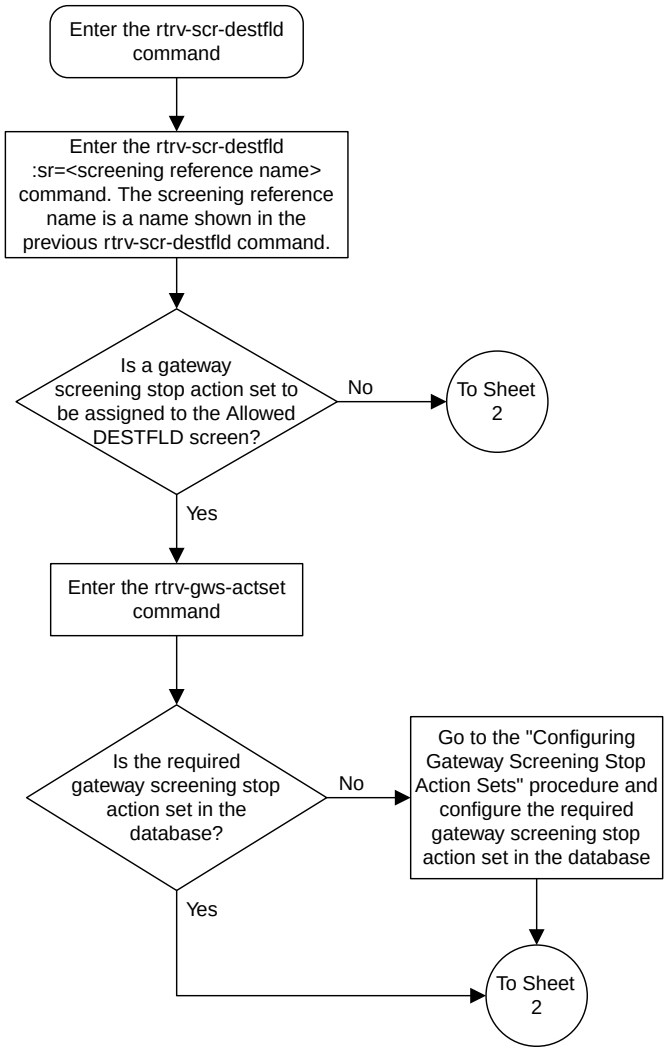
   The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:28:30 GMT  EAGLE5 36.0.0
SCREEN = ALLOWED DESTFLD
SR    NI       NC       NCM      NSFI   NSR/ACT
fld5  030      030      030      STOP    rdct
```

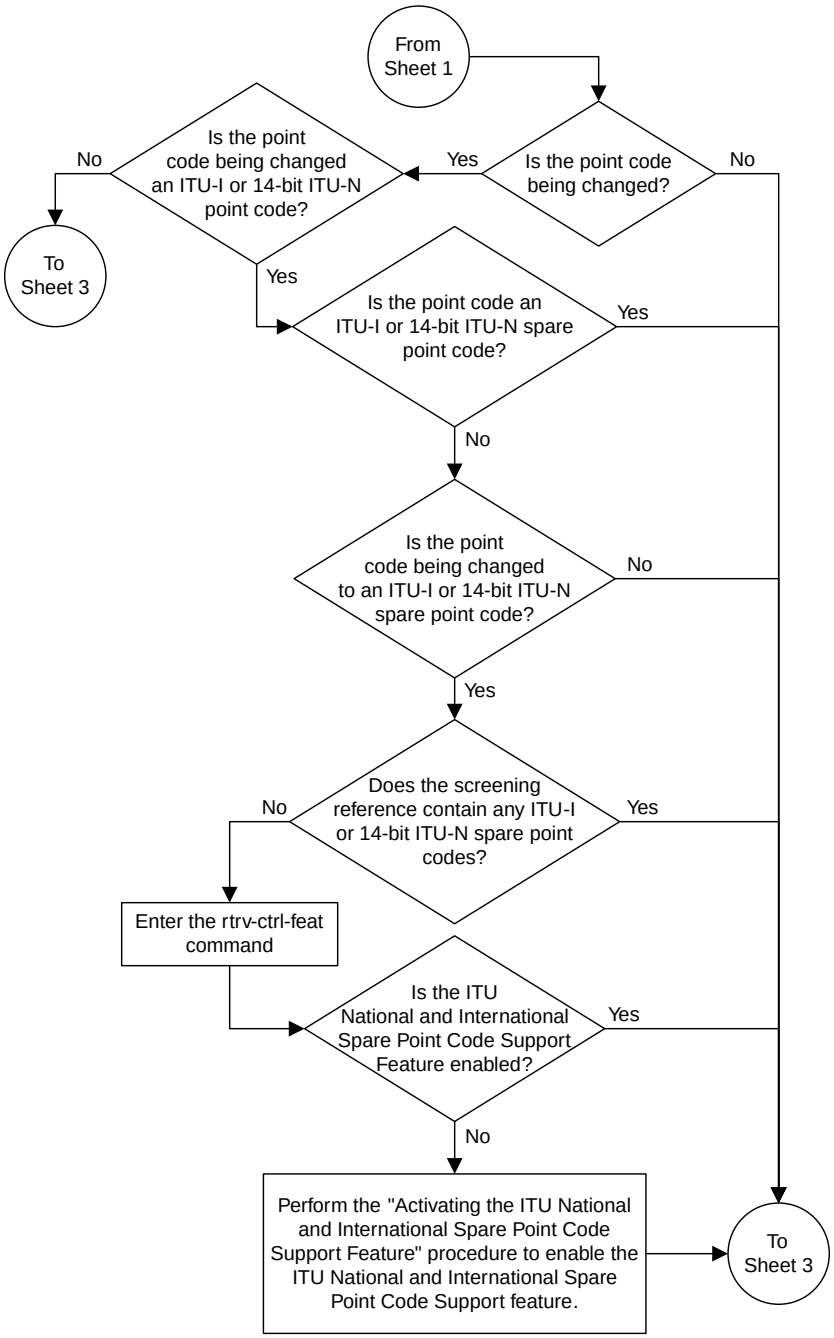
6. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

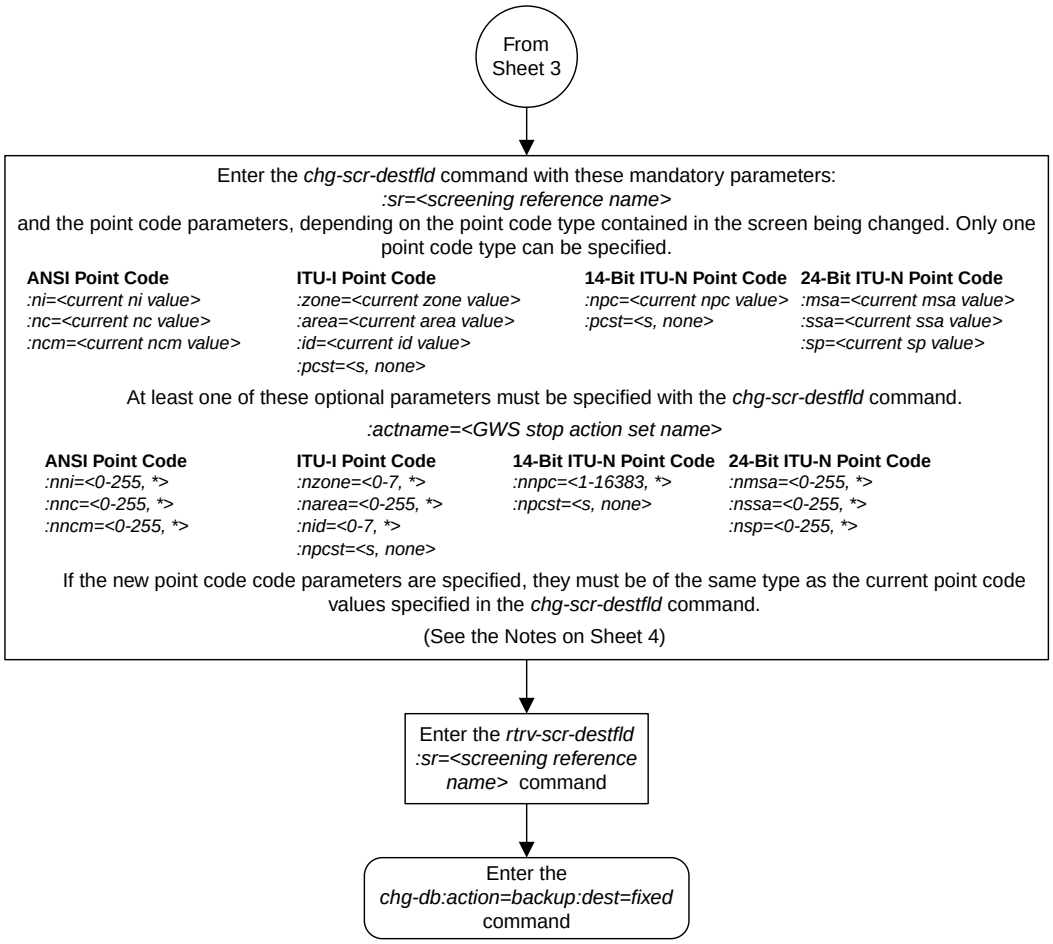
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the rtrv-scr-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.
Is a gateway screening stop action set to be assigned to the Allowed DESTFLD screen?
No
To Sheet 2
Yes
Enter the rtrv-gws-actset command
Is the required gateway screening stop action set in the database?
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database
Yes
To Sheet 2

Sheet 1 of 4


From Sheet 1
Is the point code being changed?
Yes
No
Is the point code being changed an ITU-I or 14-bit ITU-N point code?
No
To Sheet 3
Yes
Is the point code an ITU-I or 14-bit ITU-N spare point code?
Yes
No
Is the point code being changed to an ITU-I or 14-bit ITU-N spare point code?
No
Yes
Does the screening reference contain any ITU-I or 14-bit ITU-N spare point codes?
No
Yes
Enter the rtrv-ctrl-feat command
Is the ITU National and International Spare Point Code Support Feature enabled?
Yes
No
Perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure to enable the ITU National and International Spare Point Code Support feature.
To Sheet 3

Sheet 2 of 4


From Sheet 3
Enter the *chg-scr-destfld* command with these mandatory parameters:
*:sr=<screening reference name>*
and the point code parameters, depending on the point code type contained in the screen being changed. Only one point code type can be specified.
**ANSI Point Code**
*:ni=<current ni value>*
*:nc=<current nc value>*
*:ncm=<current ncm 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>*
**24-Bit ITU-N Point Code**
*:msa=<current msa value>*
*:ssa=<current ssa value>*
*:sp=<current sp value>*
At least one of these optional parameters must be specified with the *chg-scr-destfld* command.
*:actname=<GWS stop action set name>*
**ANSI Point Code**
*:nni=<0-255, *>*
*:nnc=<0-255, *>*
*:nncm=<0-255, *>*
**ITU-I Point Code**
*:nzone=<0-7, *>*
*:narea=<0-255, *>*
*:nid=<0-7, *>*
*:npcst=<s, none>*
**14-Bit ITU-N Point Code**
*:nnpc=<1-16383, *>*
*:npcst=<s, none>*
**24-Bit ITU-N Point Code**
*:nmsa=<0-255, *>*
*:nssa=<0-255, *>*
*:nsp=<0-255, *>*
If the new point code code parameters are specified, they must be of the same type as the current point code values specified in the *chg-scr-destfld* command.
(See the Notes on Sheet 4)
Enter the *rtrv-scr-destfld :sr=<screening reference name>* command
Enter the *chg-db:action=backup:dest=fixed* command

Sheet 3 of 4

**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 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 *rtrv-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 *rtrv-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*.

Sheet 4 of 4

**Figure 44: Changing an Allowed Affected Destination Field Screen**

# Chapter 8

# Blocked Destination Point Code (BLKDPC) Screen Configuration

**Topics:**


- *Introduction.....276*
- *Adding a Blocked DPC Screen.....280*
- *Removing a Blocked DPC Screen.....293*
- *Changing a Blocked DPC Screen.....298*


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 46: Blocked DPC Screening Functions* 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.

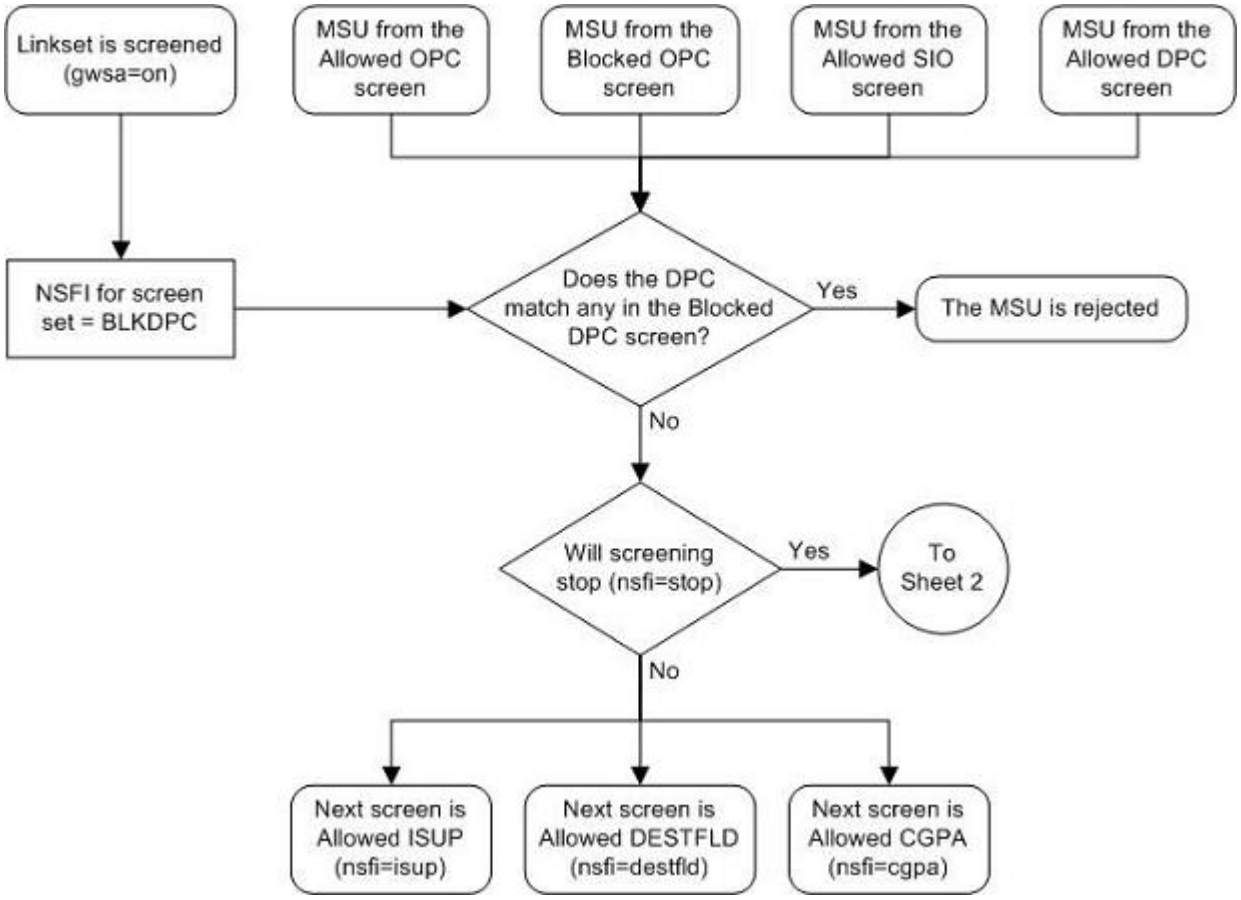
If a match is not found, the `nsfi` is examined to determine the next step in the screening process. If the `nsfi` value is any value other than `stop`, the next screening reference (`nsr`) is identified and the screening process continues to the next screen identified by the `nsfi` and `nsr` parameter 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 `copy` gateway screening stop action is specified, the message is processed and a copy of the message is sent by the STPLAN feature to an external application.
- 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.

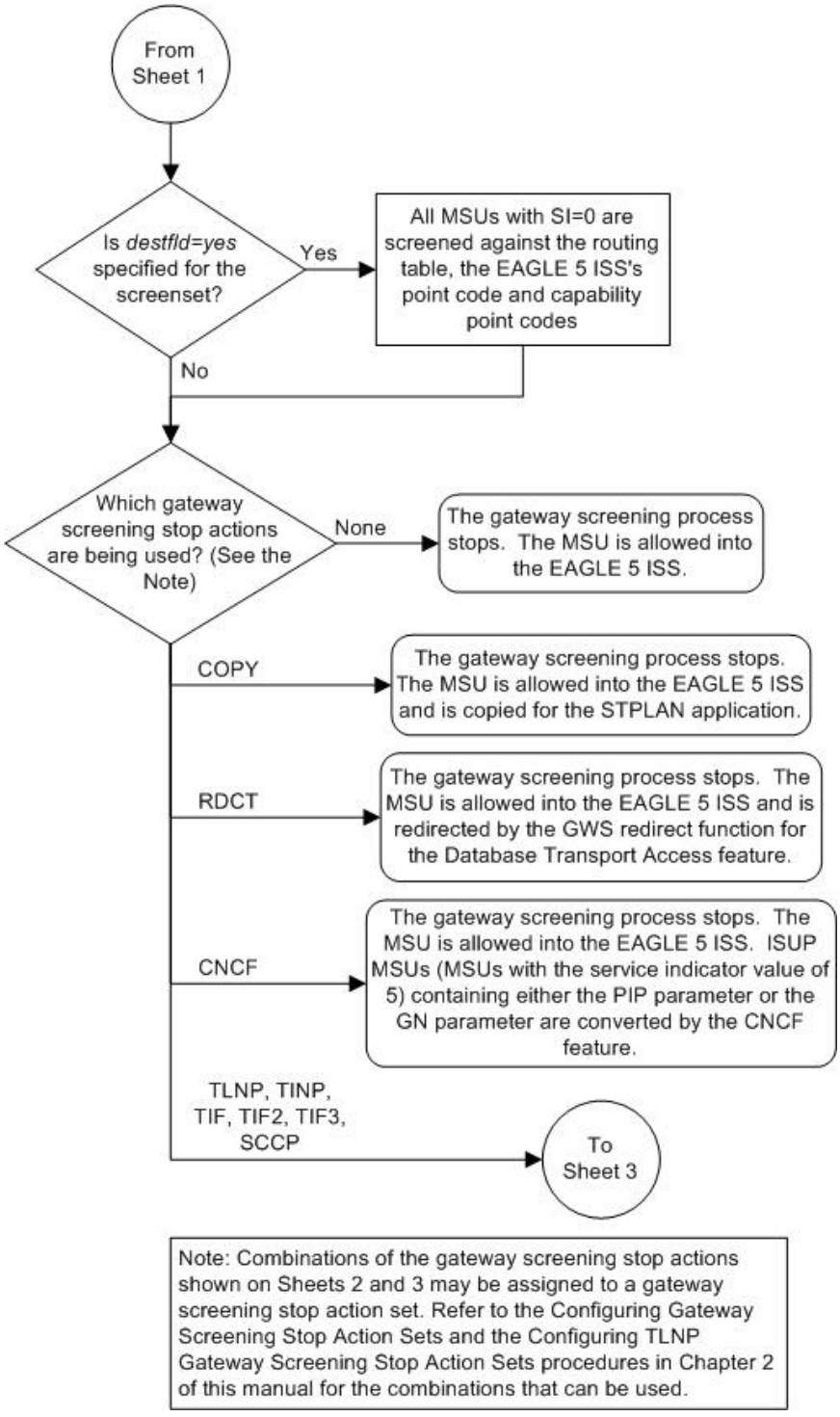
## Blocked DPC Screening Actions

*Figure 45: Blocked DPC Screening Actions* shows the screening actions of the blocked DPC screen.

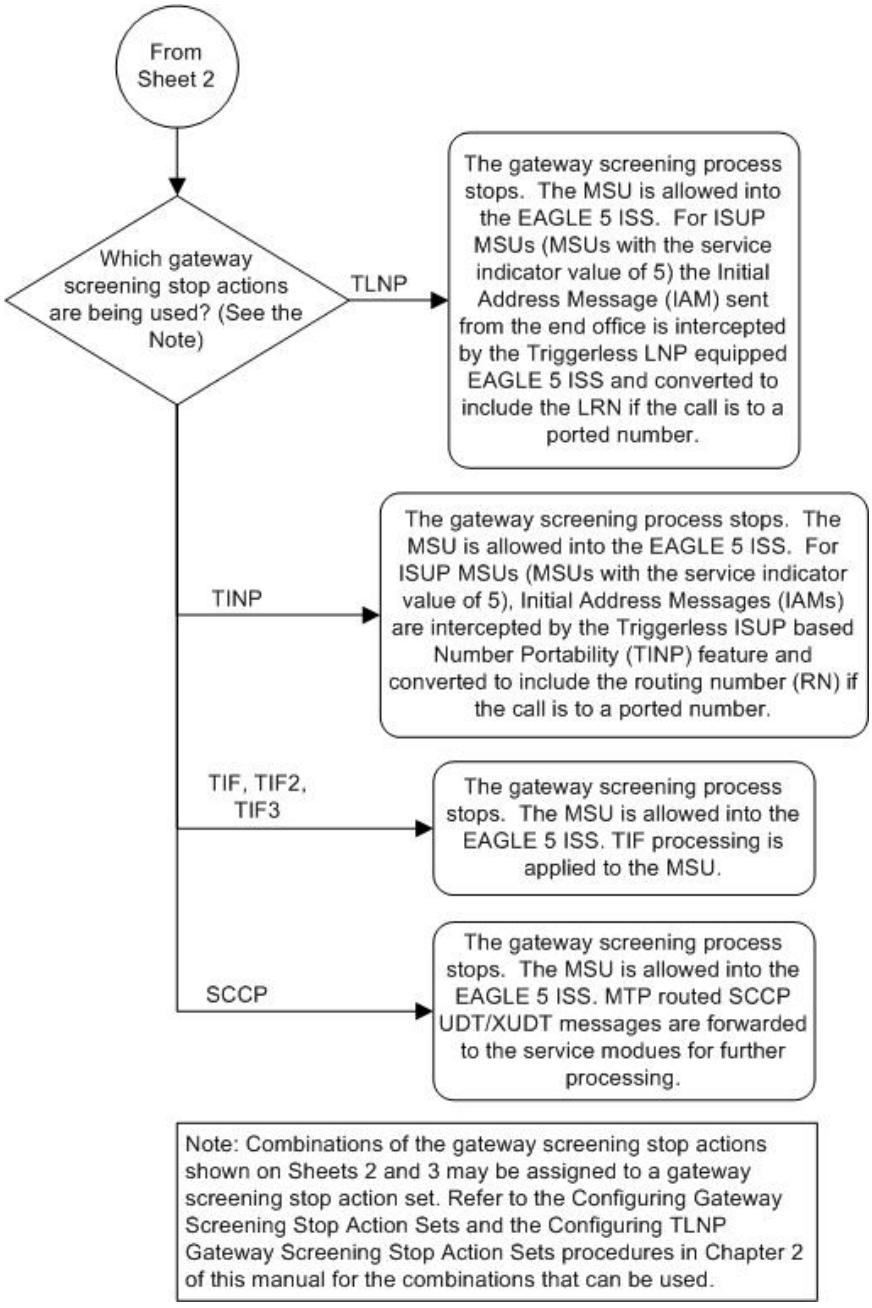



Sheet 1 of 3

**Figure 45: Blocked DPC Screening Actions**


From Sheet 1
Is destfld=yes specified for the screenset?
Yes
All MSUs with SI=0 are screened against the routing table, the EAGLE 5 ISS's point code and capability point codes
No
Which gateway screening stop actions are being used? (See the Note)
None
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS.
COPY
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS and is copied for the STPLAN application.
RDCT
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS and is redirected by the GWS redirect function for the Database Transport Access feature.
CNCF
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. ISUP MSUs (MSUs with the service indicator value of 5) containing either the PIP parameter or the GN parameter are converted by the CNCF feature.
TLNP, TINP, TIF, TIF2, TIF3, SCCP
To Sheet 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.

Sheet 2 of 3


From Sheet 2
Which gateway screening stop actions are being used? (See the Note)
TLNP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. For ISUP MSUs (MSUs with the service indicator value of 5) the Initial Address Message (IAM) sent from the end office is intercepted by the Triggerless LNP equipped EAGLE 5 ISS and converted to include the LRN if the call is to a ported number.
TINP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. For ISUP MSUs (MSUs with the service indicator value of 5), Initial Address Messages (IAMs) 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.
TIF, TIF2, TIF3
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. TIF processing is applied to the MSU.
SCCP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. MTP routed SCCP UDT/XUDT messages are forwarded to the service modues for further processing.
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.

Sheet 3 of 3

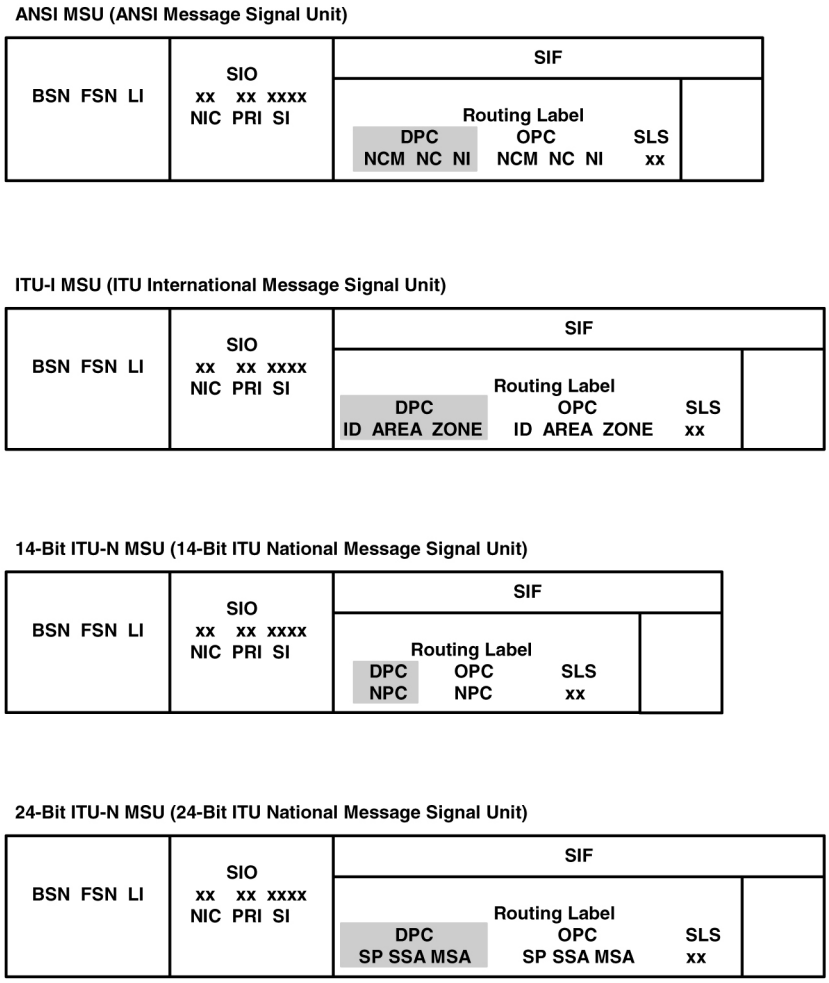



**Figure 46: Blocked DPC Screening Functions**

## Adding a Blocked DPC Screen

This procedure is used to add a blocked destination point code (DPC) screen to the database using the `ent-scr-blkdpc` command. The parameters used by the `ent-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 examples in this procedure are used to add the blocked DPC screen data shown in *Table 48: Example Gateway Screening Blocked DPC Configuration Table* and based on the example configurations shown in *Figure 4: Gateway Screening Configuration - Example 1* and *Figure 6: Gateway Screening Configuration - Example 3*.

**Table 48: Example Gateway Screening Blocked DPC Configuration Table**

| Screening Reference | NI | NC | NCM | NSFI | NSR |
|---|---|---|---|---|---|
| gws9 | C | C | C | cgpa | gw13 |
| gws9 | 005 | 005 | 005 | fail | ---- |
| gw12 | C | C | C | cgpa | gw14 |
| gw12 | 004 | 004 | 004 | fail | ---- |

**Note:** 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 `pcst` 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  C        C        C        CGPA    cg01
SCR1  240      001      010      FAIL    ------
SCR1  241      010      020      FAIL    ------
```

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 49: Valid Value Combinations for ANSI Point Code Parameters* shows the valid combinations of these parameter values.

**Table 49: 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 50: Valid Value Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I parameter values. *Table 51: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* shows the valid combinations of the 24-bit ITU-N parameter values.

**Table 50: 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 51: 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`.

   **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, see the `rtrv-feat` command description in the *Commands Manual*.

   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 `chg-feat` command. If you are not sure if you have purchased the gateway screening feature, contact your Tekelec 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.

```
rlghncxa03w 06-10-25 15:26:30 GMT  EAGLE5 36.0.0
SCREEN = BLOCKED DPC
SR    NI       NC       NCM      NSFI    NSR/ACT
IEC   240      001      010      FAIL    ------
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     C      C        C        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  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    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 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.

**Note:** 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              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 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 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 `ent-scr-blkdpc` 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 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=gw12: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      005      FAIL    ------
```

`rtrv-scr-blkdpc:sr=gw12`

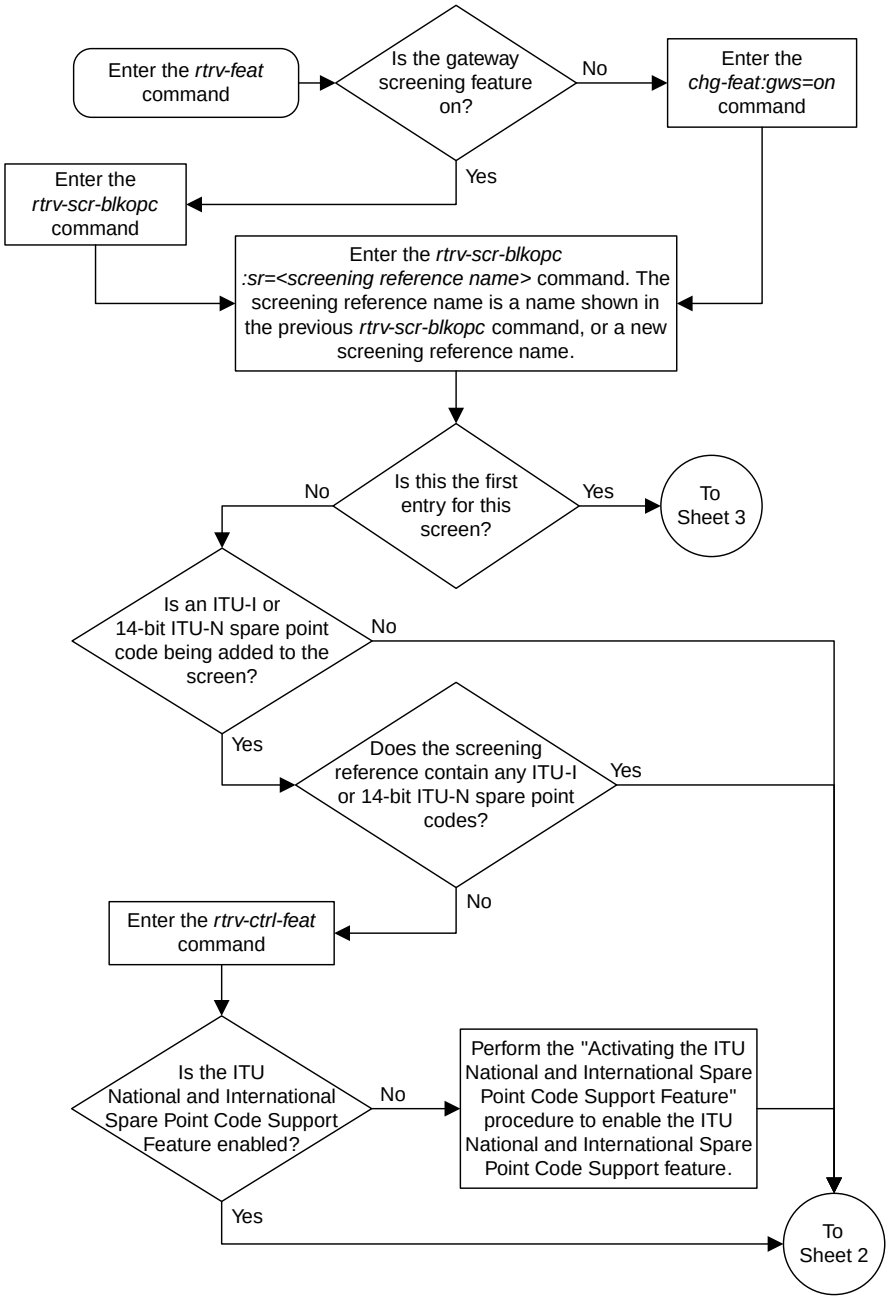
The following is an example of the possible output.

```
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      004      FAIL    -----
```

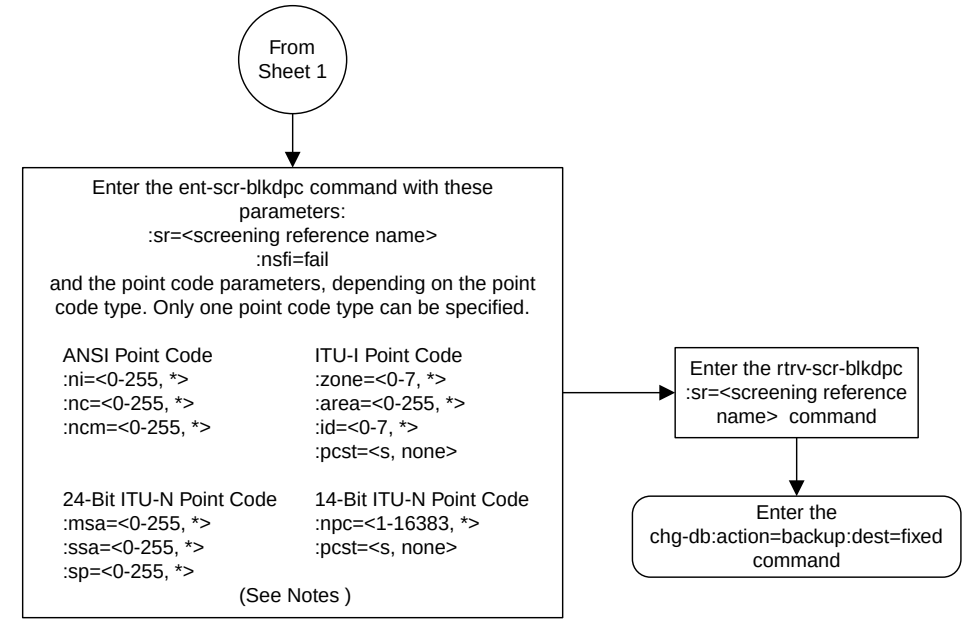
9. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

   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.
```


Enter the *rtrv-feat* command
Is the gateway screening feature on?
No
Enter the *chg-feat:gws=on* command
Yes
Enter the *rtrv-scr-blkopc* command
Enter the *rtrv-scr-blkopc :sr=<screening reference name>* command. The screening reference name is a name shown in the previous *rtrv-scr-blkopc* command, or a new screening reference name.
Is this the first entry for this screen?
No
Yes
To Sheet 3
Is an ITU-I or 14-bit ITU-N spare point code being added to the screen?
No
Yes
Does the screening reference contain any ITU-I or 14-bit ITU-N spare point codes?
Yes
No
Enter the *rtrv-ctrl-feat* command
Is the ITU National and International Spare Point Code Support Feature enabled?
No
Perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure to enable the ITU National and International Spare Point Code Support feature.
Yes
To Sheet 2

Sheet 1 of 5




Notes:

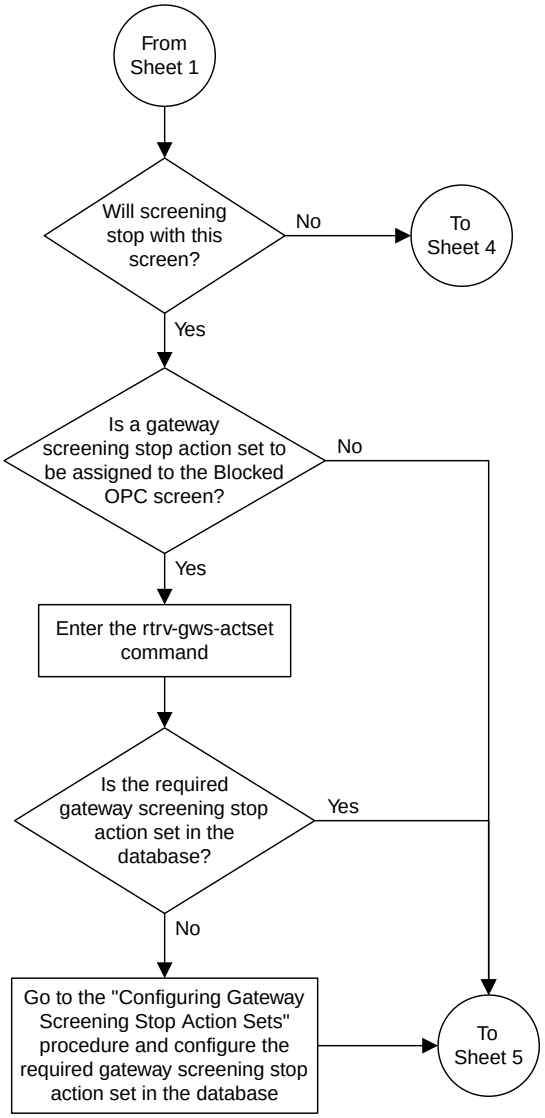
1. A range of values can be specified for the ni, nc, or ncm parameters by inserting double ampersands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the ni parameter,enter 025&&200 for the ni parameter value.

2. The asterisk (*) specifies the entire range of values for that parameter.

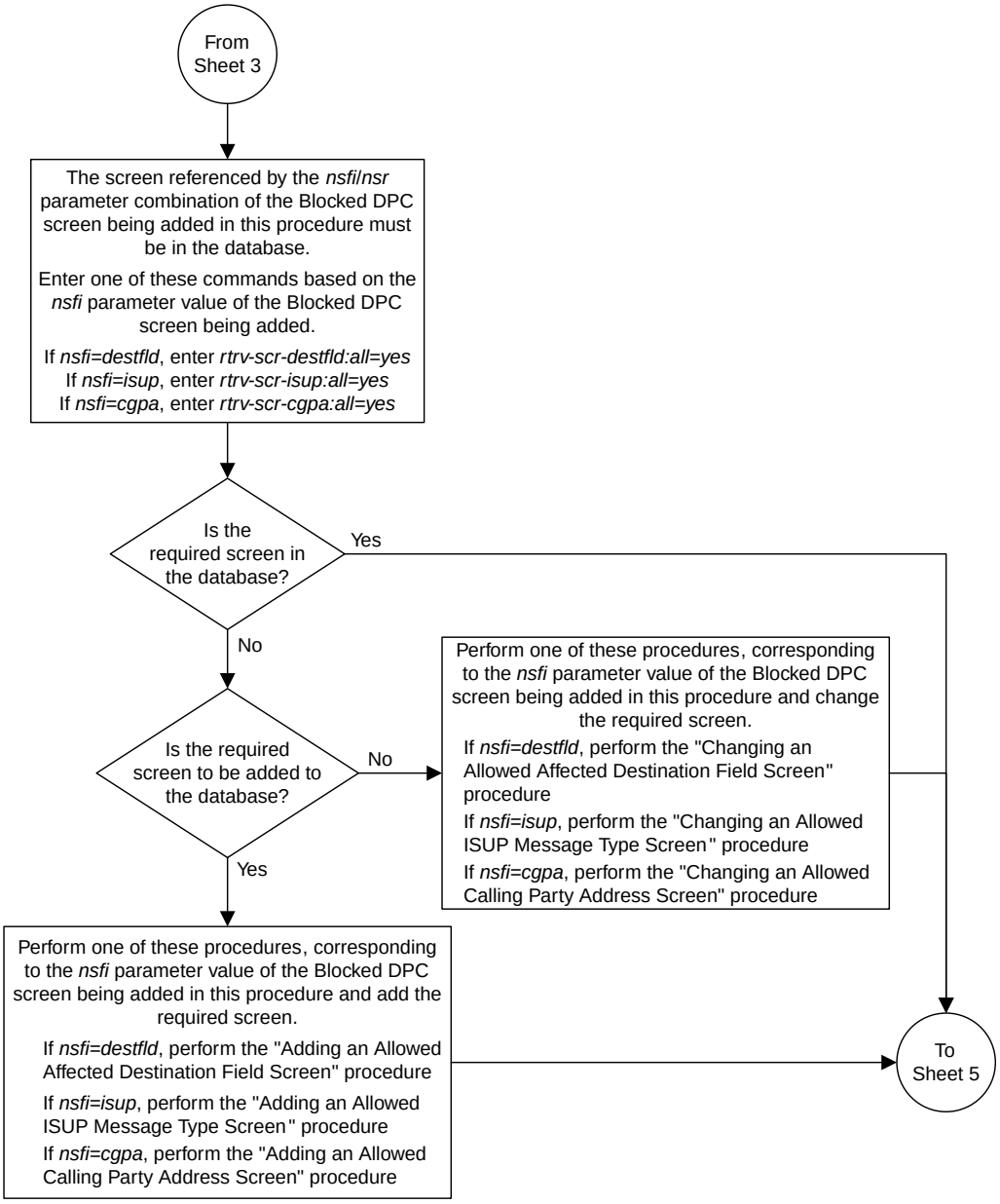
For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the *Database Administration Manual - Gateway Screening*. The "Specifying a Range of Values" section is in the "Adding 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.

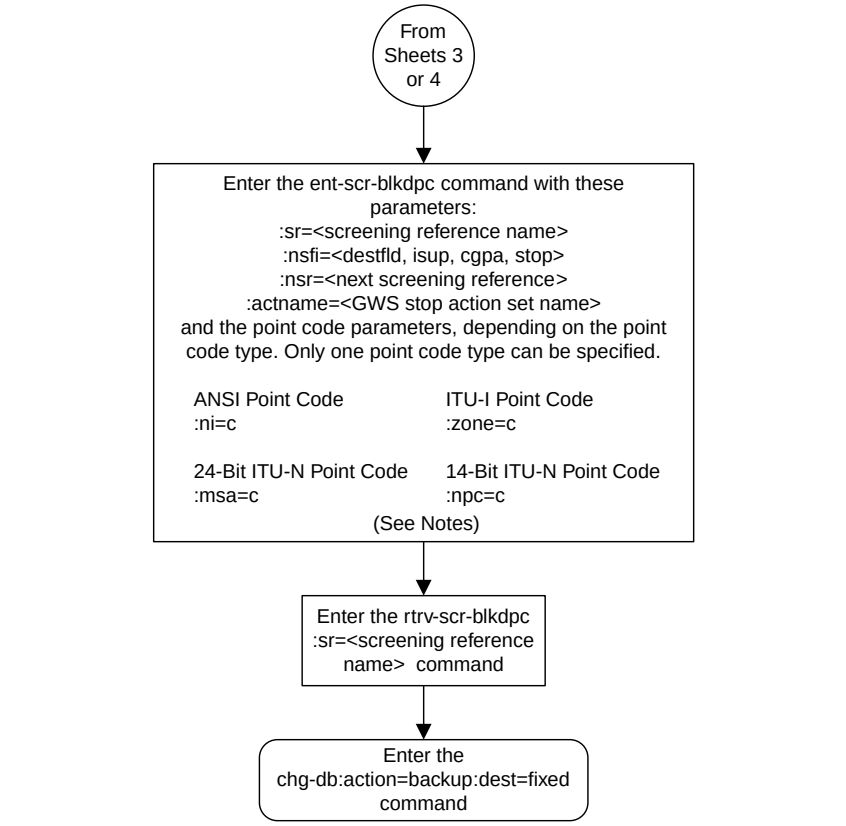
4. To add a spare point code, the pcst=s parameter must be specified.


From Sheet 1
Will screening stop with this screen?
No
To Sheet 4
Yes
Is a gateway screening stop action set to be assigned to the Blocked OPC screen?
No
Yes
Enter the rtrv-gws-actset command
Is the required gateway screening stop action set in the database?
Yes
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database
To Sheet 5

Sheet 3 of 5


From Sheet 3
The screen referenced by the nsfi/nsr parameter combination of the Blocked DPC screen being added in this procedure must be in the database.
Enter one of these commands based on the nsfi parameter value of the Blocked DPC screen being added.
If nsfi=destfld, enter rtrv-scr-destfld:all=yes
If nsfi=isup, enter rtrv-scr-isup:all=yes
If nsfi=cgpa, enter rtrv-scr-cgpa:all=yes
Is the required screen in the database?
Yes
No
Is the required screen to be added to the database?
No
Yes
Perform one of these procedures, corresponding to the nsfi parameter value of the Blocked DPC screen being added 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 ISUP Message Type Screen" procedure
If nsfi=cgpa, perform the "Changing an Allowed Calling Party Address Screen" procedure
Perform one of these procedures, corresponding to the nsfi parameter value of the Blocked DPC screen being added 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
If nsfi=cgpa, perform the "Adding an Allowed Calling Party Address Screen" procedure
To Sheet 5

Sheet 4 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.

Sheet 5 of 5

**Figure 47: Adding a Blocked DPC Screen**

## 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.

**Note:** 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*

1. 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
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 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    ------
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     C      C        C        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 `pcst` parameter does not have to be specified with the `dlt-scr-blkdpc` command. If the `pcst` parameter is specified, the value must be `none`.

   The `pcst` 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.

```
rlghncxa03w 06-10-25 15:27:30 GMT  EAGLE5 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     C      C        C        CGPA    cg01
```

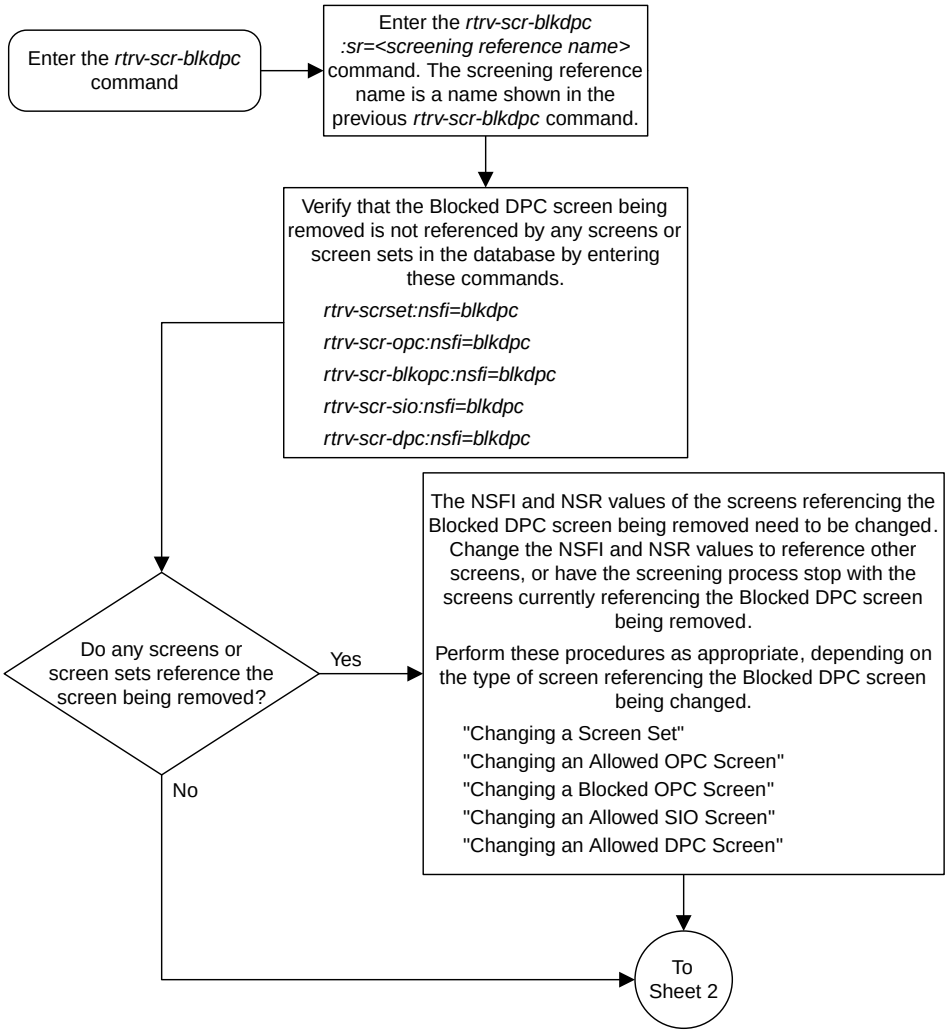
   If the screen removed in step 3 was the last screen contained in the specified screening reference, the screening reference is removed from the database. The following message is displayed.

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

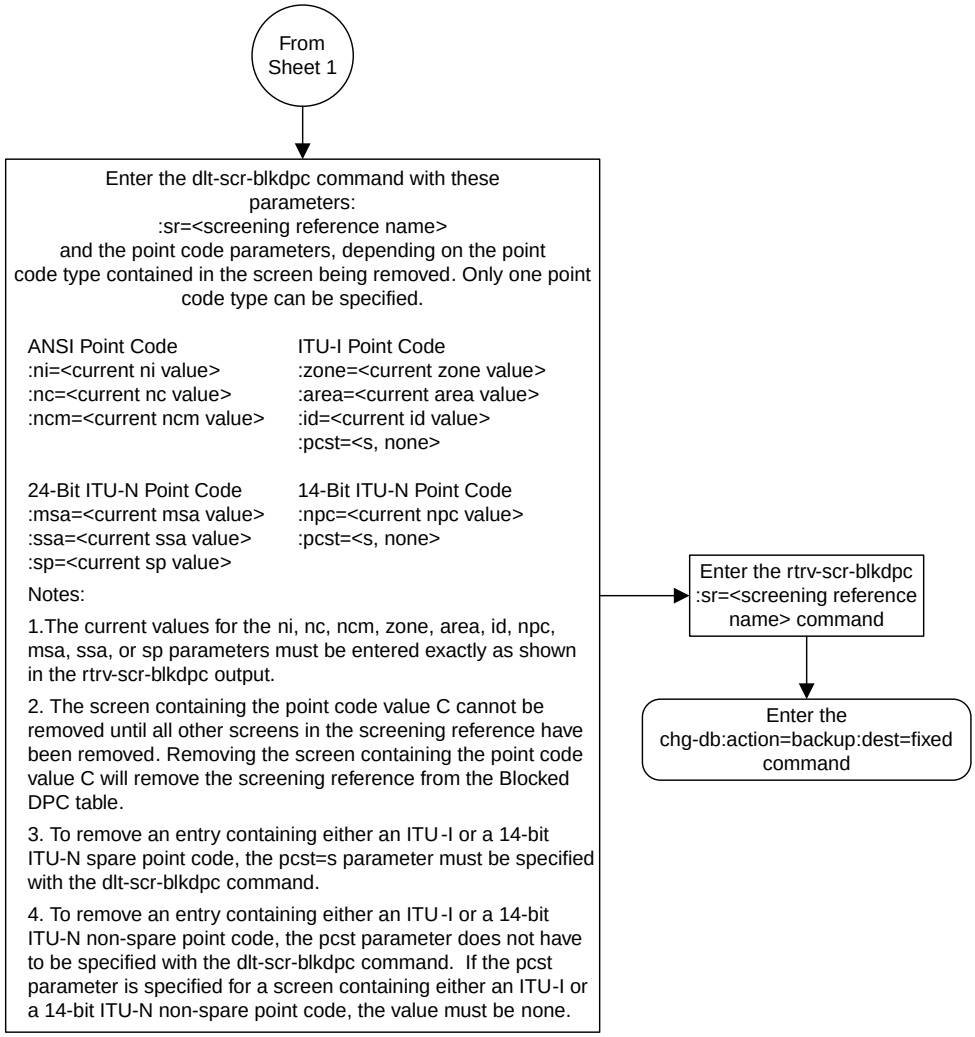
5. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

   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.
```


Enter the *rtrv-scr-blkdpc* command
Enter the *rtrv-scr-blkdpc :sr=<screening reference name>* command. The screening reference name is a name shown in the previous *rtrv-scr-blkdpc* command.
Verify that the Blocked DPC screen being removed is not referenced by any screens or screen sets in the database by entering these commands.
*rtrv-scrset:nsfi=blkdpc*
*rtrv-scr-opc:nsfi=blkdpc*
*rtrv-scr-blkopc:nsfi=blkdpc*
*rtrv-scr-sio:nsfi=blkdpc*
*rtrv-scr-dpc:nsfi=blkdpc*
Do any screens or screen sets reference the screen being removed?
Yes
No
The NSFI and NSR values of the screens referencing the Blocked DPC 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 Blocked DPC screen being removed.
Perform these procedures as appropriate, depending on the type of screen referencing the Blocked DPC screen being changed.
"Changing a Screen Set"
"Changing an Allowed OPC Screen"
"Changing a Blocked OPC Screen"
"Changing an Allowed SIO Screen"
"Changing an Allowed DPC Screen"
To Sheet 2

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.
ANSI Point Code
:ni=<current ni value>
:nc=<current nc value>
:ncm=<current ncm value>
ITU-I Point Code
:zone=<current zone value>
:area=<current area value>
:id=<current id value>
:pcst=<s, none>
24-Bit ITU-N Point Code
:msa=<current msa value>
:ssa=<current ssa value>
:sp=<current sp value>
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, 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 removed until all other screens in the screening reference have been removed. Removing the screen containing the point code 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 pcst 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.
Enter the rtrv-scr-blkdpc :sr=<screening reference name> command
Enter the chg-db:action=backup:dest=fixed command

Sheet 2 of 2

**Figure 48: Removing a Blocked DPC Screen**

## 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 `chg-scr-blkdpc` command. The parameters used by the `chg-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 is used to change the point code 003-003-003 for the blocked DPC screen `gw12` to 230-230-230.

**Note:** 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 `pcst` or `npcst` 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 `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  C        C        C        CGPA    cg01
SCR1  240      001      010      FAIL    ------
SCR1  241      010      020      FAIL    ------
```

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 52: Valid Value Combinations for ANSI Point Code Parameters* shows the valid combinations of these parameter values.

**Table 52: 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 53: Valid Value Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I parameter values. *Table 54: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* shows the valid combinations of the 24-bit ITU-N parameter values.

**Table 53: 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 54: 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 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
SR    NI       NC       NCM      NSFI    NSR/ACT
GW12  C        C        C        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.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
ACT  ACT    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    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 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.

   **Note:** 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 `chg-scr-blkdpc` 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-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 `pcst=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 `pcst` parameter does not have to be specified with the `chg-scr-blkdpc` 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`.

The `pcst` or `npcst` parameters cannot be used with the `zone=c` or `npc=c` parameters.

For this example, enter this command.

```
chg-scr-blkdpc:sr=gw12:ni=003:nc=003:ncm=003:nni=230:nnc=230 :nncm=230
```

The following messages appear.

```
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
   ```

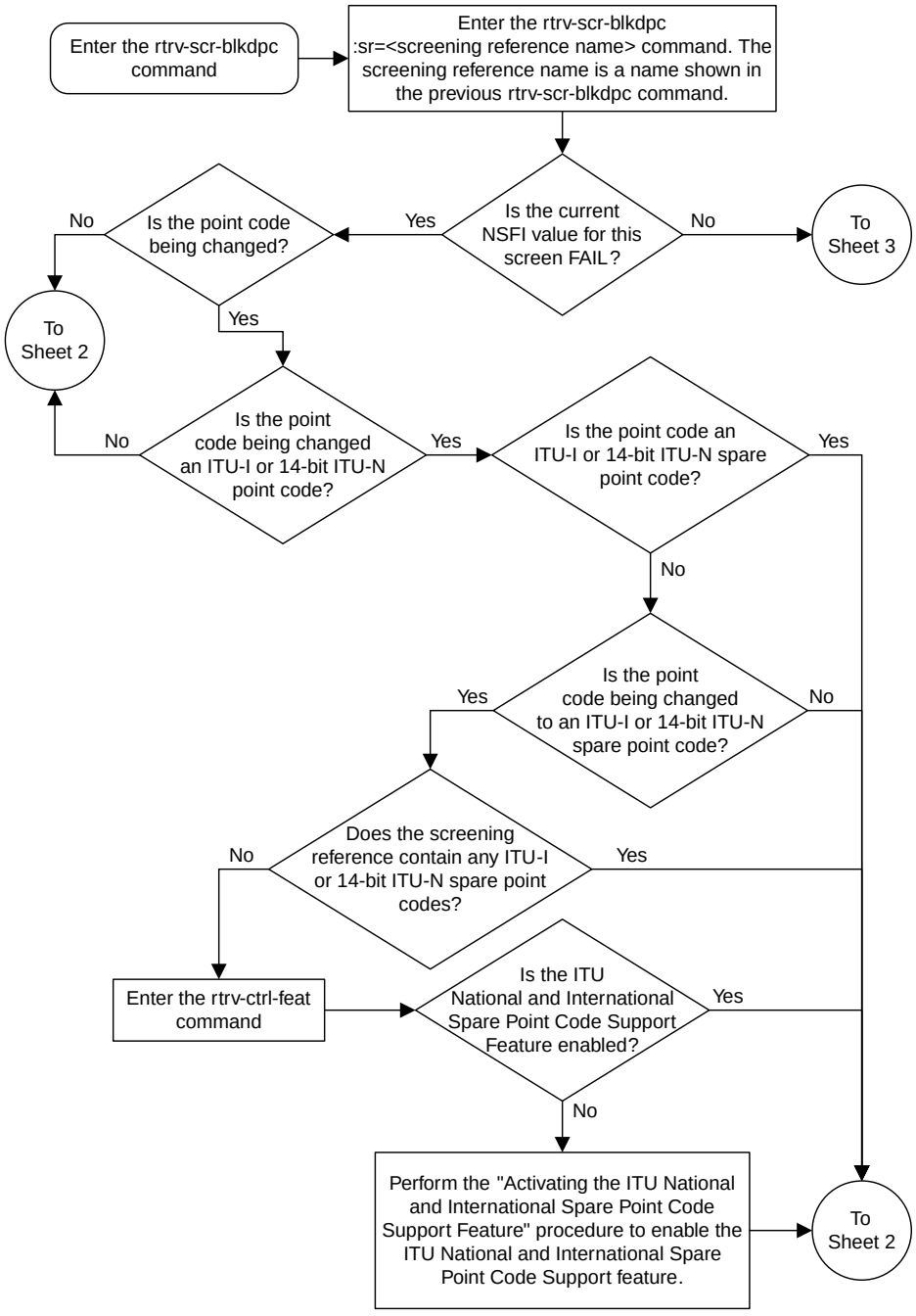
   The following is an example of the possible output.

```
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    ------
```

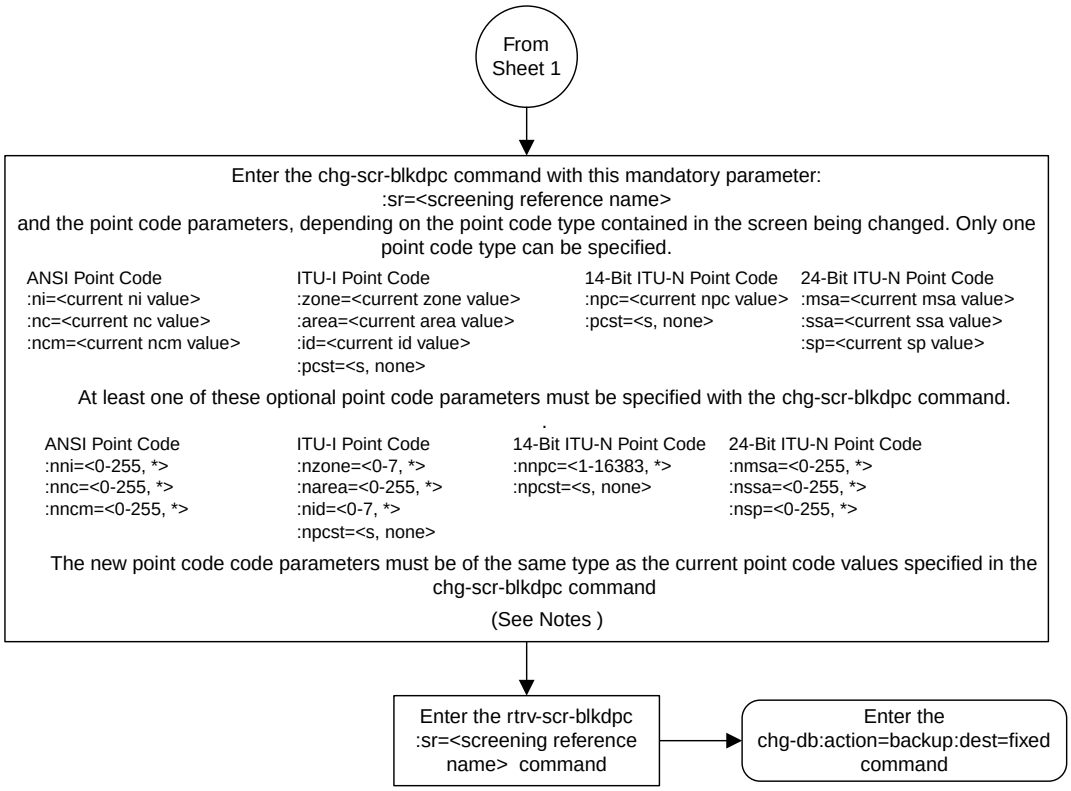
7. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

   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-scr-blkdpc command
Enter the rtrv-scr-blkdpc :sr=<screening reference name> command. The screening reference name is a name shown in the previous rtrv-scr-blkdpc command.
Is the current NSFI value for this screen FAIL?
Yes
No
To Sheet 3
Is the point code being changed?
No
Yes
To Sheet 2
Is the point code being changed an ITU-I or 14-bit ITU-N point code?
No
Yes
Is the point code an ITU-I or 14-bit ITU-N spare point code?
Yes
No
Is the point code being changed to an ITU-I or 14-bit ITU-N spare point code?
Yes
No
Does the screening reference contain any ITU-I or 14-bit ITU-N spare point codes?
No
Yes
Enter the rtrv-ctrl-feat command
Is the ITU National and International Spare Point Code Support Feature enabled?
Yes
No
Perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure to enable the ITU National and International Spare Point Code Support feature.
To Sheet 2

Sheet 1 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.

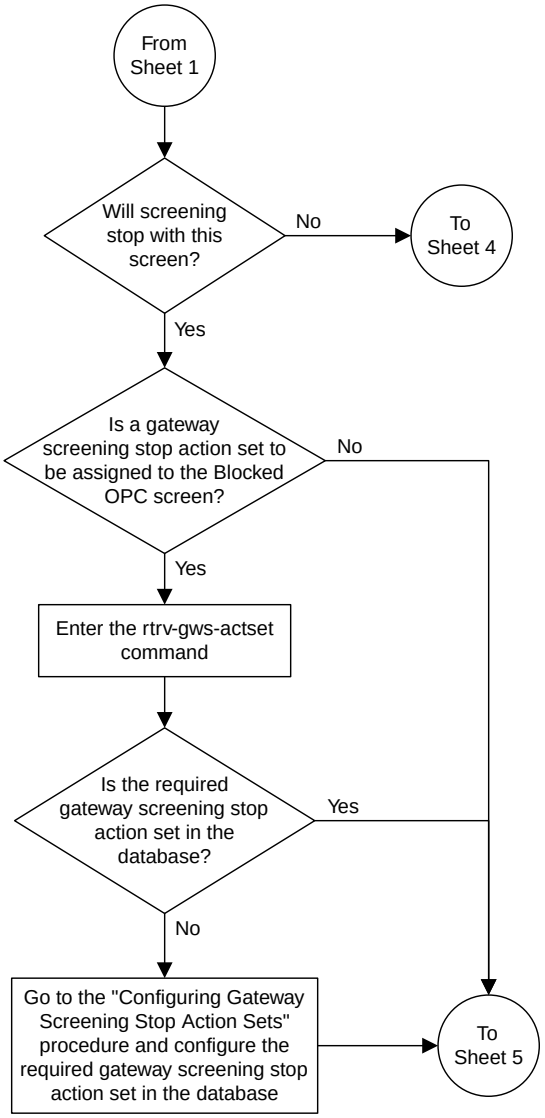
For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the *Database Administration Manual - Gateway Screening*. The "Specifying 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.

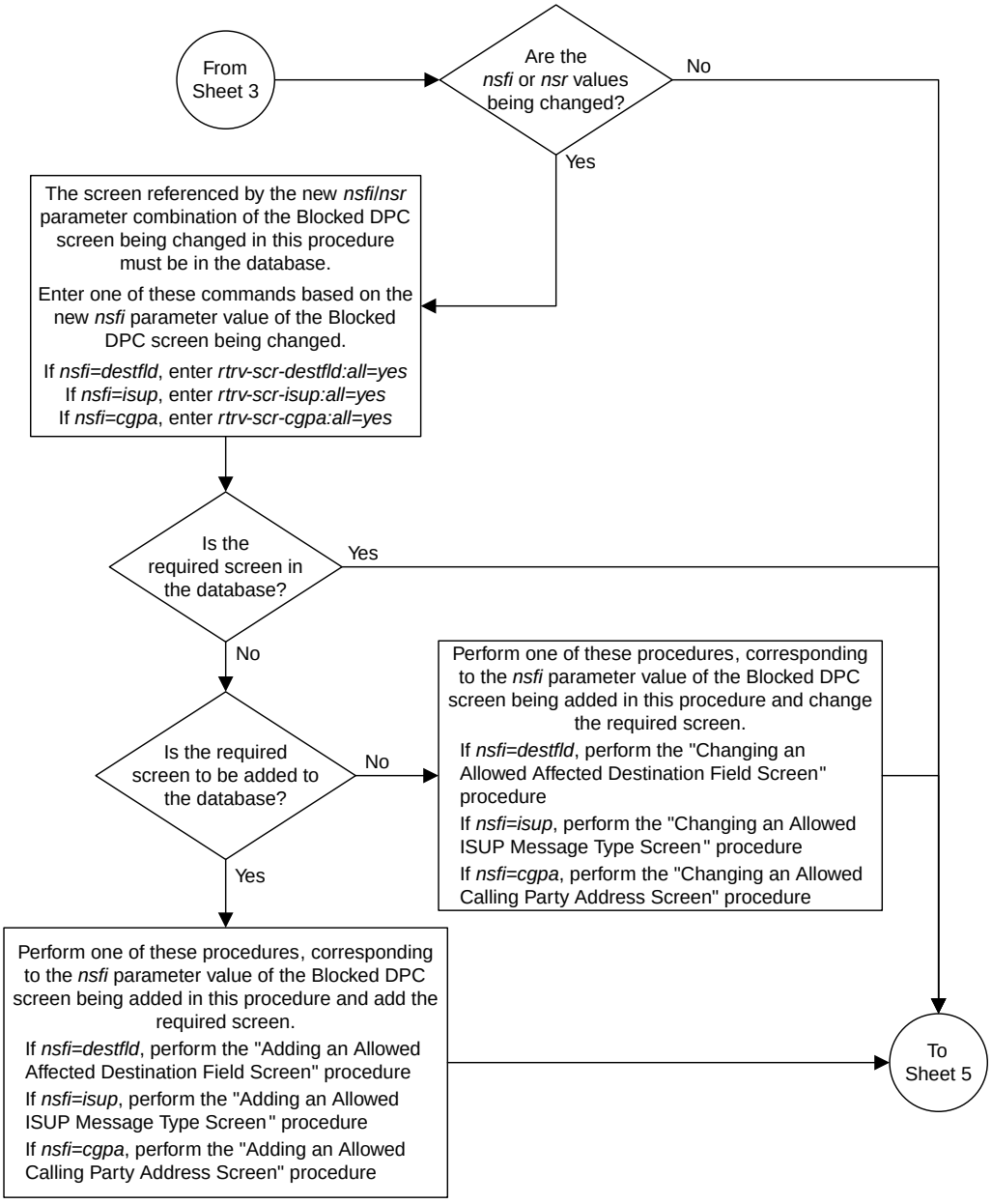
5. To change an ITU-I or 14-bit ITU-N non-spare point code to a spare point code, the npcst=s parameter must be specified with the chg-scr-blkdpc command. The pcst parameter does not have to be specified.

6. If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N spare point code, the pcst=s parameter must be specified with the chg-scr-blkdpc command.

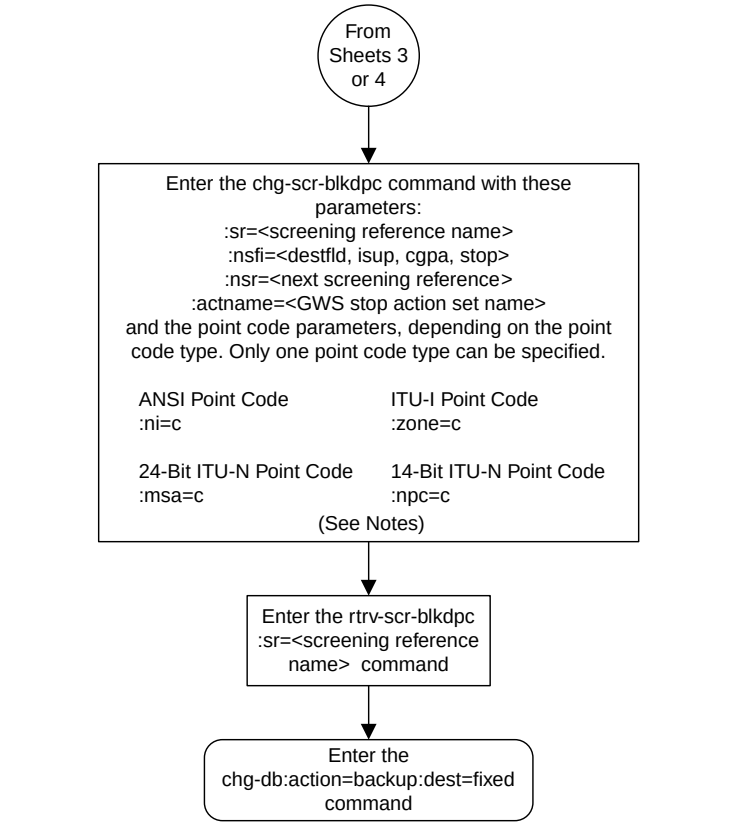
7. If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N non-spare point code, the pcst parameter does not have to be specified with the chg-scr-blkdpc command. If the pcst parameter is specified for a screen containing either an ITU-I or 14-bit ITU-N non-spare point code, the pcst parameter value must be none.


From Sheet 1
Will screening stop with this screen?
No
To Sheet 4
Yes
Is a gateway screening stop action set to be assigned to the Blocked OPC screen?
No
Yes
Enter the rtrv-gws-actset command
Is the required gateway screening stop action set in the database?
Yes
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database
To Sheet 5

Sheet 3 of 5


From Sheet 3
Are the nsfi or nsr values being changed?
No
Yes
The screen referenced by the new nsfi/nsr parameter combination of the Blocked DPC screen being changed in this procedure must be in the database.
Enter one of these commands based on the new nsfi parameter value of the Blocked DPC screen being changed.
If nsfi=destfld, enter rtrv-scr-destfld:all=yes
If nsfi=isup, enter rtrv-scr-isup:all=yes
If nsfi=cgpa, enter rtrv-scr-cgpa:all=yes
Is the required screen in the database?
Yes
No
Is the required screen to be added to the database?
No
Perform one of these procedures, corresponding to the nsfi parameter value of the Blocked DPC screen being added 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 ISUP Message Type Screen" procedure
If nsfi=cgpa, perform the "Changing an Allowed Calling Party Address Screen" procedure
Yes
Perform one of these procedures, corresponding to the nsfi parameter value of the Blocked DPC screen being added 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
If nsfi=cgpa, perform the "Adding an Allowed Calling Party Address Screen" procedure
To Sheet 5

Sheet 4 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.

Sheet 5 of 5

**Figure 49: Changing a Blocked DPC Screen**

# Chapter 9

# Allowed Destination Point Code (DPC) Screen Configuration

**Topics:**


- *Introduction.....311*
- *Adding an Allowed DPC Screen.....315*
- *Removing an Allowed DPC Screen.....329*
- *Changing an Allowed DPC Screen.....333*


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 51: Allowed DPC Screening Functions* 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.

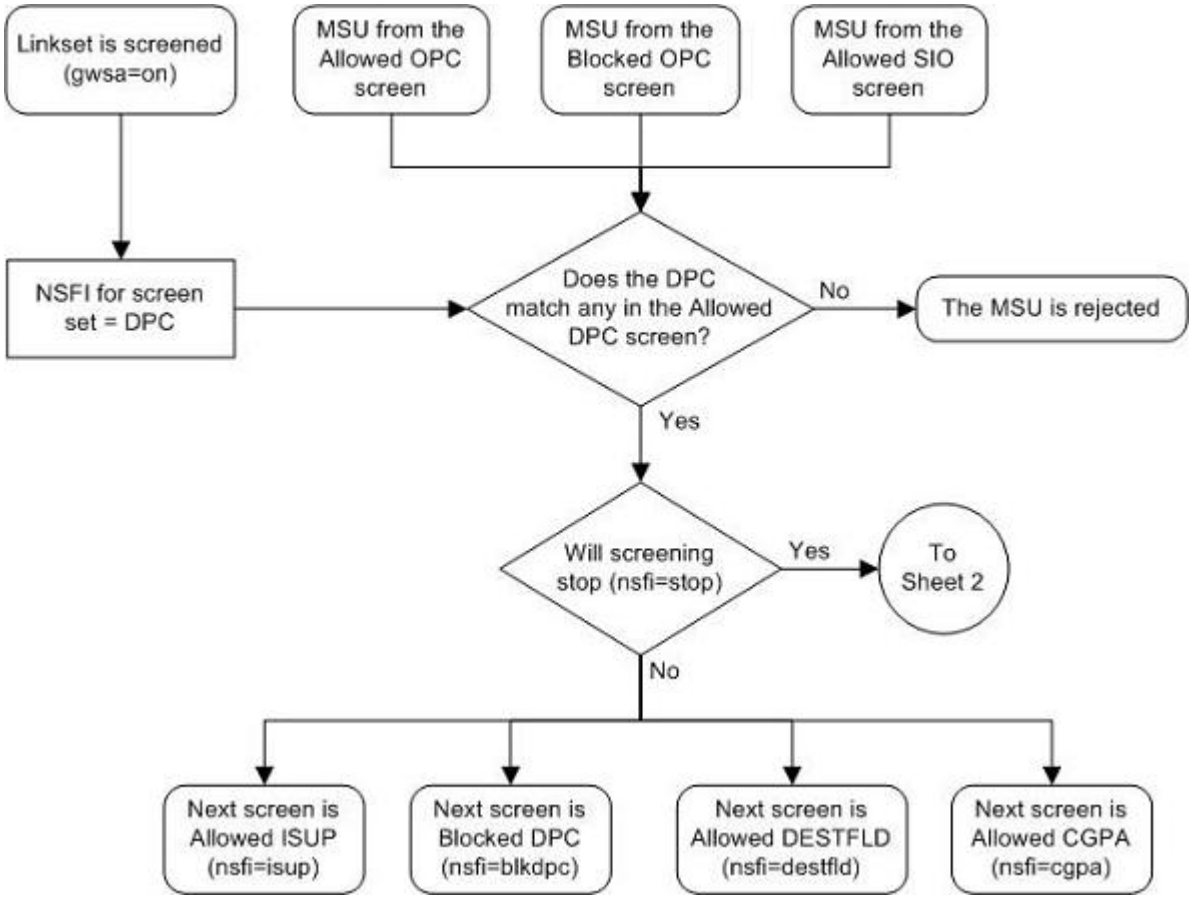
If a match is found, the `nsfi` is examined to determine the next step in the screening process. If the `nsfi` value is any value other than `stop`, the next screening reference (`nsr`) is identified and the screening process continues to the next screen identified by the `nsfi` and `nsr` parameter values.

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 `copy` gateway screening stop action is specified, the message is processed and a copy of the message is sent by the STPLAN feature to an external application.
- 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.

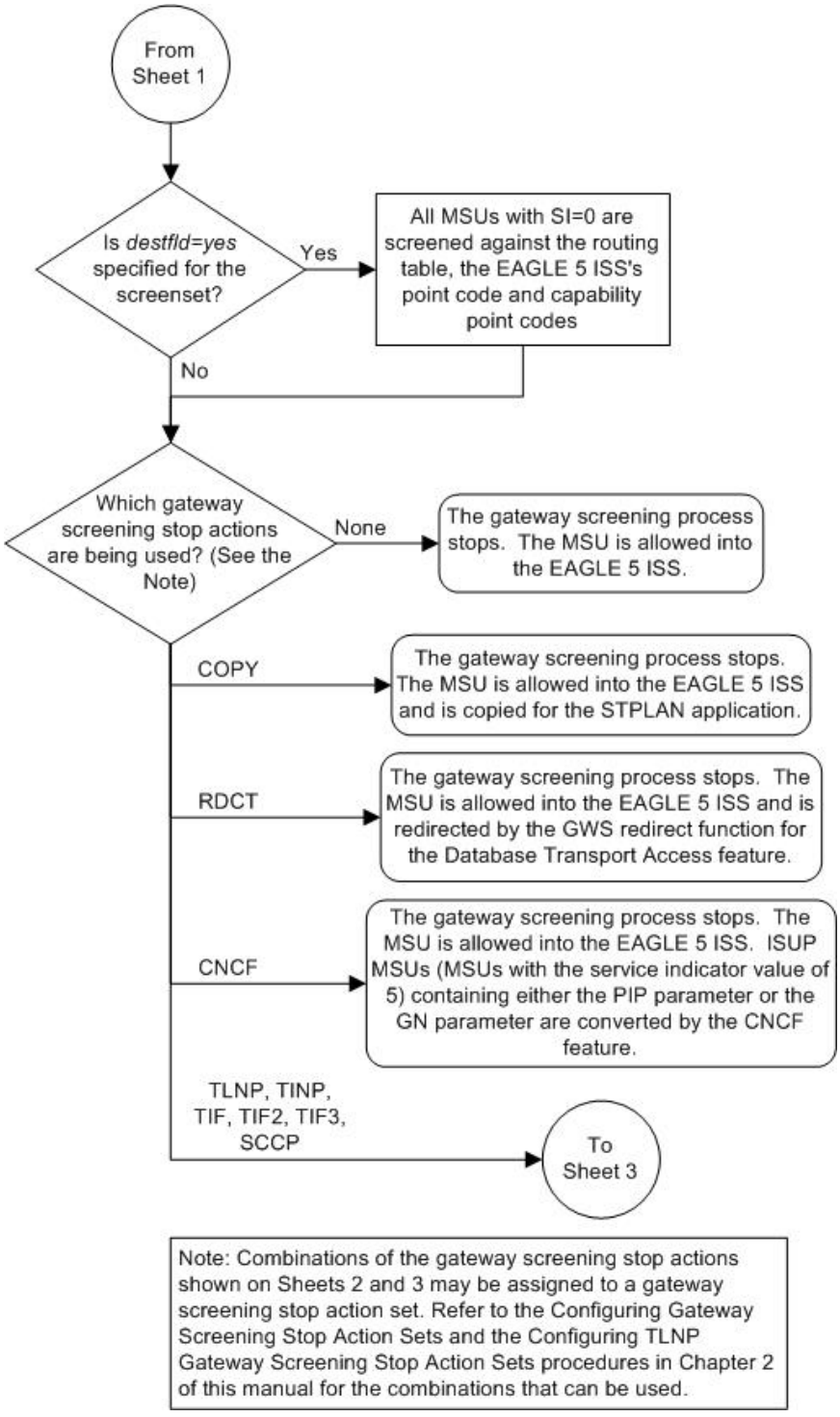
## Allowed DPC Screening Actions

*Figure 50: Allowed DPC Screening Actions* shows the screening actions of the allowed DPC screen.

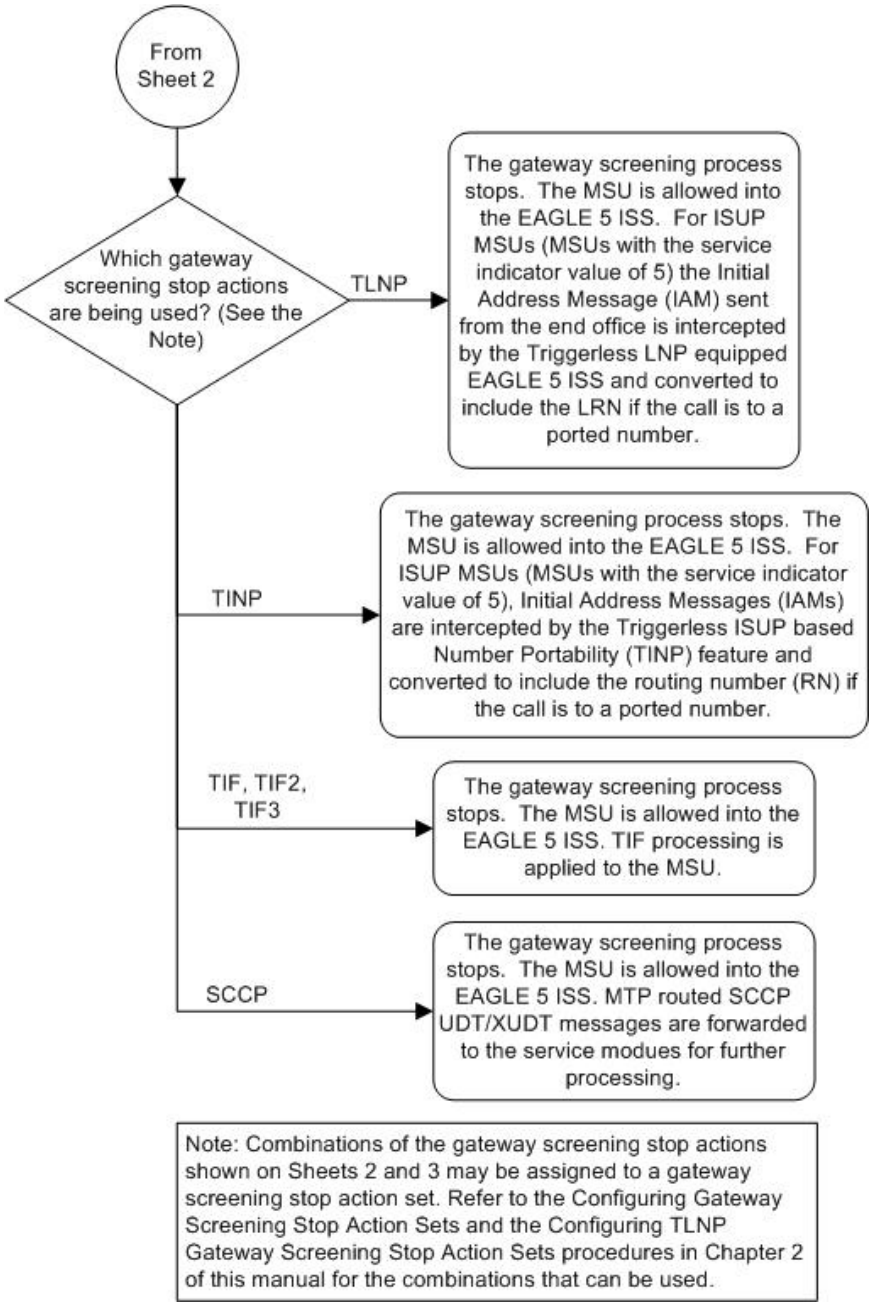



Sheet 1 of 3

**Figure 50: Allowed DPC Screening Actions**


From Sheet 1
Is destfld=yes specified for the screenset?
Yes
All MSUs with SI=0 are screened against the routing table, the EAGLE 5 ISS's point code and capability point codes
No
Which gateway screening stop actions are being used? (See the Note)
None
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS.
COPY
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS and is copied for the STPLAN application.
RDCT
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS and is redirected by the GWS redirect function for the Database Transport Access feature.
CNCF
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. ISUP MSUs (MSUs with the service indicator value of 5) containing either the PIP parameter or the GN parameter are converted by the CNCF feature.
TLNP, TINP, TIF, TIF2, TIF3, SCCP
To Sheet 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.

Sheet 2 of 3


From Sheet 2
Which gateway screening stop actions are being used? (See the Note)
TLNP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. For ISUP MSUs (MSUs with the service indicator value of 5) the Initial Address Message (IAM) sent from the end office is intercepted by the Triggerless LNP equipped EAGLE 5 ISS and converted to include the LRN if the call is to a ported number.
TINP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. For ISUP MSUs (MSUs with the service indicator value of 5), Initial Address Messages (IAMs) 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.
TIF, TIF2, TIF3
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. TIF processing is applied to the MSU.
SCCP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. MTP routed SCCP UDT/XUDT messages are forwarded to the service modues for further processing.
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.

Sheet 3 of 3

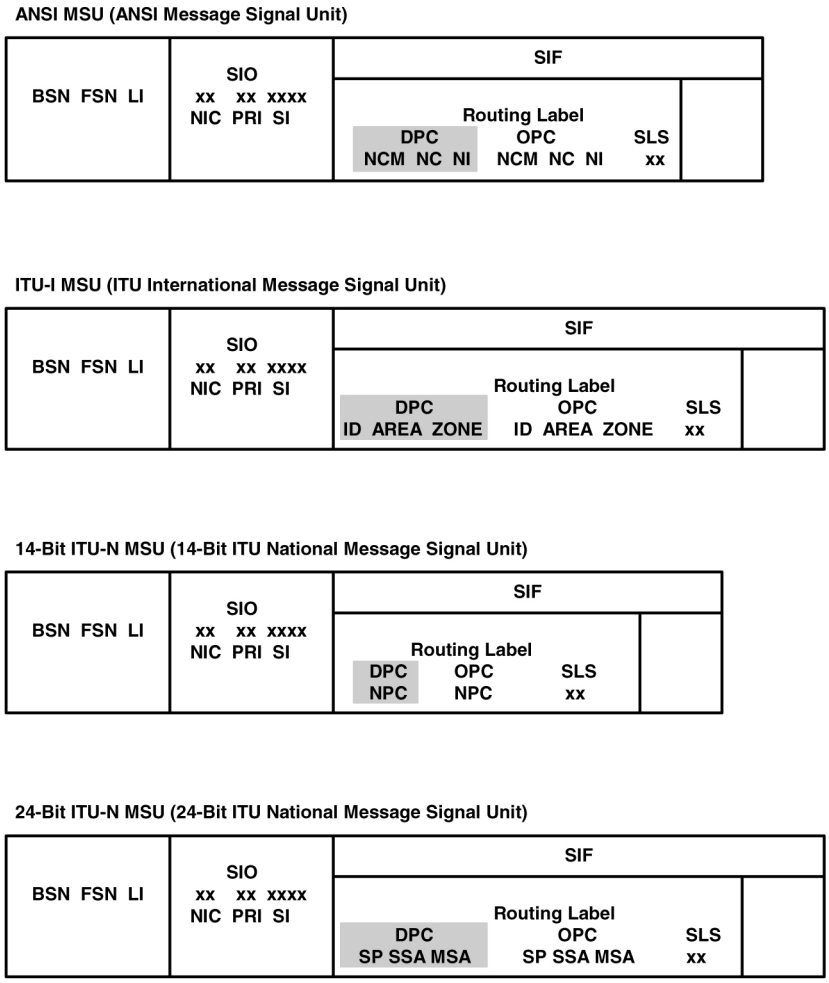



**Figure 51: Allowed DPC Screening Functions**

## Adding an Allowed DPC Screen

This procedure is used to add an allowed destination point code (DPC) screen to the database using the `ent-scr-dpc` command. The parameters used by the `ent-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 examples in this procedure are used to add the allowed DPC screen data shown in *Table 55: Example Gateway Screening Allowed DPC Configuration Table* and based on the example configurations shown in *Figure 4: Gateway Screening Configuration - Example 1*, *Figure 6: Gateway Screening Configuration - Example 3*, and *Figure 10: Gateway Screening Configuration - Example 7*.

**Table 55: 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 |
| isp2 | 073 | 200 | 059 | isup | isp2 |
| tup1 | 050 | 034 | 049 | isup | tup1 |

**Note:** 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 `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 56: Valid Value Combinations for ANSI Point Code Parameters* shows the valid combinations of these parameter values.

**Table 56: 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 57: Valid Value Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I parameter values. *Table 58: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* shows the valid combinations of the 24-bit ITU-N parameter values.

**Table 57: 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 58: 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`.

   **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, see the `rtrv-feat` command description in the *Commands Manual*.

   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 the `chg-feat` command. If you are not sure if you have purchased the gateway screening feature, contact your Tekelec 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 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    NI       NC       NCM      NSFI    NSR/ACT
IEC   240      001      010      STOP    ------
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    ------
```

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  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    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 5 ISS'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       002-002-004      002-002-005
002-002-006       002-002-007       002-002-008      002-002-009
004-002-001       004-003-003       050-060-070

CPCA (LNP)
005-005-002       005-005-004       005-005-005      006-006-006

CPCI
1-002-1           1-002-2           1-002-3          1-002-4
2-001-1           7-222-7

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           10-14-10-1
```

**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 DPC screens containing the EAGLE 5 ISS'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.

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, 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 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 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 `ent-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 4.

   **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 DPC screens containing the EAGLE 5 ISS'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 `pcst=s` parameter must be specified.

To add a non-spare point code to the allowed 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`.

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.

```
rlghncxa03w 06-10-25 15:31:30 GMT  EAGLE5 36.0.0
SCREEN = ALLOWED DPC
SR    NI       NC       NCM      NSFI    NSR/ACT
ISP2  073      200      059      ISUP    ISP2
```

`rtrv-scr-dpc:sr=tup1`

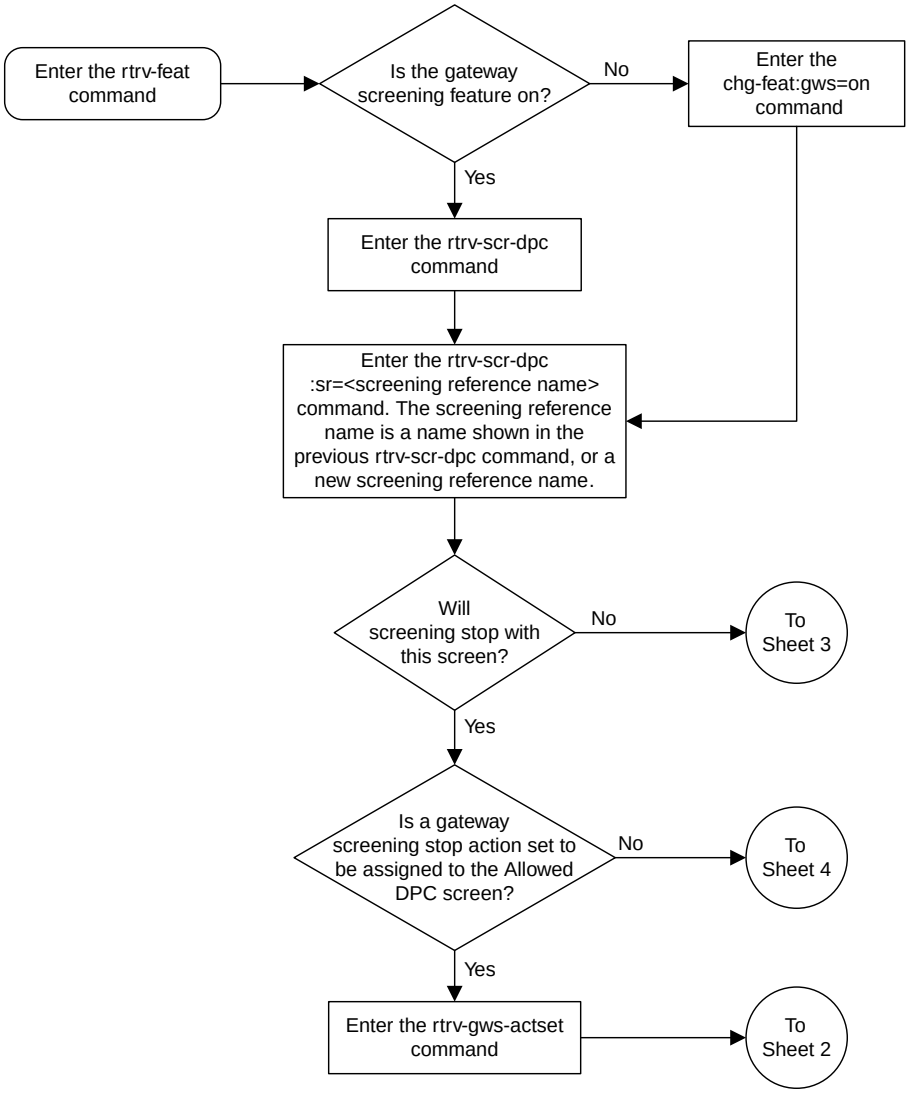
The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:31:30 GMT  EAGLE5 36.0.0
SCREEN = ALLOWED DPC
SR    NI       NC       NCM      NSFI    NSR/ACT
TUP1  050      034      049      ISUP    TUP1
```

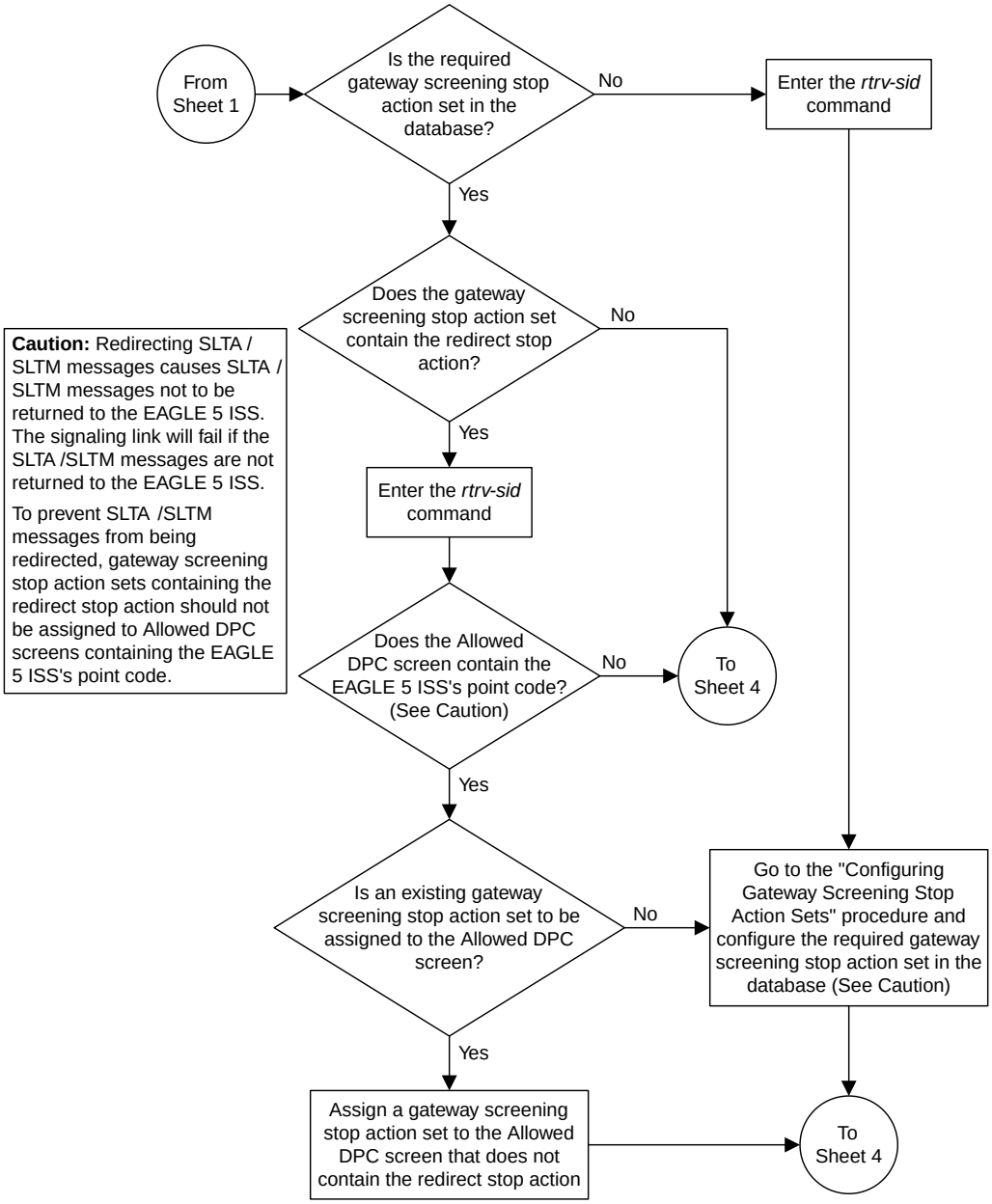
10. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

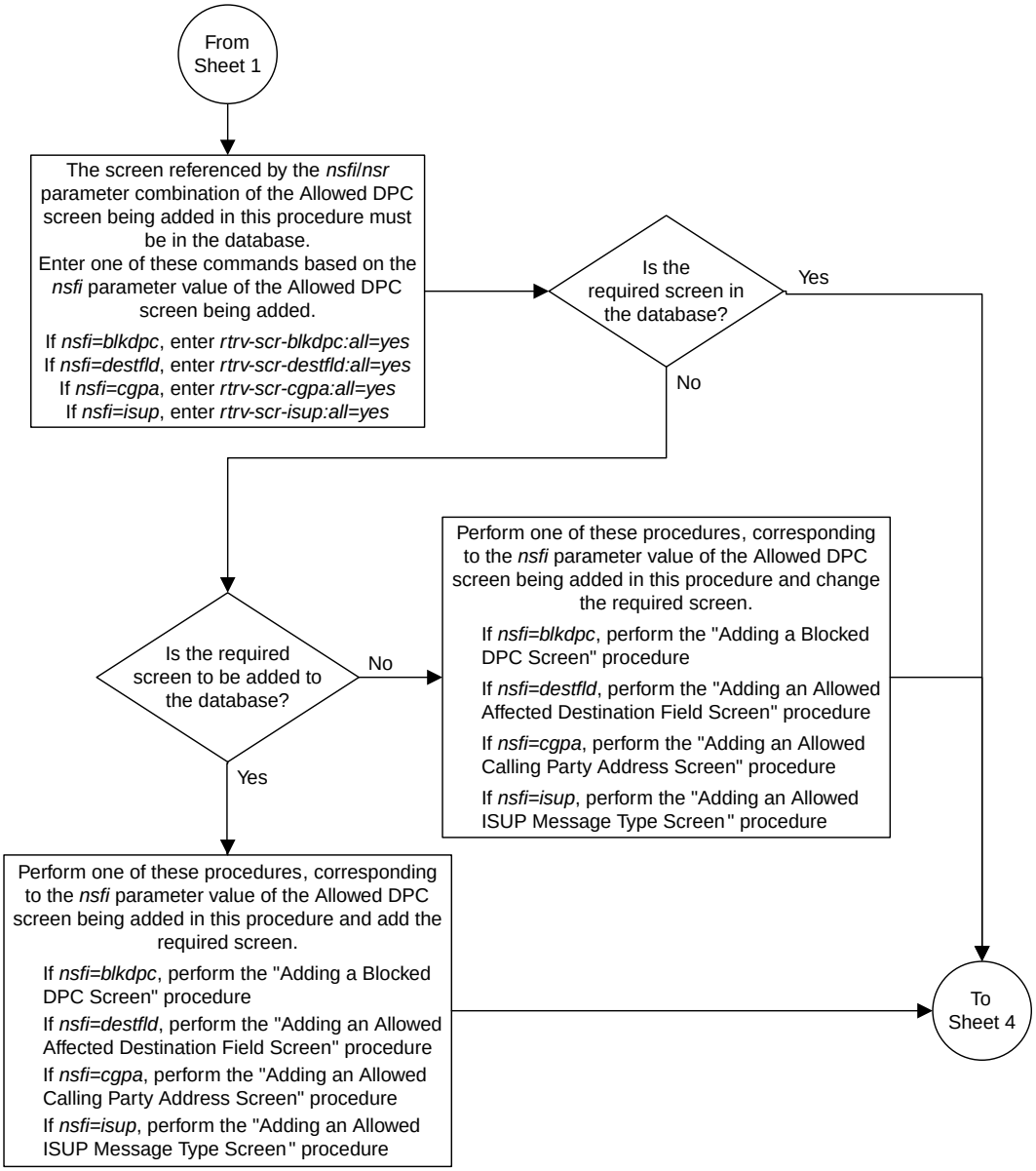
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the rtrv-feat command
Is the gateway screening feature on?
No
Enter the chg-feat:gws=on command
Yes
Enter the rtrv-scr-dpc command
Enter the rtrv-scr-dpc :sr=<screening reference name> command. The screening reference name is a name shown in the previous rtrv-scr-dpc command, or a new screening reference name.
Will screening stop with this screen?
No
To Sheet 3
Yes
Is a gateway screening stop action set to be assigned to the Allowed DPC screen?
No
To Sheet 4
Yes
Enter the rtrv-gws-actset command
To Sheet 2

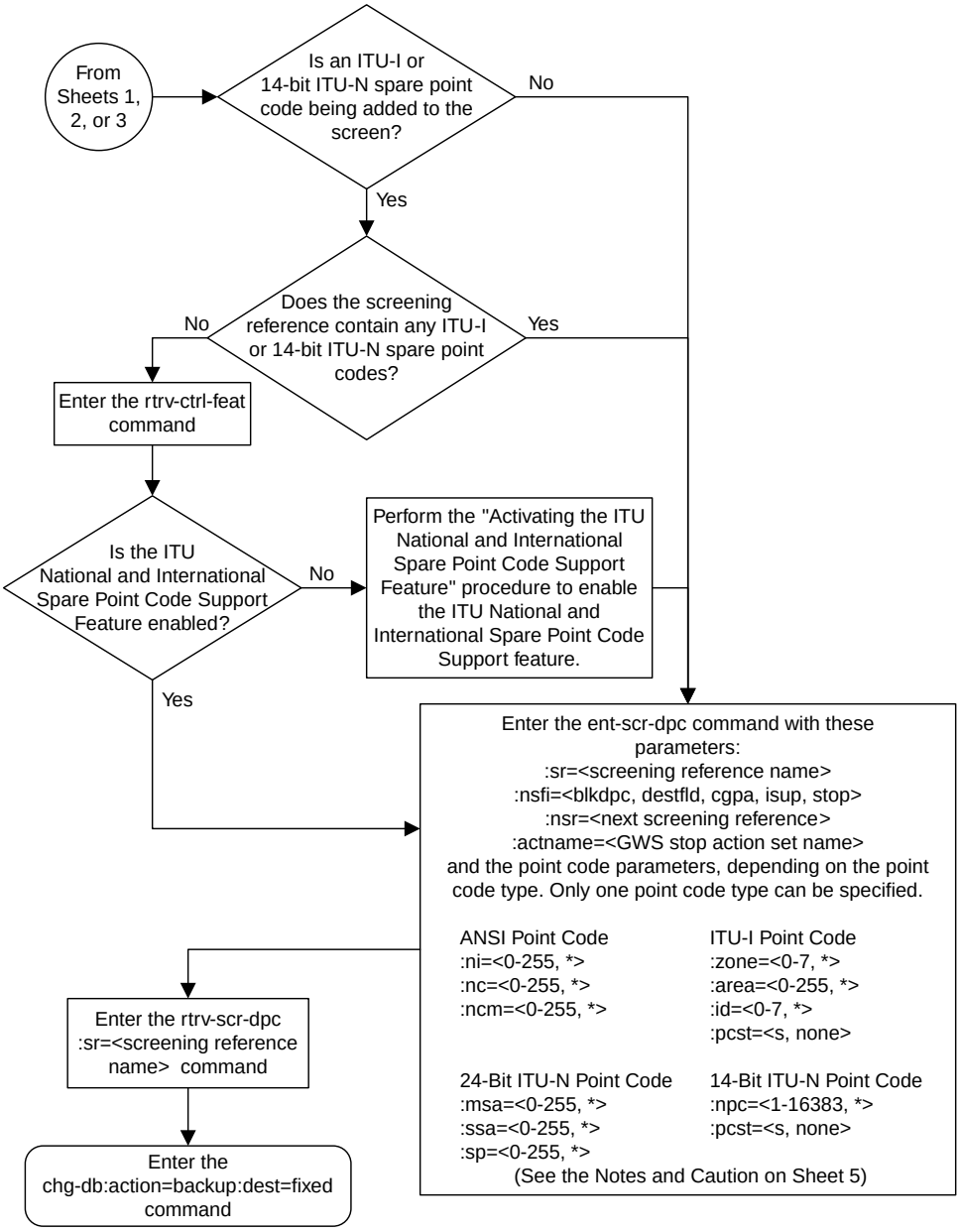
Sheet 1 of 5


From Sheet 1
Is the required gateway screening stop action set in the database?
No
Enter the *rtrv-sid* command
Yes
Does the gateway screening stop action set contain the redirect stop action?
No
Yes
**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 /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.
Enter the *rtrv-sid* command
Does the Allowed DPC screen contain the EAGLE 5 ISS's point code? (See Caution)
No
To Sheet 4
Yes
Is an existing gateway screening stop action set to be assigned to the Allowed DPC screen?
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database (See Caution)
Yes
Assign a gateway screening stop action set to the Allowed DPC screen that does not contain the redirect stop action
To Sheet 4

Sheet 2 of 5


From Sheet 1
The screen referenced by the nsfi/nsr parameter combination of the Allowed DPC screen being added in this procedure must be in the database.
Enter one of these commands based on the nsfi parameter value of the Allowed DPC screen being added.
If nsfi=blkdpc, enter rtrv-scr-blkdpc:all=yes
If nsfi=destfld, enter rtrv-scr-destfld:all=yes
If nsfi=cgpa, enter rtrv-scr-cgpa:all=yes
If nsfi=isup, enter rtrv-scr-isup:all=yes
Is the required screen in the database?
Yes
No
Is the required screen to be added to the database?
No
Yes
Perform one of these procedures, corresponding to the nsfi parameter value of the Allowed DPC screen being added in this procedure and change the required screen.
If nsfi=blkdpc, perform the "Adding a Blocked DPC Screen" procedure
If nsfi=destfld, perform the "Adding an Allowed Affected Destination Field Screen" procedure
If nsfi=cgpa, perform the "Adding an Allowed Calling Party Address Screen" procedure
If nsfi=isup, perform the "Adding an Allowed ISUP Message Type Screen" procedure
Perform one of these procedures, corresponding to the nsfi parameter value of the Allowed DPC screen being added in this procedure and add the required screen.
If nsfi=blkdpc, perform the "Adding a Blocked DPC Screen" procedure
If nsfi=destfld, perform the "Adding an Allowed Affected Destination Field Screen" procedure
If nsfi=cgpa, perform the "Adding an Allowed Calling Party Address Screen" procedure
If nsfi=isup, perform the "Adding an Allowed ISUP Message Type Screen" procedure
To Sheet 4

Sheet 3 of 5


From Sheets 1, 2, or 3
Is an ITU-I or 14-bit ITU-N spare point code being added to the screen?
No
Yes
Does the screening reference contain any ITU-I or 14-bit ITU-N spare point codes?
No
Yes
Enter the rtrv-ctrl-feat command
Is the ITU National and International Spare Point Code Support Feature enabled?
No
Perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure to enable the ITU National and International Spare Point Code Support feature.
Yes
Enter the ent-scr-dpc command with these parameters:
:sr=<screening reference name>
:nsfi=<blkdpc, destfld, cgpa, isup, 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.
ANSI Point Code
:ni=<0-255, *>
:nc=<0-255, *>
:ncm=<0-255, *>
ITU-I Point Code
:zone=<0-7, *>
:area=<0-255, *>
:id=<0-7, *>
:pcst=<s, none>
24-Bit ITU-N Point Code
:msa=<0-255, *>
:ssa=<0-255, *>
:sp=<0-255, *>
14-Bit ITU-N Point Code
:npc=<1-16383, *>
:pcst=<s, none>
(See the Notes and Caution on Sheet 5)
Enter the rtrv-scr-dpc :sr=<screening reference name> command
Enter the chg-db:action=backup:dest=fixed command

Sheet 4 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 *rtrv-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.

Sheet 5 of 5

**Figure 52: Adding an Allowed DPC Screen**

## 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.

**Note:** 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*

1. Display the 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
GWS9  YES     1
IEC   YES     6
ISP2  YES     1
TUP1  YES     1
```

```
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 `pcst` parameter does not have to be specified with the `dlt-scr-dpc` command. If the `pcst` 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.
```

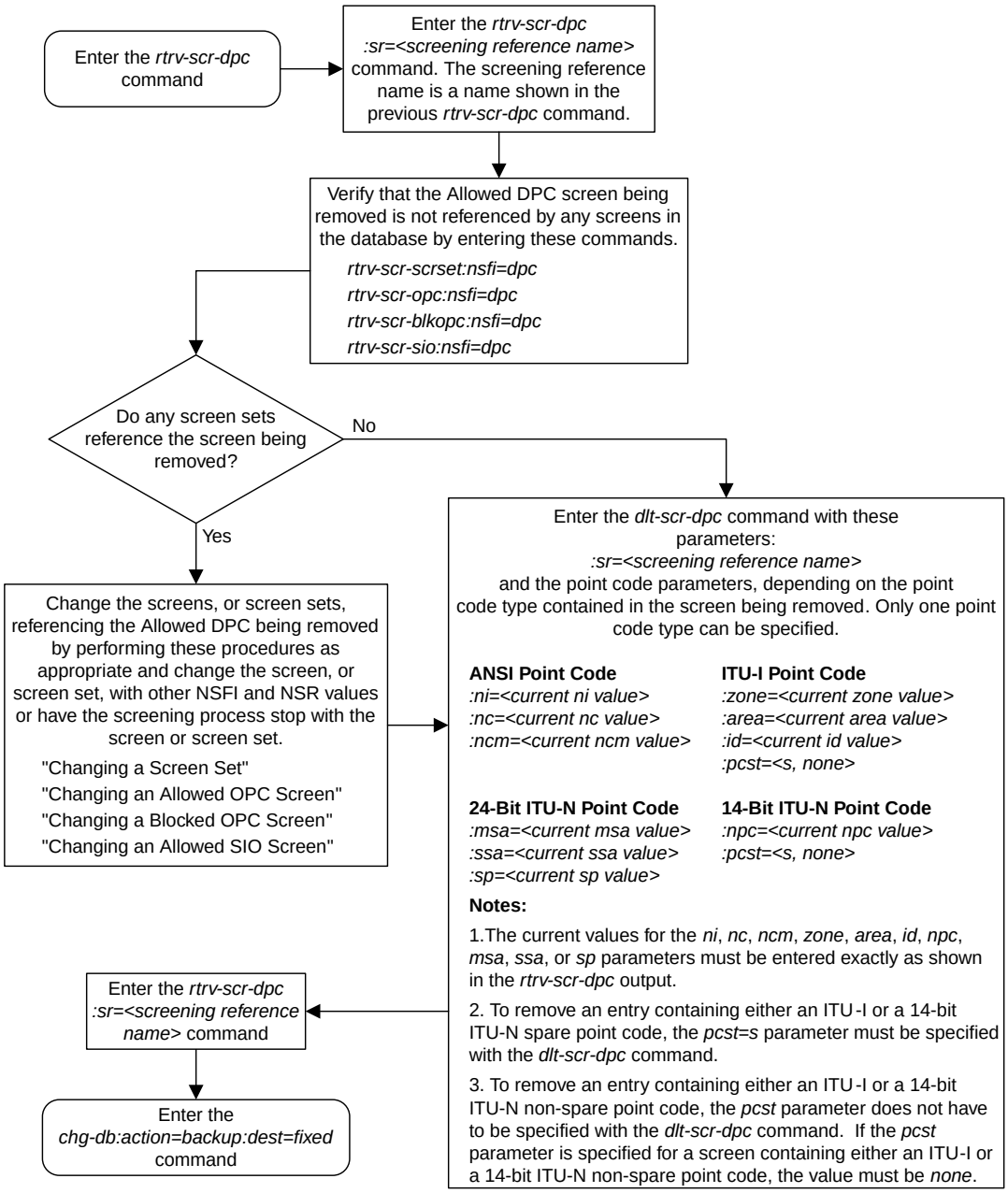



**Figure 53: Removing an Allowed DPC Screen**

# 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`.

**Note:** 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 `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 59: Valid Value Combinations for ANSI Point Code Parameters* shows the valid combinations of these parameter values.

**Table 59: 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 60: Valid Value Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I parameter values. *Table 61: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* shows the valid combinations of the 24-bit ITU-N parameter values.

**Table 60: 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 61: 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.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED DPC
SR    REF  RULES
GWS9  YES     1
IEC   YES     6
ISP2  YES     1
TUP1  YES     1
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
```

   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  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    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 3 and go to step 4.

3. Verify the EAGLE 5 ISS'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       002-002-004       002-002-005
002-002-006       002-002-007       002-002-008       002-002-009
004-002-001       004-003-003       050-060-070

CPCA (LNP)
005-005-002       005-005-004       005-005-005       006-006-006

CPCI
1-002-1           1-002-2           1-002-3           1-002-4
2-001-1           7-222-7

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           10-14-10-1
```

**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 DPC screens containing the EAGLE 5 ISS's point code.

**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 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 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 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 `chg-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 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 DPC screens containing the EAGLE 5 ISS'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 `pcst=s` and `npcst=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 `pcst=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 `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`.

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
   ```

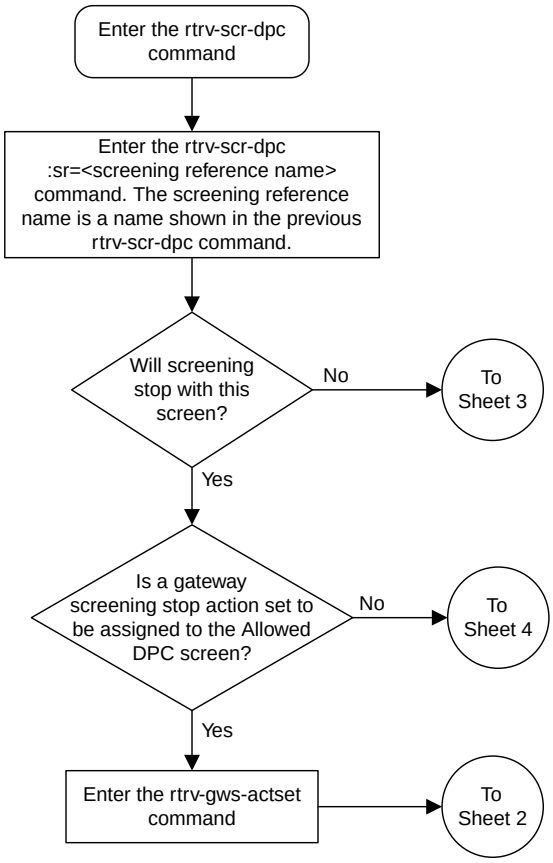
The following is an example of the possible output.

```
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      009      STOP    ------
```

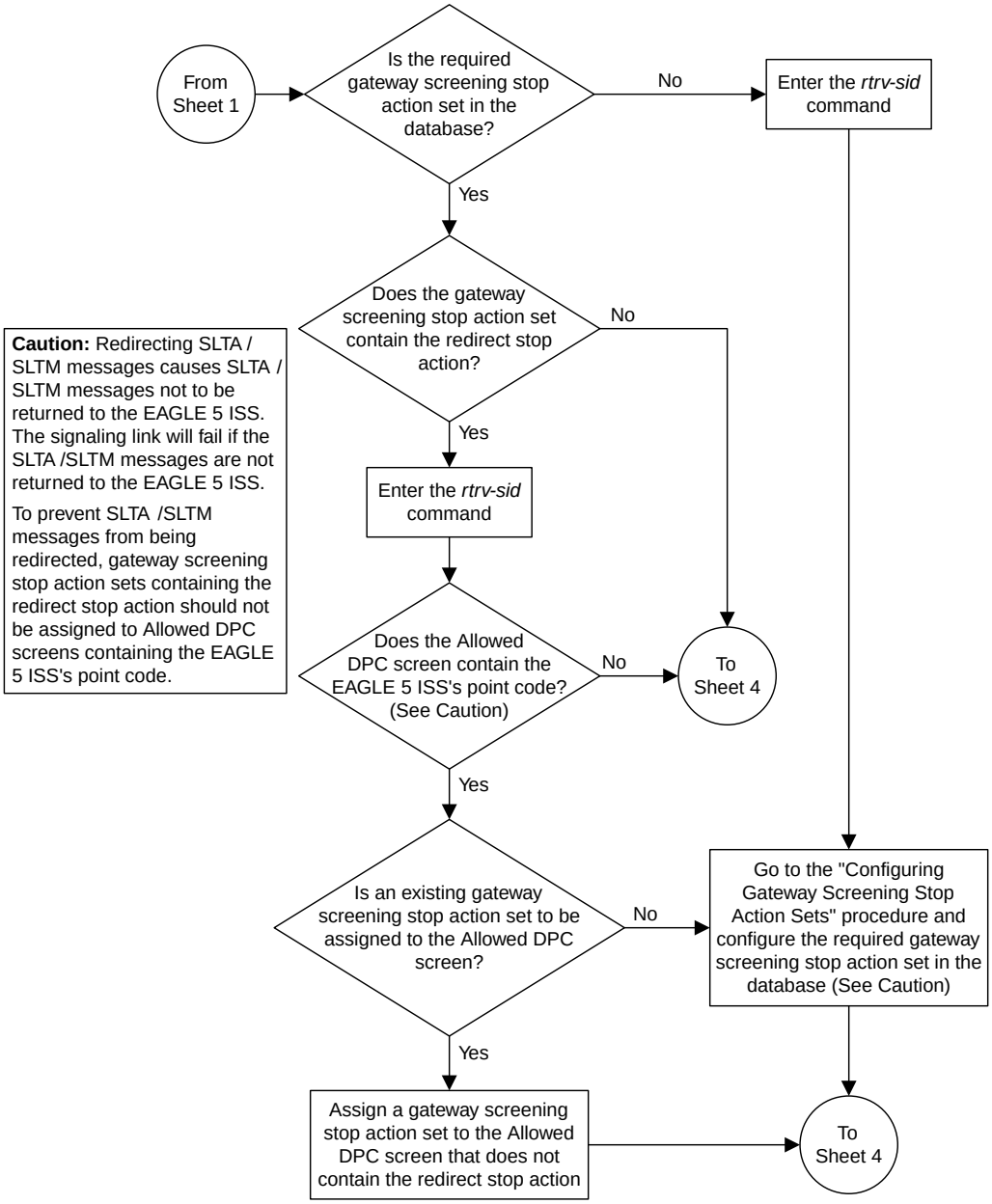
8. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

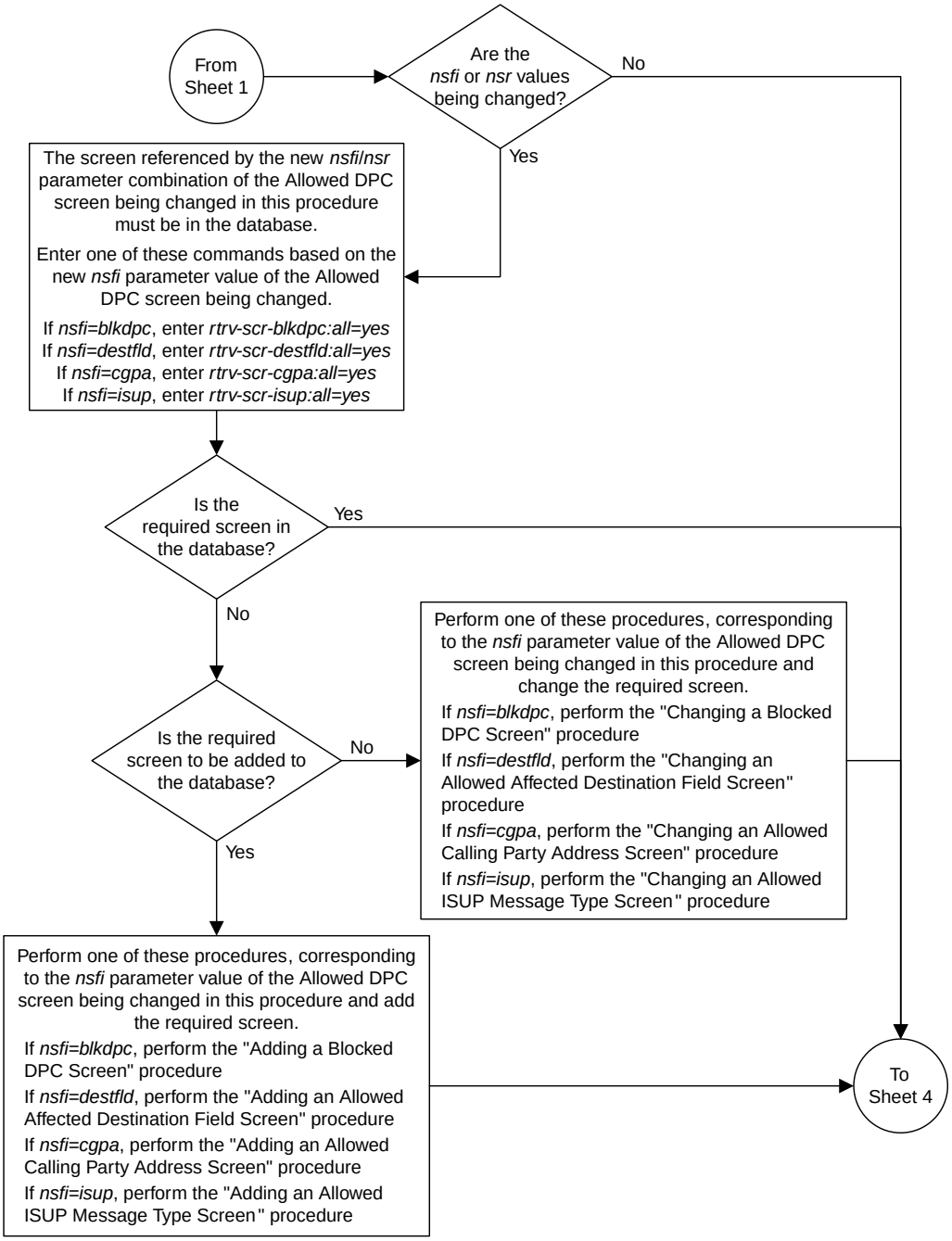
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the rtrv-scr-dpc command
Enter the rtrv-scr-dpc :sr=<screening reference name> command. The screening reference name is a name shown in the previous rtrv-scr-dpc command.
Will screening stop with this screen?
No
To Sheet 3
Yes
Is a gateway screening stop action set to be assigned to the Allowed DPC screen?
No
To Sheet 4
Yes
Enter the rtrv-gws-actset command
To Sheet 2

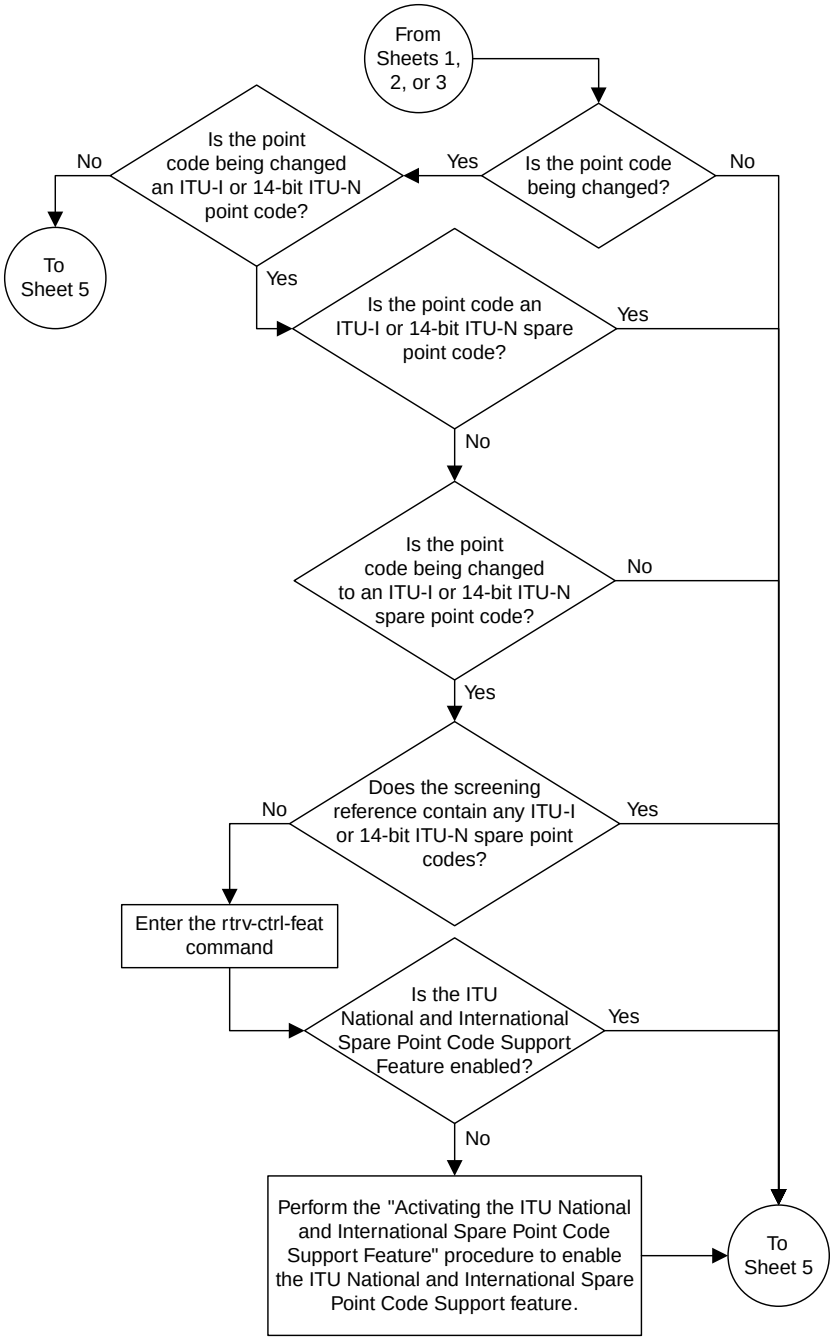
Sheet 1 of 6


From Sheet 1
Is the required gateway screening stop action set in the database?
No
Enter the *rtrv-sid* command
Yes
Does the gateway screening stop action set contain the redirect stop action?
No
Yes
**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 /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.
Enter the *rtrv-sid* command
Does the Allowed DPC screen contain the EAGLE 5 ISS's point code? (See Caution)
No
To Sheet 4
Yes
Is an existing gateway screening stop action set to be assigned to the Allowed DPC screen?
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database (See Caution)
Yes
Assign a gateway screening stop action set to the Allowed DPC screen that does not contain the redirect stop action
To Sheet 4

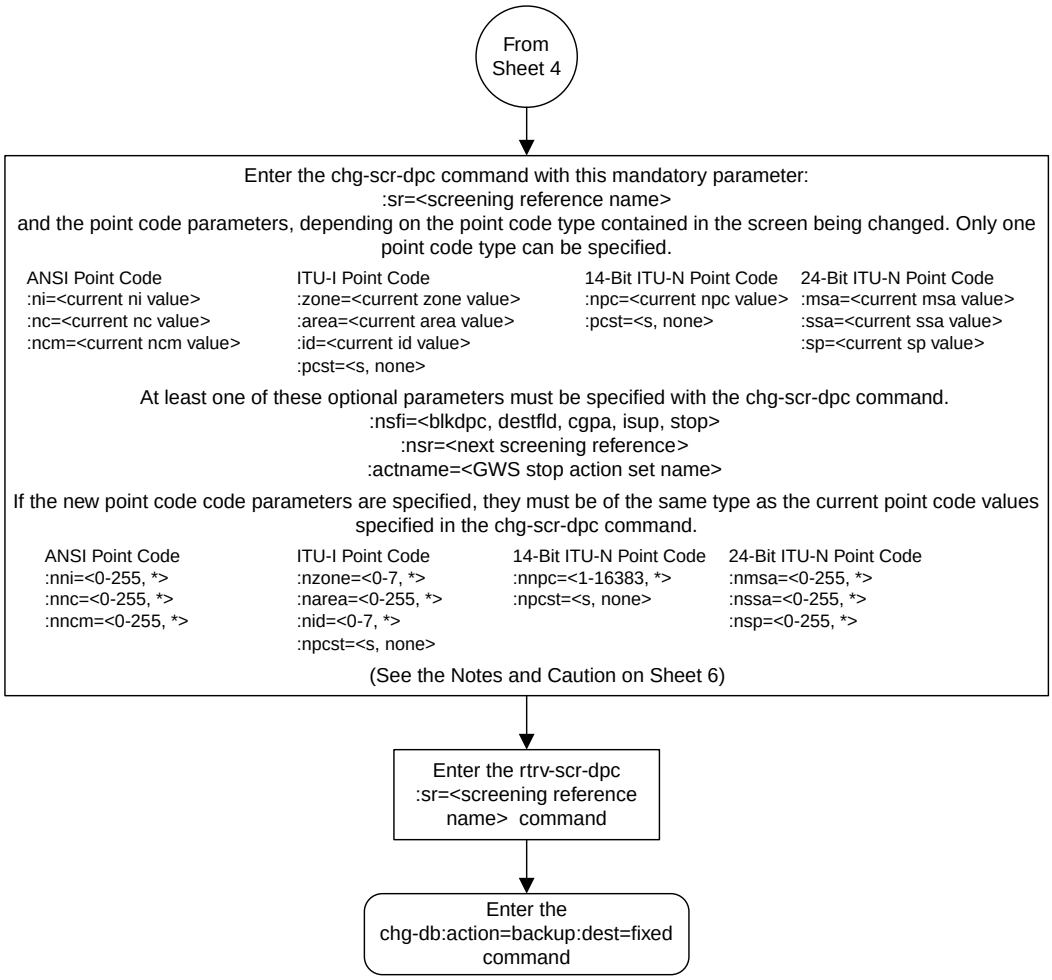
Sheet 2 of 6


From Sheet 1
Are the *nsfi* or *nsr* values being changed?
No
Yes
The screen referenced by the new *nsfi*/*nsr* parameter combination of the Allowed DPC screen being changed in this procedure must be in the database.
Enter one of these commands based on the new *nsfi* parameter value of the Allowed DPC screen being changed.
If *nsfi=blkdpc*, enter *rtrv-scr-blkdpc:all=yes*
If *nsfi=destfld*, enter *rtrv-scr-destfld:all=yes*
If *nsfi=cgpa*, enter *rtrv-scr-cgpa:all=yes*
If *nsfi=isup*, enter *rtrv-scr-isup:all=yes*
Is the required screen in the database?
Yes
No
Is the required screen to be added to the database?
No
Yes
Perform one of these procedures, corresponding to the *nsfi* parameter value of the Allowed DPC screen being changed in this procedure and change the required screen.
If *nsfi=blkdpc*, perform the "Changing a Blocked DPC Screen" procedure
If *nsfi=destfld*, perform the "Changing an Allowed Affected Destination Field Screen" procedure
If *nsfi=cgpa*, perform the "Changing an Allowed Calling Party Address Screen" procedure
If *nsfi=isup*, perform the "Changing an Allowed ISUP Message Type Screen" procedure
Perform one of these procedures, corresponding to the *nsfi* parameter value of the Allowed DPC screen being changed in this procedure and add the required screen.
If *nsfi=blkdpc*, perform the "Adding a Blocked DPC Screen" procedure
If *nsfi=destfld*, perform the "Adding an Allowed Affected Destination Field Screen" procedure
If *nsfi=cgpa*, perform the "Adding an Allowed Calling Party Address Screen" procedure
If *nsfi=isup*, perform the "Adding an Allowed ISUP Message Type Screen" procedure
To Sheet 4

Sheet 3 of 6


From Sheets 1, 2, or 3
Is the point code being changed?
Yes
No
Is the point code being changed an ITU-I or 14-bit ITU-N point code?
No
To Sheet 5
Yes
Is the point code an ITU-I or 14-bit ITU-N spare point code?
Yes
No
Is the point code being changed to an ITU-I or 14-bit ITU-N spare point code?
No
Yes
Does the screening reference contain any ITU-I or 14-bit ITU-N spare point codes?
No
Yes
Enter the rtrv-ctrl-feat command
Is the ITU National and International Spare Point Code Support Feature enabled?
Yes
No
Perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure to enable the ITU National and International Spare Point Code Support feature.
To Sheet 5

Sheet 4 of 6


From Sheet 4
Enter the chg-scr-dpc command with this mandatory parameter:
:sr=<screening reference name>
and the point code parameters, depending on the point code type contained in the screen being changed. Only one point code type can be specified.
ANSI Point Code
:ni=<current ni value>
:nc=<current nc value>
:ncm=<current ncm 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>
24-Bit ITU-N Point Code
:msa=<current msa value>
:ssa=<current ssa value>
:sp=<current sp value>
At least one of these optional parameters must be specified with the chg-scr-dpc command.
:nsfi=<blkdpc, destfld, cgpa, isup, stop>
:nsr=<next screening reference>
:actname=<GWS stop action set name>
If the new point code code parameters are specified, they must be of the same type as the current point code values specified in the chg-scr-dpc command.
ANSI Point Code
:nni=<0-255, *>
:nnc=<0-255, *>
:nncm=<0-255, *>
ITU-I Point Code
:nzone=<0-7, *>
:narea=<0-255, *>
:nid=<0-7, *>
:npcst=<s, none>
14-Bit ITU-N Point Code
:nnpc=<1-16383, *>
:npcst=<s, none>
24-Bit ITU-N Point Code
:nmsa=<0-255, *>
:nssa=<0-255, *>
:nsp=<0-255, *>
(See the Notes and Caution on Sheet 6)
Enter the rtrv-scr-dpc :sr=<screening reference name> command
Enter the chg-db:action=backup:dest=fixed command

Sheet 5 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 *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 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.

Sheet 6 of 6

**Figure 54: Changing an Allowed DPC Screen**

# Chapter 10

# Allowed Signaling Information Octet (SIO) Screen Configuration

**Topics:**


- *Introduction.....348*
- *Adding an Allowed SIO Screen.....353*
- *Removing an Allowed SIO Screen.....364*
- *Changing an Allowed SIO Screen.....368*


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 56: Allowed SIO Screening Function* 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 `copy` gateway screening stop action is specified, the message is processed and a copy of the message is sent by the STPLAN feature to an external application.
- 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.

## Allowed SIO Screening Actions

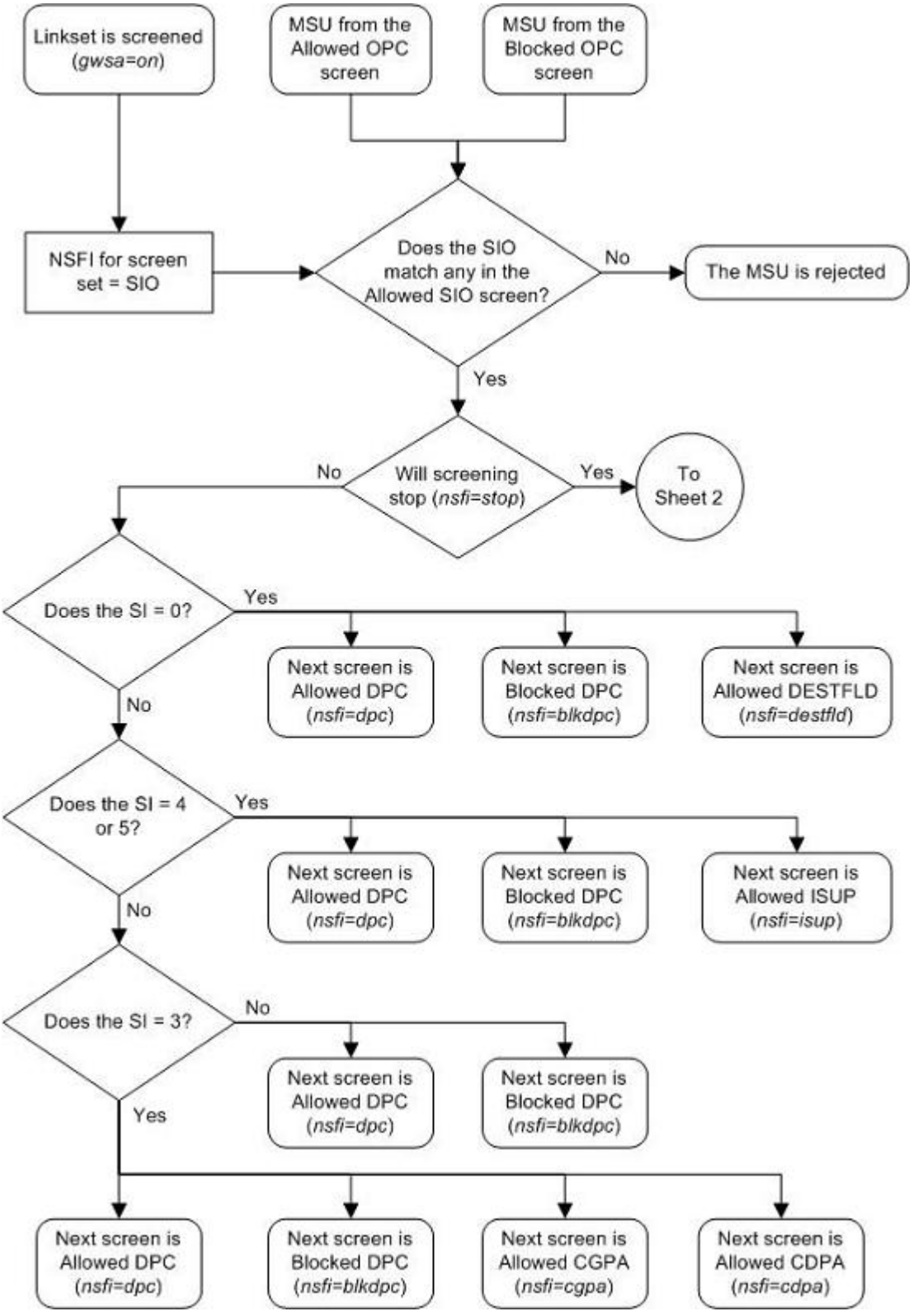
The value of the `nsfi` parameter is based on the value of the service indicator (`si`) parameter. *Table 62: Valid Parameter Combinations for the Allowed SIO Screening Function* shows the valid combinations of `nsfi` values and service indicator values.

**Table 62: 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 |

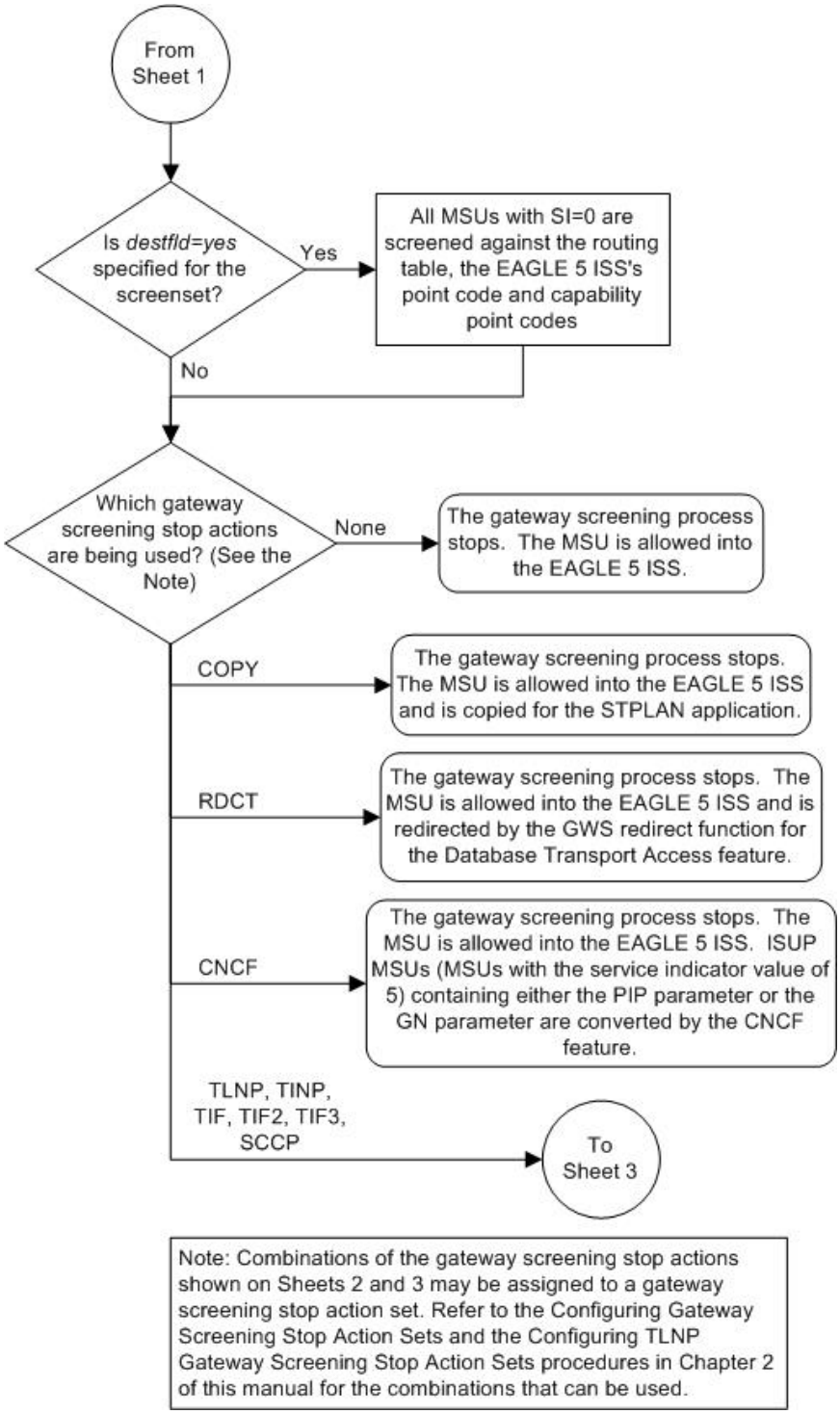
Messages containing the service indicator value 4 are TUP messages, and messages containing the service indicator value 5 are ISUP messages. Both types of messages are screened using the allowed ISUP screen. TUP messages can be screened for point codes, after the SIO screen, with the allowed and blocked 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 55: Allowed SIO Screening Actions* shows the screening actions of the allowed SIO screen.

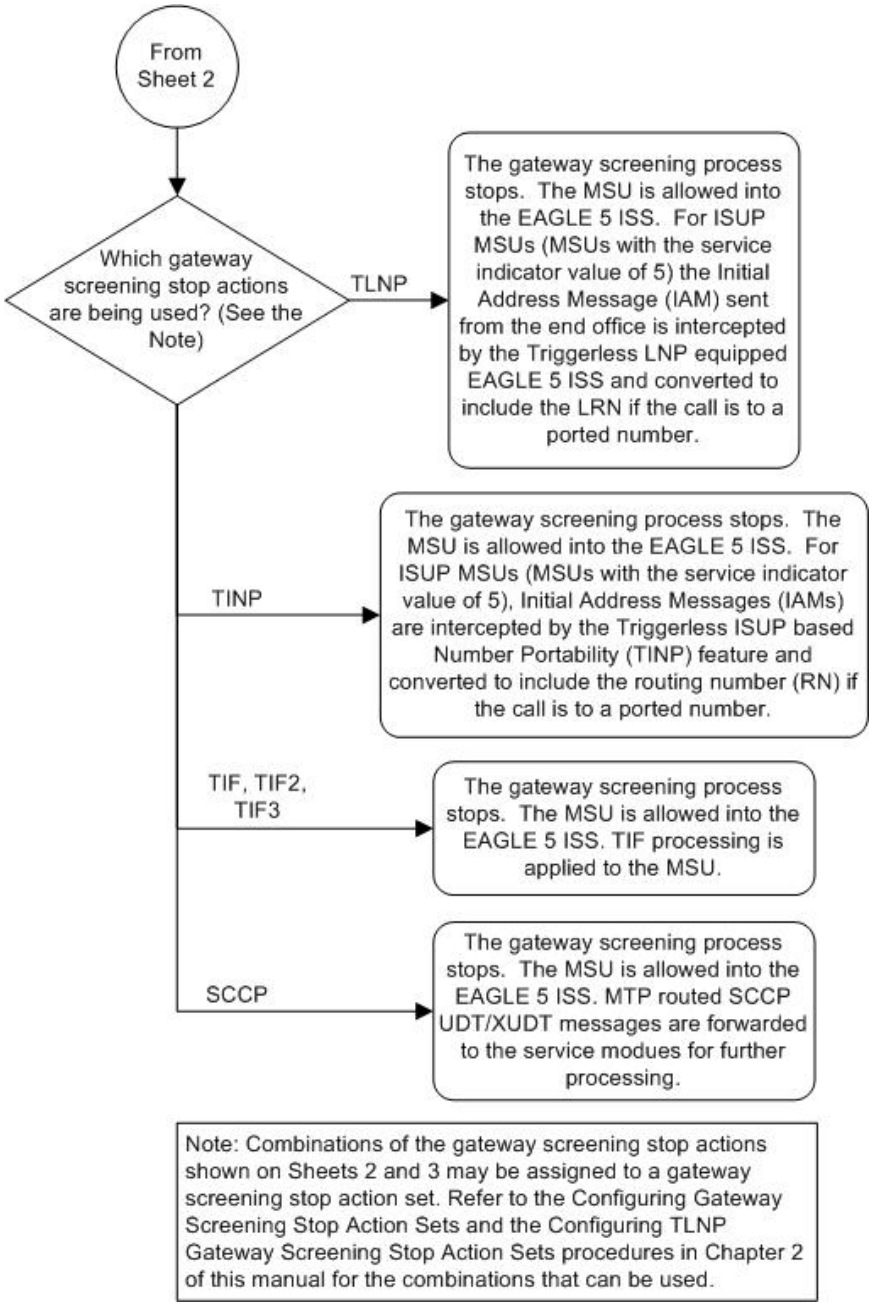

Linkset is screened (gwsa=on)
MSU from the Allowed OPC screen
MSU from the Blocked OPC screen
NSFI for screen set = SIO
Does the SIO match any in the Allowed SIO screen?
No
The MSU is rejected
Yes
Will screening stop (nsfi=stop)
No
Yes
To Sheet 2
Does the SI = 0?
Yes
Next screen is Allowed DPC (nsfi=dpc)
Next screen is Blocked DPC (nsfi=blkdpc)
Next screen is Allowed DESTFLD (nsfi=destfld)
No
Does the SI = 4 or 5?
Yes
Next screen is Allowed DPC (nsfi=dpc)
Next screen is Blocked DPC (nsfi=blkdpc)
Next screen is Allowed ISUP (nsfi=isup)
No
Does the SI = 3?
No
Next screen is Allowed DPC (nsfi=dpc)
Next screen is Blocked DPC (nsfi=blkdpc)
Yes
Next screen is Allowed DPC (nsfi=dpc)
Next screen is Blocked DPC (nsfi=blkdpc)
Next screen is Allowed CGPA (nsfi=cgpa)
Next screen is Allowed CDPA (nsfi=cdpa)

Sheet 1 of 3

**Figure 55: Allowed SIO Screening Actions**



Sheet 2 of 3




Sheet 3 of 3

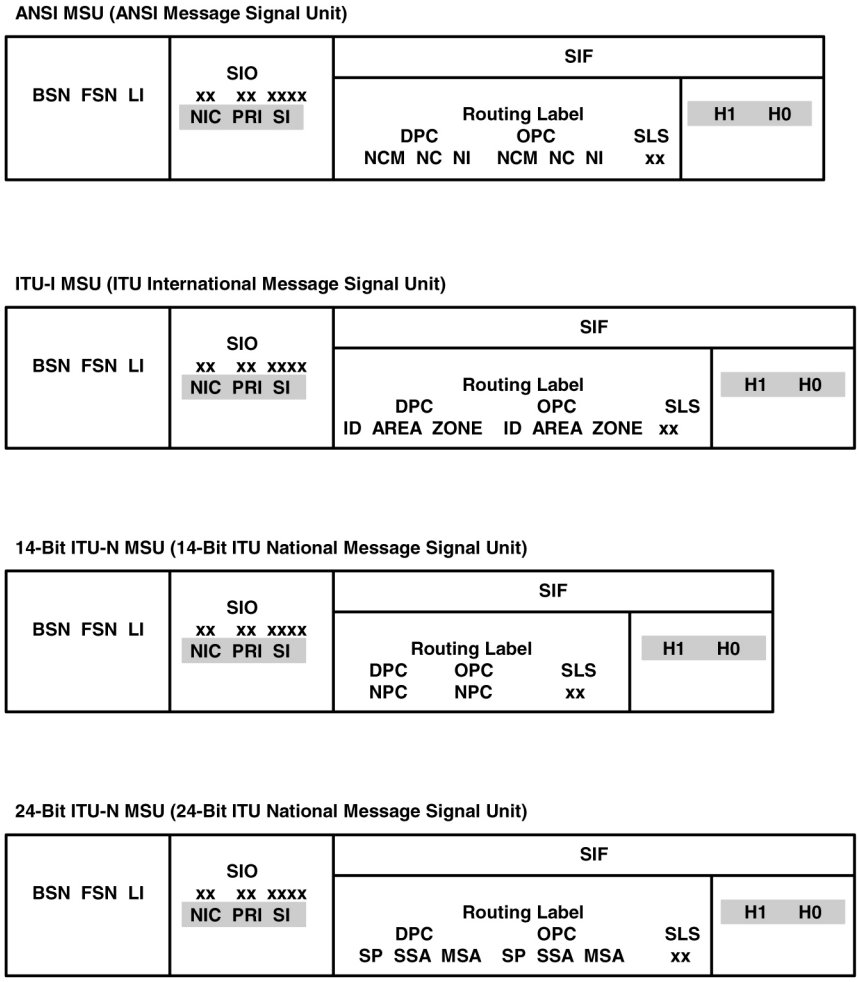



**Figure 56: Allowed SIO Screening Function**

## 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 63: Example Gateway Screening Allowed SIO Configuration Table* and based on the example configurations shown in *Figure 5: Gateway Screening Configuration - Example 2*, *Figure 7: Gateway Screening Configuration - Example 4*, *Figure 8: Gateway Screening Configuration - Example 5*, *Figure 9: Gateway Screening Configuration - Example 6*, and *Figure 10: Gateway Screening Configuration - Example 7*.

**Table 63: Example Gateway Screening Allowed SIO Configuration Table**

| Screening Reference | NIC | SI | H0 | 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 `scr1` contains these entries:

```
SR    NIC  PRI  SI  H0     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 64: Valid Value Combinations for H0 and H1 Parameters* shows the valid combinations of these parameter values.

**Table 64: Valid Value Combinations for H0 and H1 Parameters**

| H0 | H1 |
|---|---|
| Single Value | Single Value |
| Single Value | Range of Values |
| Single Value | Asterisk |
| Range of Values | 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`.

   **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, see the `rtrv-feat` command description in the *Commands Manual*.

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 `chg-feat` command. If you are not sure if you have purchased the gateway screening feature, contact your Tekelec 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 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&&2 0   1      1      DPC     WDB3
IEC   2    0&&1 0   2      2      STOP    ------
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.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0
ACT  ACT    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    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 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 `rtrv-gws-actset` command executed in step 4.

   **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).

   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 62: Valid Parameter Combinations for the Allowed SIO Screening Function* 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=cgpa:nsr=gw11
```

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
SR    NIC  PRI  SI  H0     H1     NSFI    NSR/ACT
IEC   2    0&&3 0   0      0      BLKDPC  WDB2
IEC   2    0&&2 0   1      1      DPC     WDB3
IEC   2    0&&1 0   2      2      STOP    ------
IEC   2    0&&3 4   --     --     STOP    ------
IEC   2    0&&2 1   *      *      DPC     WDB3
IEC   2    1&&3 3   --     --     CGPA    GW11
```

`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.

```
rlghncxa03w 06-10-25 15:33:30 GMT  EAGLE5 36.0.0
SCREEN = ALLOWED SIO
SR    NIC  PRI  SI  H0     H1     NSFI    NSR/ACT
isp1  2    3    5   --     --     ISUP    isp1
```

`rtrv-scr-sio:sr=tup1`

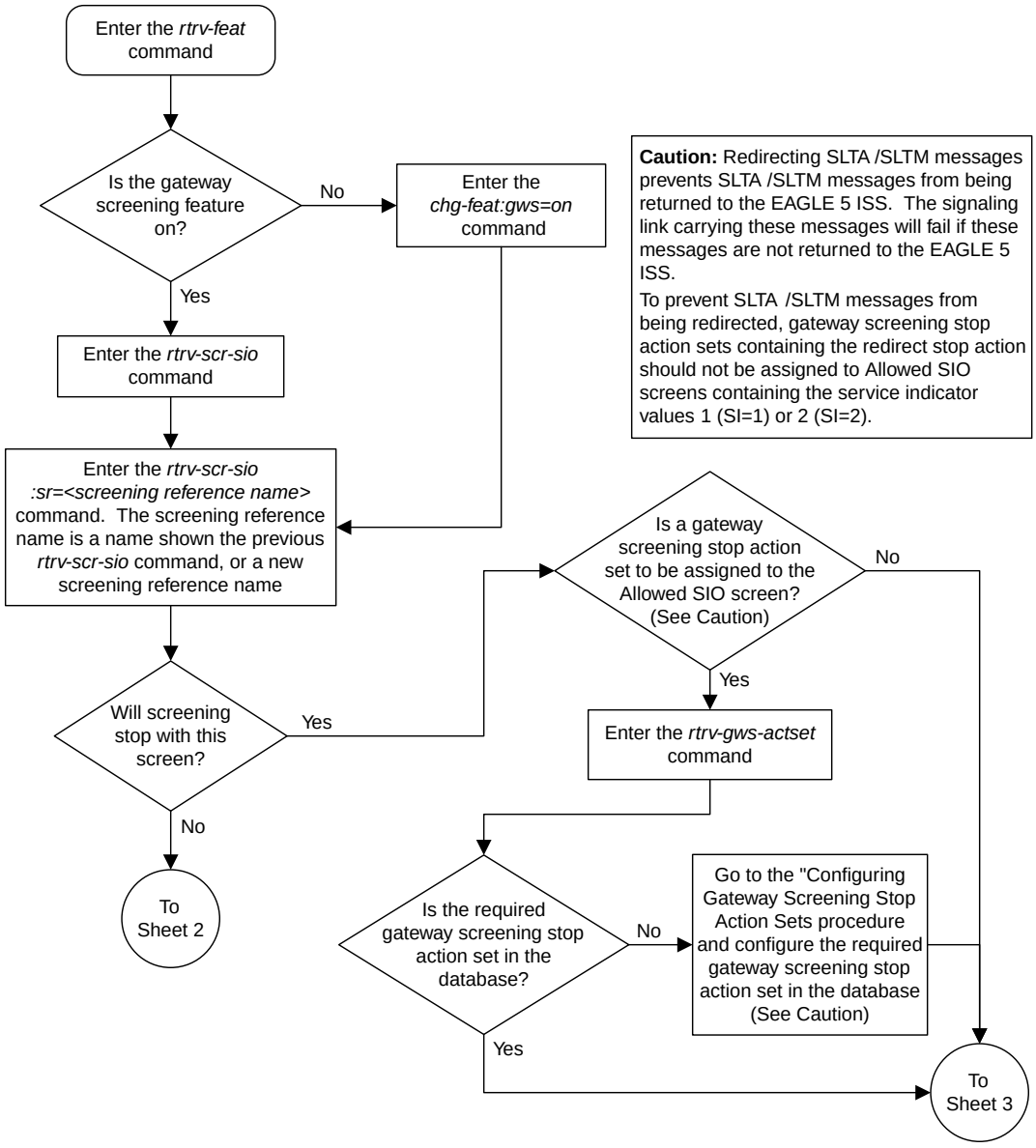
The following is an example of the possible output.

```
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
```

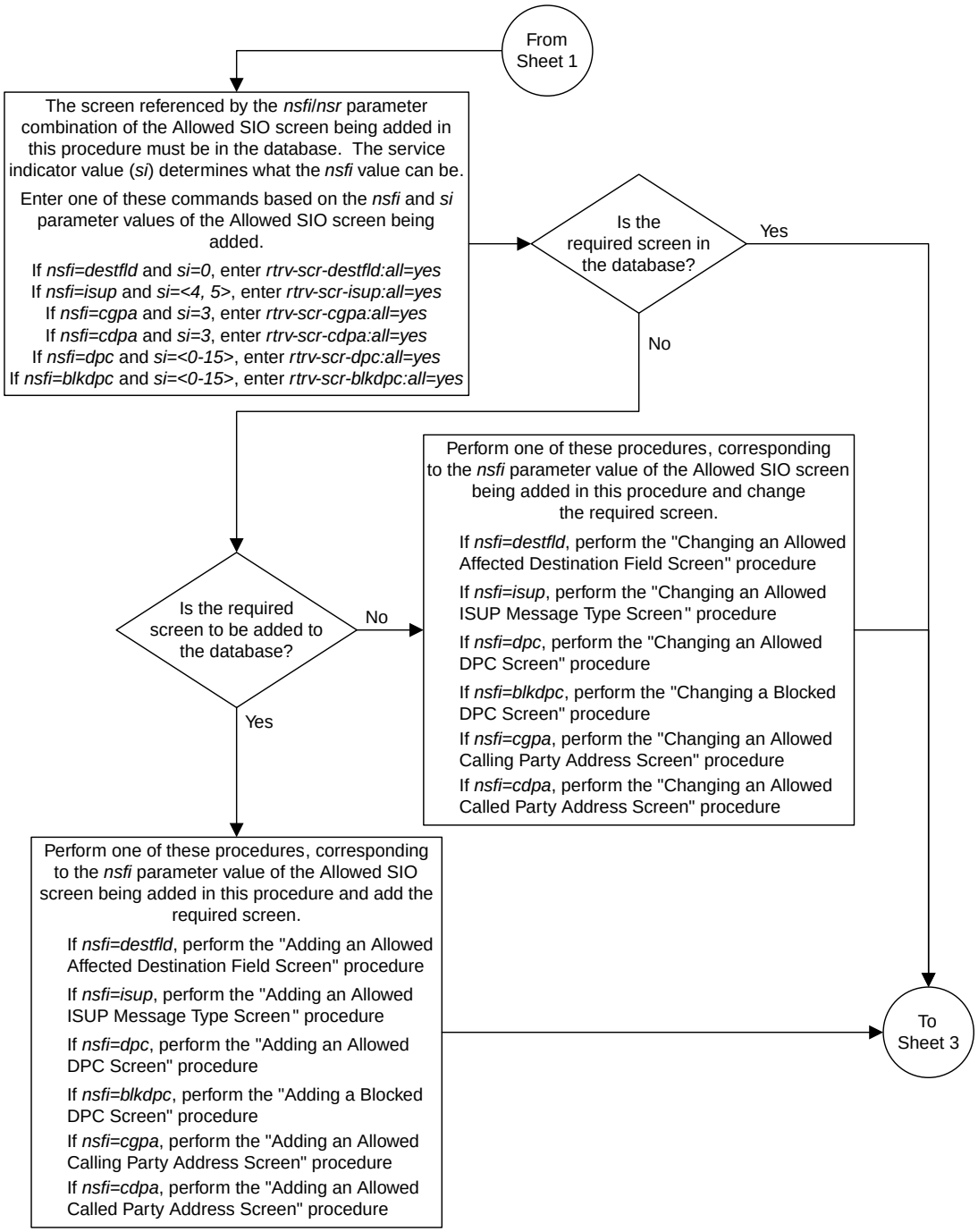
8. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

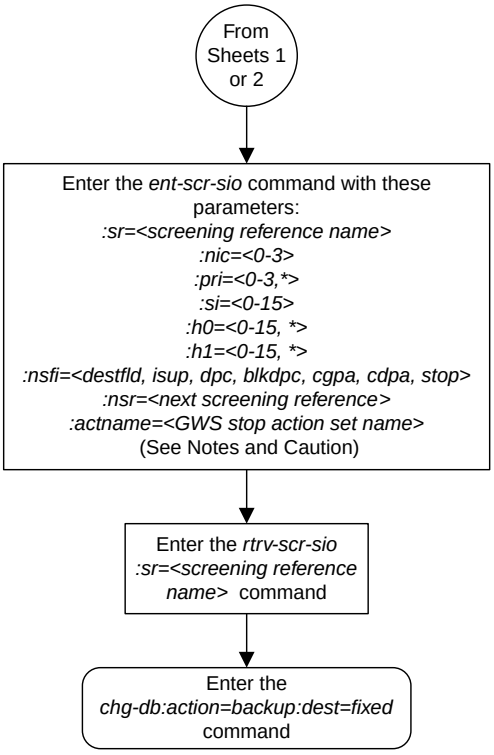
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the *rtrv-feat* command
Is the gateway screening feature on?
No
Enter the *chg-feat:gws=on* command
Yes
Enter the *rtrv-scr-sio* command
Enter the *rtrv-scr-sio :sr=<screening reference name>* command. The screening reference name is a name shown the previous *rtrv-scr-sio* command, or a new screening reference name
**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).
Is a gateway screening stop action set to be assigned to the Allowed SIO screen? (See Caution)
No
Yes
Will screening stop with this screen?
Yes
No
Enter the *rtrv-gws-actset* command
To Sheet 2
Is the required gateway screening stop action set in the database?
No
Go to the "Configuring Gateway Screening Stop Action Sets procedure and configure the required gateway screening stop action set in the database (See Caution)
Yes
To Sheet 3

Sheet 1 of 3


From Sheet 1
The screen referenced by the nsfi/nsr parameter combination of the Allowed SIO screen being added in this procedure must be in the database. The service indicator value (si) determines what the nsfi value can be.
Enter one of these commands based on the nsfi and si parameter values of the Allowed SIO screen being added.
If nsfi=destfld and si=0, enter rtrv-scr-destfld:all=yes
If nsfi=isup and si=<4, 5>, enter rtrv-scr-isup:all=yes
If nsfi=cgpa and si=3, enter rtrv-scr-cgpa:all=yes
If nsfi=cdpa and si=3, enter rtrv-scr-cdpa:all=yes
If nsfi=dpc and si=<0-15>, enter rtrv-scr-dpc:all=yes
If nsfi=blkdpc and si=<0-15>, enter rtrv-scr-blkdpc:all=yes
Is the required screen in the database?
Yes
No
Perform one of these procedures, corresponding to the nsfi parameter value of the Allowed SIO screen being added 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 ISUP Message Type Screen" procedure
If nsfi=dpc, perform the "Changing an Allowed DPC Screen" procedure
If nsfi=blkdpc, perform the "Changing a Blocked DPC Screen" procedure
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
Is the required screen to be added to the database?
No
Yes
Perform one of these procedures, corresponding to the nsfi parameter value of the Allowed SIO screen being added 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
If nsfi=dpc, perform the "Adding an Allowed 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
To Sheet 3

Sheet 2 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 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 in Chapter 2 and the "Specifying a Range of Values" and "Specifiying 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 *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 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 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).

Sheet 3 of 3

**Figure 57: Adding an Allowed SIO Screen**

## Removing an Allowed SIO Screen

This procedure is used to remove an allowed signaling information octet (SIO) screen from the database using the `dlt-scr-sio` command. The parameters used by the `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 `ls02` 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

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 remove 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
```

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=ls02
   ```

   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.
```

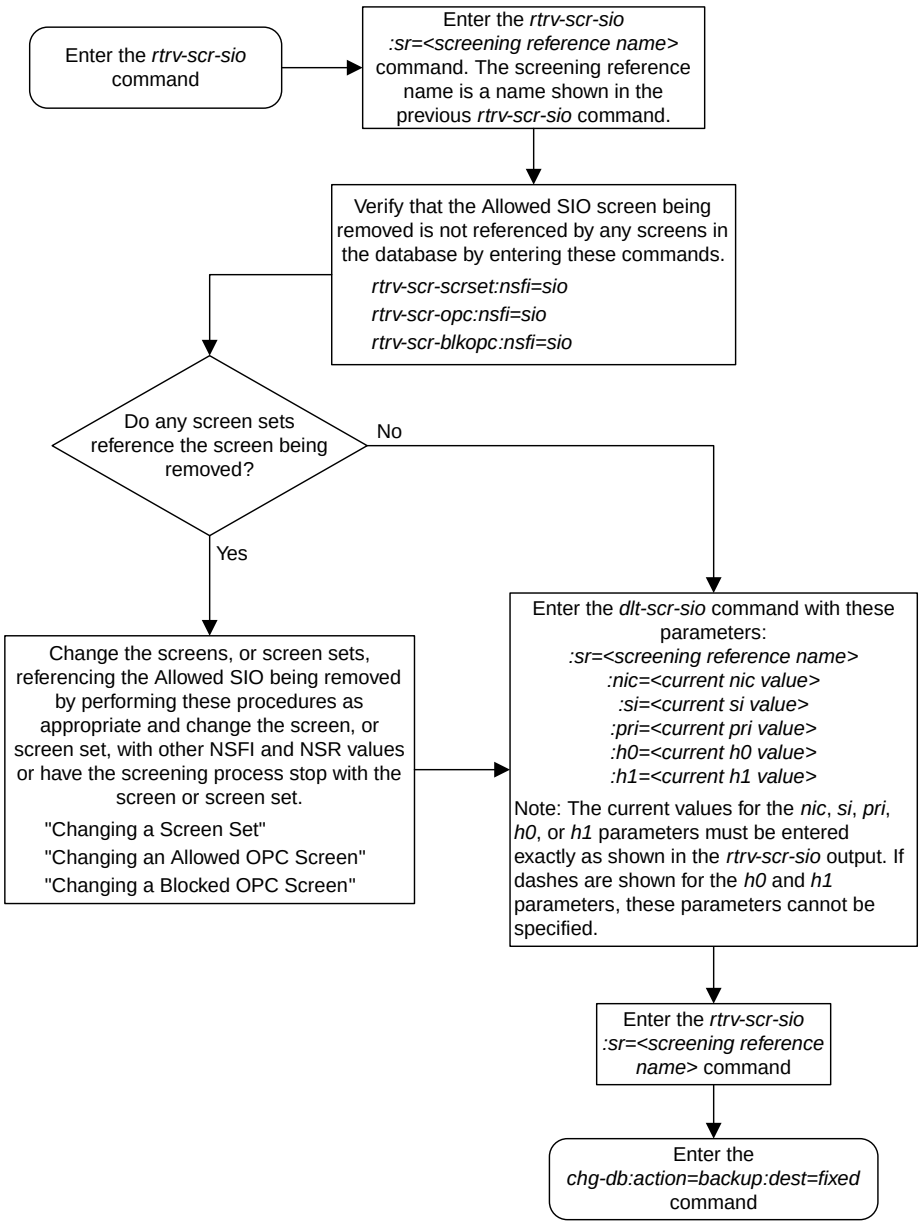



**Figure 58: Removing an Allowed SIO Screen**

# 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 `chg-scr-sio` command. The parameters used by the `chg-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 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  H0     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 65: Valid Value Combinations for H0 and H1 Parameters* shows the valid combinations of these parameter values.

**Table 65: Valid Value Combinations for H0 and H1 Parameters**

| H0 | H1 |
|---|---|
| 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 `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  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    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 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 `chg-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 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).

   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 `rtrv-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 62: Valid Parameter Combinations for the Allowed SIO Screening Function* 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=ls02
   ```

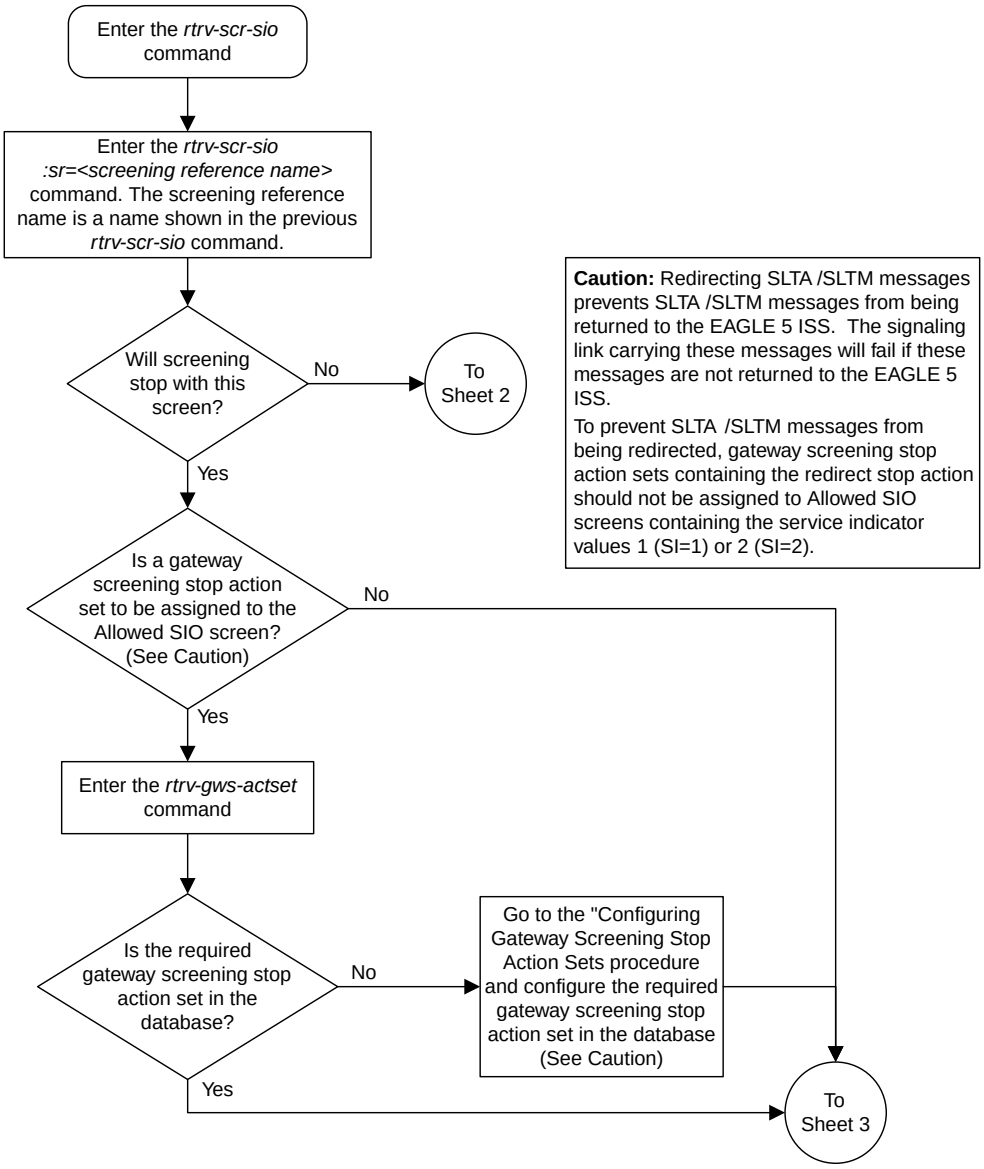
The following is an example of the possible output.

```
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     ------
```

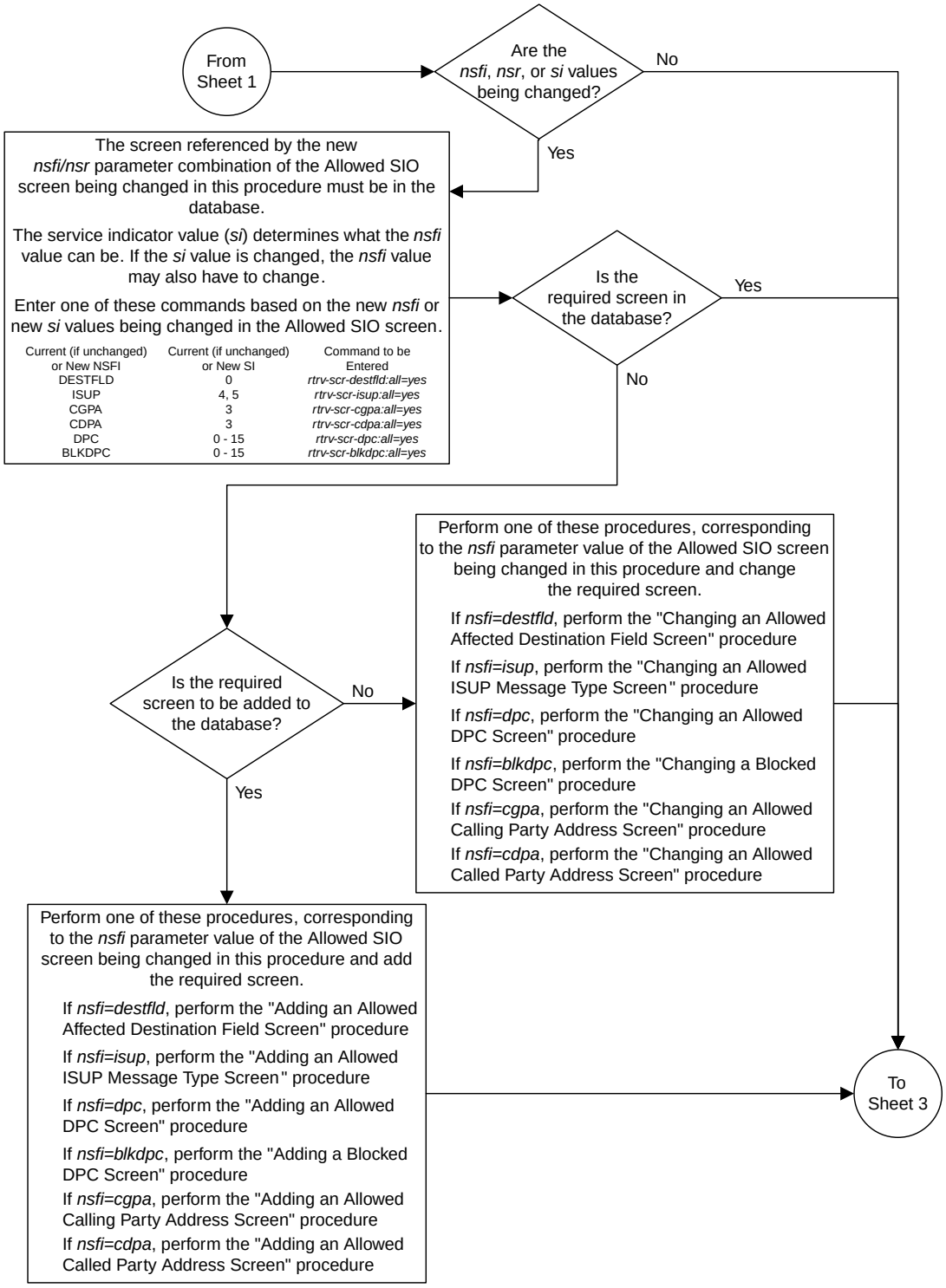
6. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

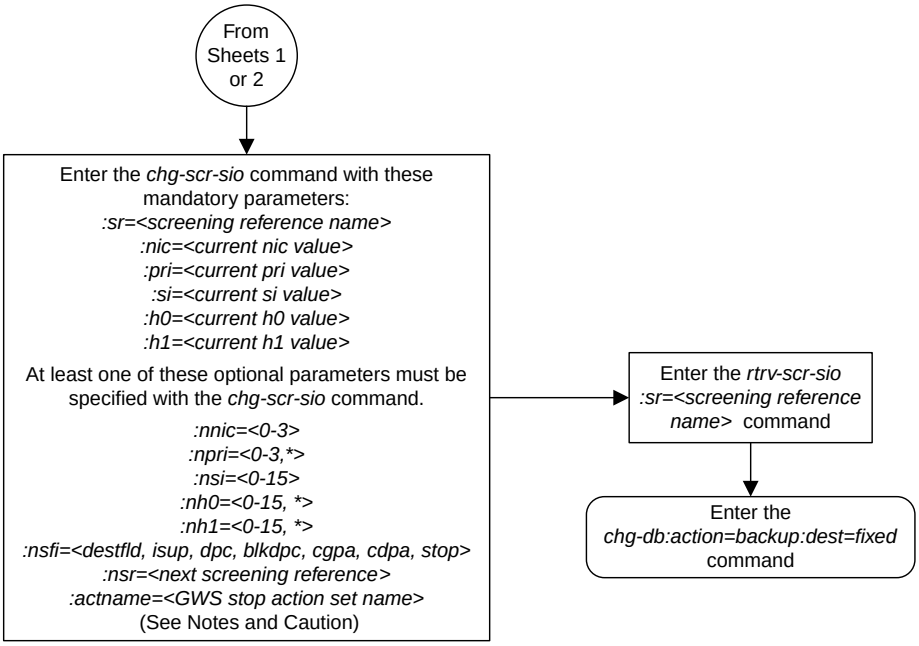
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the *rtrv-scr-sio* command
Enter the *rtrv-scr-sio :sr=<screening reference name>* command. The screening reference name is a name shown in the previous *rtrv-scr-sio* command.
Will screening stop with this screen?
No
To Sheet 2
Yes
Is a gateway screening stop action set to be assigned to the Allowed SIO screen? (See Caution)
No
Yes
Enter the *rtrv-gws-actset* command
Is the required gateway screening stop action set in the database?
No
Go to the "Configuring Gateway Screening Stop Action Sets procedure and configure the required gateway screening stop action set in the database (See Caution)
Yes
To Sheet 3
**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).

Sheet 1 of 3


From Sheet 1
Are the nsfi, nsr, or si values being changed?
No
Yes
The screen referenced by the new 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.
Enter one of these commands based on the new nsfi or new si values being changed in the Allowed SIO screen.
Current (if unchanged) or New NSFI | Current (if unchanged) or New SI | Command to be Entered
DESTFLD | 0 | rtrv-scr-destfld:all=yes
ISUP | 4, 5 | rtrv-scr-isup:all=yes
CGPA | 3 | rtrv-scr-cgpa:all=yes
CDPA | 3 | rtrv-scr-cdpa:all=yes
DPC | 0 - 15 | rtrv-scr-dpc:all=yes
BLKDPC | 0 - 15 | rtrv-scr-blkdpc:all=yes
Is the required screen in the database?
Yes
No
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 ISUP Message Type Screen" procedure
If nsfi=dpc, perform the "Changing an Allowed DPC Screen" procedure
If nsfi=blkdpc, perform the "Changing a Blocked DPC Screen" procedure
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
Is the required screen to be added to the database?
No
Yes
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
If nsfi=dpc, perform the "Adding an Allowed 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
To Sheet 3

Sheet 2 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 "Specifiying 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 "Specifiying 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 *rtrv-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 *actname* 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 *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.

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 | Current (if unchanged) or New NSFI Value |
|---|---|
| 0 | destfld, dpc, blkdpc |
| 3 | cgpa, cdpa, dpc, blkdpc |
| 4, 5 | isup, dpc, blkdpc |
| 1, 2, 6 - 15 | dpc, blkdpc |

**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).

Sheet 3 of 3

**Figure 59: Changing an Allowed SIO Screen**

# Chapter 11

# Blocked Originating Point Code (BLKOPC) Screen Configuration

**Topics:**


- *Introduction.....378*
- *Adding a Blocked OPC Screen.....382*
- *Removing a Blocked OPC Screen.....396*
- *Changing a Blocked OPC Screen.....400*


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 61: Blocked OPC Screening Functions* 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.

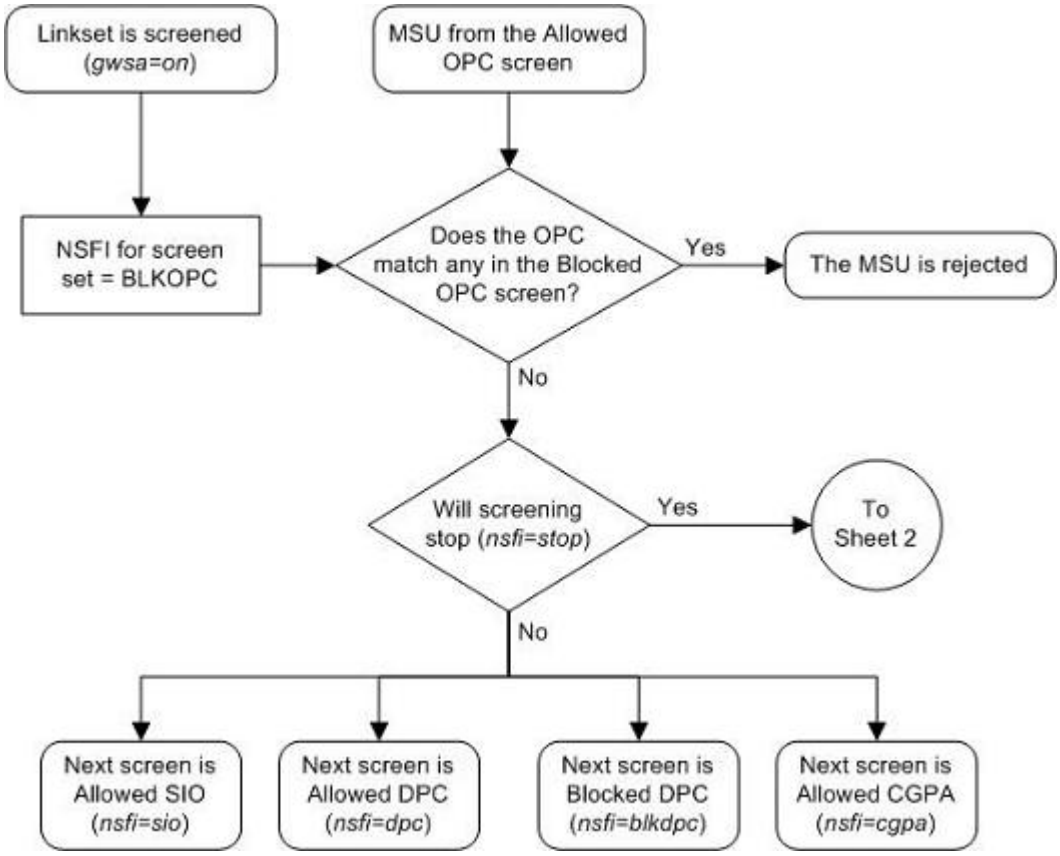
If a match is not found, the `nsfi` is examined to determine the next step in the screening process. If the `nsfi` value is any value other than `stop`, the next screening reference (`nsr`) is identified and the screening process continues to the next screen identified by the `nsfi` and `nsr` parameter 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 `copy` gateway screening stop action is specified, the message is processed and a copy of the message is sent by the STPLAN feature to an external application.
- 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.

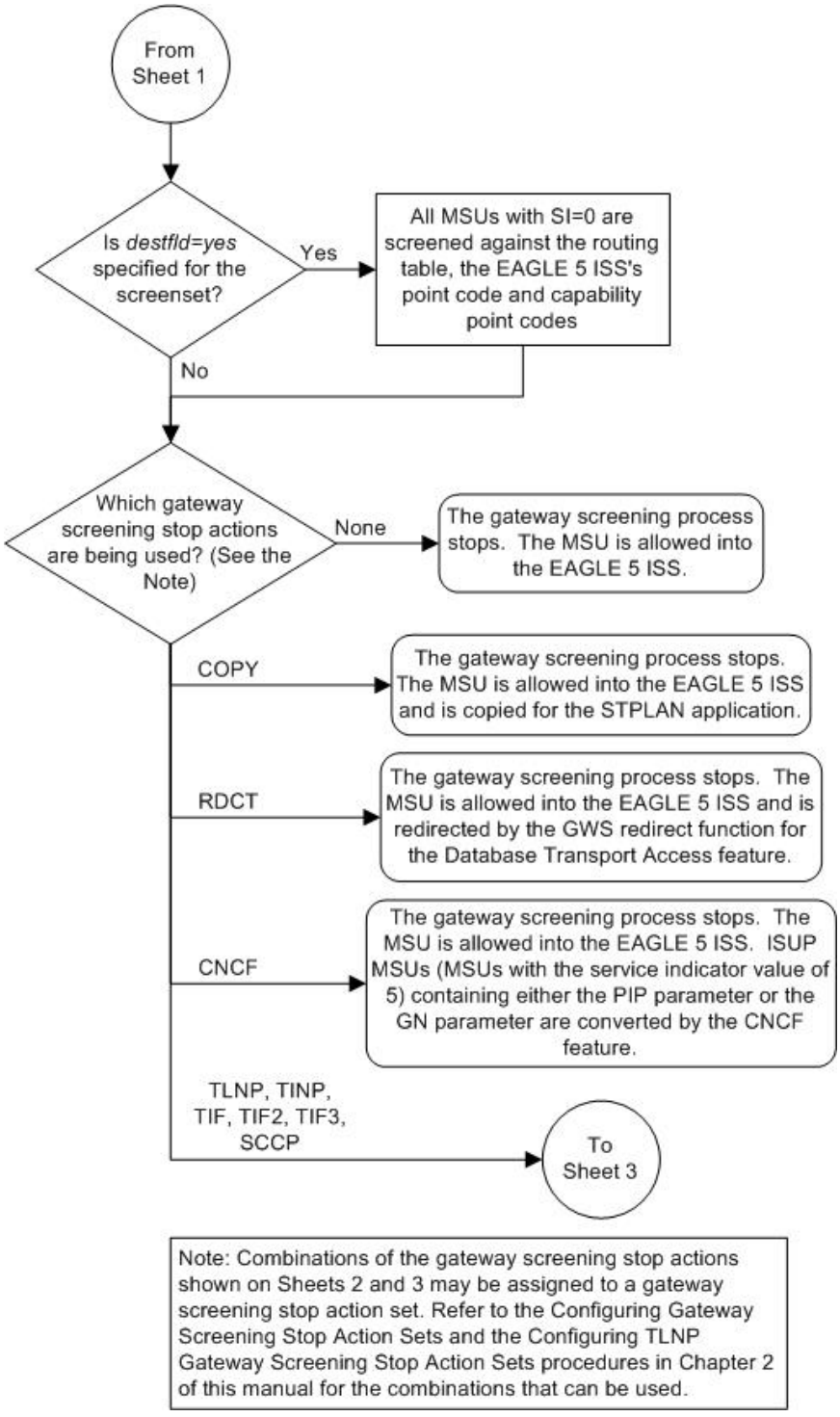
## Blocked OPC Screening Actions

*Figure 60: Blocked OPC Screening Actions* shows the screening actions of the blocked OPC screen.

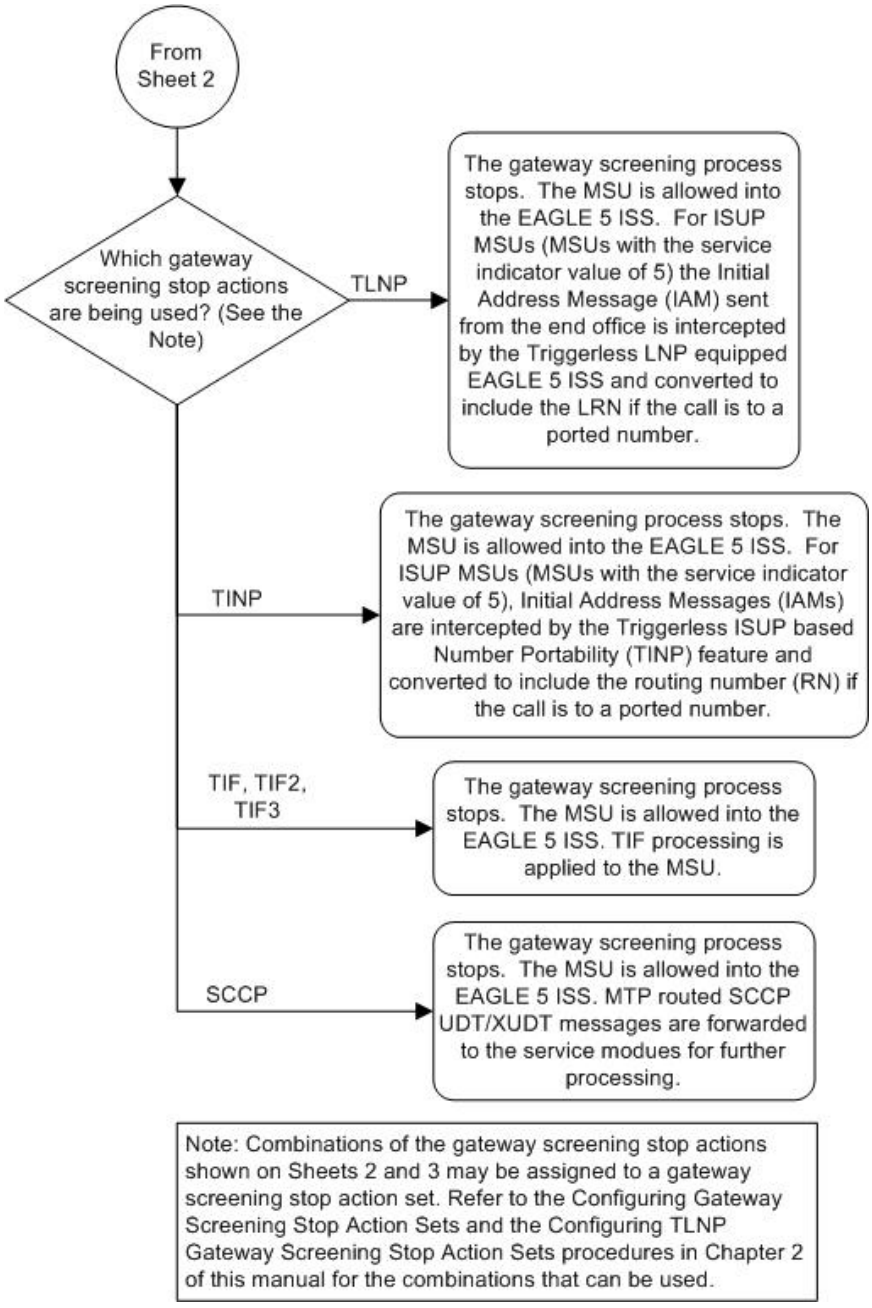



Sheet 1 of 3

**Figure 60: Blocked OPC Screening Actions**


From Sheet 1
Is destfld=yes specified for the screenset?
Yes
All MSUs with SI=0 are screened against the routing table, the EAGLE 5 ISS's point code and capability point codes
No
Which gateway screening stop actions are being used? (See the Note)
None
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS.
COPY
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS and is copied for the STPLAN application.
RDCT
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS and is redirected by the GWS redirect function for the Database Transport Access feature.
CNCF
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. ISUP MSUs (MSUs with the service indicator value of 5) containing either the PIP parameter or the GN parameter are converted by the CNCF feature.
TLNP, TINP, TIF, TIF2, TIF3, SCCP
To Sheet 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.

Sheet 2 of 3


From Sheet 2
Which gateway screening stop actions are being used? (See the Note)
TLNP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. For ISUP MSUs (MSUs with the service indicator value of 5) the Initial Address Message (IAM) sent from the end office is intercepted by the Triggerless LNP equipped EAGLE 5 ISS and converted to include the LRN if the call is to a ported number.
TINP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. For ISUP MSUs (MSUs with the service indicator value of 5), Initial Address Messages (IAMs) 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.
TIF, TIF2, TIF3
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. TIF processing is applied to the MSU.
SCCP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. MTP routed SCCP UDT/XUDT messages are forwarded to the service modues for further processing.
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.

Sheet 3 of 3

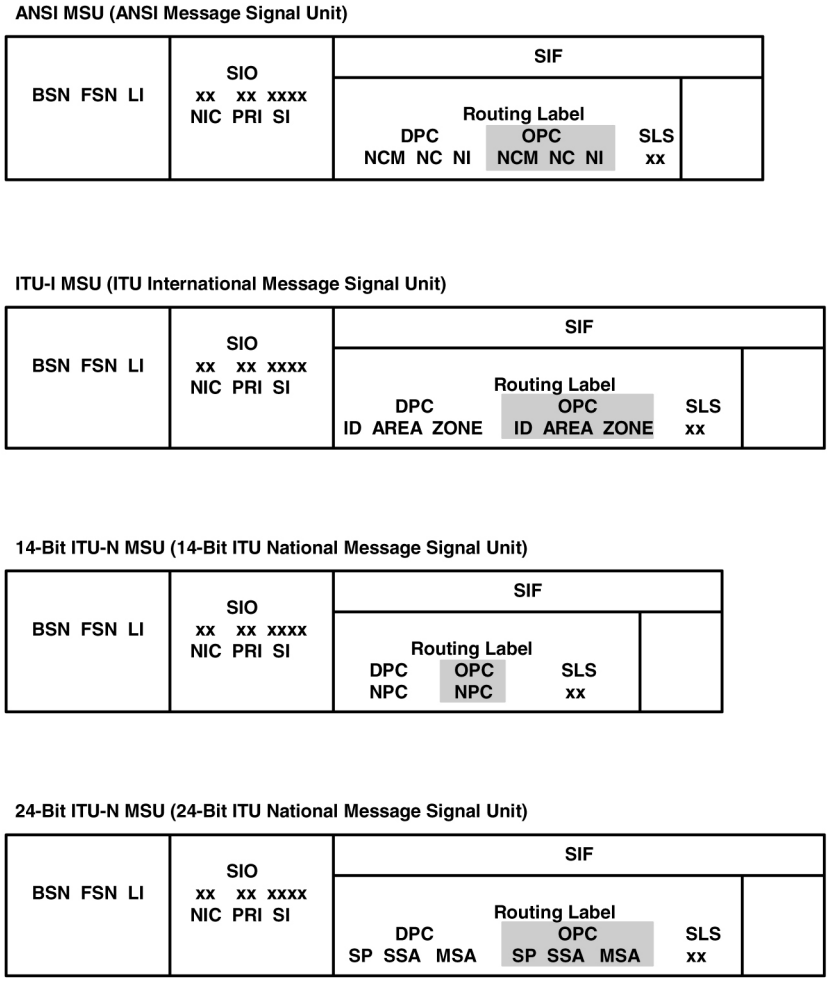



**Figure 61: Blocked OPC Screening Functions**

## Adding a Blocked OPC Screen

This procedure is used to add a blocked originating point code (OPC) screen to the database using the `ent-scr-blkopc` command. The parameters used by the `ent-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 examples in this procedure are used to add the blocked OPC screen data shown in *Table 66: Example Gateway Screening Blocked OPC Configuration Table* and based on the example configurations shown in *Figure 4: Gateway Screening Configuration - Example 1*, *Figure 5: Gateway Screening Configuration - Example 2*, and *Figure 8: Gateway Screening Configuration - Example 5*.

**Table 66: Example Gateway Screening Blocked OPC Configuration Table**

| Screening Reference | ZONE | AREA | ID | NSFI | NSR |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| gws5 | C | C | C | sio | iec |
| gws5 | 4 | 250 | 3 | fail | ---- |

| Screening Reference | NI | NC | NCM | NSFI | NSR |
|---|---|---|---|---|---|
| fld3 | C | C | C | sio | fld4 |
| fld3 | 020 | 020 | 020 | fail | ---- |
| gws3 | C | C | C | dpc | gws9 |
| gws3 | 001 | 002 | 002 | fail | ---- |
| isp1 | C | C | C | sio | isp1 |
| isp1 | 025 | 025 | 025 | fail | ---- |

**Note:** 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 `pcst` 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 `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 67: Valid Value Combinations for ANSI Point Code Parameters* shows the valid combinations of these parameter values.

**Table 67: 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 68: Valid Value Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I parameter values. *Table 69: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* shows the valid combinations of the 24-bit ITU-N parameter values.

**Table 68: 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 69: 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`.

   **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, see the `rtrv-feat` command description in the *Commands Manual*.

   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 `chg-feat` command. If you are not sure if you have purchased the gateway screening feature, contact your Tekelec 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.

```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
SCREEN = BLOCKED 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   C        C        C        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  C        C        C        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 `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  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    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 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-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.

   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 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 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 `ent-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 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 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=gws3:ni=c:nc=c:ncm=c:nsfi=dpc:nsr=gws9
```

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
GWS5    4      250      3        FAIL    ------
GWS5    C      C        C        SIO     IEC
```

`rtrv-scr-blkopc:sr=gws3`

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    NI       NC       NCM      NSFI    NSR/ACT
GWS3  002      002      002      FAIL    ------
GWS3  C        C        C        DPC     GWS9
```

`rtrv-scr-blkopc:sr=fld3`

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
FLD3  020      020      020      FAIL    ------
FLD3  C        C        C        DPC     FLD4
```

`rtrv-scr-blkopc:sr=isp1`

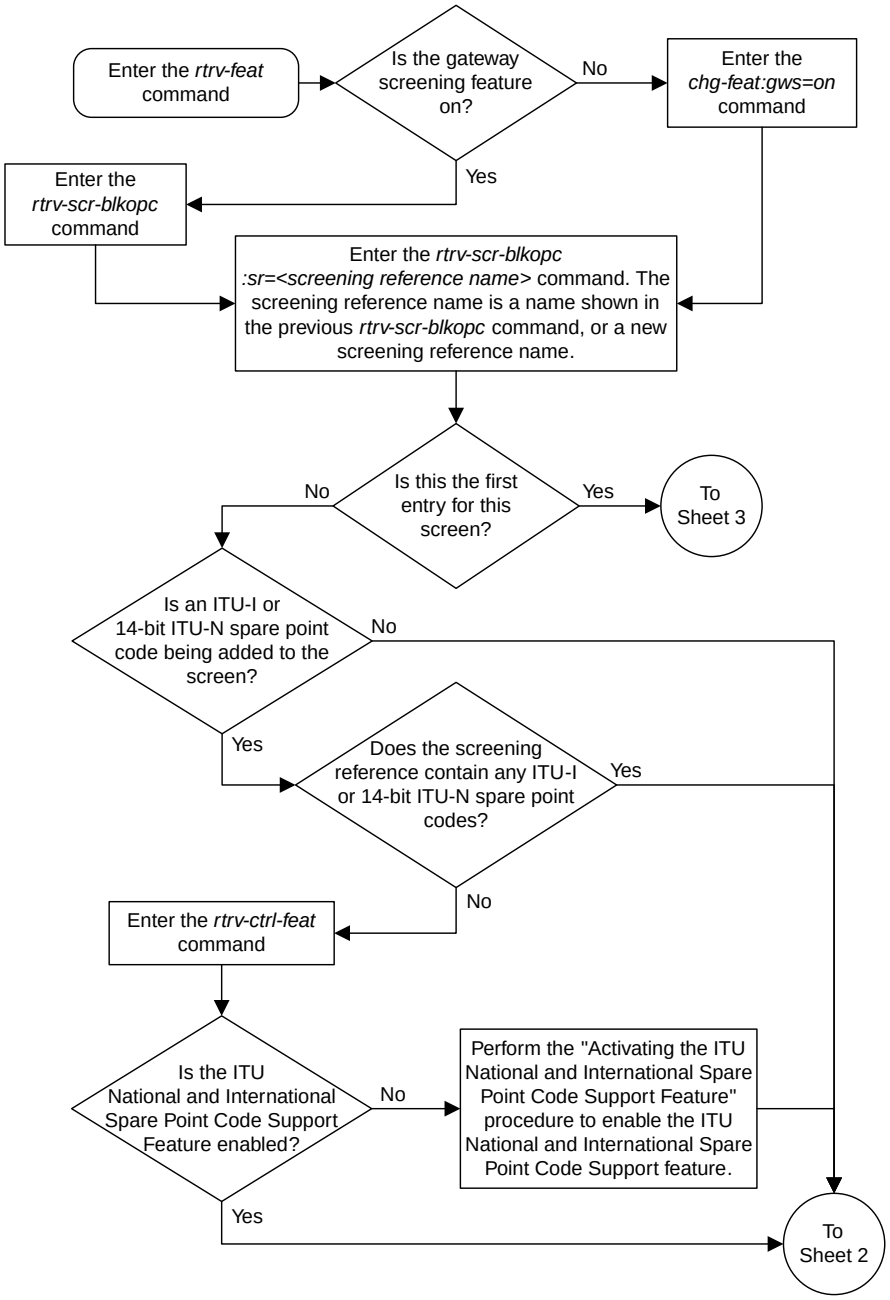
The following is an example of the possible output.

```
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        C        SIO     ISP1
```

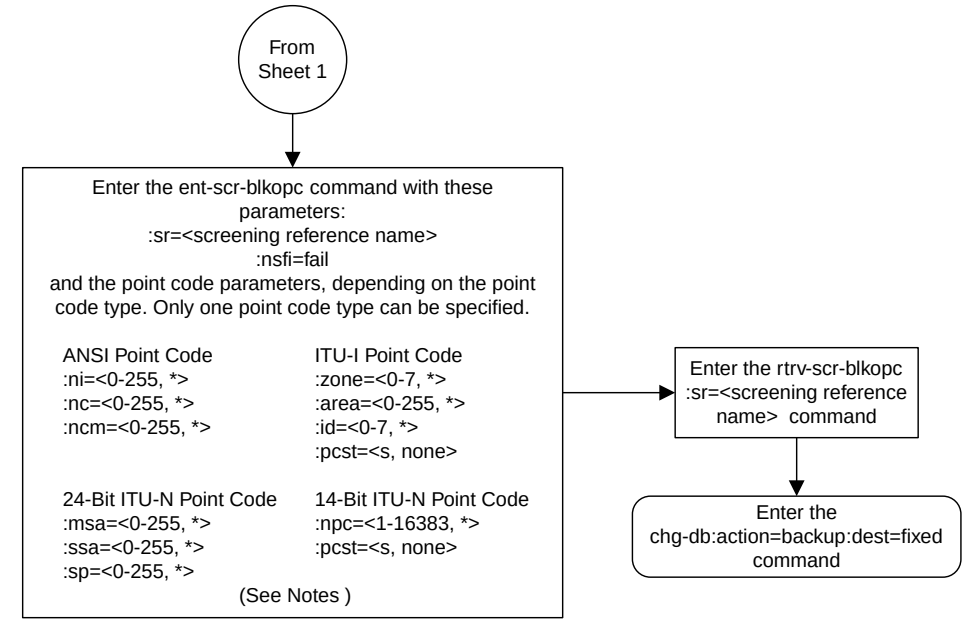
9. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

   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 *rtrv-feat* command
Is the gateway screening feature on?
No
Enter the *chg-feat:gws=on* command
Yes
Enter the *rtrv-scr-blkopc* command
Enter the *rtrv-scr-blkopc :sr=<screening reference name>* command. The screening reference name is a name shown in the previous *rtrv-scr-blkopc* command, or a new screening reference name.
Is this the first entry for this screen?
No
Yes
To Sheet 3
Is an ITU-I or 14-bit ITU-N spare point code being added to the screen?
No
Yes
Does the screening reference contain any ITU-I or 14-bit ITU-N spare point codes?
Yes
No
Enter the *rtrv-ctrl-feat* command
Is the ITU National and International Spare Point Code Support Feature enabled?
No
Perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure to enable the ITU National and International Spare Point Code Support feature.
Yes
To Sheet 2

Sheet 1 of 5




Notes:

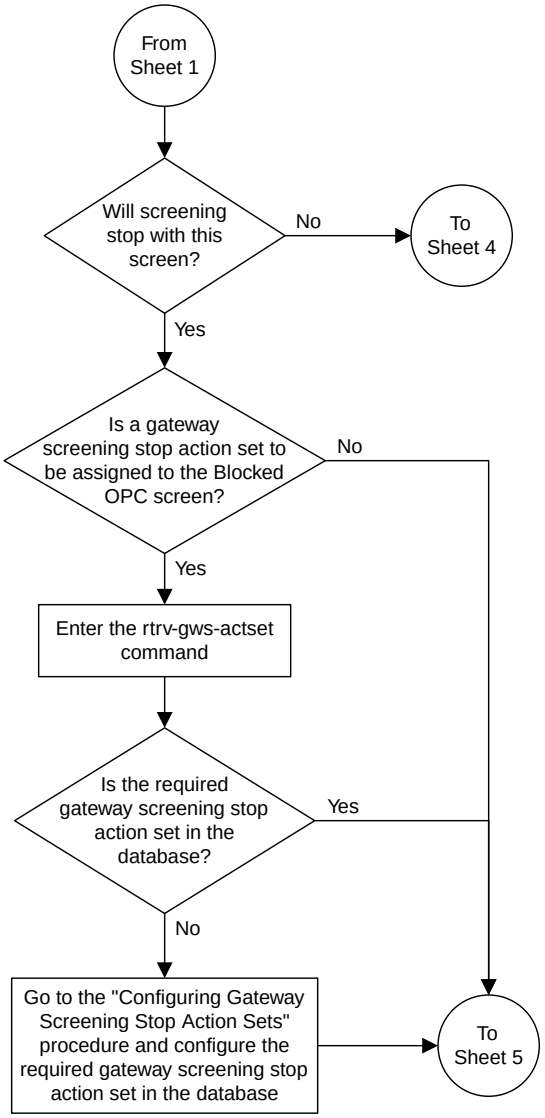
1. A range of values can be specified for the ni, nc, or ncm parameters by inserting double ampersands (&&) between the parameter values defining the range. For example, to specify the range 025 to 200 for the ni parameter,enter 025&&200 for the ni parameter value.

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 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.


From Sheet 1
Will screening stop with this screen?
No
To Sheet 4
Yes
Is a gateway screening stop action set to be assigned to the Blocked OPC screen?
No
Yes
Enter the rtrv-gws-actset command
Is the required gateway screening stop action set in the database?
Yes
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database
To Sheet 5

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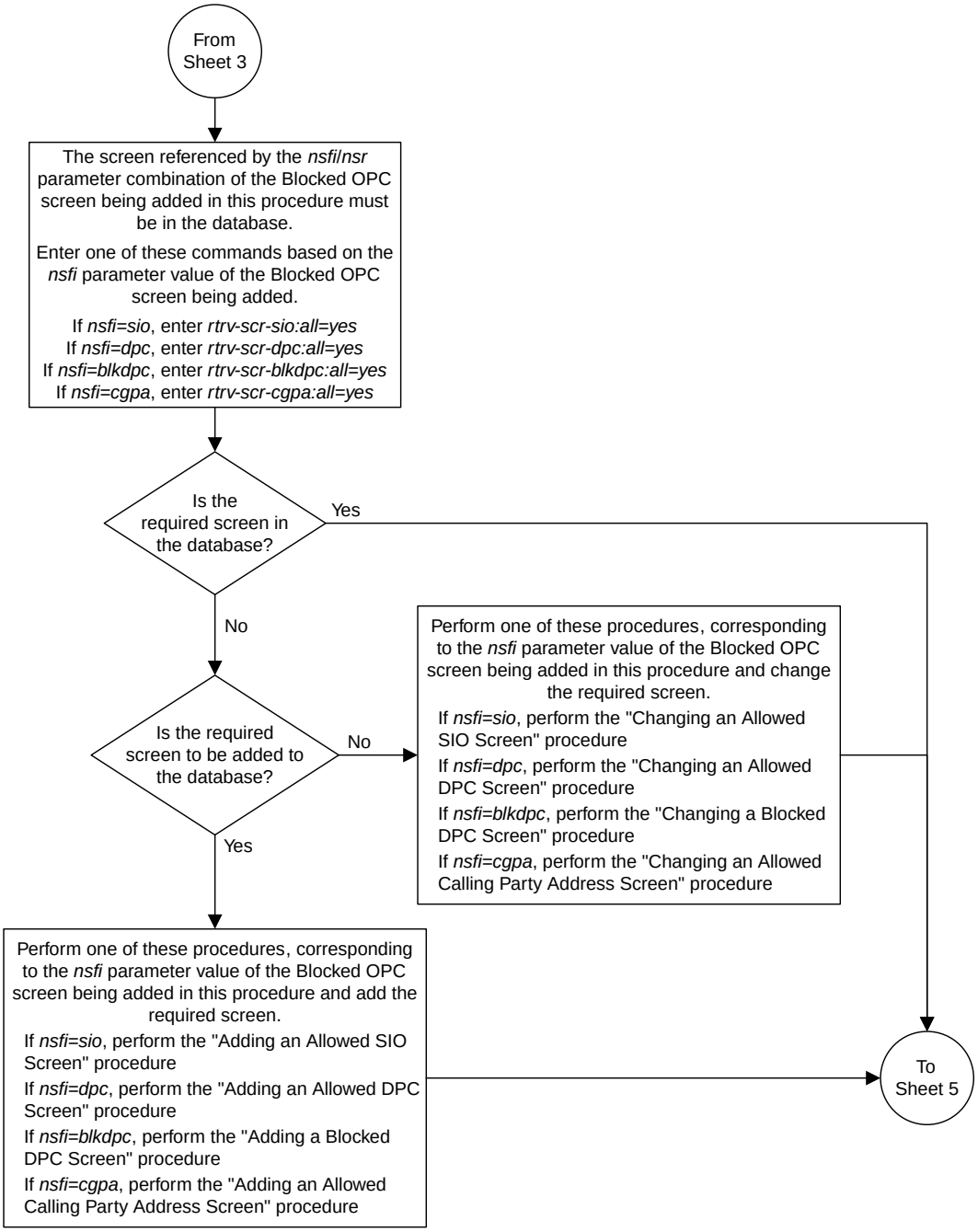
From Sheet 3
The screen referenced by the nsfi/nsr parameter combination of the Blocked OPC screen being added in this procedure must be in the database.
Enter one of these commands based on the nsfi parameter value of the Blocked OPC screen being added.
If nsfi=sio, enter rtrv-scr-sio:all=yes
If nsfi=dpc, enter rtrv-scr-dpc:all=yes
If nsfi=blkdpc, enter rtrv-scr-blkdpc:all=yes
If nsfi=cgpa, enter rtrv-scr-cgpa:all=yes
Is the required screen in the database?
Yes
No
Is the required screen to be added to the database?
No
Yes
Perform one of these procedures, corresponding to the nsfi parameter value of the Blocked OPC screen being added in this procedure and change the required screen.
If nsfi=sio, perform the "Changing an Allowed SIO Screen" procedure
If nsfi=dpc, perform the "Changing an Allowed DPC Screen" procedure
If nsfi=blkdpc, perform the "Changing a Blocked DPC Screen" procedure
If nsfi=cgpa, perform the "Changing an Allowed Calling Party Address Screen" procedure
Perform one of these procedures, corresponding to the nsfi parameter value of the Blocked OPC screen being added in this procedure and add the required screen.
If nsfi=sio, perform the "Adding an Allowed SIO Screen" procedure
If nsfi=dpc, perform the "Adding an Allowed 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
To Sheet 5

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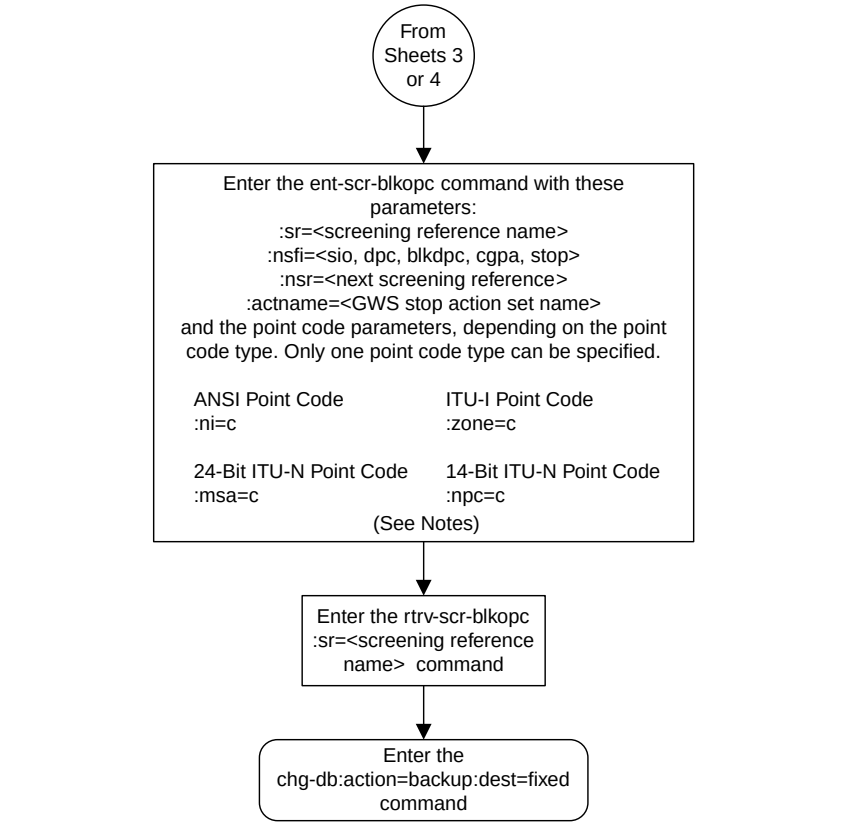


Notes:

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.

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**Figure 62: Adding a Blocked OPC Screen**

## 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.

**Note:** 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*

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 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.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = BLOCKED 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   C        C        C        CGPA    cg01
SR      NPC                      NSFI    NSR
IEC     00235                    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 `pcst` parameter does not have to be specified with the `dlt-scr-blkopc` command. If the `pcst` parameter is specified, the value must be `none`.

   The `pcst` 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.

```
rlghncxa03w 06-10-25 15:27:30 GMT EAGLE5 36.0.0
SCREEN = BLOCKED 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   C        C        C        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.
```

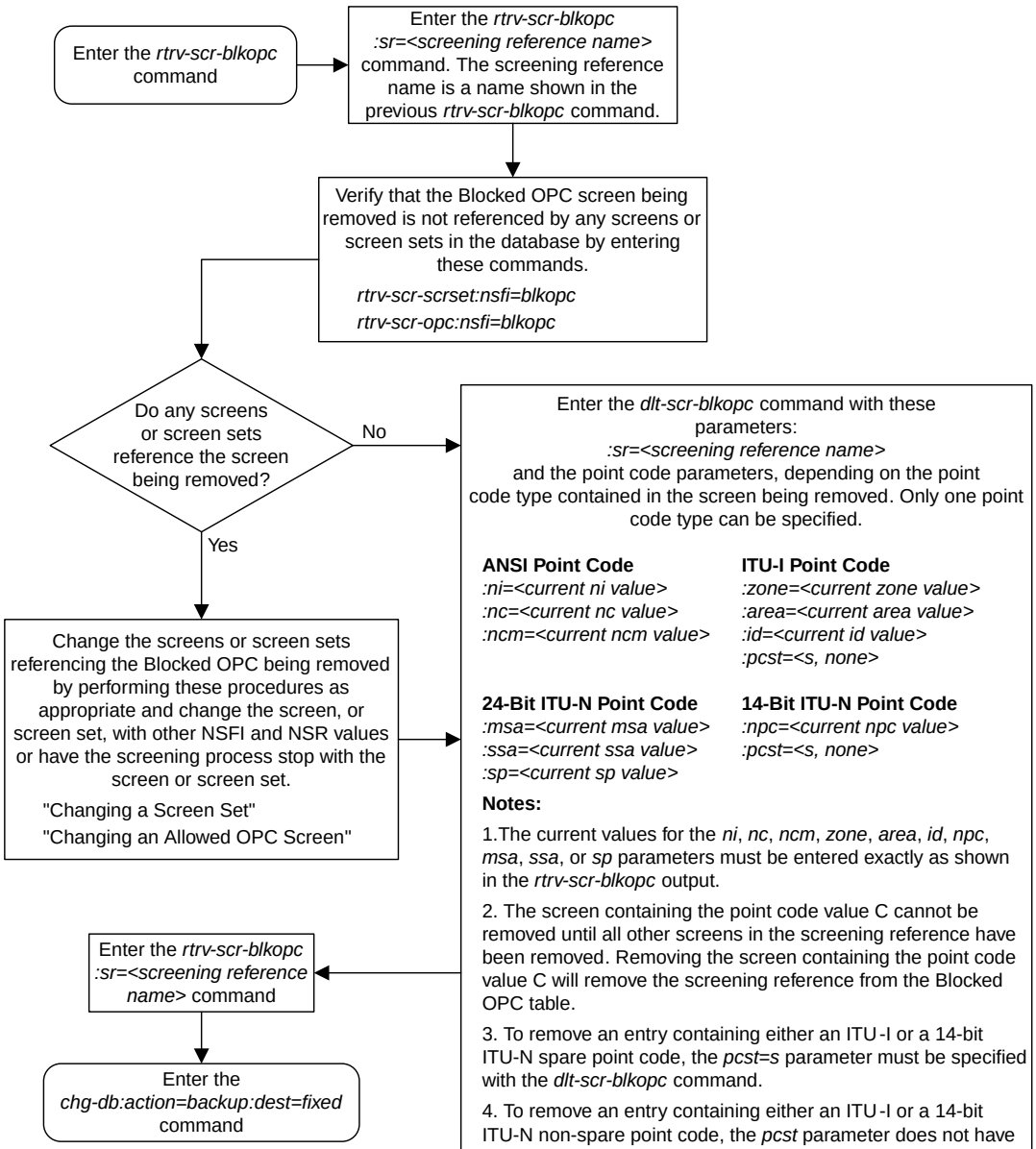



**Figure 63: Removing a Blocked OPC Screen**

## 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.

**Note:** 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 `pcst` or `npcst` 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 `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 `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 70: Valid Value Combinations for ANSI Point Code Parameters* shows the valid combinations of these parameter values.

**Table 70: 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 71: Valid Value Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I parameter

values. *Table 72: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* shows the valid combinations of the 24-bit ITU-N parameter values.

**Table 71: 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 72: 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
SR    REF  RULES
GWS7  YES     2
IEC   YES     6
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.

```
rlghncxa03w 06-10-25 15:25:30 GMT  EAGLE5 36.0.0
SCREEN = BLOCKED OPC
SR    NI       NC       NCM      NSFI    NSR/ACT
GWS7  002      002      002      FAIL    ------
GWS7  C        C        C        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  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    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 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.

   **Note:** 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 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 `pcst` parameter does not have to be specified with the `chg-scr-blkopc` 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`.

The `pcst` or `npcst` parameters cannot be used with the `zone=c` or `npc=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
```

**Note:** Verify the changes using the `rtrv-scr-blkopc` command with the screening reference name used in step 5. For this example, enter this command.

```
rtrv-scr-blkopc:sr=gws7
```

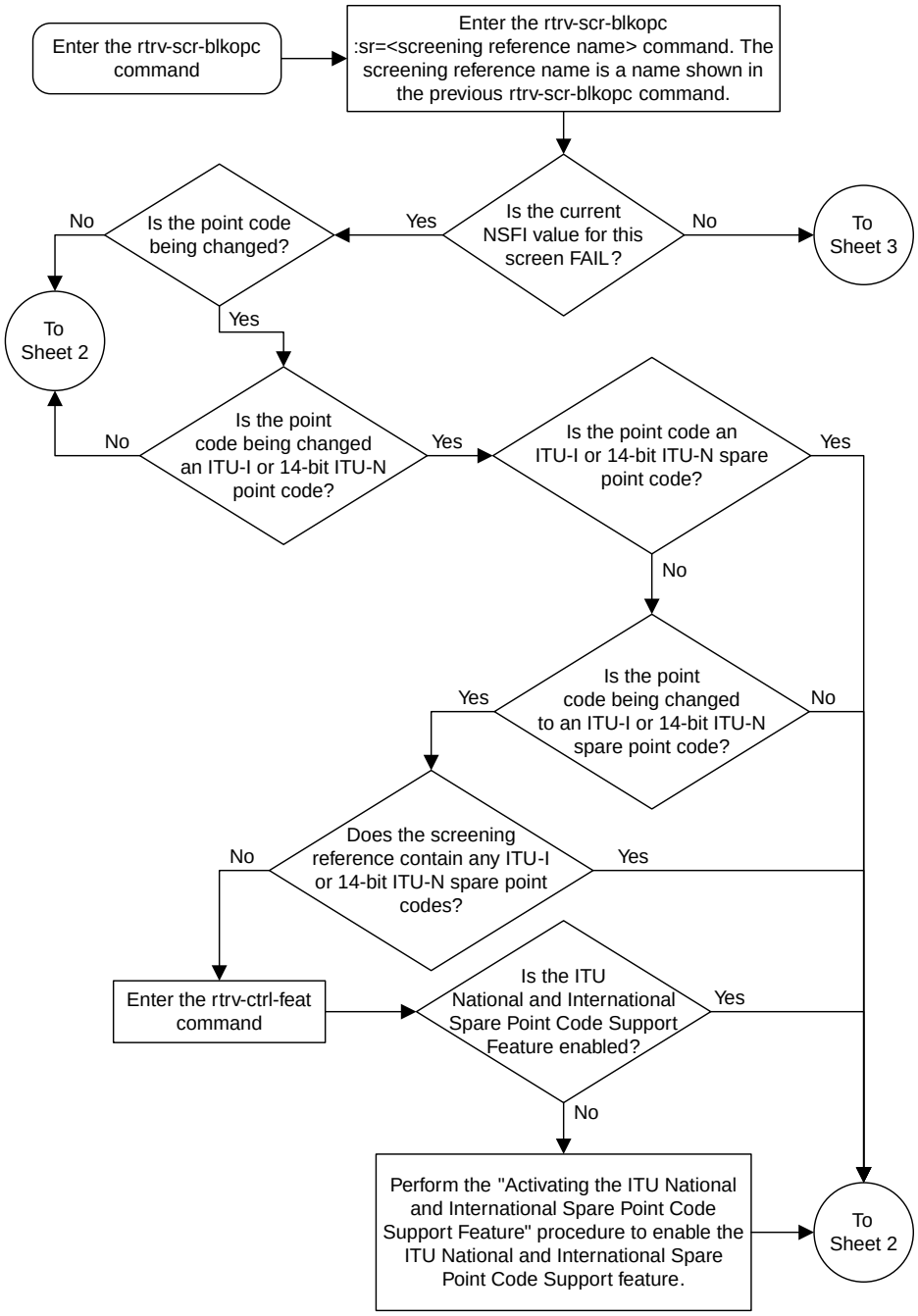
The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:28:30 GMT  EAGLE5 36.0.0
SCREEN = BLOCKED OPC
SR    NI       NC       NCM      NSFI    NSR/ACT
GWS7  230      230      230      FAIL    ------
GWS7  C        C        C        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.
```


Enter the rtrv-scr-blkopc command
Enter the rtrv-scr-blkopc :sr=<screening reference name> command. The screening reference name is a name shown in the previous rtrv-scr-blkopc command.
Is the current NSFI value for this screen FAIL?
Yes
No
To Sheet 3
Is the point code being changed?
No
Yes
To Sheet 2
Is the point code being changed an ITU-I or 14-bit ITU-N point code?
No
Yes
Is the point code an ITU-I or 14-bit ITU-N spare point code?
Yes
No
Is the point code being changed to an ITU-I or 14-bit ITU-N spare point code?
Yes
No
Does the screening reference contain any ITU-I or 14-bit ITU-N spare point codes?
No
Yes
Enter the rtrv-ctrl-feat command
Is the ITU National and International Spare Point Code Support Feature enabled?
Yes
No
Perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure to enable the ITU National and International Spare Point Code Support feature.
To Sheet 2

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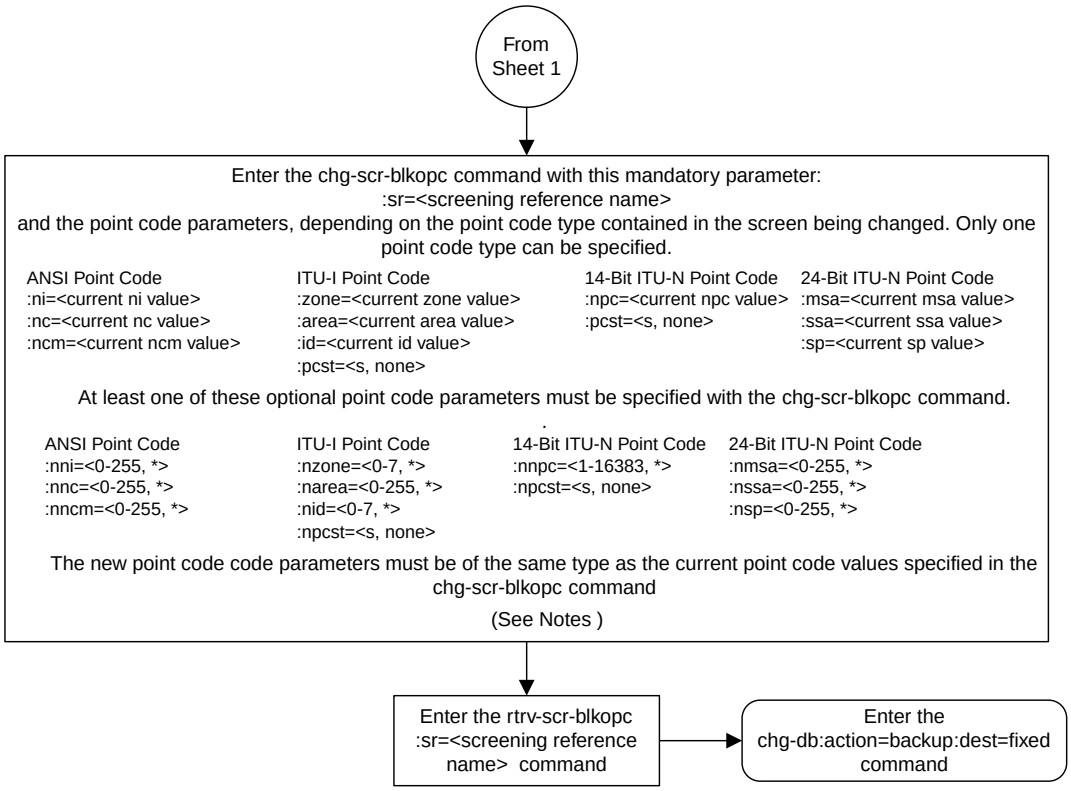



Notes:

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.

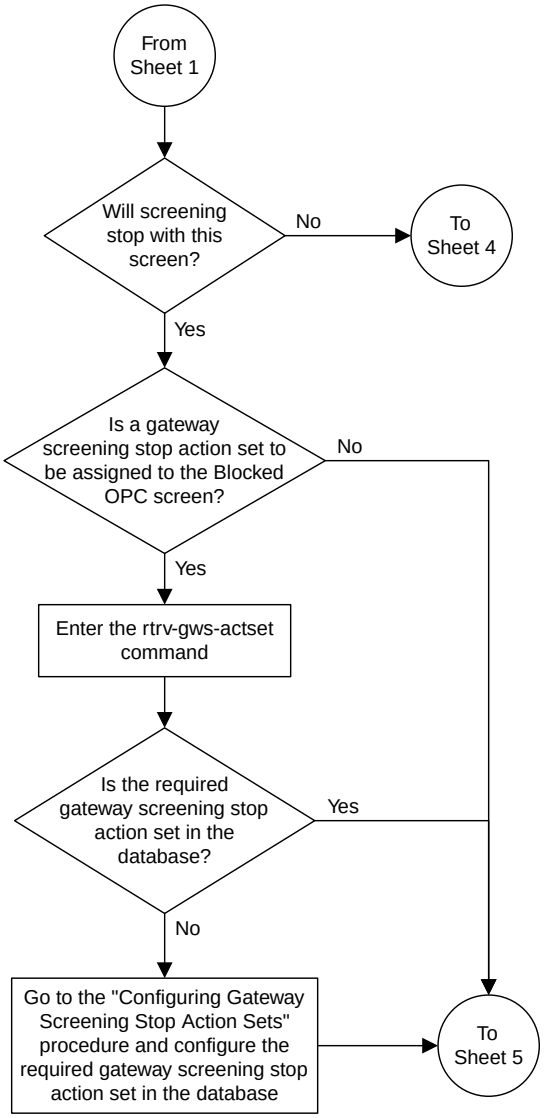
For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section and the "Specifying a Range of Values" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening. The "Specifying 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.

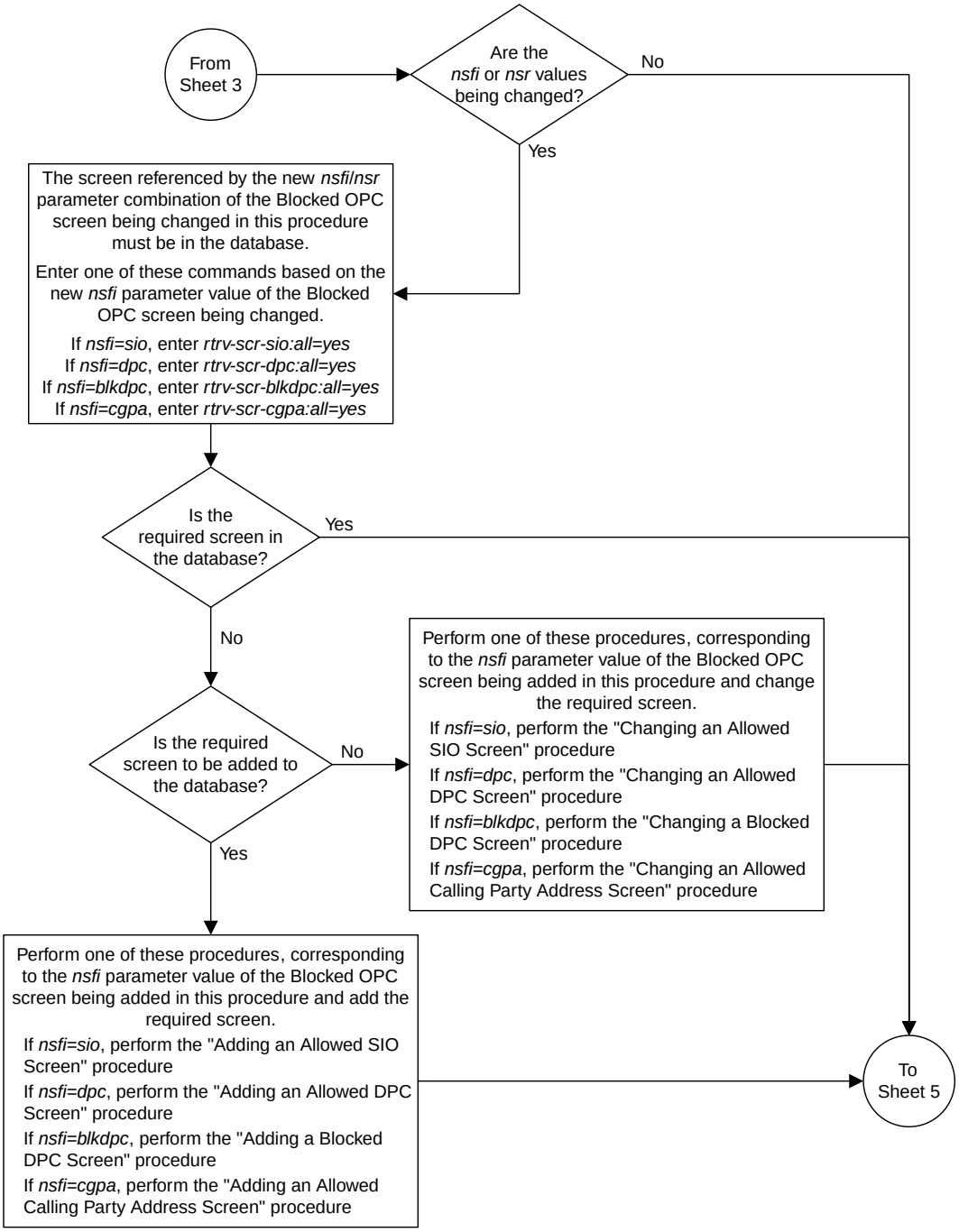
5. To change an ITU-I or 14-bit ITU-N non-spare point code to a spare point code, the npcst=s parameter must be specified with the chg-scr-blkopc command. The pcst parameter does not have to be specified.

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.

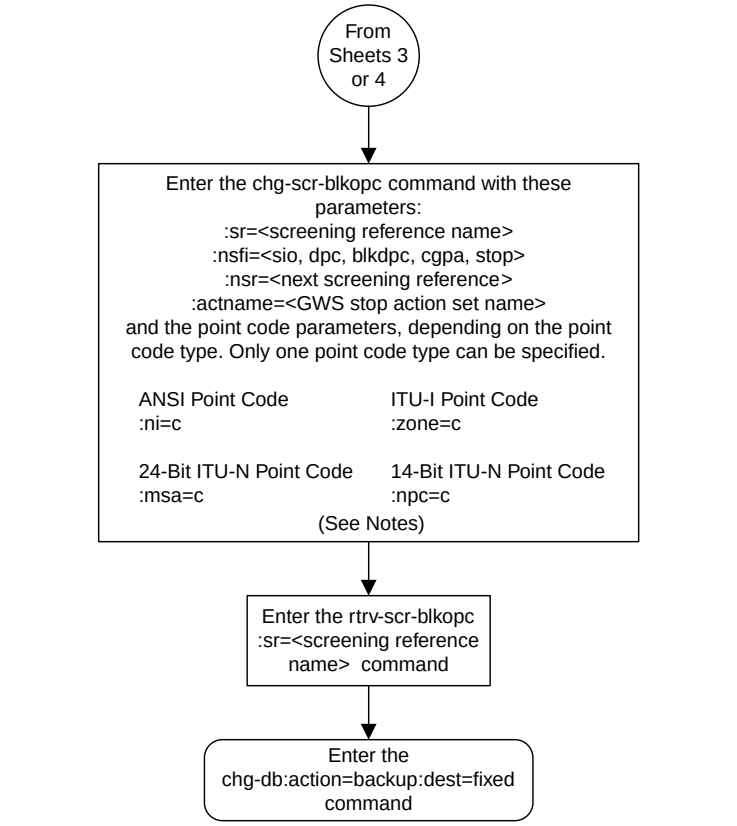
7. If the current point code in the screen being changed is either an ITU-I or 14-bit ITU-N non-spare point code, the pcst parameter does not have to be specified with the chg-scr-blkopc command. If the pcst parameter is specified for a screen containing either an ITU-I or 14-bit ITU-N non-spare point code, the pcst parameter value must be none.


From Sheet 1
Will screening stop with this screen?
No
To Sheet 4
Yes
Is a gateway screening stop action set to be assigned to the Blocked OPC screen?
No
Yes
Enter the rtrv-gws-actset command
Is the required gateway screening stop action set in the database?
Yes
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database
To Sheet 5

Sheet 3 of 5


From Sheet 3
Are the *nsfi* or *nsr* values being changed?
No
Yes
The screen referenced by the new *nsfi*/*nsr* parameter combination of the Blocked OPC screen being changed in this procedure must be in the database.
Enter one of these commands based on the new *nsfi* parameter value of the Blocked OPC screen being changed.
If *nsfi=sio*, enter *rtrv-scr-sio:all=yes*
If *nsfi=dpc*, enter *rtrv-scr-dpc:all=yes*
If *nsfi=blkdpc*, enter *rtrv-scr-blkdpc:all=yes*
If *nsfi=cgpa*, enter *rtrv-scr-cgpa:all=yes*
Is the required screen in the database?
Yes
No
Is the required screen to be added to the database?
No
Yes
Perform one of these procedures, corresponding to the *nsfi* parameter value of the Blocked OPC screen being added in this procedure and change the required screen.
If *nsfi=sio*, perform the "Changing an Allowed SIO Screen" procedure
If *nsfi=dpc*, perform the "Changing an Allowed DPC Screen" procedure
If *nsfi=blkdpc*, perform the "Changing a Blocked DPC Screen" procedure
If *nsfi=cgpa*, perform the "Changing an Allowed Calling Party Address Screen" procedure
Perform one of these procedures, corresponding to the *nsfi* parameter value of the Blocked OPC screen being added in this procedure and add the required screen.
If *nsfi=sio*, perform the "Adding an Allowed SIO Screen" procedure
If *nsfi=dpc*, perform the "Adding an Allowed 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
To Sheet 5

Sheet 4 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.

Sheet 5 of 5

**Figure 64: Changing a Blocked OPC Screen**

# Chapter 12

# Allowed Originating Point Code (OPC) Screen Configuration

**Topics:**


- *Introduction.....413*
- *Adding an Allowed OPC Screen.....417*
- *Removing an Allowed OPC Screen.....431*
- *Changing an Allowed OPC Screen.....434*


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 66: Allowed OPC Screening Functions* 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.

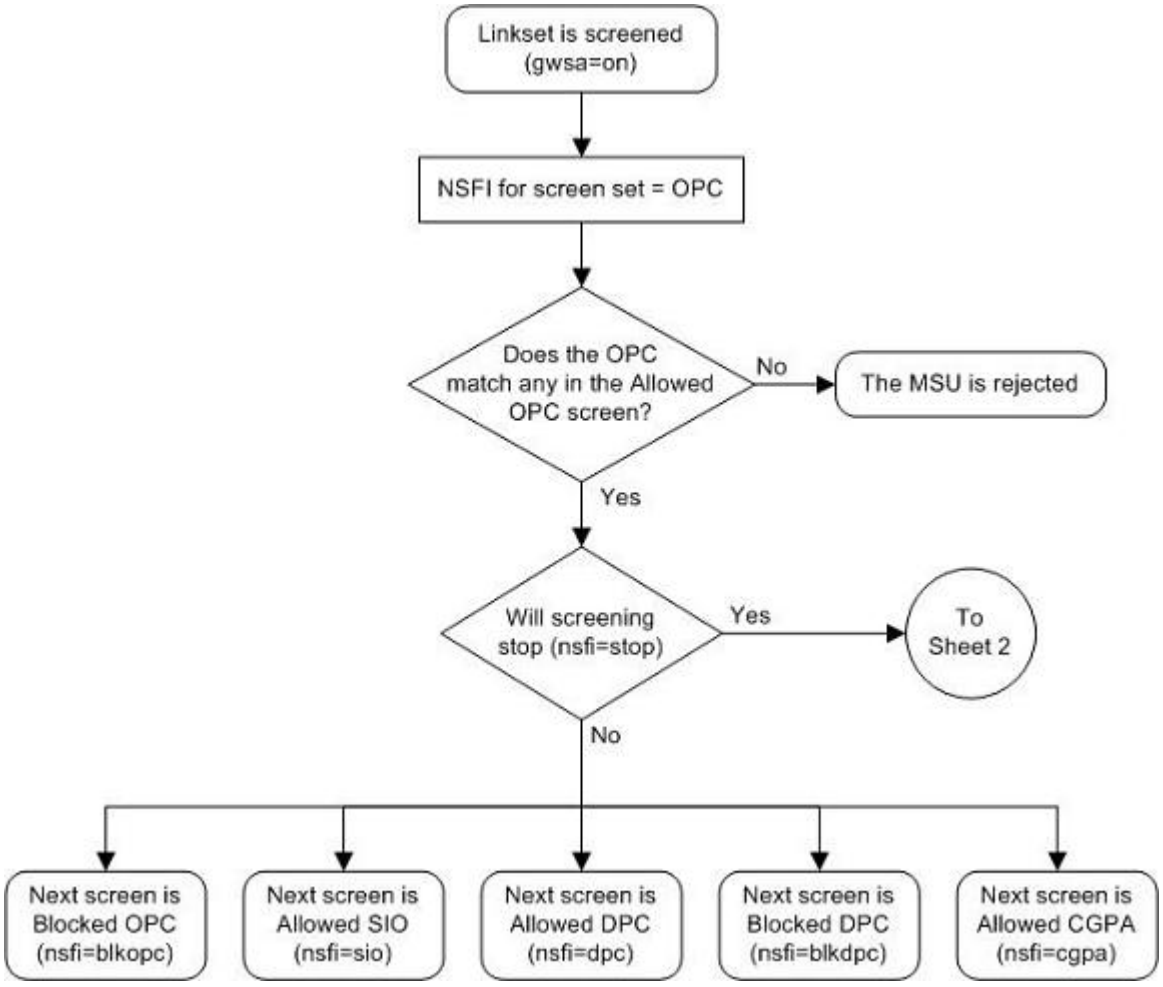
If a match is found, the `nsfi` is examined to determine the next step in the screening process. If the `nsfi` value is any value other than `stop`, the next screening reference (`nsr`) is identified and the screening process continues to the next screen identified by the `nsfi` and `nsr` parameter values.

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 `copy` gateway screening stop action is specified, the message is processed and a copy of the message is sent by the STPLAN feature to an external application.
- 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.

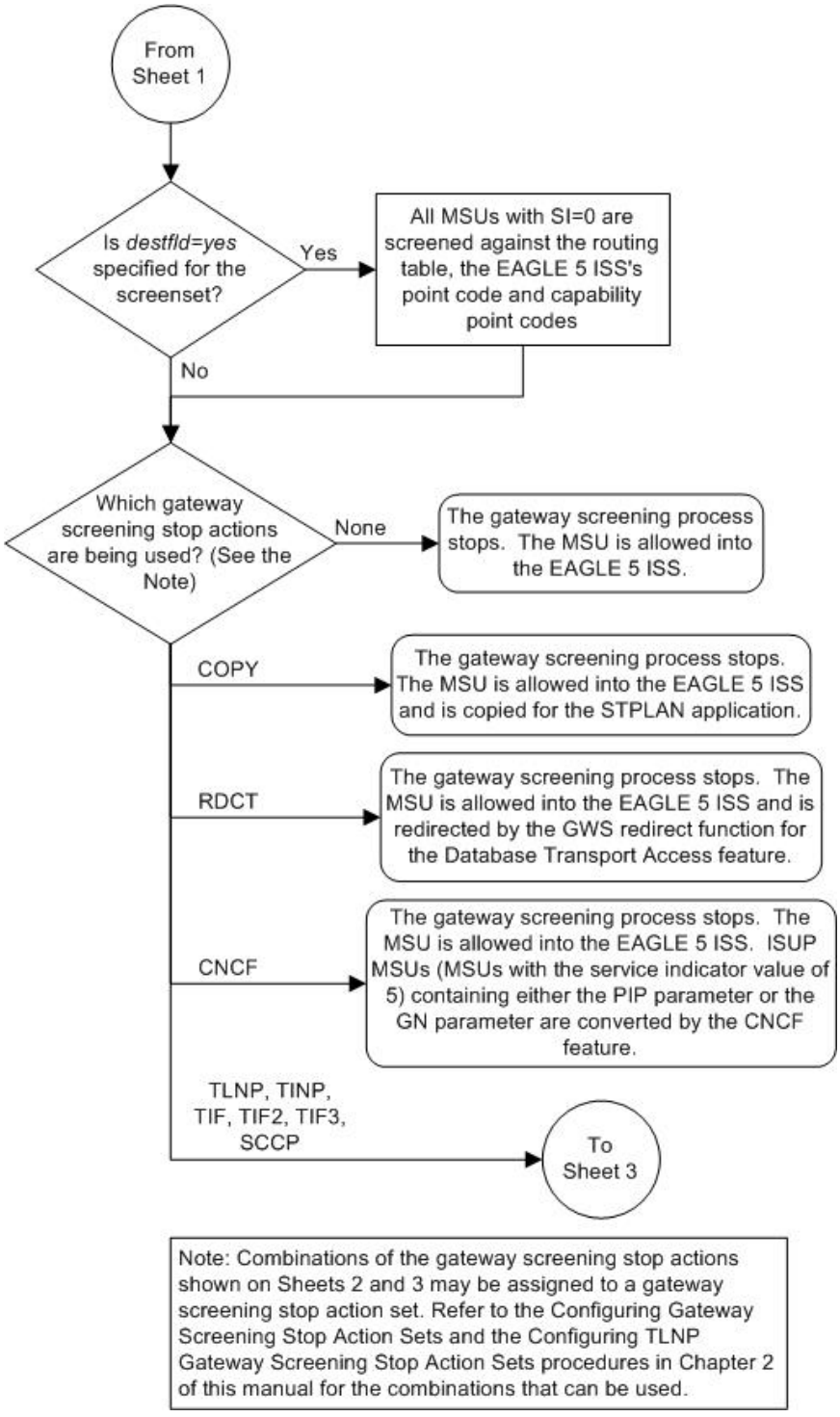
## Allowed OPC Screening Actions

*Figure 65: Allowed OPC Screening Actions* shows the screening actions of the allowed OPC screen.

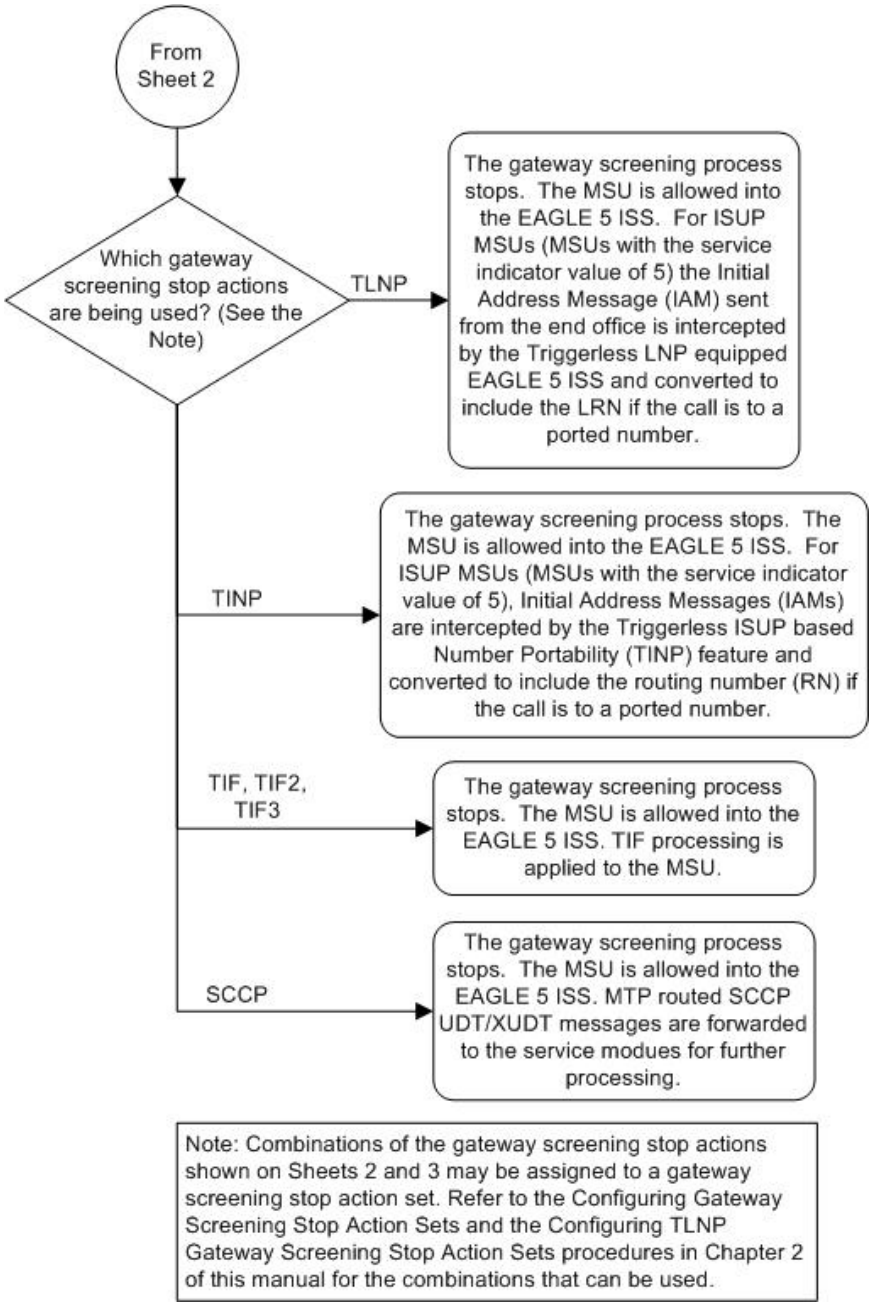



Sheet 1 of 3

**Figure 65: Allowed OPC Screening Actions**


From Sheet 1
Is destfld=yes specified for the screenset?
Yes
All MSUs with SI=0 are screened against the routing table, the EAGLE 5 ISS's point code and capability point codes
No
Which gateway screening stop actions are being used? (See the Note)
None
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS.
COPY
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS and is copied for the STPLAN application.
RDCT
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS and is redirected by the GWS redirect function for the Database Transport Access feature.
CNCF
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. ISUP MSUs (MSUs with the service indicator value of 5) containing either the PIP parameter or the GN parameter are converted by the CNCF feature.
TLNP, TINP, TIF, TIF2, TIF3, SCCP
To Sheet 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.

Sheet 2 of 3


From Sheet 2
Which gateway screening stop actions are being used? (See the Note)
TLNP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. For ISUP MSUs (MSUs with the service indicator value of 5) the Initial Address Message (IAM) sent from the end office is intercepted by the Triggerless LNP equipped EAGLE 5 ISS and converted to include the LRN if the call is to a ported number.
TINP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. For ISUP MSUs (MSUs with the service indicator value of 5), Initial Address Messages (IAMs) 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.
TIF, TIF2, TIF3
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. TIF processing is applied to the MSU.
SCCP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. MTP routed SCCP UDT/XUDT messages are forwarded to the service modues for further processing.
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.

Sheet 3 of 3

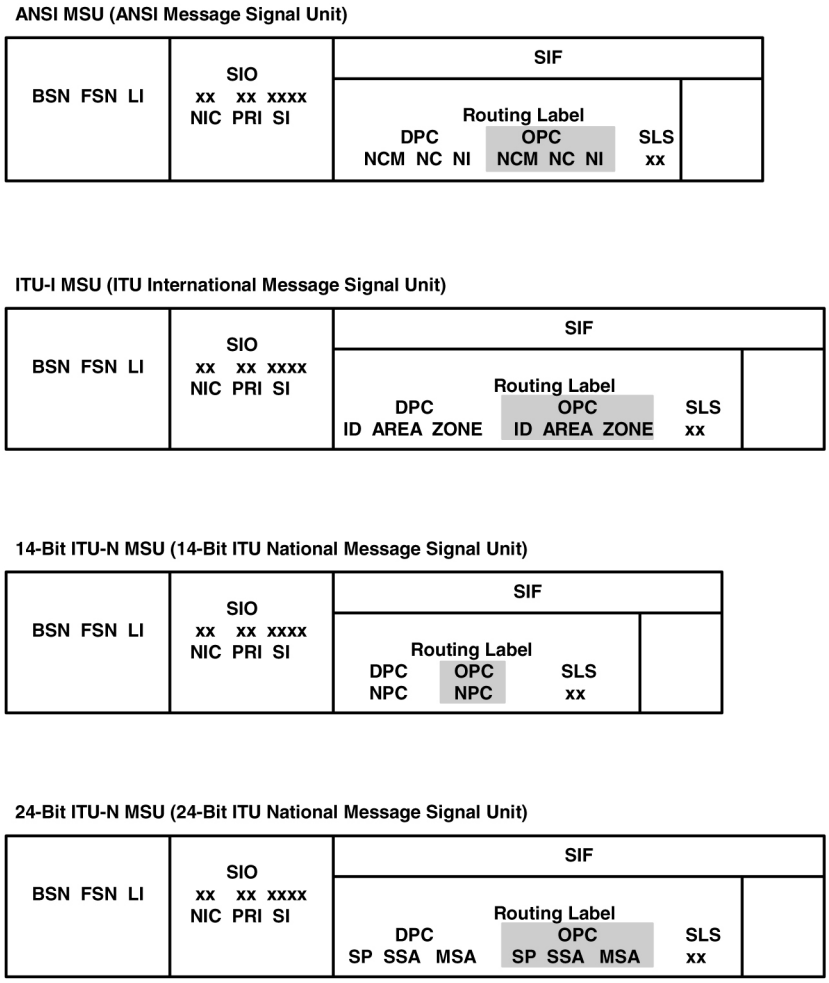



**Figure 66: Allowed OPC Screening Functions**

## Adding an Allowed OPC Screen

This procedure is used to add an allowed originating point code (OPC) screen to the database using the `ent-scr-opc` command. The parameters used by the `ent-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 examples in this procedure are used to add the allowed OPC screen data shown in *Table 73: Example Gateway Screening Allowed OPC Configuration Table* and based on the example configurations shown in *Figure 4: Gateway Screening Configuration - Example 1*, *Figure 8: Gateway Screening Configuration - Example 5*, and *Figure 10: Gateway Screening Configuration - Example 7*.

**Table 73: 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 |
| isp1 | 015 | 015 | 015 | blkopc | isp1 |
| tup1 | 017 | 017 | 017 | sio | tup1 |

**Note:** 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 74: Valid Value Combinations for ANSI Point Code Parameters* shows the valid combinations of these parameter values.

**Table 74: 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 75: Valid Value Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I parameter values. *Table 76: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* shows the valid combinations of the 24-bit ITU-N parameter values.

**Table 75: 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 |

| ZONE | AREA | ID |
|---|---|---|
| Asterisk | Asterisk | Asterisk |

**Table 76: 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`.

   **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, see the `rtrv-feat` command description in the *Commands Manual*.

   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 the `chg-feat` command. If you are not sure if you have purchased the gateway screening feature, contact your Tekelec 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.

```
rlghncxa03w 06-10-25 15:26:30 GMT  EAGLE5 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     00235                    CGPA    cg04
IEC     00240                    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  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    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 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 11:43:04 GMT EAGLE5 36.0.0
                                L3T SLT                GWS GWS GWS
LSN          APCA    (SS7)  SCRN  SET SET BEI LST LNKS ACT MES DIS SLSCI NIS
e1e2         001-207-000    none  1   1   no  B   6    off off off no    off
ls1305       000-005-000    none  1   1   no  A   1    off off off no    off
ls1307       000-007-000    none  1   1   no  A   1    off off off no    off
e1m1s1       001-001-001    none  1   1   no  A   7    off off off no    off
e1m1s2       001-001-002    none  1   1   no  A   7    off off off no    off

                                L3T SLT                GWS GWS GWS
LSN          APCI    (SS7)  SCRN  SET SET BEI LST LNKS ACT MES DIS SLSCI NIS
e1e2i        1-207-0        none  1   1   no  B   4    off off off ---   on
ls1315       0-015-0        none  1   1   no  A   1    off off off ---   off
ls1317       0-017-0        none  1   1   no  A   1    off off off ---   on
e1m2s1       1-011-1        none  1   1   no  A   7    off off off ---   off
e1m2s2       1-011-2        none  1   1   no  A   7    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 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 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 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 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 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-gws-actset` command executed in step 4.

   **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 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=gws4:ni=001:nc=001:ncm=001:nsfi=blkopc:nsr=gws3
```

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.

   ```
   rlghncxa03w 06-10-25 15:30:30 GMT  EAGLE5 36.0.0
   SCREEN = ALLOWED OPC
   SR    NI       NC       NCM      NSFI    NSR/ACT
   GWS4  001      001      001      BLKOPC  GWS3
   ```

   ```
   rtrv-scr-opc:sr=fld2
   ```

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
FLD2  010      010      010      BLKOPC  FLD3
```

`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`

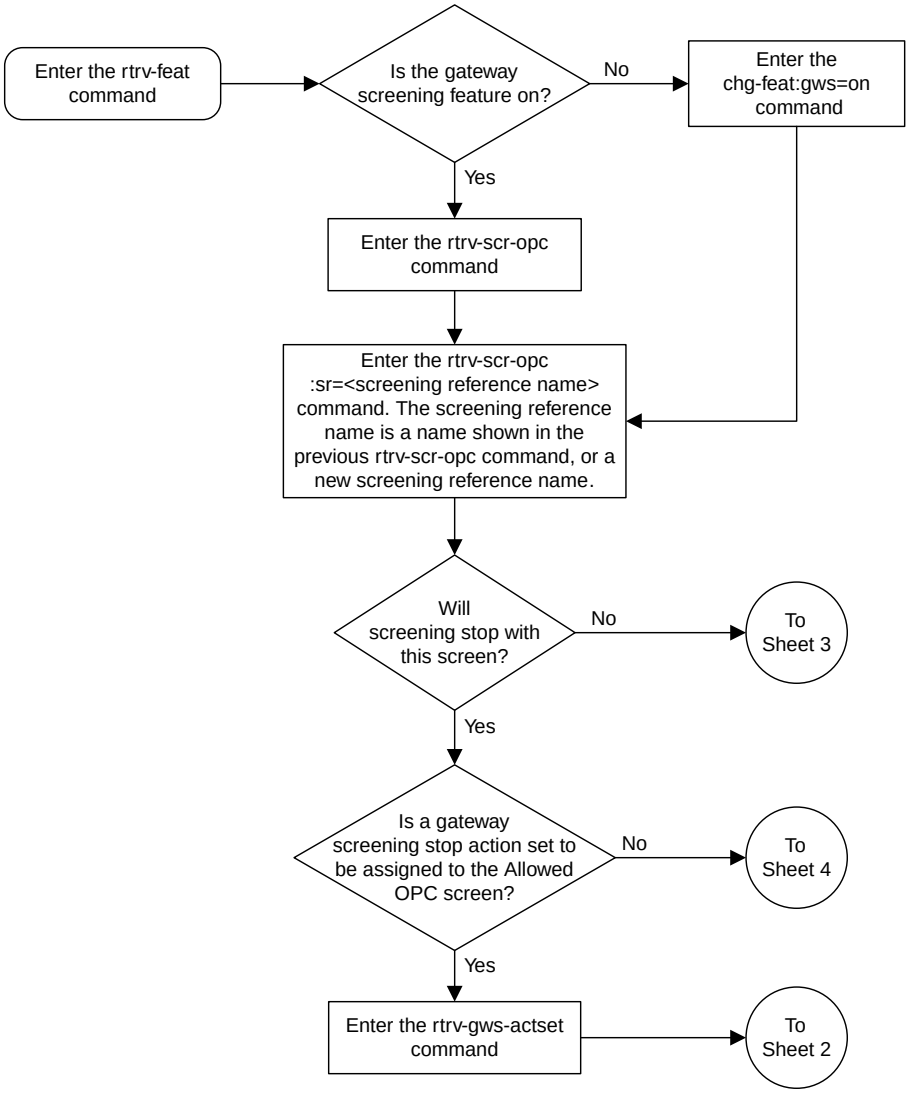
The following is an example of the possible output.

```
rlghncxa03w 06-10-25 15:31:30 GMT  EAGLE5 36.0.0
SCREEN = ALLOWED OPC
SR    NI       NC       NCM      NSFI    NSR/ACT
TUP1  017      017      017      SIO     TUP1
```

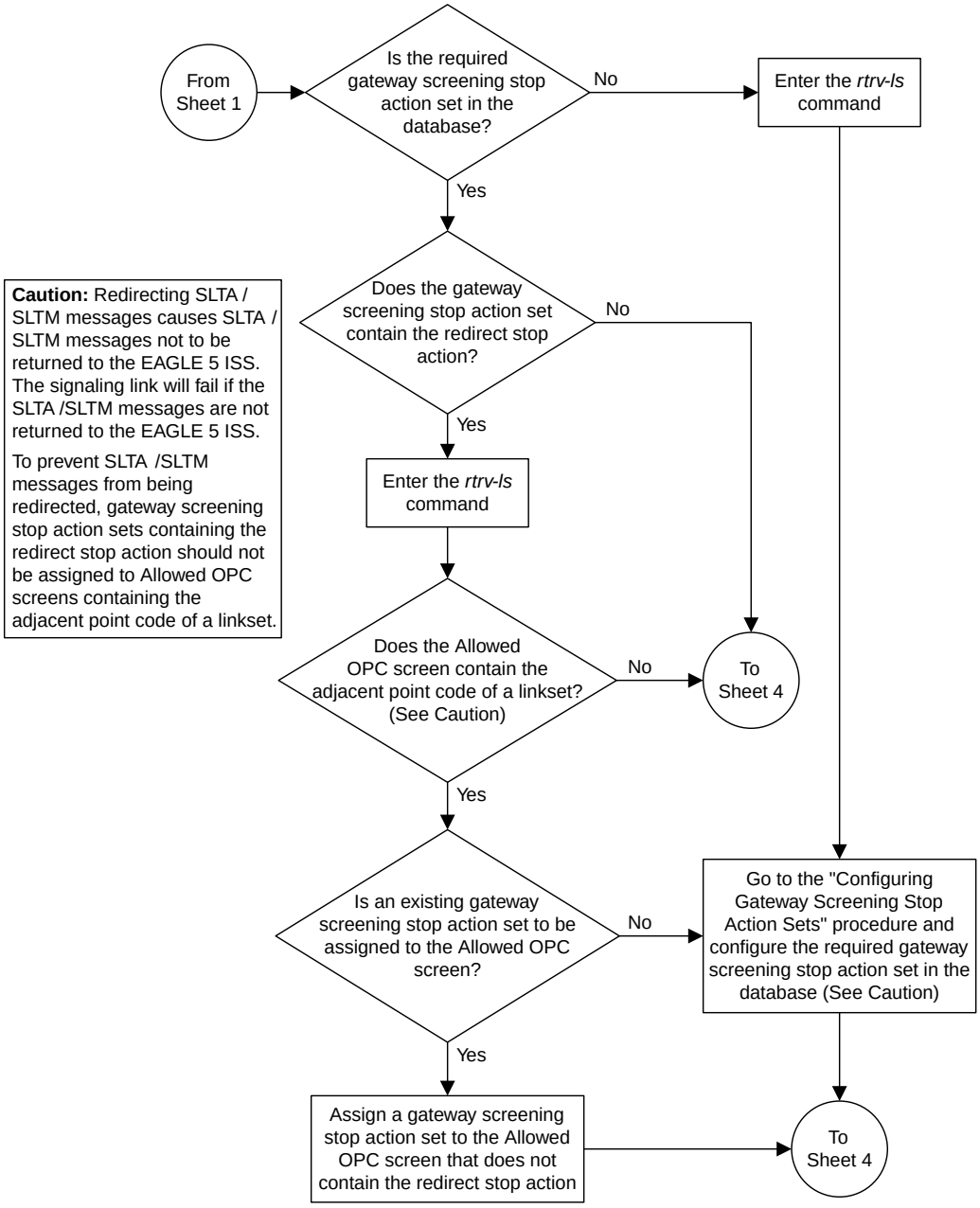
10. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

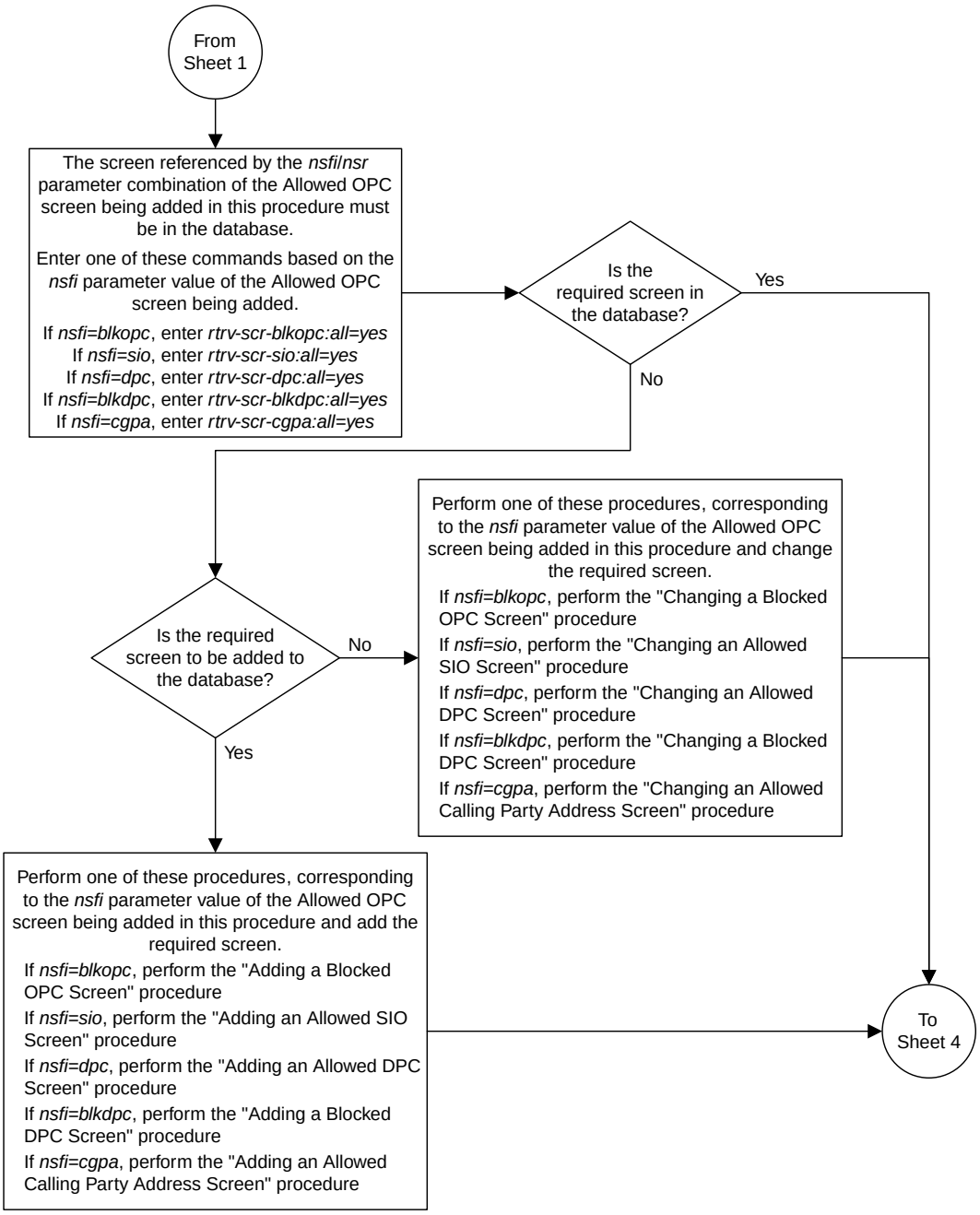
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the rtrv-feat command
Is the gateway screening feature on?
No
Enter the chg-feat:gws=on command
Yes
Enter the rtrv-scr-opc command
Enter the rtrv-scr-opc :sr=<screening reference name> command. The screening reference name is a name shown in the previous rtrv-scr-opc command, or a new screening reference name.
Will screening stop with this screen?
No
To Sheet 3
Yes
Is a gateway screening stop action set to be assigned to the Allowed OPC screen?
No
To Sheet 4
Yes
Enter the rtrv-gws-actset command
To Sheet 2

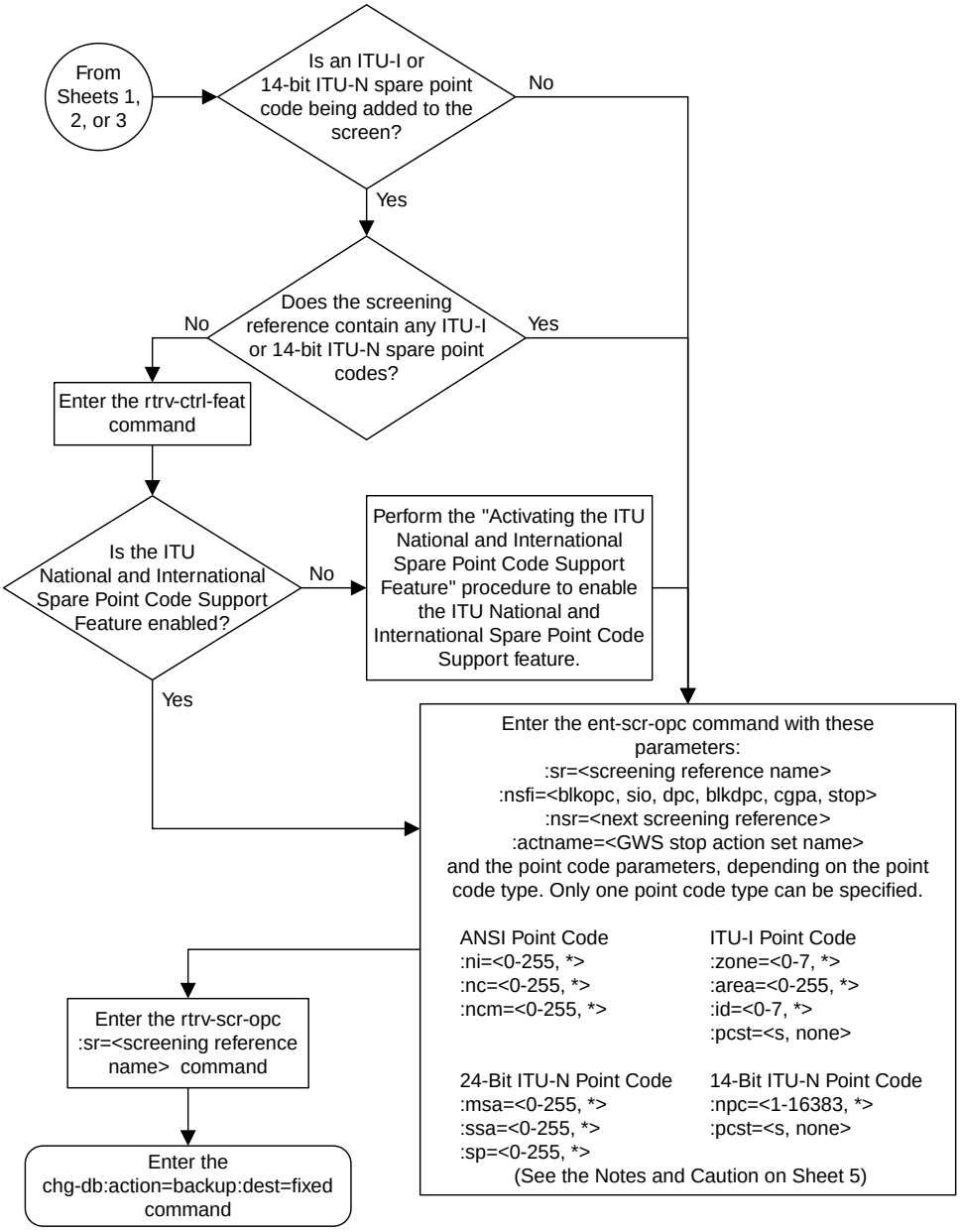
Sheet 1 of 5


From Sheet 1
Is the required gateway screening stop action set in the database?
No
Enter the rtrv-ls command
Yes
Does the gateway screening stop action set contain the redirect stop action?
No
Yes
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 /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.
Enter the rtrv-ls command
Does the Allowed OPC screen contain the adjacent point code of a linkset? (See Caution)
No
To Sheet 4
Yes
Is an existing gateway screening stop action set to be assigned to the Allowed OPC screen?
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database (See Caution)
Yes
Assign a gateway screening stop action set to the Allowed OPC screen that does not contain the redirect stop action
To Sheet 4

Sheet 2 of 5


From Sheet 1
The screen referenced by the nsfi/nsr parameter combination of the Allowed OPC screen being added in this procedure must be in the database.
Enter one of these commands based on the nsfi parameter value of the Allowed OPC screen being added.
If nsfi=blkopc, enter rtrv-scr-blkopc:all=yes
If nsfi=sio, enter rtrv-scr-sio:all=yes
If nsfi=dpc, enter rtrv-scr-dpc:all=yes
If nsfi=blkdpc, enter rtrv-scr-blkdpc:all=yes
If nsfi=cgpa, enter rtrv-scr-cgpa:all=yes
Is the required screen in the database?
Yes
No
Is the required screen to be added to the database?
No
Yes
Perform one of these procedures, corresponding to the nsfi parameter value of the Allowed OPC screen being added in this procedure and change the required screen.
If nsfi=blkopc, perform the "Changing a Blocked OPC Screen" procedure
If nsfi=sio, perform the "Changing an Allowed SIO Screen" procedure
If nsfi=dpc, perform the "Changing an Allowed DPC Screen" procedure
If nsfi=blkdpc, perform the "Changing a Blocked DPC Screen" procedure
If nsfi=cgpa, perform the "Changing an Allowed Calling Party Address Screen" procedure
Perform one of these procedures, corresponding to the nsfi parameter value of the Allowed OPC screen being added in this procedure and add the required screen.
If nsfi=blkopc, perform the "Adding a Blocked OPC Screen" procedure
If nsfi=sio, perform the "Adding an Allowed SIO Screen" procedure
If nsfi=dpc, perform the "Adding an Allowed 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
To Sheet 4

Sheet 3 of 5


From Sheets 1, 2, or 3
Is an ITU-I or 14-bit ITU-N spare point code being added to the screen?
No
Yes
Does the screening reference contain any ITU-I or 14-bit ITU-N spare point codes?
No
Yes
Enter the rtrv-ctrl-feat command
Is the ITU National and International Spare Point Code Support Feature enabled?
No
Perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure to enable the ITU National and International Spare Point Code Support feature.
Yes
Enter the ent-scr-opc command with these parameters:
:sr=<screening reference name>
:nsfi=<blkopc, sio, dpc, blkdpc, 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.
ANSI Point Code
:ni=<0-255, *>
:nc=<0-255, *>
:ncm=<0-255, *>
ITU-I Point Code
:zone=<0-7, *>
:area=<0-255, *>
:id=<0-7, *>
:pcst=<s, none>
24-Bit ITU-N Point Code
:msa=<0-255, *>
:ssa=<0-255, *>
:sp=<0-255, *>
14-Bit ITU-N Point Code
:npc=<1-16383, *>
:pcst=<s, none>
(See the Notes and Caution on Sheet 5)
Enter the rtrv-scr-opc :sr=<screening reference name> command
Enter the chg-db:action=backup:dest=fixed command

Sheet 4 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 *rtrv-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.

Sheet 5 of 5

**Figure 67: Adding an Allowed OPC Screen**

## 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 `gws4` from the database.

**Note:** 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.

1. 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 `pcst` parameter does not have to be specified with the `dlt-scr-opc` command. If the `pcst` 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=gws4`

   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.
```

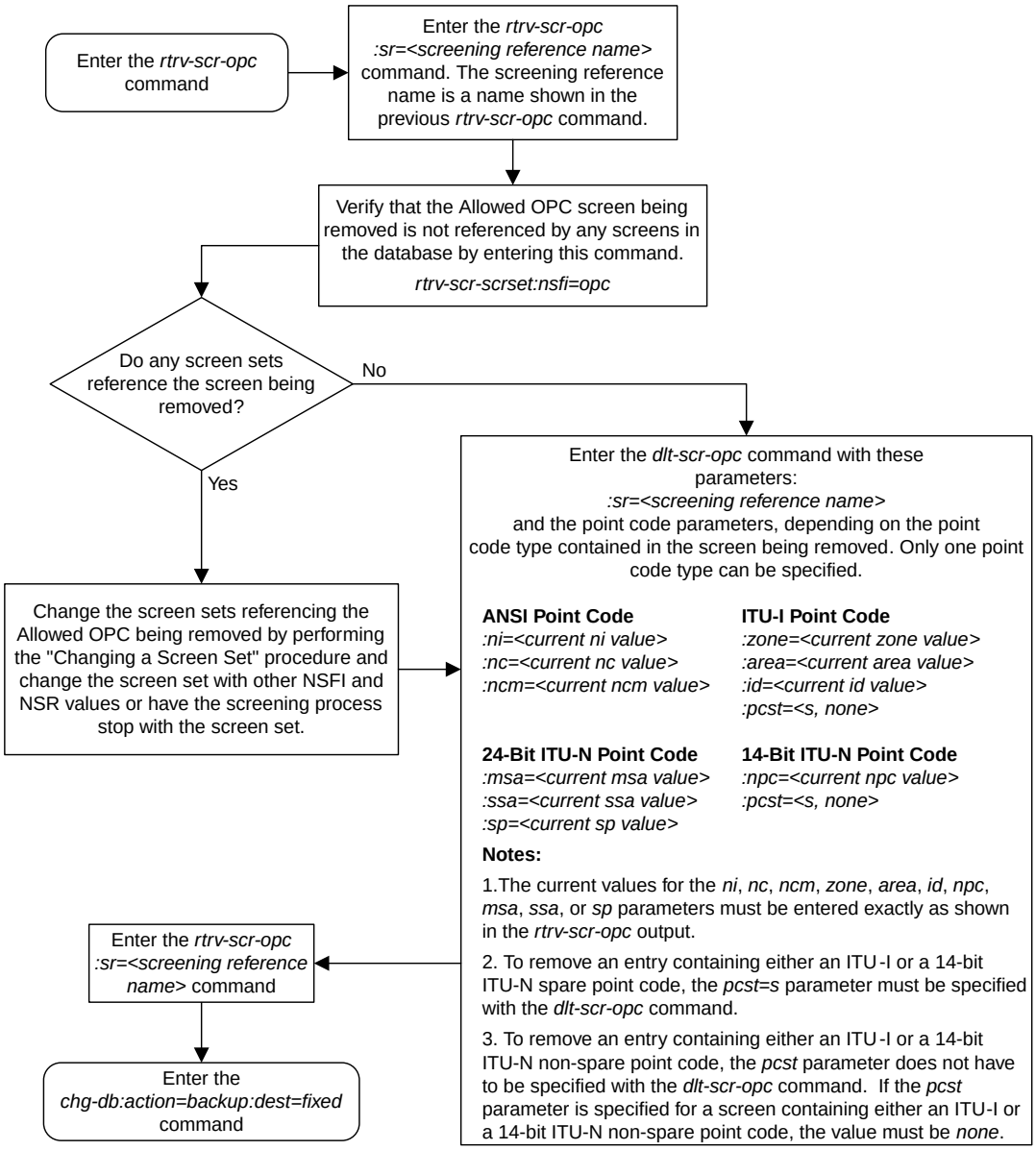



**Figure 68: Removing an Allowed OPC Screen**

# 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 `chg-scr-opc` command. The parameters used by the `chg-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 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`.

**Note:** 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 77: Valid Value Combinations for ANSI Point Code Parameters* shows the valid combinations of these parameter values.

**Table 77: 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 78: Valid Value Combinations for ITU-I Point Code Parameters* shows the valid combinations of the ITU-I parameter values. *Table 79: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* shows the valid combinations of the 24-bit ITU-N parameter values.

**Table 78: 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 79: 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.

```
rlghncxa03w 06-10-25 15:25:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED DPC
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=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  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    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 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 EAGLE5 36.0.0
                                 L3T SLT              GWS GWS GWS
LSN          APCA   (SS7)  SCRN  SET SET BEI LST LNKS ACT MES DIS SLSCI NIS
e1e2         001-207-000   none  1   1   no  B   6    off off off no    off
ls1305       000-005-000   none  1   1   no  A   1    off off off no    off
ls1307       000-007-000   none  1   1   no  A   1    off off off no    off
e1m1s1       001-001-001   none  1   1   no  A   7    off off off no    off
e1m1s2       001-001-002   none  1   1   no  A   7    off off off no    off

                                 L3T SLT              GWS GWS GWS
LSN          APCI   (SS7)  SCRN  SET SET BEI LST LNKS ACT MES DIS SLSCI NIS
e1e2i        1-207-0       none  1   1   no  B   4    off off off ---   on
ls1315       0-015-0       none  1   1   no  A   1    off off off ---   off
ls1317       0-017-0       none  1   1   no  A   1    off off off ---   on
e1m2s1       1-011-1       none  1   1   no  A   7    off off off ---   off
e1m2s2       1-011-2       none  1   1   no  A   7    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 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 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 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 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 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-gws-actset` command executed in step 2.

   **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 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 `pcst=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 `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`.

For this example, enter this command.

```
chg-scr-opc:sr=wrd2:ni=243:nc=015:ncm=001:nni=230:nc=230
:ncm=230:nsfi=blkopc: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
   ```

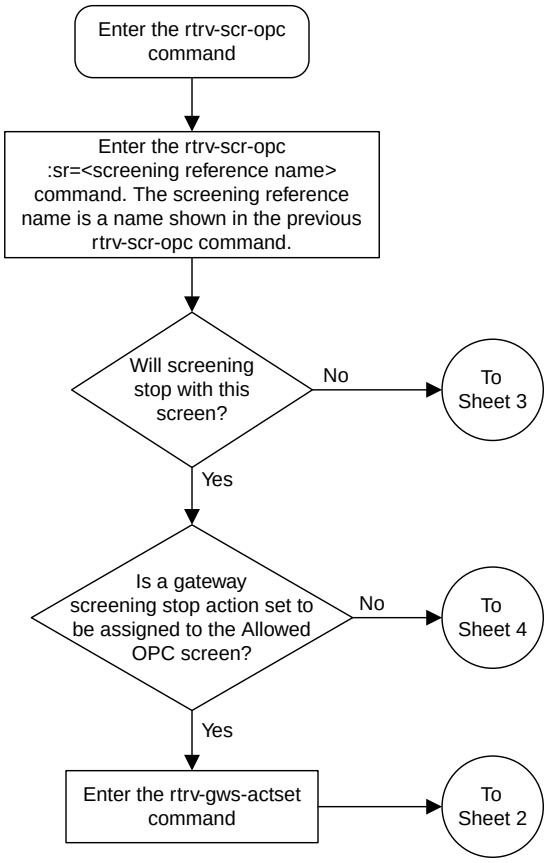
The following is an example of the possible output.

```
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      230      BLKOPC  WRD6
```

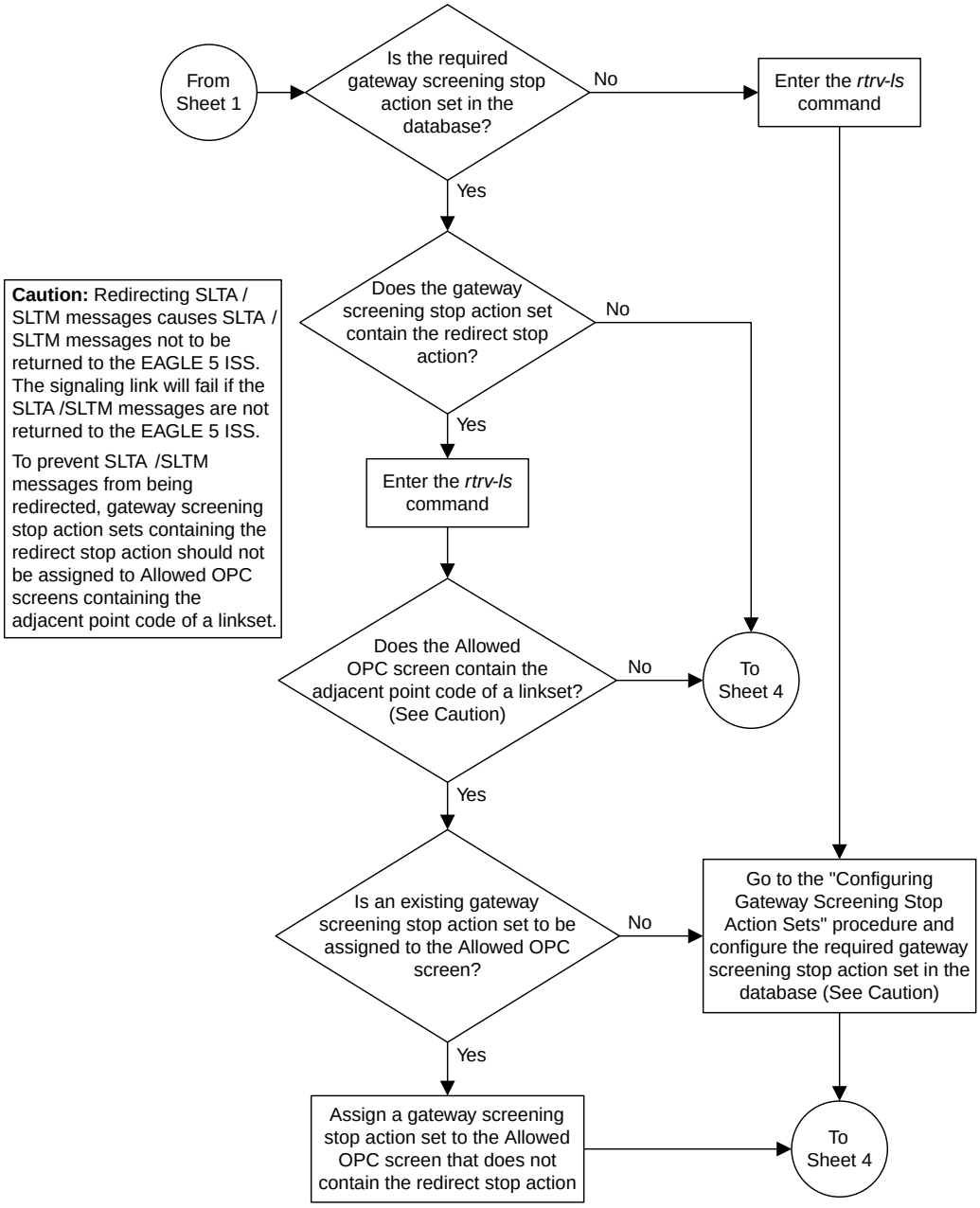
8. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

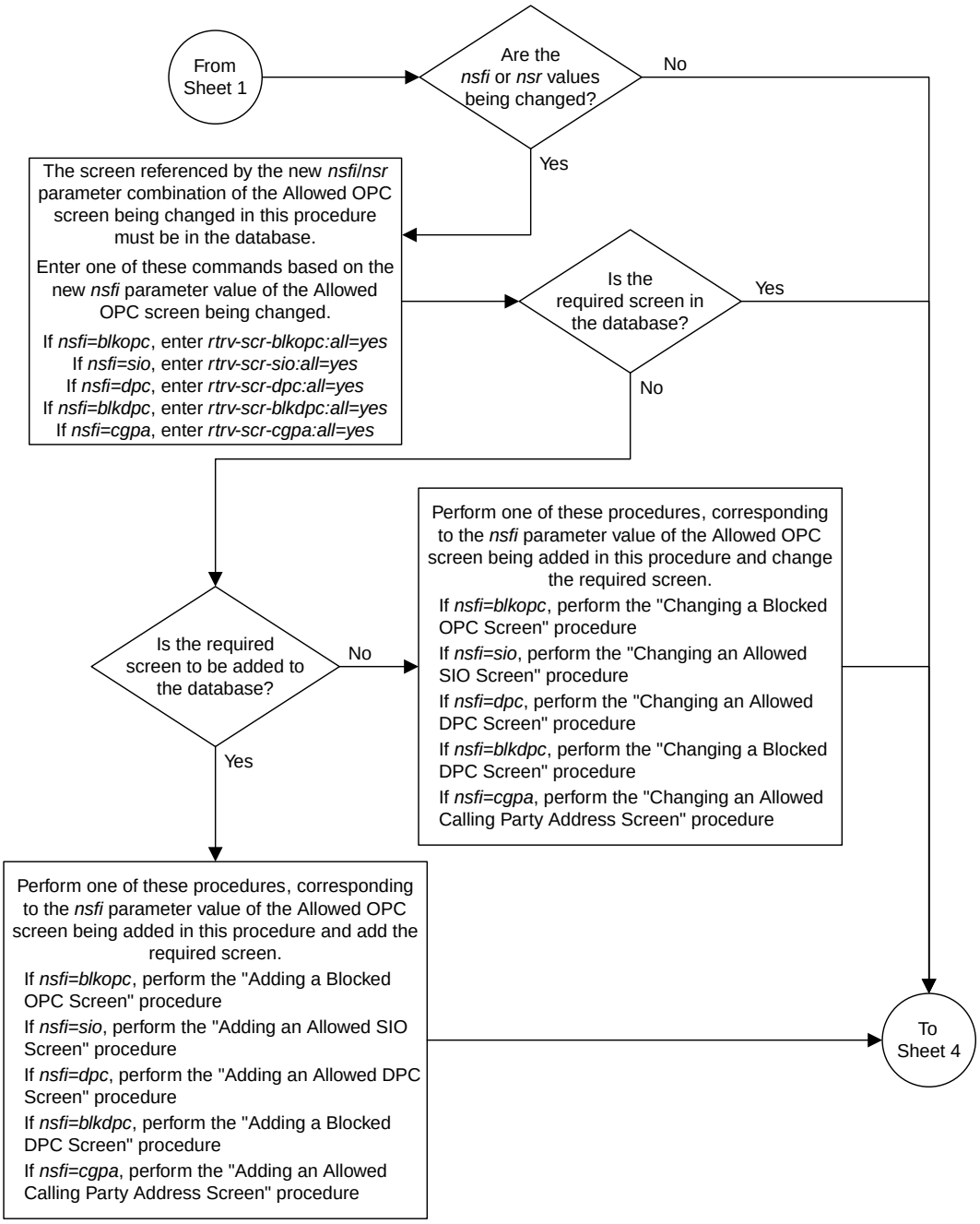
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the rtrv-scr-opc command
Enter the rtrv-scr-opc :sr=<screening reference name> command. The screening reference name is a name shown in the previous rtrv-scr-opc command.
Will screening stop with this screen?
No
To Sheet 3
Yes
Is a gateway screening stop action set to be assigned to the Allowed OPC screen?
No
To Sheet 4
Yes
Enter the rtrv-gws-actset command
To Sheet 2

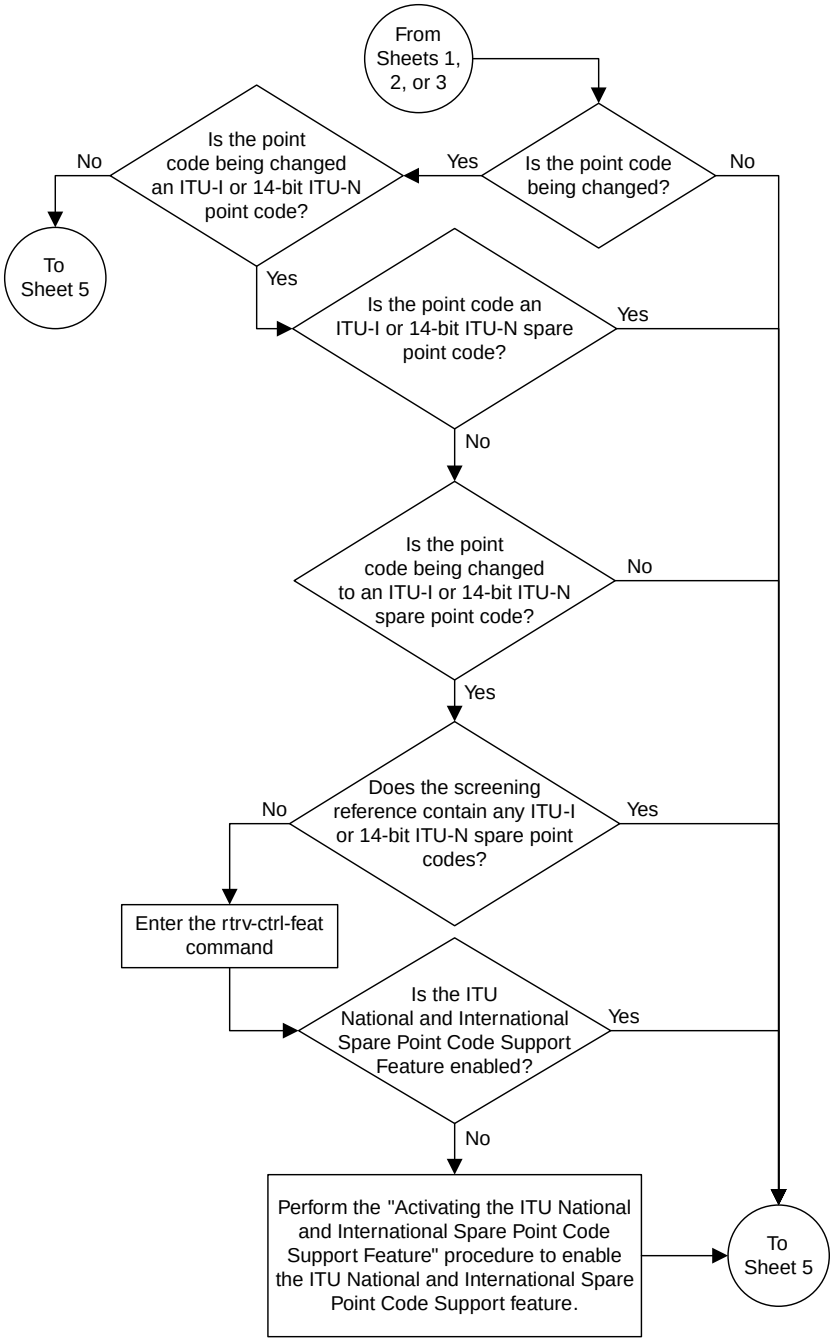
Sheet 1 of 6


From Sheet 1
Is the required gateway screening stop action set in the database?
No
Enter the rtrv-ls command
Yes
Does the gateway screening stop action set contain the redirect stop action?
No
Yes
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 /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.
Enter the rtrv-ls command
Does the Allowed OPC screen contain the adjacent point code of a linkset? (See Caution)
No
To Sheet 4
Yes
Is an existing gateway screening stop action set to be assigned to the Allowed OPC screen?
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database (See Caution)
Yes
Assign a gateway screening stop action set to the Allowed OPC screen that does not contain the redirect stop action
To Sheet 4

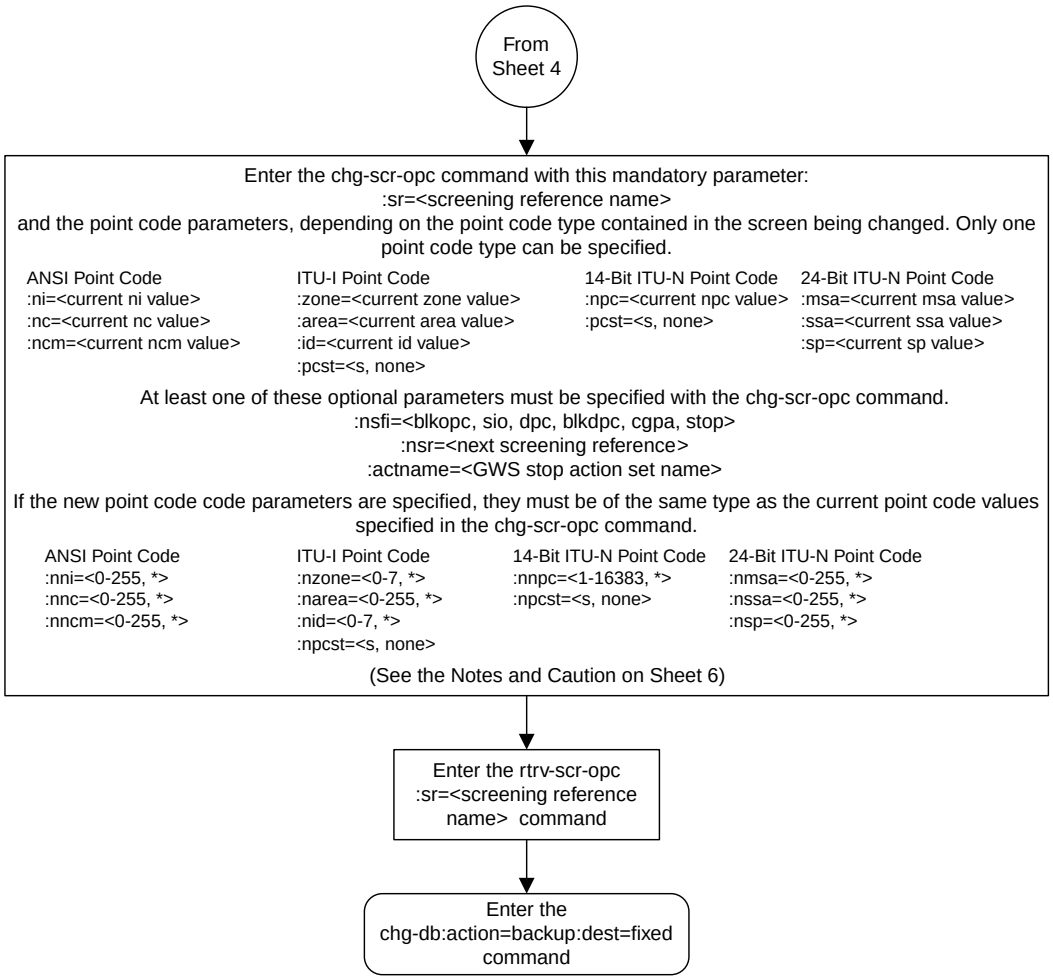
Sheet 2 of 6


From Sheet 1
Are the *nsfi* or *nsr* values being changed?
No
Yes
The screen referenced by the new *nsfi*/*nsr* parameter combination of the Allowed OPC screen being changed in this procedure must be in the database.
Enter one of these commands based on the new *nsfi* parameter value of the Allowed OPC screen being changed.
If *nsfi=blkopc*, enter *rtrv-scr-blkopc:all=yes*
If *nsfi=sio*, enter *rtrv-scr-sio:all=yes*
If *nsfi=dpc*, enter *rtrv-scr-dpc:all=yes*
If *nsfi=blkdpc*, enter *rtrv-scr-blkdpc:all=yes*
If *nsfi=cgpa*, enter *rtrv-scr-cgpa:all=yes*
Is the required screen in the database?
Yes
No
Is the required screen to be added to the database?
No
Yes
Perform one of these procedures, corresponding to the *nsfi* parameter value of the Allowed OPC screen being added in this procedure and change the required screen.
If *nsfi=blkopc*, perform the "Changing a Blocked OPC Screen" procedure
If *nsfi=sio*, perform the "Changing an Allowed SIO Screen" procedure
If *nsfi=dpc*, perform the "Changing an Allowed DPC Screen" procedure
If *nsfi=blkdpc*, perform the "Changing a Blocked DPC Screen" procedure
If *nsfi=cgpa*, perform the "Changing an Allowed Calling Party Address Screen" procedure
Perform one of these procedures, corresponding to the *nsfi* parameter value of the Allowed OPC screen being added in this procedure and add the required screen.
If *nsfi=blkopc*, perform the "Adding a Blocked OPC Screen" procedure
If *nsfi=sio*, perform the "Adding an Allowed SIO Screen" procedure
If *nsfi=dpc*, perform the "Adding an Allowed 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
To Sheet 4

Sheet 3 of 6


From Sheets 1, 2, or 3
Is the point code being changed?
Yes
No
Is the point code being changed an ITU-I or 14-bit ITU-N point code?
No
To Sheet 5
Yes
Is the point code an ITU-I or 14-bit ITU-N spare point code?
Yes
No
Is the point code being changed to an ITU-I or 14-bit ITU-N spare point code?
No
Yes
Does the screening reference contain any ITU-I or 14-bit ITU-N spare point codes?
No
Yes
Enter the rtrv-ctrl-feat command
Is the ITU National and International Spare Point Code Support Feature enabled?
Yes
No
Perform the "Activating the ITU National and International Spare Point Code Support Feature" procedure to enable the ITU National and International Spare Point Code Support feature.
To Sheet 5

Sheet 4 of 6


From Sheet 4
Enter the chg-scr-opc command with this mandatory parameter:
:sr=<screening reference name>
and the point code parameters, depending on the point code type contained in the screen being changed. Only one point code type can be specified.
ANSI Point Code
:ni=<current ni value>
:nc=<current nc value>
:ncm=<current ncm 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>
24-Bit ITU-N Point Code
:msa=<current msa value>
:ssa=<current ssa value>
:sp=<current sp value>
At least one of these optional parameters must be specified with the chg-scr-opc command.
:nsfi=<blkopc, sio, dpc, blkdpc, cgpa, stop>
:nsr=<next screening reference>
:actname=<GWS stop action set name>
If the new point code code parameters are specified, they must be of the same type as the current point code values specified in the chg-scr-opc command.
ANSI Point Code
:nni=<0-255, *>
:nnc=<0-255, *>
:nncm=<0-255, *>
ITU-I Point Code
:nzone=<0-7, *>
:narea=<0-255, *>
:nid=<0-7, *>
:npcst=<s, none>
14-Bit ITU-N Point Code
:nnpc=<1-16383, *>
:npcst=<s, none>
24-Bit ITU-N Point Code
:nmsa=<0-255, *>
:nssa=<0-255, *>
:nsp=<0-255, *>
(See the Notes and Caution on Sheet 6)
Enter the rtrv-scr-opc :sr=<screening reference name> command
Enter the chg-db:action=backup:dest=fixed command

Sheet 5 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 *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-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.

Sheet 6 of 6

**Figure 69: Changing an Allowed OPC Screen**

# Chapter 13

# Screen Set Configuration

**Topics:**


- *Introduction.....449*
- *Automatic Destination Field Screening.....449*
- *Adding a Screen Set.....449*
- *Removing a Screen Set.....458*
- *Changing a Screen Set.....461*


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 `gwsa=on` 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 *Gateway Screening States* section, or to the `ent-ls` or `chg-ls` command descriptions in the *Commands Manual*.

## 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 41: Allowed Affected Destination Field Screening Function*) 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 5 ISS's point code, and capability point codes. If the affected destination point code matches the EAGLE 5 ISS's point code, capability point codes, or point codes in the routing table, the message is allowed into the EAGLE 5 ISS. 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, TFR, TFC, UPU, SRST (RSP, RSR). All other network management messages are allowed into the EAGLE 5 ISS.

## Adding a Screen Set

This procedure is used to add a screen set to the database using the `ent-scrset` command. The parameters used by the `ent-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.

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 80: Example Gateway Screening Screen Set Configuration Table* and based on the example configurations shown in *Figure 4:*

*Gateway Screening Configuration - Example 1* through *Figure 10: Gateway Screening Configuration - Example 7*.

**Table 80: Example Gateway Screening Screen Set Configuration Table**

| Screen Set Name | Next Screening Function Identifier | Next Screening Reference | DESTFLD |
|---|---|---|---|
| gws1 | opc | gws4 | No |
| gws2 | blkopc | gws5 | No |
| ls01 | sio | ls02 | Yes |
| wrd1 | dpc | iec | Yes |
| fld1 | opc | fld2 | No |
| isp1 | opc | isp1 | No |
| tup1 | opc | 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`.

   **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, see the `rtrv-feat` command description in the *Commands Manual*.

   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 `chg-feat` command. If you are not sure if you have purchased the gateway screening feature, contact your Tekelec 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
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
```

   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 `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  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    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 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 `ent-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 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.

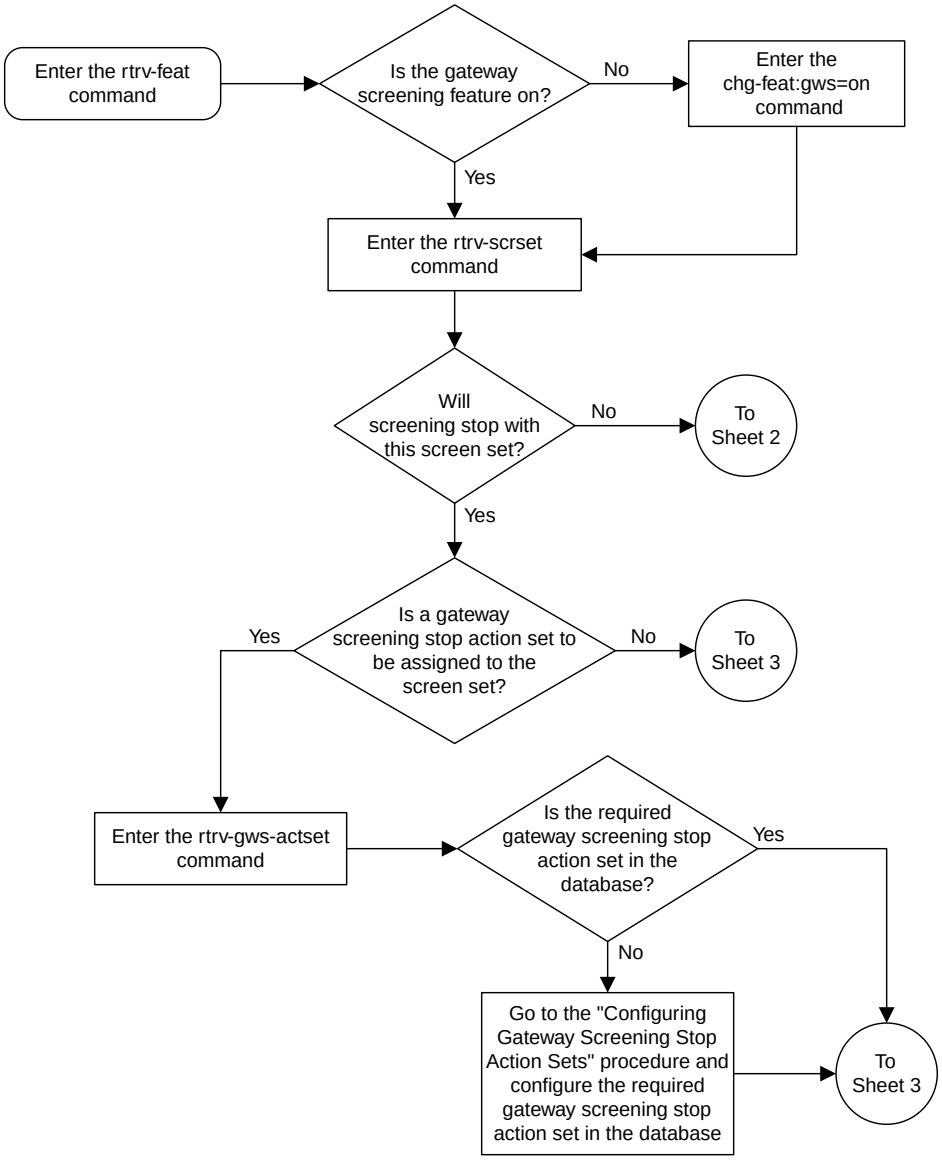
```
rlghncxa03w 06-10-25 15:32:30 GMT EAGLE5 36.0.0
ENTIRE GWS DATABASE IS 1% FULL
CDPA + AFTPC TABLES ARE 1% FULL
THERE ARE 242 SCREEN SETS AVAILABLE

THE FOLLOWING ARE OVER 80% 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%     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
```

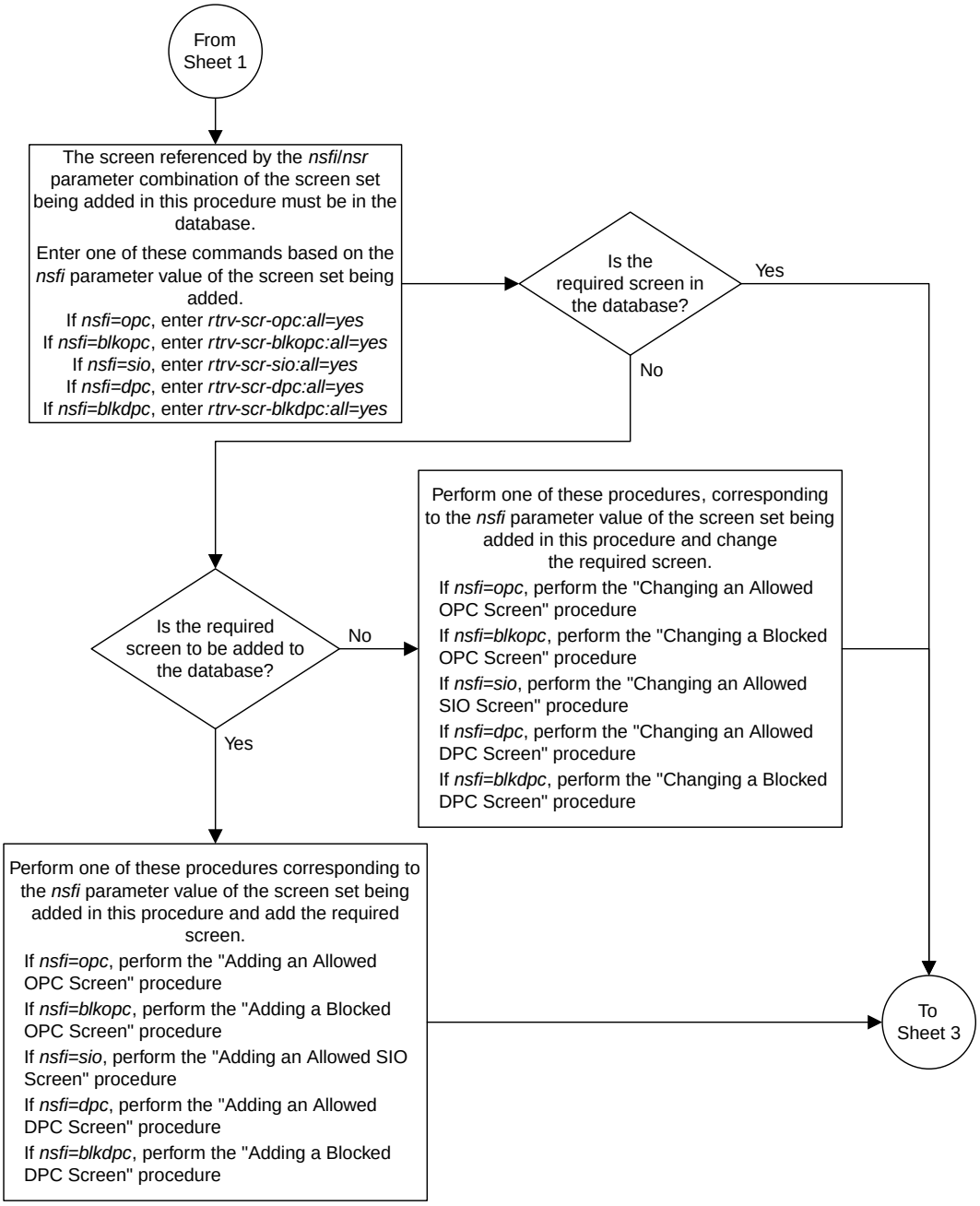
8. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

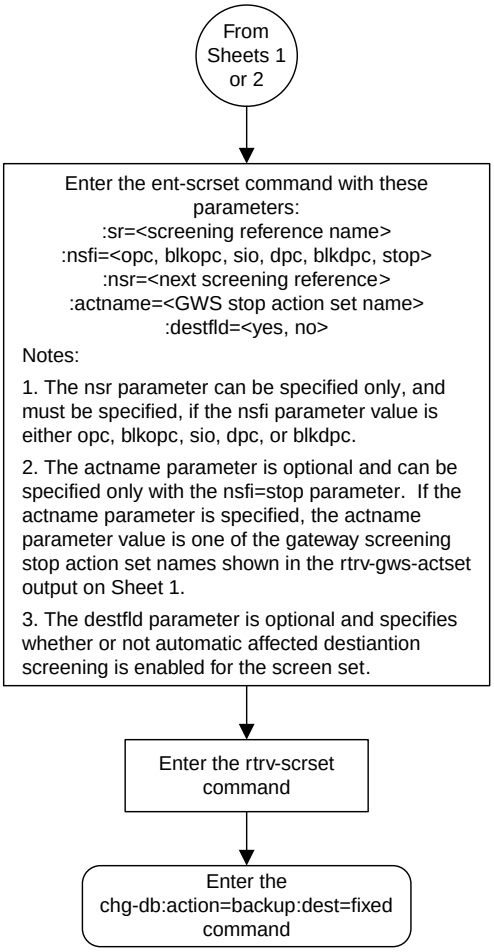
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the rtrv-feat command
Is the gateway screening feature on?
No
Enter the chg-feat:gws=on command
Yes
Enter the rtrv-scrset command
Will screening stop with this screen set?
No
To Sheet 2
Yes
Is a gateway screening stop action set to be assigned to the screen set?
Yes
No
To Sheet 3
Enter the rtrv-gws-actset command
Is the required gateway screening stop action set in the database?
Yes
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure the required gateway screening stop action set in the database
To Sheet 3

Sheet 1 of 3


From Sheet 1
The screen referenced by the nsfi/nsr parameter combination of the screen set being added in this procedure must be in the database.
Enter one of these commands based on the nsfi parameter value of the screen set being added.
If nsfi=opc, enter rtrv-scr-opc:all=yes
If nsfi=blkopc, enter rtrv-scr-blkopc:all=yes
If nsfi=sio, enter rtrv-scr-sio:all=yes
If nsfi=dpc, enter rtrv-scr-dpc:all=yes
If nsfi=blkdpc, enter rtrv-scr-blkdpc:all=yes
Is the required screen in the database?
Yes
No
Is the required screen to be added to the database?
No
Yes
Perform one of these procedures, corresponding to the nsfi parameter value of the screen set being added in this procedure and change the required screen.
If nsfi=opc, perform the "Changing an Allowed OPC Screen" procedure
If nsfi=blkopc, perform the "Changing a Blocked OPC Screen" procedure
If nsfi=sio, perform the "Changing an Allowed SIO Screen" procedure
If nsfi=dpc, perform the "Changing an Allowed DPC Screen" procedure
If nsfi=blkdpc, perform the "Changing a Blocked DPC Screen" procedure
Perform one of these procedures corresponding to the nsfi parameter value of the screen set being added in this procedure and add the required screen.
If nsfi=opc, perform the "Adding an Allowed OPC Screen" procedure
If nsfi=blkopc, perform the "Adding a Blocked OPC Screen" procedure
If nsfi=sio, perform the "Adding an Allowed SIO Screen" procedure
If nsfi=dpc, perform the "Adding an Allowed DPC Screen" procedure
If nsfi=blkdpc, perform the "Adding a Blocked DPC Screen" procedure
To Sheet 3

Sheet 2 of 3


From Sheets 1 or 2
Enter the ent-scrset command with these parameters:
:sr=<screening reference name>
:nsfi=<opc, blkopc, sio, dpc, blkdpc, stop>
:nsr=<next screening reference>
:actname=<GWS stop action set name>
:destfld=<yes, no>
Notes:
1. The nsr parameter can be specified only, and must be specified, if the nsfi parameter value is either opc, blkopc, sio, dpc, or blkdpc.
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 1.
3. The destfld parameter is optional and specifies whether or not automatic affected destiantion screening is enabled for the screen set.
Enter the rtrv-scrset command
Enter the chg-db:action=backup:dest=fixed command

Sheet 3 of 3

**Figure 70: Adding a Screen Set**

## Removing a Screen Set

This procedure is used to remove a screen set from the database using the `dlt-scrset` command. The parameters used by the `dlt-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 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       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
```

2. The screen set to be removed 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 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.

3. Remove the screen set from the database using the `dlt-scrset` command.

   For this example, enter this command.

   `dlt-scrset:scrn=gws1`

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.
```

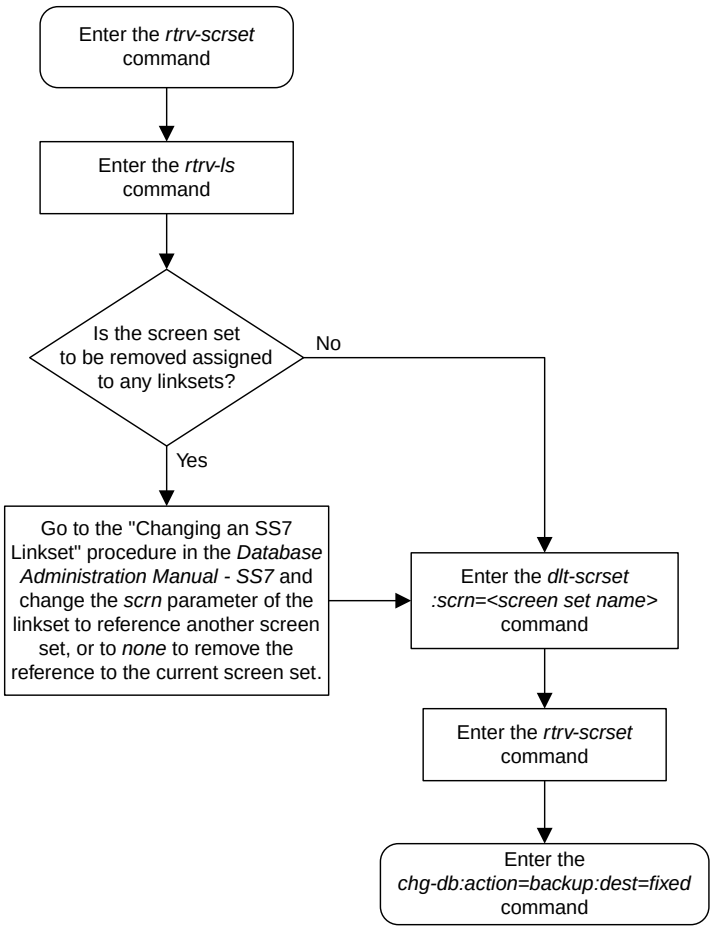



**Figure 71: Removing a Screen Set**

## 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%     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
```

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 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.

   **Note:** 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.

3. 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  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    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, go to the *Configuring Gateway Screening Stop Action Sets* procedure and configure the required gateway screening stop action set.

   **Note:** 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 `chg-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.

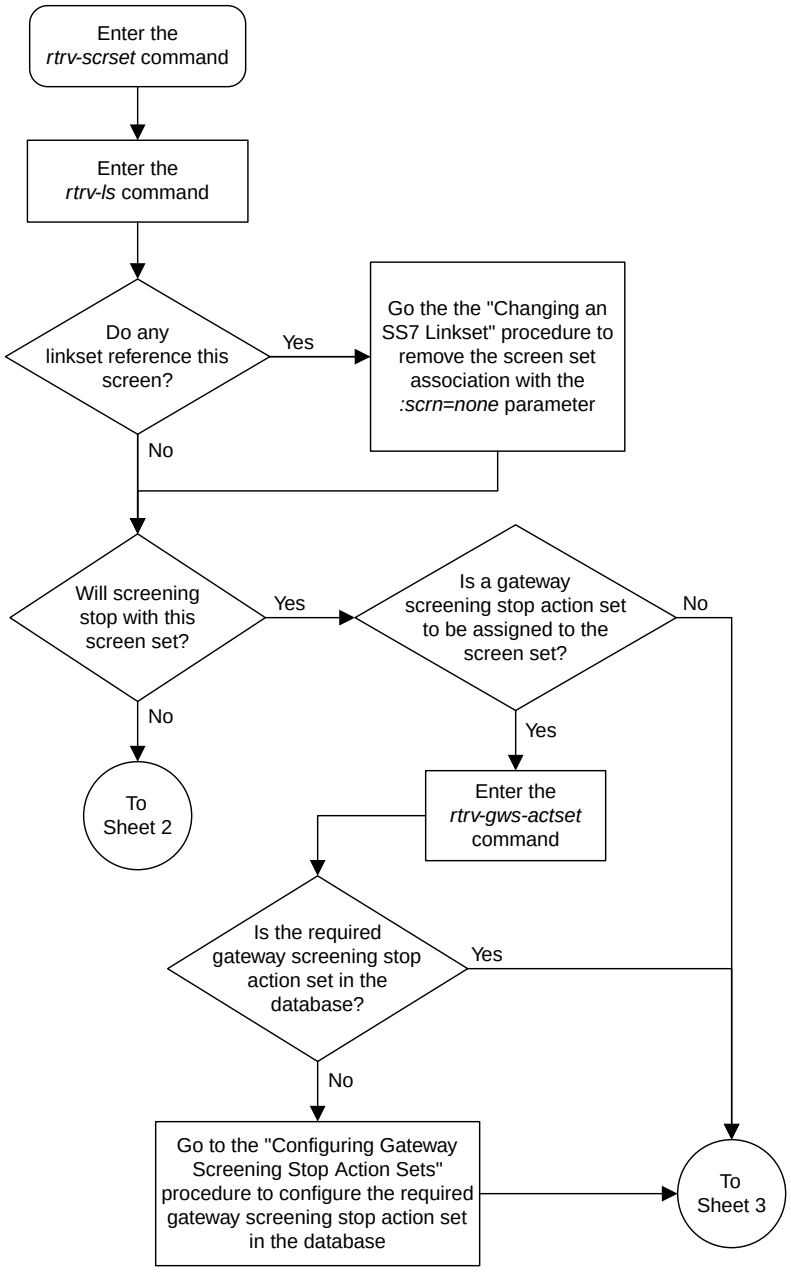
```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
ENTIRE GWS DATABASE IS 1% FULL
CDPA + AFTPC TABLES ARE 1% FULL
THERE ARE 242 SCREEN SETS AVAILABLE

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   4       NO
gws1  OPC     gws4       1%     9   7       NO
gws2  BLKOPC  gws5       1%     5   4       NO
isp1  OPC     isp1       1%     6   4       NO
ls05  BLKOPC  ls08       3%    45   14      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.

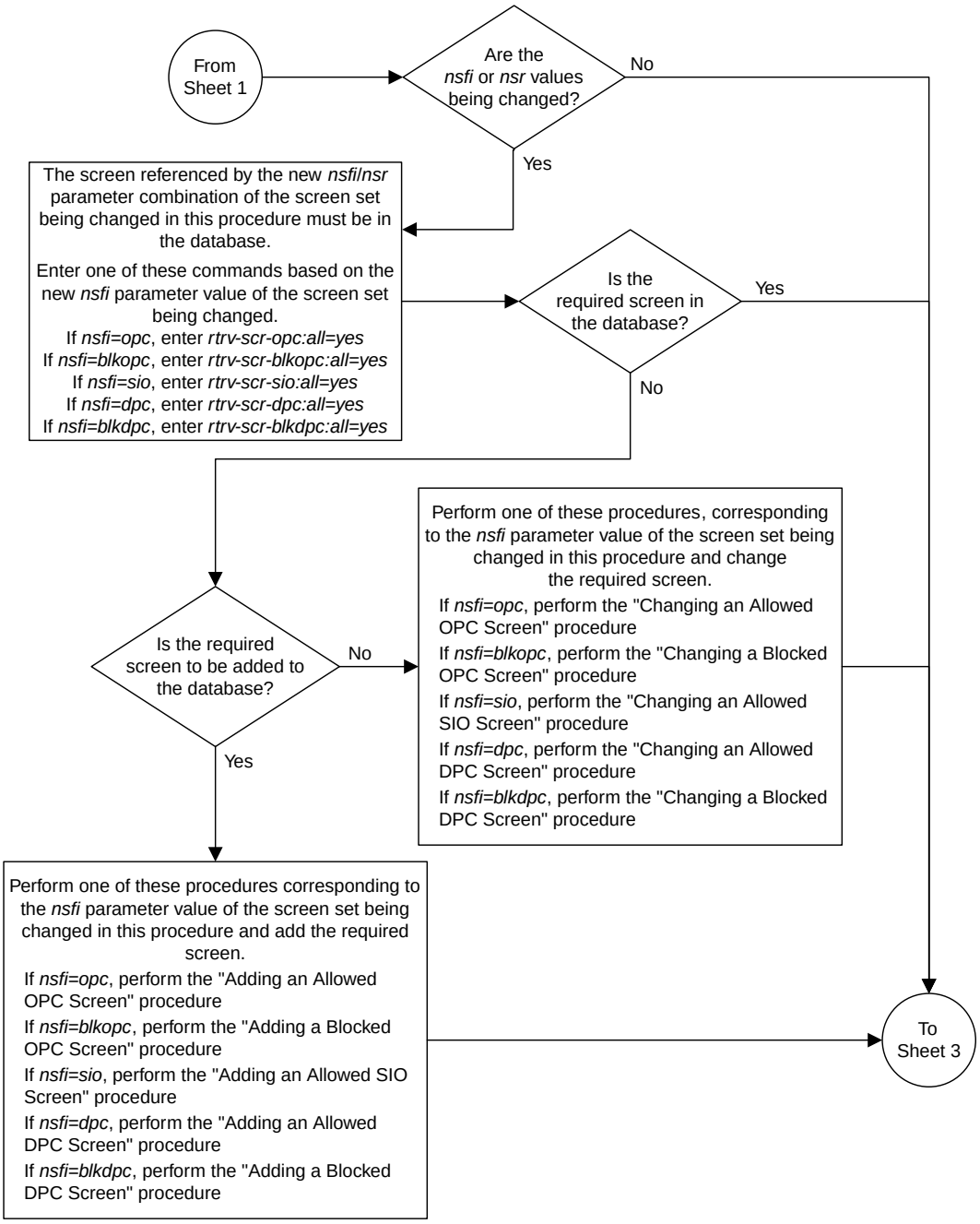
   The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

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

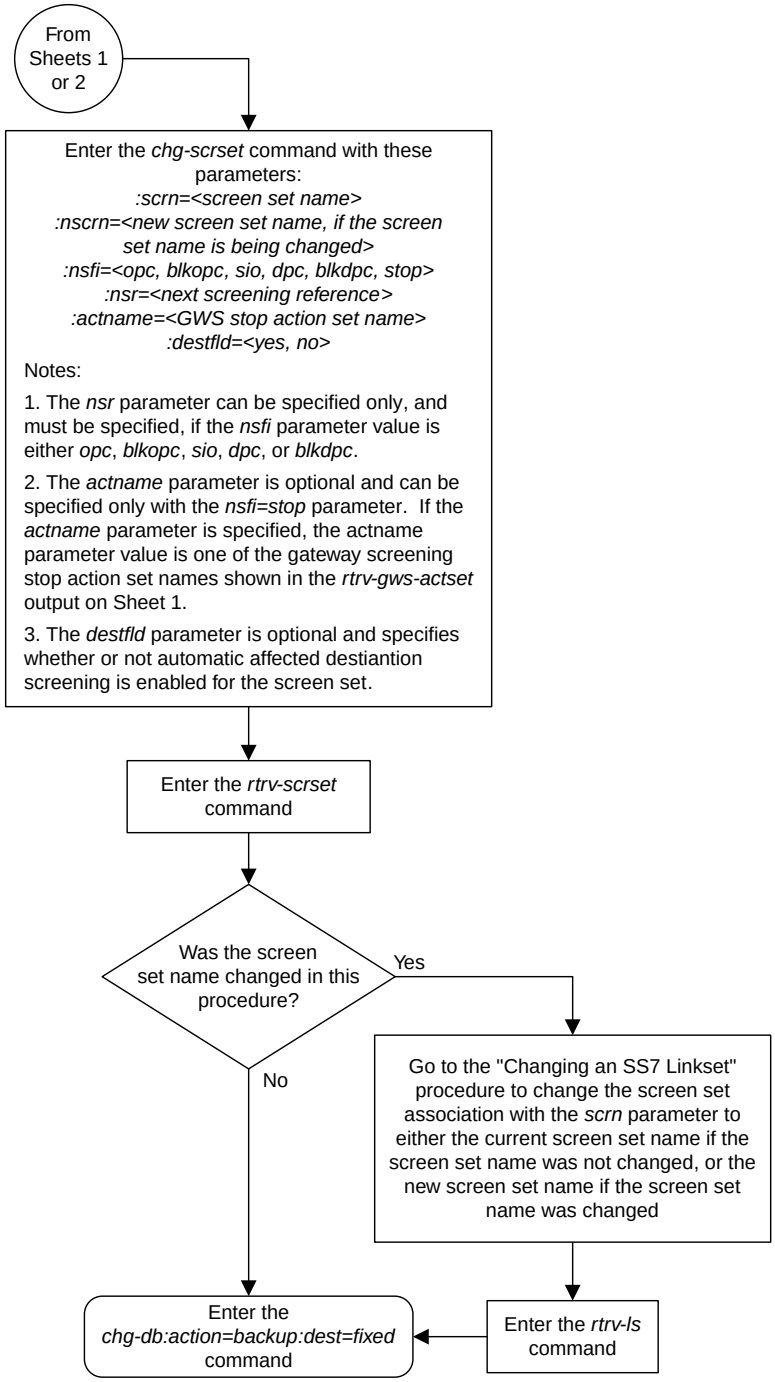
```
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the *rtrv-scrset* command
Enter the *rtrv-ls* command
Do any linkset reference this screen?
Yes
Go the the "Changing an SS7 Linkset" procedure to remove the screen set association with the *:scrn=none* parameter
No
Will screening stop with this screen set?
Yes
Is a gateway screening stop action set to be assigned to the screen set?
No
No
Yes
To Sheet 2
Enter the *rtrv-gws-actset* command
Is the required gateway screening stop action set in the database?
Yes
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure to configure the required gateway screening stop action set in the database
To Sheet 3

Sheet 1 of 3


From Sheet 1
Are the *nsfi* or *nsr* values being changed?
No
Yes
The screen referenced by the new *nsfi*/*nsr* parameter combination of the screen set being changed in this procedure must be in the database.
Enter one of these commands based on the new *nsfi* parameter value of the screen set being changed.
If *nsfi=opc*, enter *rtrv-scr-opc:all=yes*
If *nsfi=blkopc*, enter *rtrv-scr-blkopc:all=yes*
If *nsfi=sio*, enter *rtrv-scr-sio:all=yes*
If *nsfi=dpc*, enter *rtrv-scr-dpc:all=yes*
If *nsfi=blkdpc*, enter *rtrv-scr-blkdpc:all=yes*
Is the required screen in the database?
Yes
No
Perform one of these procedures, corresponding to the *nsfi* parameter value of the screen set being changed in this procedure and change the required screen.
If *nsfi=opc*, perform the "Changing an Allowed OPC Screen" procedure
If *nsfi=blkopc*, perform the "Changing a Blocked OPC Screen" procedure
If *nsfi=sio*, perform the "Changing an Allowed SIO Screen" procedure
If *nsfi=dpc*, perform the "Changing an Allowed DPC Screen" procedure
If *nsfi=blkdpc*, perform the "Changing a Blocked DPC Screen" procedure
Is the required screen to be added to the database?
No
Yes
Perform one of these procedures corresponding to the *nsfi* parameter value of the screen set being changed in this procedure and add the required screen.
If *nsfi=opc*, perform the "Adding an Allowed OPC Screen" procedure
If *nsfi=blkopc*, perform the "Adding a Blocked OPC Screen" procedure
If *nsfi=sio*, perform the "Adding an Allowed SIO Screen" procedure
If *nsfi=dpc*, perform the "Adding an Allowed DPC Screen" procedure
If *nsfi=blkdpc*, perform the "Adding a Blocked DPC Screen" procedure
To Sheet 3

Sheet 2 of 3


From Sheets 1 or 2
Enter the *chg-scrset* command with these parameters:
*:scrn=<screen set name>*
*:nscrn=<new screen set name, if the screen set name is being changed>*
*:nsfi=<opc, blkopc, sio, dpc, blkdpc, stop>*
*:nsr=<next screening reference>*
*:actname=<GWS stop action set name>*
*:destfld=<yes, no>*
Notes:
1. The *nsr* parameter can be specified only, and must be specified, if the *nsfi* parameter value is either *opc*, *blkopc*, *sio*, *dpc*, or *blkdpc*.
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 1.
3. The *destfld* parameter is optional and specifies whether or not automatic affected destiantion screening is enabled for the screen set.
Enter the *rtrv-scrset* command
Was the screen set name changed in this procedure?
Yes
No
Go to the "Changing an SS7 Linkset" procedure to change the screen set association with the *scrn* parameter to either the current screen set name if the screen set name was not changed, or the new screen set name if the screen set name was changed
Enter the *rtrv-ls* command
Enter the *chg-db:action=backup:dest=fixed* command

Sheet 3 of 3

**Figure 72: Changing a Screen Set**

# Chapter 14

# Calling Name Conversion Facility (CNCF) Configuration

**Topics:**


- *Introduction.....470*
- *Configuring the EAGLE 5 ISS for the CNCF Feature.....472*


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 `chg-feat` command and the `cncf=on` parameter. The `rtrv-feat` command can be used to verify if this feature is on or not. This feature applies to only ANSI networks.

*Figure 73: PIP/GN Parameter Conversion* shows an example network which contains these two separate ISUP versions. Based on this example, *Table 81: ISUP IAM Message Conversion Examples* shows when the ISUP IAM message conversion by the CNCF feature occurs.

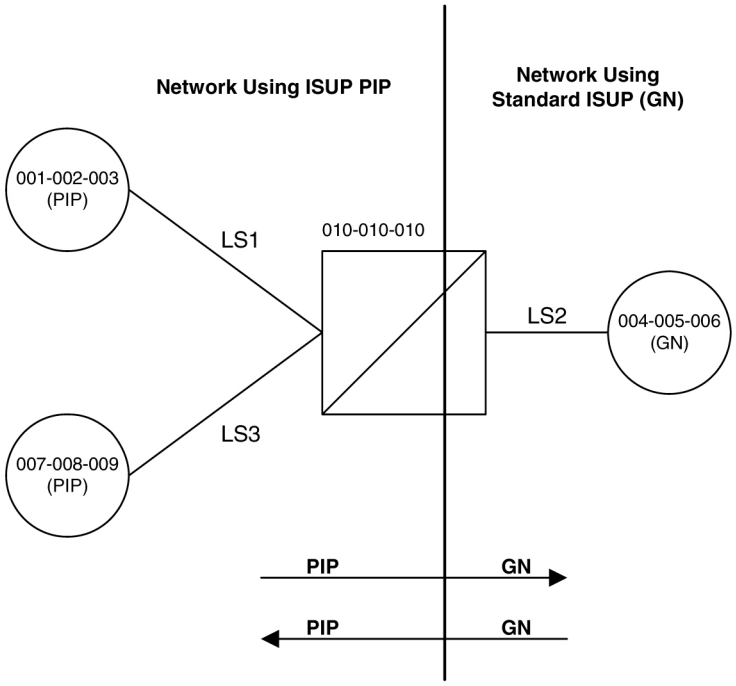



**Figure 73: PIP/GN Parameter Conversion**

**Table 81: 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 73: PIP/GN Parameter Conversion*, 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 `COPY` 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 copied for the STPLAN 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 doesn't 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 5 ISS for the CNCF Feature

To configure the EAGLE 5 ISS 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 74: CNCF Gateway Screening Configuration - Example 1*
- *Figure 75: CNCF Gateway Screening Configuration - Example 2*
- *Figure 76: CNCF Gateway Screening Configuration - Example 3*
- *Figure 77: CNCF Gateway Screening Configuration - Example 4*
- *Table 81: ISUP IAM Message Conversion Examples*
- *Table 82: Example Gateway Screening Allowed DPC Configuration Table for the CNCF Feature*
- *Table 83: Example Gateway Screening Allowed SIO Configuration Table for the CNCF Feature*
- *Table 84: Example Gateway Screening Allowed OPC Configuration Table for the CNCF Feature*
- *Table 85: Example Gateway Screening Screen Set Configuration Table for the CNCF Feature*
- *Table 86: Linkset Configuration Table for the CNCF Feature*

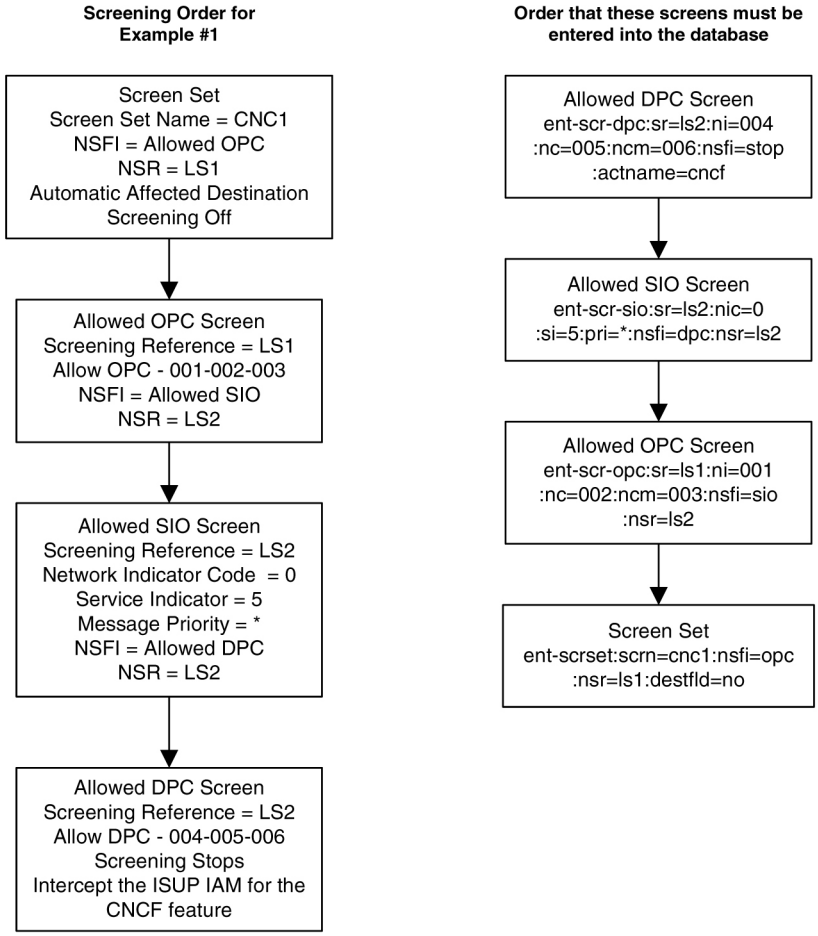



**Figure 74: CNCF Gateway Screening Configuration - Example 1**

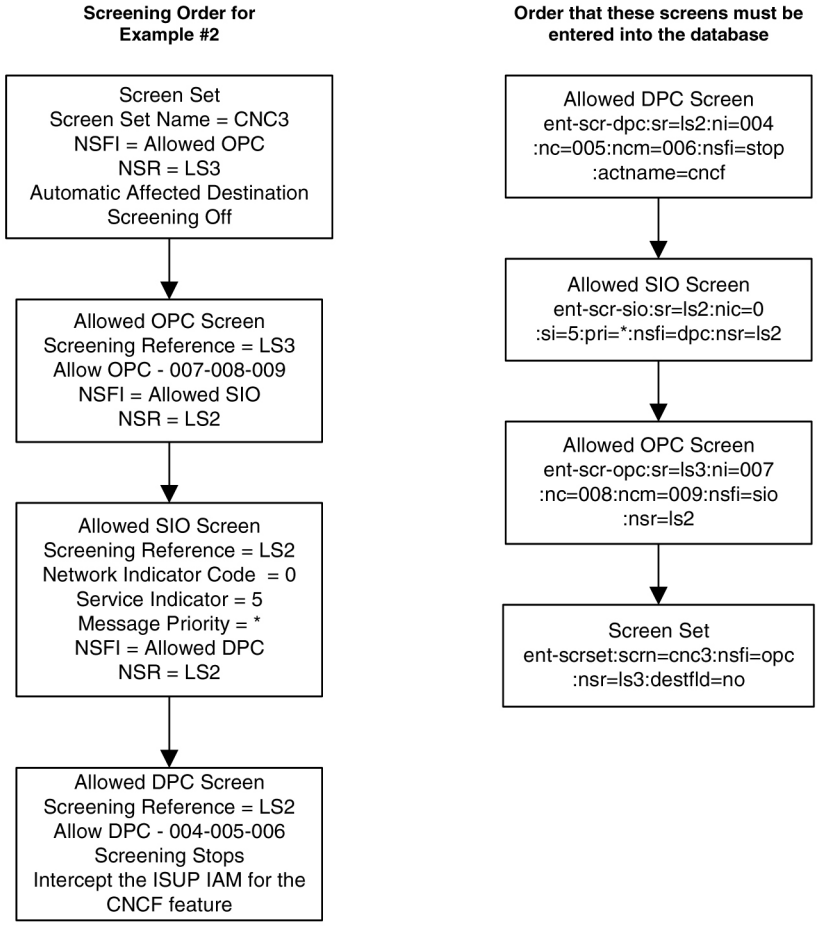



**Figure 75: CNCF Gateway Screening Configuration - Example 2**

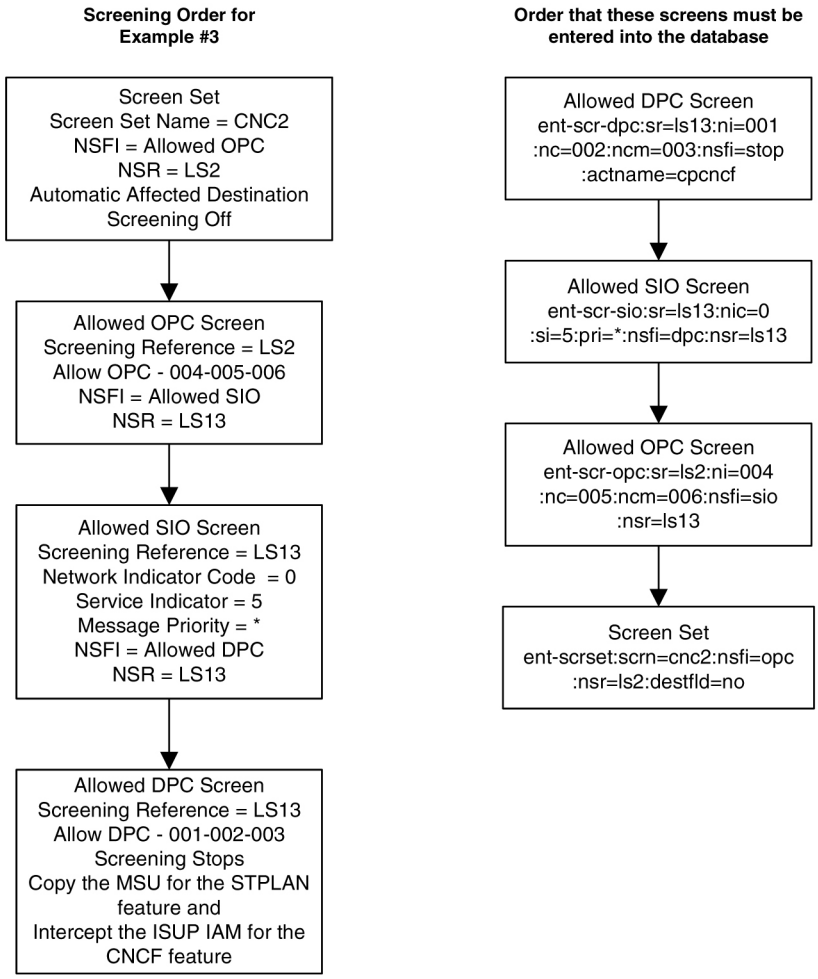



**Figure 76: CNCF Gateway Screening Configuration - Example 3**

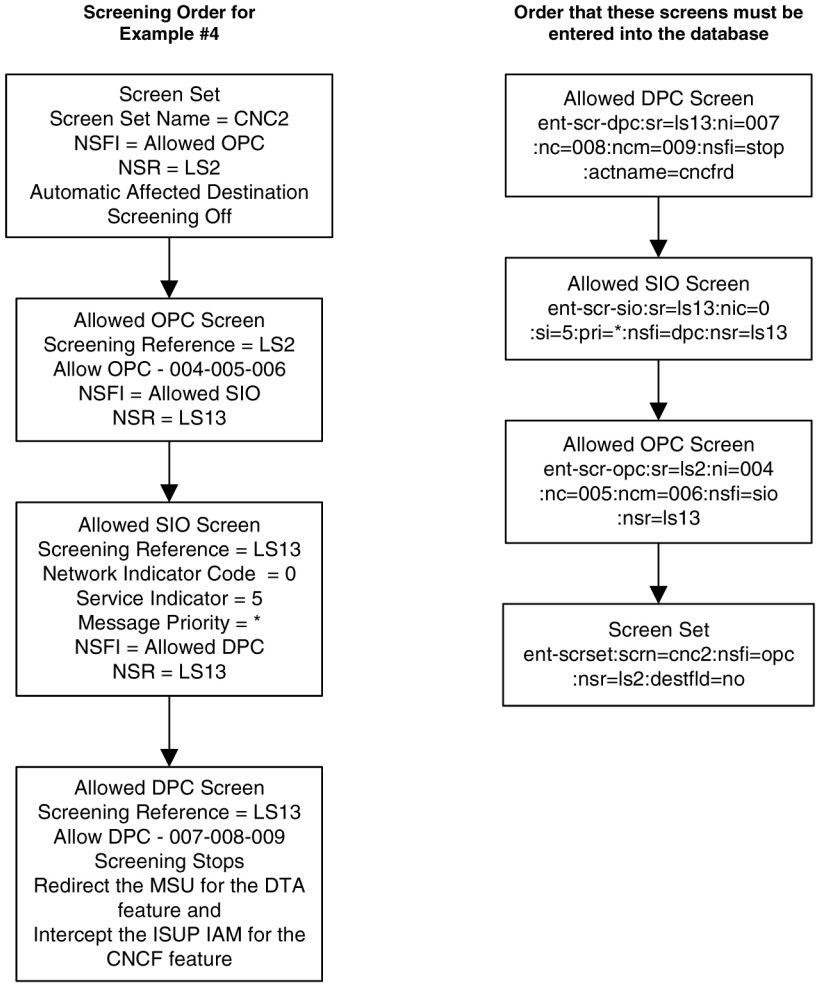



**Figure 77: CNCF Gateway Screening Configuration - Example 4**

### 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 the *Commands Manual*.

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.

   **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, see the `rtrv-feat` command description in the *Commands Manual*.

   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.

   `chg-feat:gws=on`

   **Note:** 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`

   **Note:** Once the calling name conversion facility 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 15:27:30 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  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    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 `cncf` gateway screening stop action is not shown in the `rtrv-gws-actset` command output, perform the *Configuring Gateway Screening Stop Action Sets* procedure to create a new gateway screening stop action set containing the `cncf` gateway screening stop action, or change an existing gateway screening stop action set to contain the `cncf` 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    NI       NC       NCM      NSFI    NSR/ACT
IEC   240      001      010      STOP    ------
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 82: Example Gateway Screening Allowed DPC Configuration Table for the CNCF Feature*.

**Table 82: 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 | 008 | 009 | Stop | CNCFRD |

| Screening Reference | NI | NC | NCM | NSFI | ACTNAME* |
|---|---|---|---|---|---|
| * 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 82: Example Gateway Screening Allowed DPC Configuration Table for the CNCF Feature*.

7. 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
SR    NIC  PRI  SI  H0     H1     NSFI    NSR/ACT
IEC   2    0&&3 0   0      0      BLKDPC  WDB2
IEC   2    0&&2 0   1      1      DPC     WDB3
IEC   2    0&&1 0   2      2      STOP    ------
IEC   2    0&&3 4   --     --     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 83: Example Gateway Screening Allowed SIO Configuration Table for the CNCF Feature*.

**Table 83: Example Gateway Screening Allowed SIO Configuration Table for the CNCF Feature**

| Screening Reference | NIC | SI | H0 | 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 83: Example Gateway Screening Allowed SIO Configuration Table for the CNCF Feature*.

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.

```
rlghncxa03w 06-10-25 15:34:30 GMT  EAGLE5 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     00235                    CGPA    cg04
IEC     00240                    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 84: Example Gateway Screening Allowed OPC Configuration Table for the CNCF Feature*.

**Table 84: 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 | 008 | 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 84: Example Gateway Screening Allowed OPC Configuration Table for the CNCF Feature*.

**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 FOLLOWING ARE OVER 80% FULL:
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 85: Example Gateway Screening Screen Set Configuration Table for the CNCF Feature*.

**Table 85: Example Gateway Screening Screen Set Configuration Table for the CNCF Feature**

| Screen Set Name | Next Screening Function Identifier | Next Screening Reference | DESTFLD |
|---|---|---|---|
| cnc1 | opc | ls1 | No |
| cnc2 | opc | ls2 | No |
| cnc3 | opc | 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 85: Example Gateway Screening Screen Set Configuration Table for the CNCF Feature*.

**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

                                L3T SLT              GWS GWS GWS
LSN          APCA   (SS7)  SCRN  SET SET BEI LST LNKS ACT MES DIS SLSCI NIS
lsa1         240-020-000   scr1  1    1  yes A   1    off off off no    off
lsa2         240-030-000   scr2  1    2  no  C   3    on  on  on  yes   off
lsa3         240-040-000   scr3  1    3  yes C   5    off off off yes   off

                                L3T SLT              GWS GWS GWS
```

```
LSN          APCI    (SS7)  SCRN  SET SET BEI LST LNKS ACT MES DIS SLSCI NIS
lsi1         1-111-1        scr1  1   1   yes A   1    off off off ---   ---
lsi2         1-111-2        scr2  1   2   no  C   3    on  on  on  ---   ---
lsi3         1-111-3        scr3  1   3   yes C   5    off off off ---   ---

                                L3T SLT              GWS GWS GWS
LSN          APCN    (SS7)  SCRN  SET SET BEI LST LNKS ACT MES DIS SLSCI NIS
lsn1         11111          scr1  1   1   yes A   1    off off off ---   off
lsn2         11112          scr2  1   2   no  C   3    on  on  on  ---   off
lsn3         11113          scr3  1   3   yes C   5    off 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 the *Database Administration Manual – SS7* to add the required linkset.

    For this example, enter the linkset information in *Table 86: Linkset Configuration Table for the CNCF Feature*.

    **Table 86: Linkset Configuration Table for the CNCF Feature**

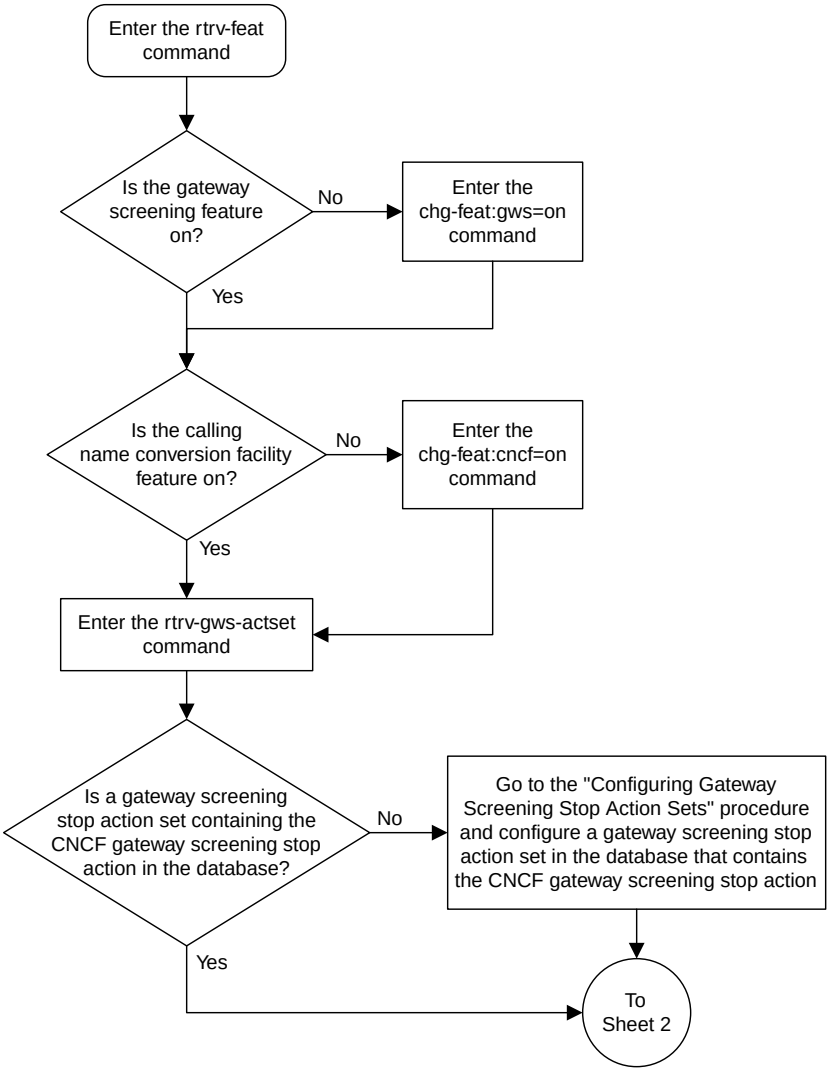
| Linkset Name | Linkset APC | # LINKS | LST | GWSA | GWSM | SCRN |
|---|---|---|---|---|---|---|
| ls1 | 001-002-003 | 2 | B | on | off | cnc1 |
| ls2 | 004-005-006 | 2 | B | on | off | cnc2 |
| ls3 | 007-008-009 | 2 | B | on | off | cnc3 |

    If you wish to change an existing linkset, instead of adding a new linkset, perform the Changing an SS7 Linkset procedure in the *Database Administration Manual – SS7* to change an existing linkset. For this example, change the linksets with the information in *Table 86: Linkset Configuration Table for the CNCF Feature*.

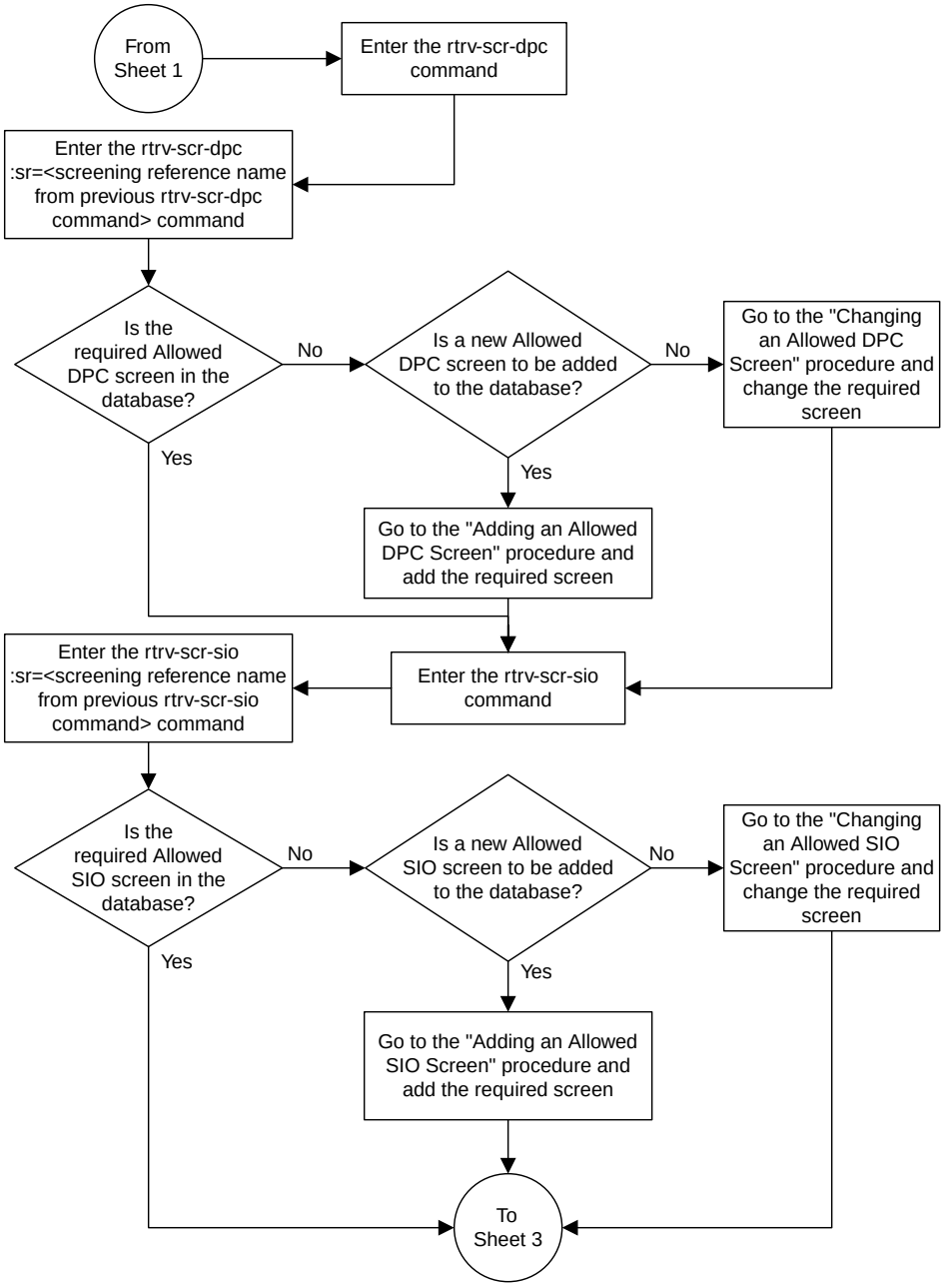
15. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

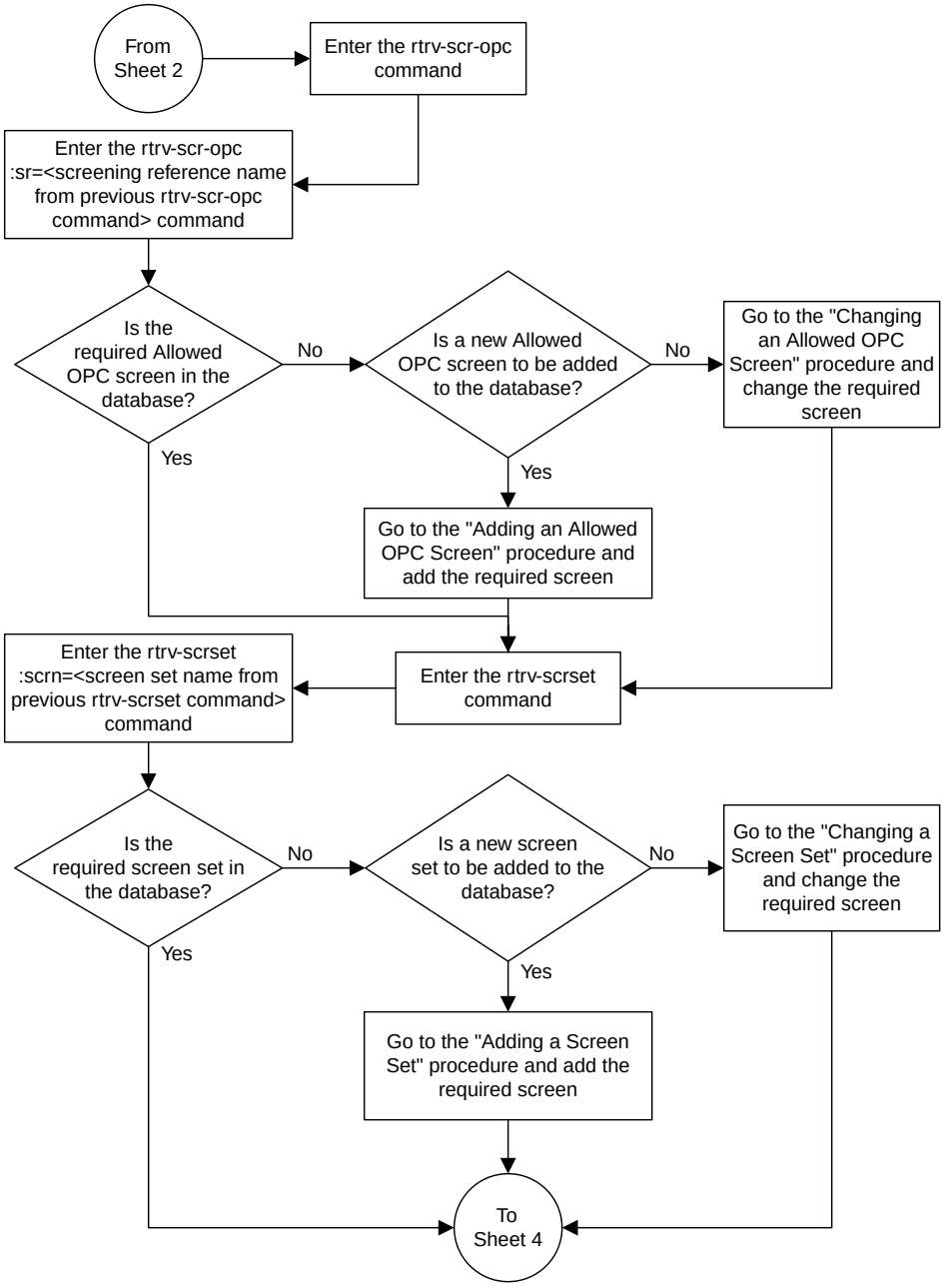
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the rtrv-feat command
Is the gateway screening feature on?
No
Enter the chg-feat:gws=on command
Yes
Is the calling name conversion facility feature on?
No
Enter the chg-feat:cncf=on command
Yes
Enter the rtrv-gws-actset command
Is a gateway screening stop action set containing the CNCF gateway screening stop action in the database?
No
Go to the "Configuring Gateway Screening Stop Action Sets" procedure and configure a gateway screening stop action set in the database that contains the CNCF gateway screening stop action
Yes
To Sheet 2

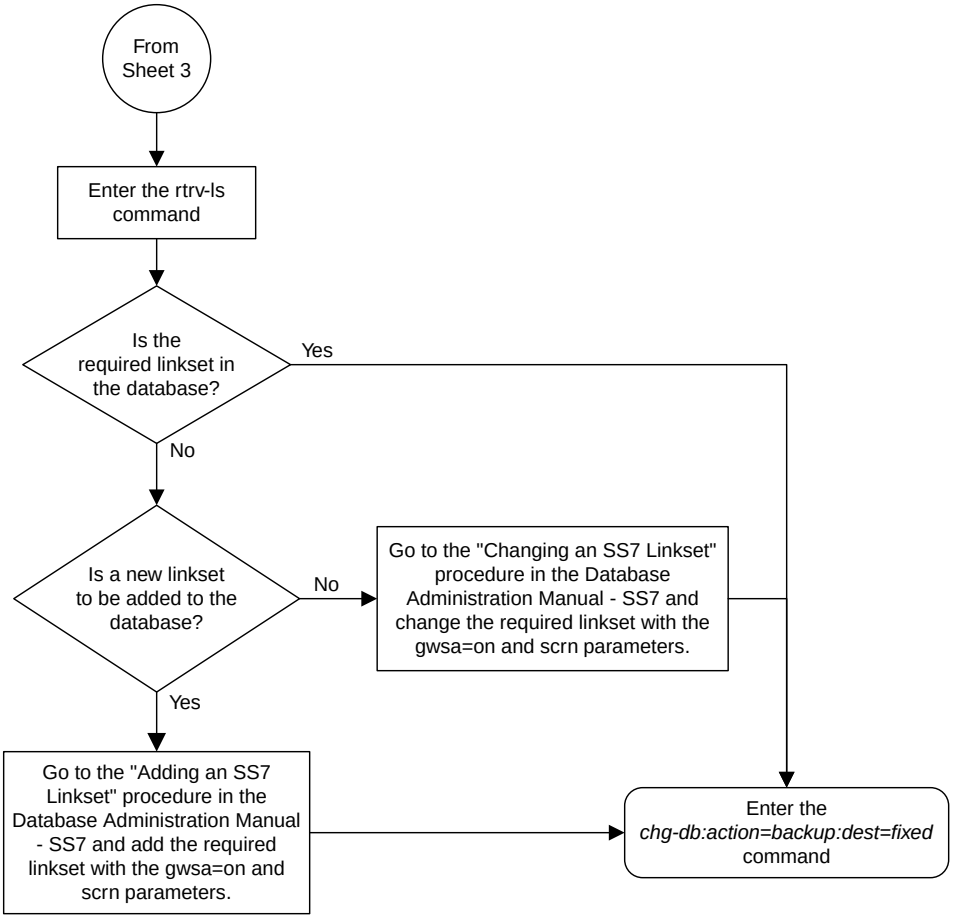
Sheet 1 of 4


From Sheet 1
Enter the rtrv-scr-dpc command
Enter the rtrv-scr-dpc :sr=<screening reference name from previous rtrv-scr-dpc command> command
Is the required Allowed DPC screen in the database?
No
Is a new Allowed DPC screen to be added to the database?
No
Go to the "Changing an Allowed DPC Screen" procedure and change the required screen
Yes
Yes
Go to the "Adding an Allowed DPC Screen" procedure and add the required screen
Enter the rtrv-scr-sio :sr=<screening reference name from previous rtrv-scr-sio command> command
Enter the rtrv-scr-sio command
Is the required Allowed SIO screen in the database?
No
Is a new Allowed SIO screen to be added to the database?
No
Go to the "Changing an Allowed SIO Screen" procedure and change the required screen
Yes
Yes
Go to the "Adding an Allowed SIO Screen" procedure and add the required screen
To Sheet 3

Sheet 2 of 4


From Sheet 2
Enter the rtrv-scr-opc command
Enter the rtrv-scr-opc :sr=<screening reference name from previous rtrv-scr-opc command> command
Is the required Allowed OPC screen in the database?
No
Is a new Allowed OPC screen to be added to the database?
No
Go to the "Changing an Allowed OPC Screen" procedure and change the required screen
Yes
Yes
Go to the "Adding an Allowed OPC Screen" procedure and add the required screen
Enter the rtrv-scrset :scrn=<screen set name from previous rtrv-scrset command> command
Enter the rtrv-scrset command
Is the required screen set in the database?
No
Is a new screen set to be added to the database?
No
Go to the "Changing a Screen Set" procedure and change the required screen
Yes
Yes
Go to the "Adding a Screen Set" procedure and add the required screen
To Sheet 4

Sheet 3 of 4


From Sheet 3
Enter the rtrv-ls command
Is the required linkset in the database?
Yes
No
Is a new linkset to be added to the database?
No
Go to the "Changing an SS7 Linkset" procedure in the Database Administration Manual - SS7 and change the required linkset with the gwsa=on and scrn parameters.
Yes
Go to the "Adding an SS7 Linkset" procedure in the Database Administration Manual - SS7 and add the required linkset with the gwsa=on and scrn parameters.
Enter the chg-db:action=backup:dest=fixed command

Sheet 4 of 4

**Figure 78: Calling Name Conversion Facility Configuration**

# Chapter 15

# Allowed ISUP Message Type Screen Configuration

**Topics:**


- *Introduction.....489*
- *Adding an Allowed ISUP Message Type Screen.....494*
- *Removing an Allowed ISUP Message Type Screen.....502*
- *Changing an Allowed ISUP Message Type Screen.....506*


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 5 ISS. The gray shaded areas in *Figure 80: Allowed ISUP Message Type Screening Function* 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 `copy` gateway screening stop action is specified, the message is processed and a copy of the message is sent by the STPLAN feature to an external application.
- 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.

## 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.

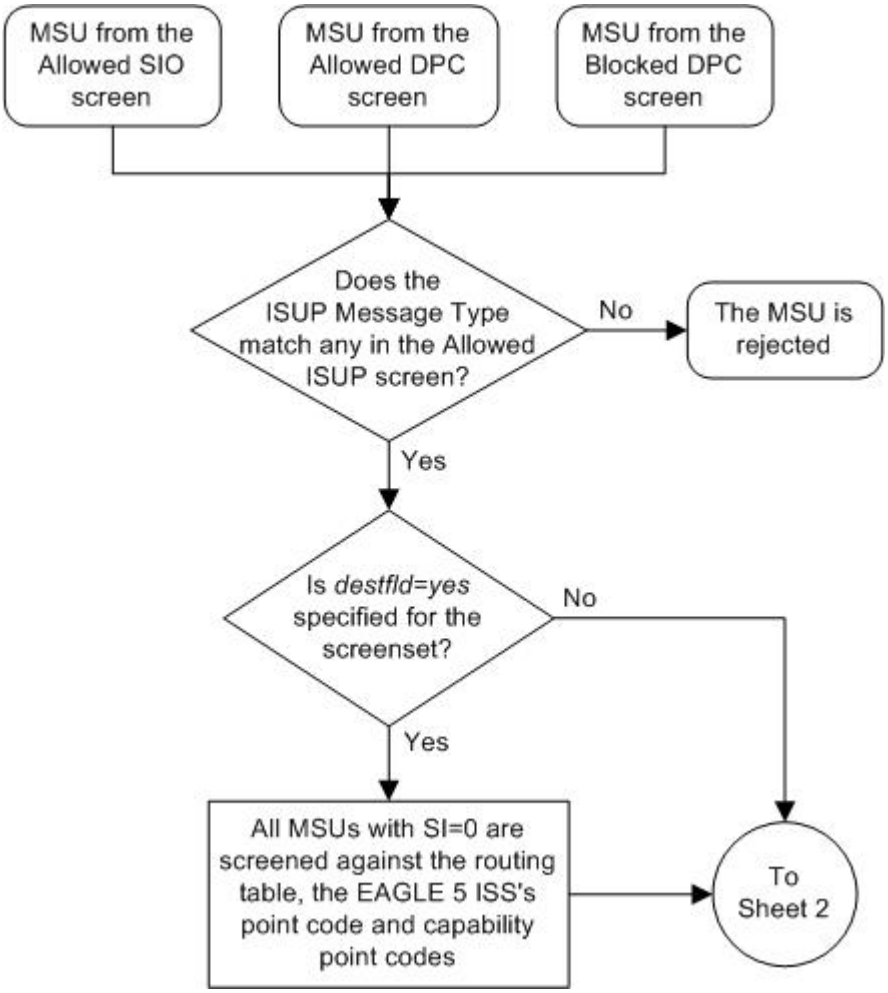
```
ent-scr-isup:sr=is01:isupmt=10:nsfi=stop

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 `si02` for either ISUP or TUP messages. ISUP messages are further screened by the allowed DPC screen `dpc5` and TUP messages are screened by the allowed DPC screen `dpc4`. The ISUP messages containing the ANSI point code 001-002-003 are passed onto the allowed ISUP screen `is01`. The TUP messages containing the ANSI point code 007-001-000 are passed onto the allowed ISUP screen `tu01`.

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

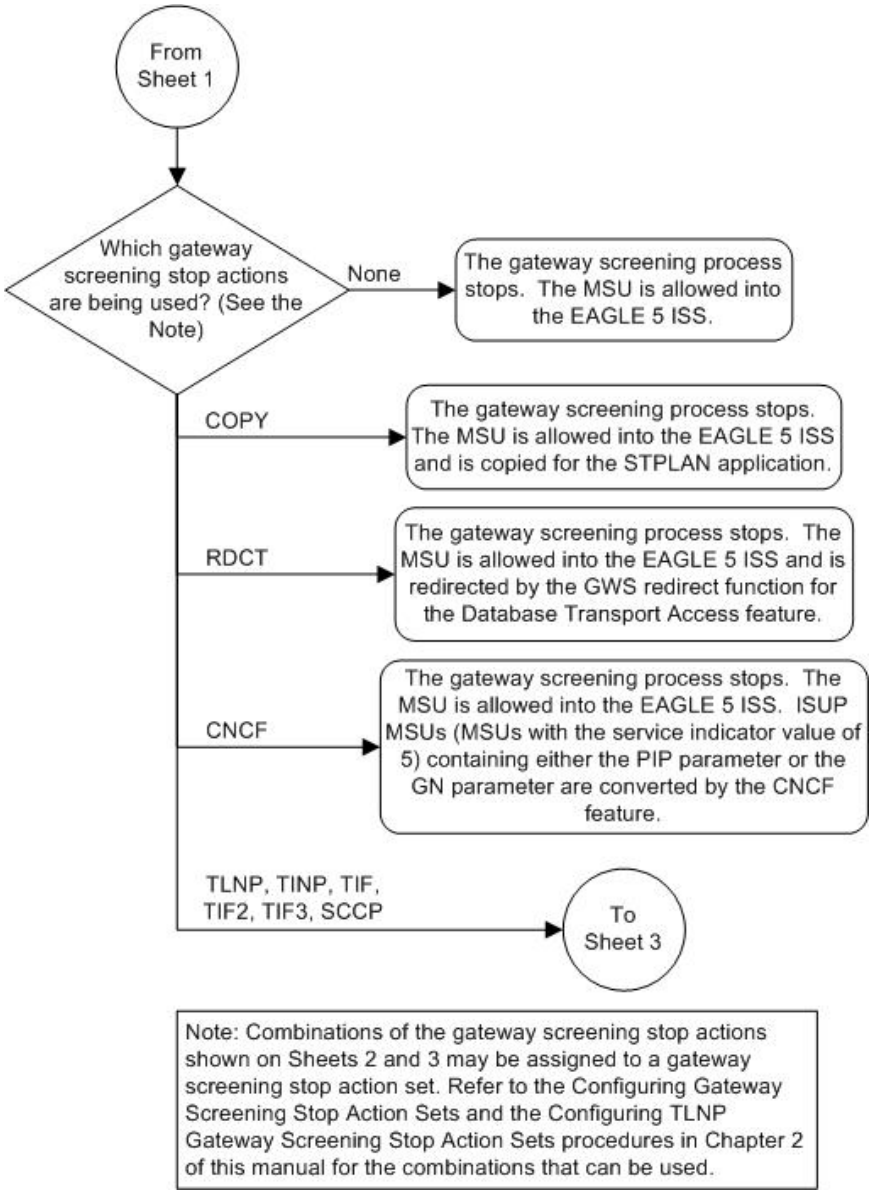
## Allowed ISUP Message Type Screening Actions

*Figure 79: Allowed ISUP Message Type Screening Actions* shows the screening actions of the allowed ISUP message type screen.

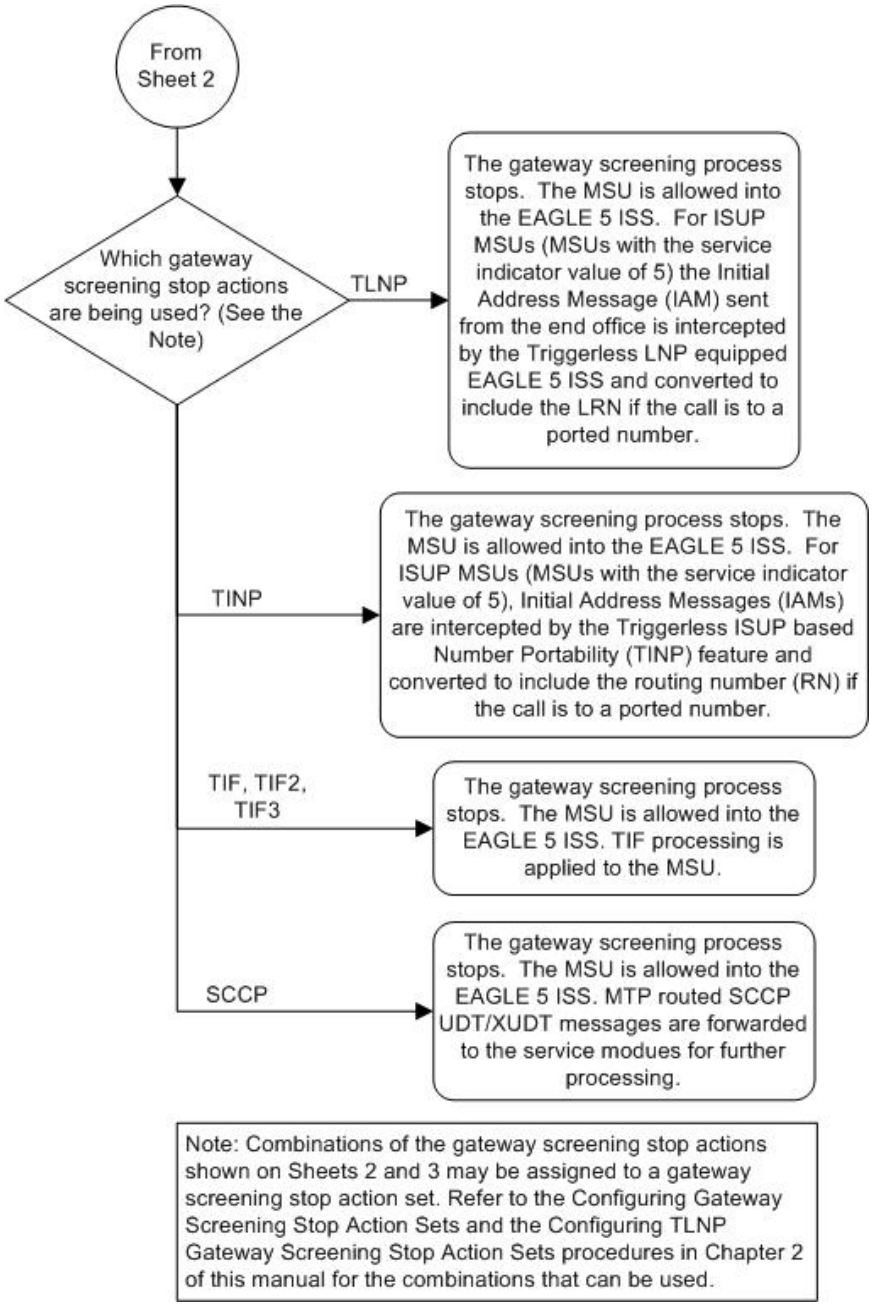



Sheet 1 of 3

**Figure 79: Allowed ISUP Message Type Screening Actions**


From Sheet 1
Which gateway screening stop actions are being used? (See the Note)
None
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS.
COPY
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS and is copied for the STPLAN application.
RDCT
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS and is redirected by the GWS redirect function for the Database Transport Access feature.
CNCF
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. ISUP MSUs (MSUs with the service indicator value of 5) containing either the PIP parameter or the GN parameter are converted by the CNCF feature.
TLNP, TINP, TIF, TIF2, TIF3, SCCP
To Sheet 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.

Sheet 2 of 3


From Sheet 2
Which gateway screening stop actions are being used? (See the Note)
TLNP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. For ISUP MSUs (MSUs with the service indicator value of 5) the Initial Address Message (IAM) sent from the end office is intercepted by the Triggerless LNP equipped EAGLE 5 ISS and converted to include the LRN if the call is to a ported number.
TINP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. For ISUP MSUs (MSUs with the service indicator value of 5), Initial Address Messages (IAMs) 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.
TIF, TIF2, TIF3
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. TIF processing is applied to the MSU.
SCCP
The gateway screening process stops. The MSU is allowed into the EAGLE 5 ISS. MTP routed SCCP UDT/XUDT messages are forwarded to the service modues for further processing.
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.

Sheet 3 of 3

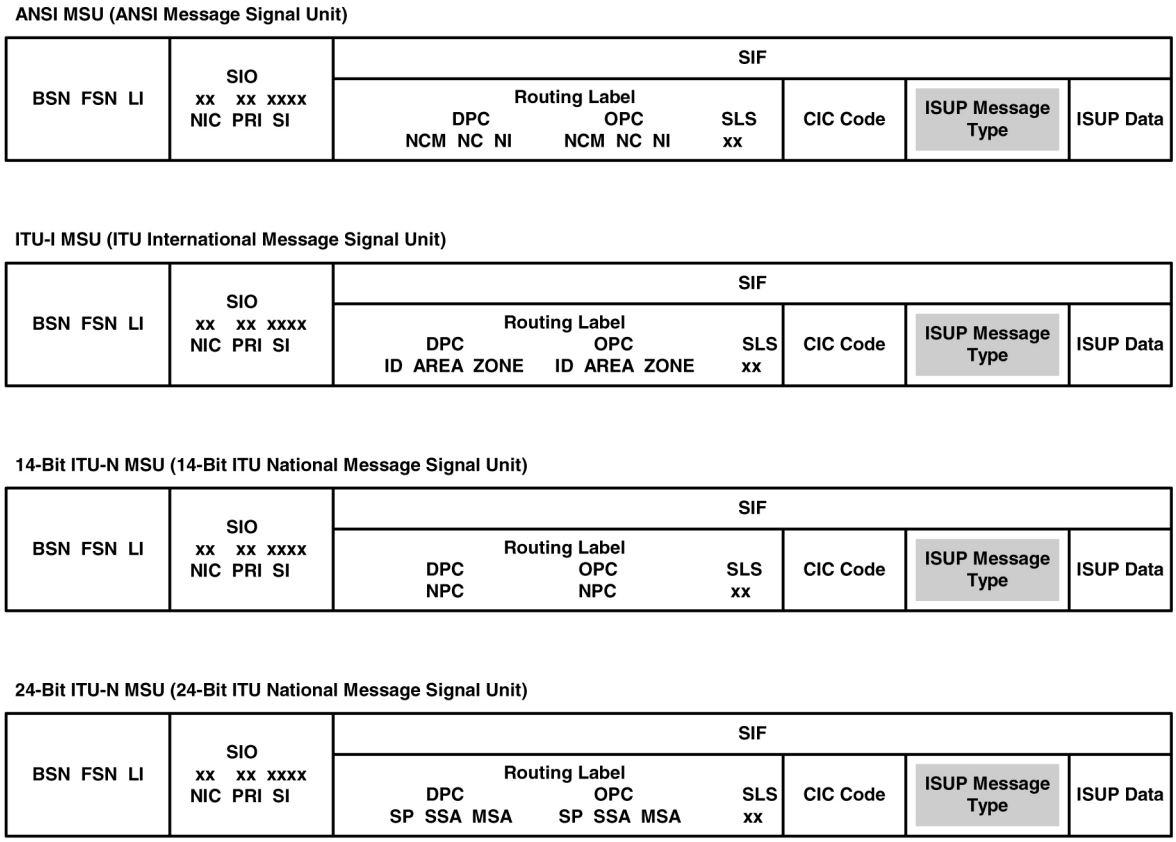



**Figure 80: Allowed ISUP Message Type Screening Function**

## 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 `ent-scr-isup` command. The parameters used by the `ent-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 `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 5 ISS 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 87: Example Gateway Screening Allowed ISUP Configuration Table* and based on the example configuration

shown in *Figure 9: Gateway Screening Configuration - Example 6* and *Figure 10: Gateway Screening Configuration - Example 7*.

**Table 87: Example Gateway Screening Allowed 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`.

   **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, see the `rtrv-feat` command description in the *Commands Manual*.

   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 `chg-feat` command. If you are not sure if you have purchased the gateway screening feature, contact your Tekelec 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  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    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.

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 `ent-scr-isup` 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 4. The `isupmt` or `tupmt` parameters can have these values: 0 - 255, or an asterisk (*). A range of ISUP or TUP message types can be specified with the `ent-scr-isup` 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 `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`

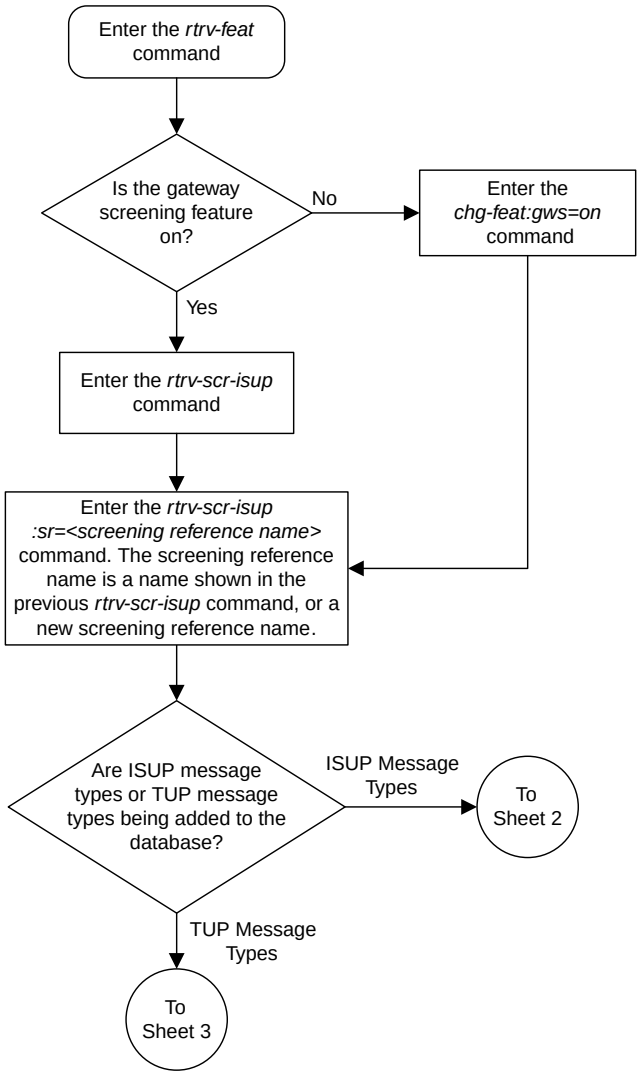
The following is an example of the possible output.

```
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
```

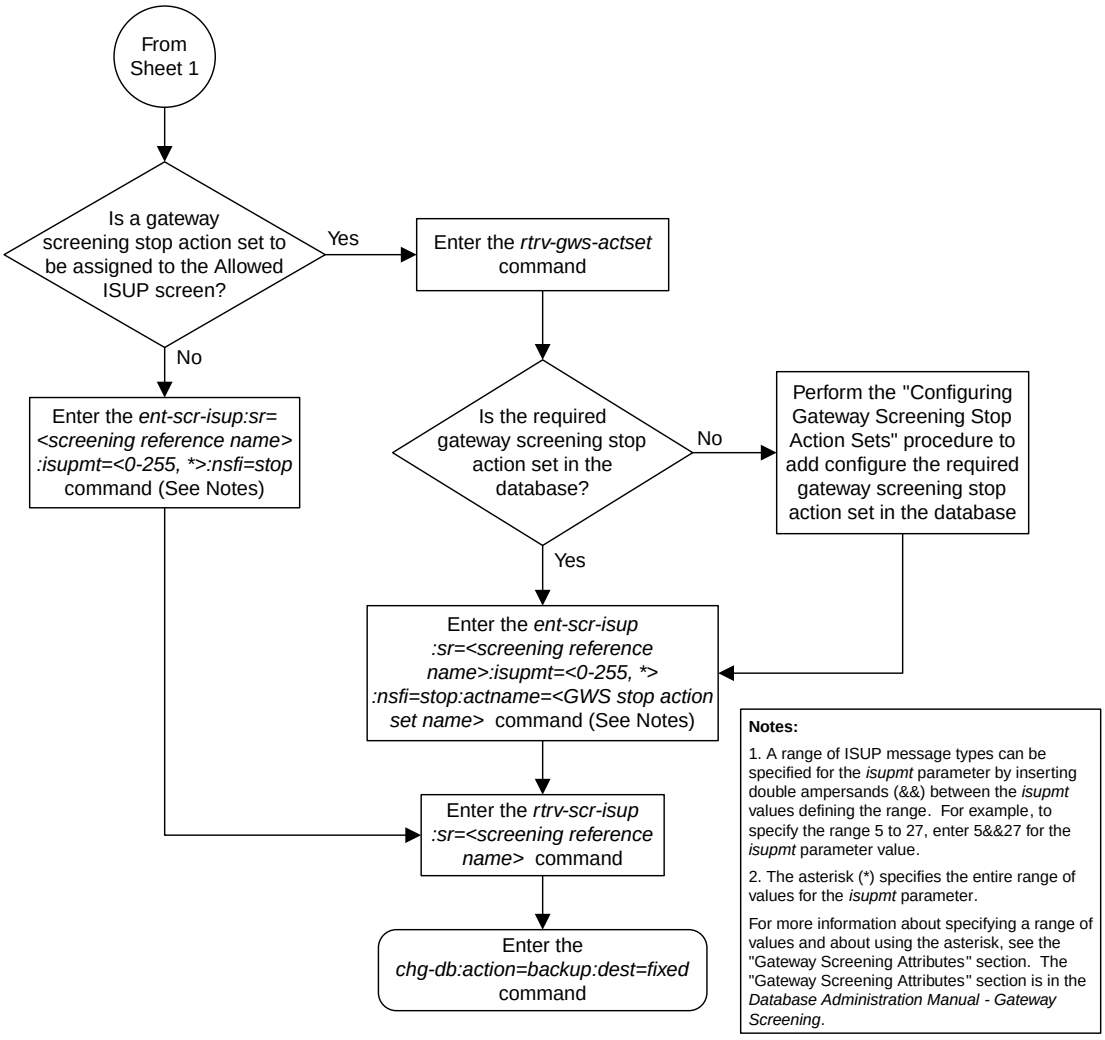
7. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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

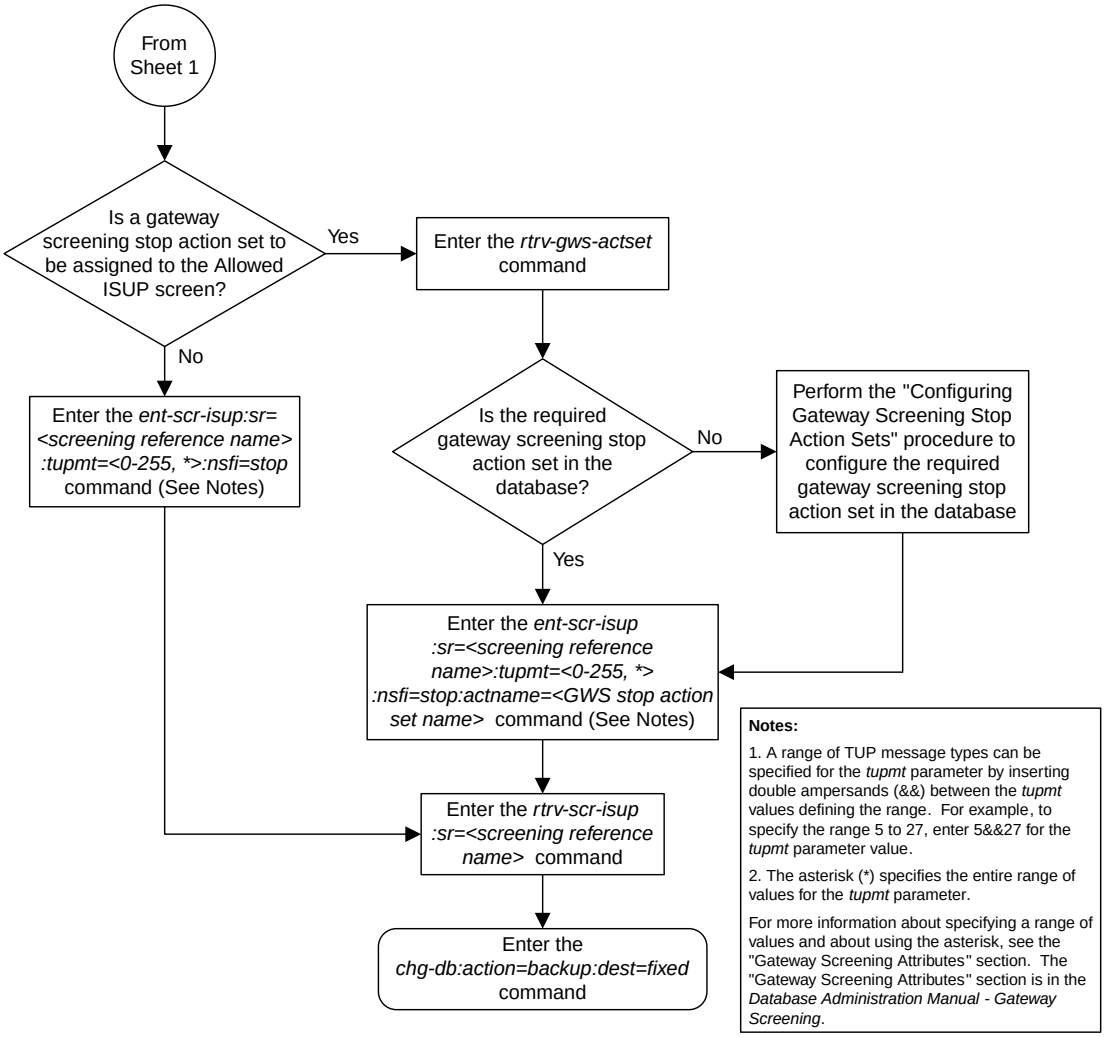
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```


Enter the *rtrv-feat* command
Is the gateway screening feature on?
No
Enter the *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 Types
To Sheet 2
TUP Message Types
To Sheet 3

Sheet 1 of 3


From Sheet 1
Is a gateway screening stop action set to be assigned to the Allowed ISUP screen?
Yes
No
Enter the *rtrv-gws-actset* command
Is the required gateway screening stop action set in the database?
No
Yes
Perform the "Configuring Gateway Screening Stop Action Sets" procedure to add configure the required gateway screening stop action set in the database
Enter the *ent-scr-isup:sr=<screening reference name>:isupmt=<0-255, *>:nsfi=stop* command (See Notes)
Enter the *ent-scr-isup :sr=<screening reference name>:isupmt=<0-255, *> :nsfi=stop:actname=<GWS stop action set name>* command (See Notes)
Enter the *rtrv-scr-isup :sr=<screening reference name>* command
Enter the *chg-db:action=backup:dest=fixed* command
**Notes:**
1. A range of ISUP message types can be specified for the *isupmt* parameter by inserting double ampersands (&&) between the *isupmt* values defining the range. For example, to specify the range 5 to 27, enter 5&&27 for the *isupmt* parameter value.
2. The asterisk (*) specifies the entire range of values for the *isupmt* parameter.
For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section. The "Gateway Screening Attributes" section is in the *Database Administration Manual - Gateway Screening*.

Sheet 2 of 3


From Sheet 1
Is a gateway screening stop action set to be assigned to the Allowed ISUP screen?
Yes
No
Enter the rtrv-gws-actset command
Enter the ent-scr-isup:sr=<screening reference name>:tupmt=<0-255, *>:nsfi=stop command (See Notes)
Is the required gateway screening stop action set in the database?
No
Yes
Perform the "Configuring Gateway Screening Stop Action Sets" procedure to configure the required gateway screening stop action set in the database
Enter the ent-scr-isup :sr=<screening reference name>:tupmt=<0-255, *> :nsfi=stop:actname=<GWS stop action set name> command (See Notes)
Enter the rtrv-scr-isup :sr=<screening reference name> command
Enter the chg-db:action=backup:dest=fixed command
Notes:
1. A range of TUP message types can be specified for the tupmt 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 tupmt parameter value.
2. The asterisk (*) specifies the entire range of values for the tupmt parameter.
For more information about specifying a range of values and about using the asterisk, see the "Gateway Screening Attributes" section. The "Gateway Screening Attributes" section is in the Database Administration Manual - Gateway Screening.

Sheet 3 of 3

**Figure 81: Adding an Allowed ISUP Message Type Screen**

## 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=isup`
- `rtrv-scr-dpc:nsfi=isup`
- `rtrv-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
SR    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 `isupmt` parameter must be entered exactly as shown in the `rtrv-scr-isup` 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.
```

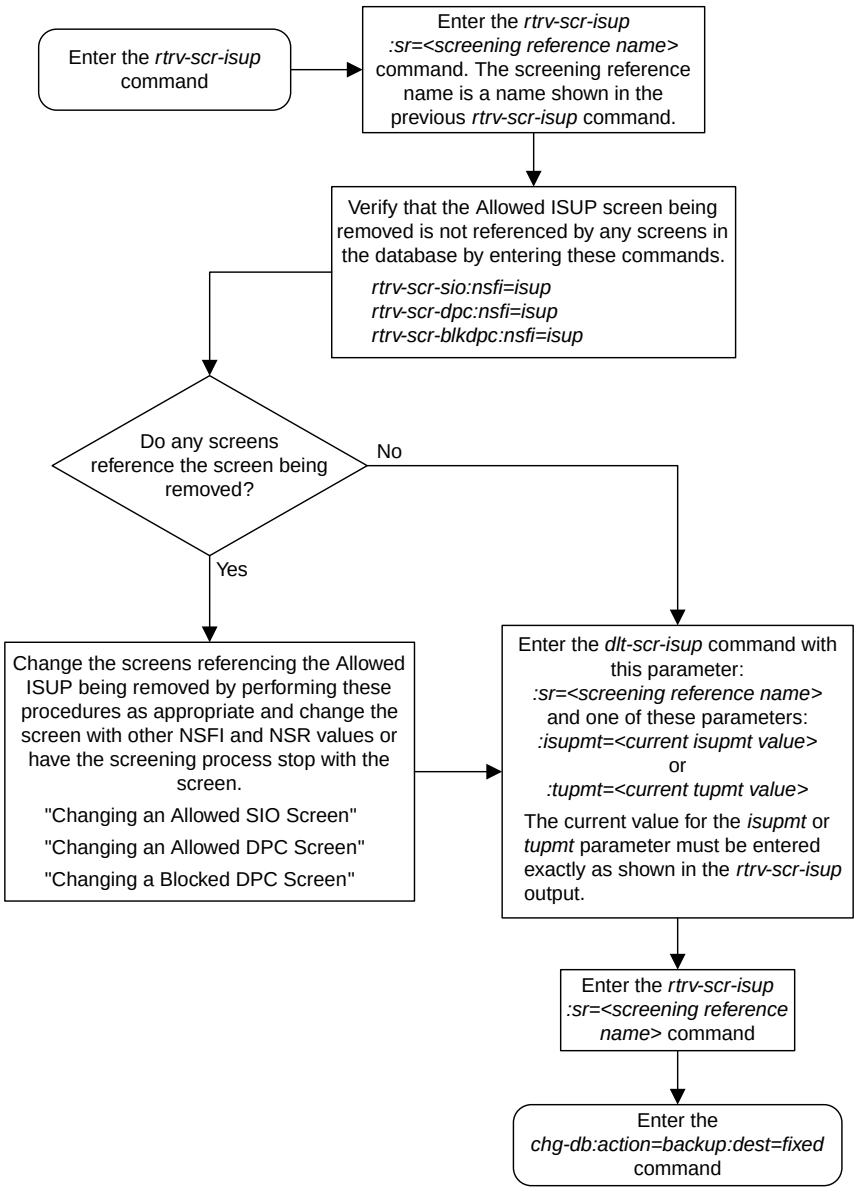



**Figure 82: Removing an Allowed ISUP Message Type Screen**

## 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 `chg-scr-isup` command. The parameters used by the `chg-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.

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
SR    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.

```
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 089       STOP    ------
isp1 135       STOP    cr
```

   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.

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  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    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. 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 `chg-scr-isup` 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 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 `chg-scr-isup` 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 `scr1` 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`

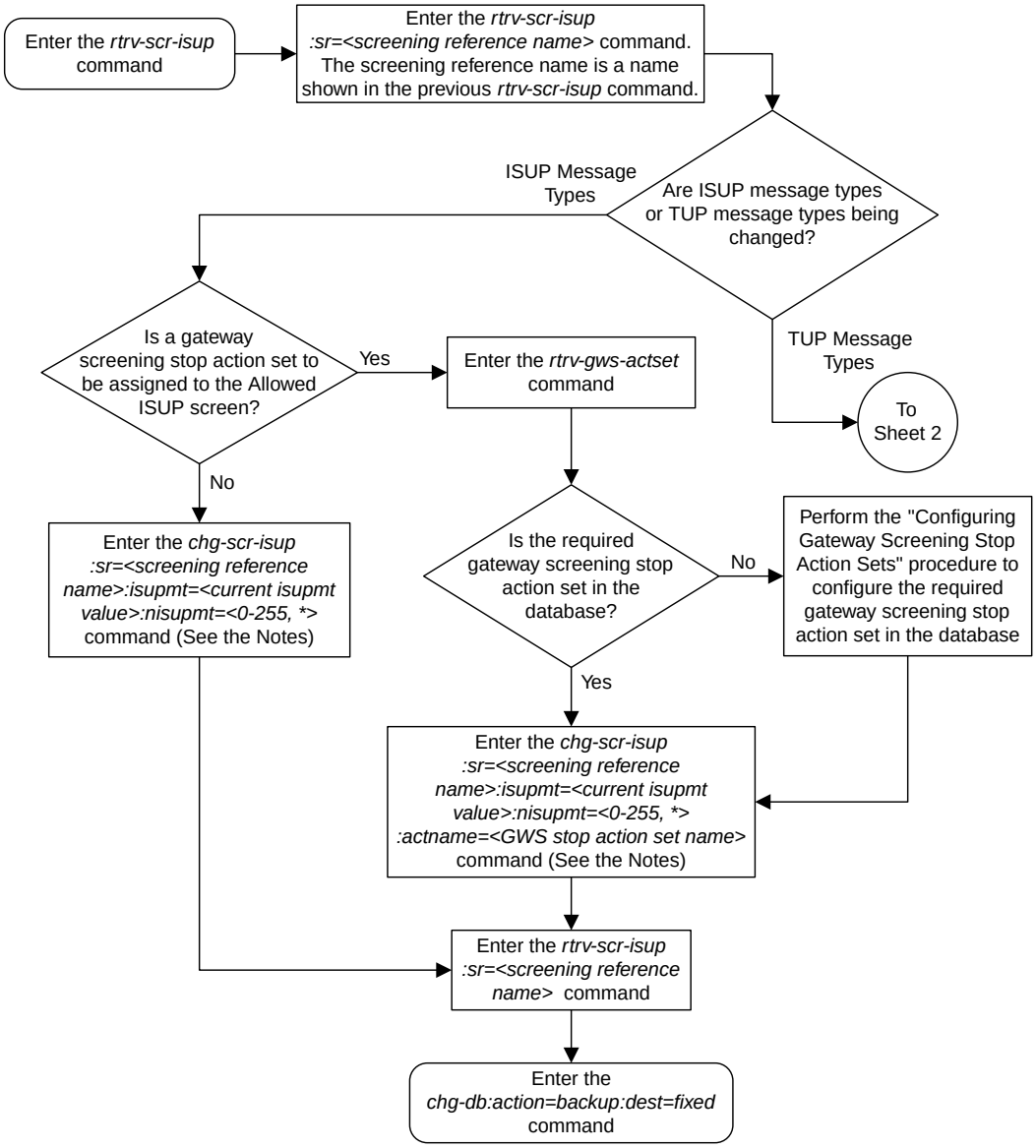
The following is an example of the possible output.

```
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    ------
```

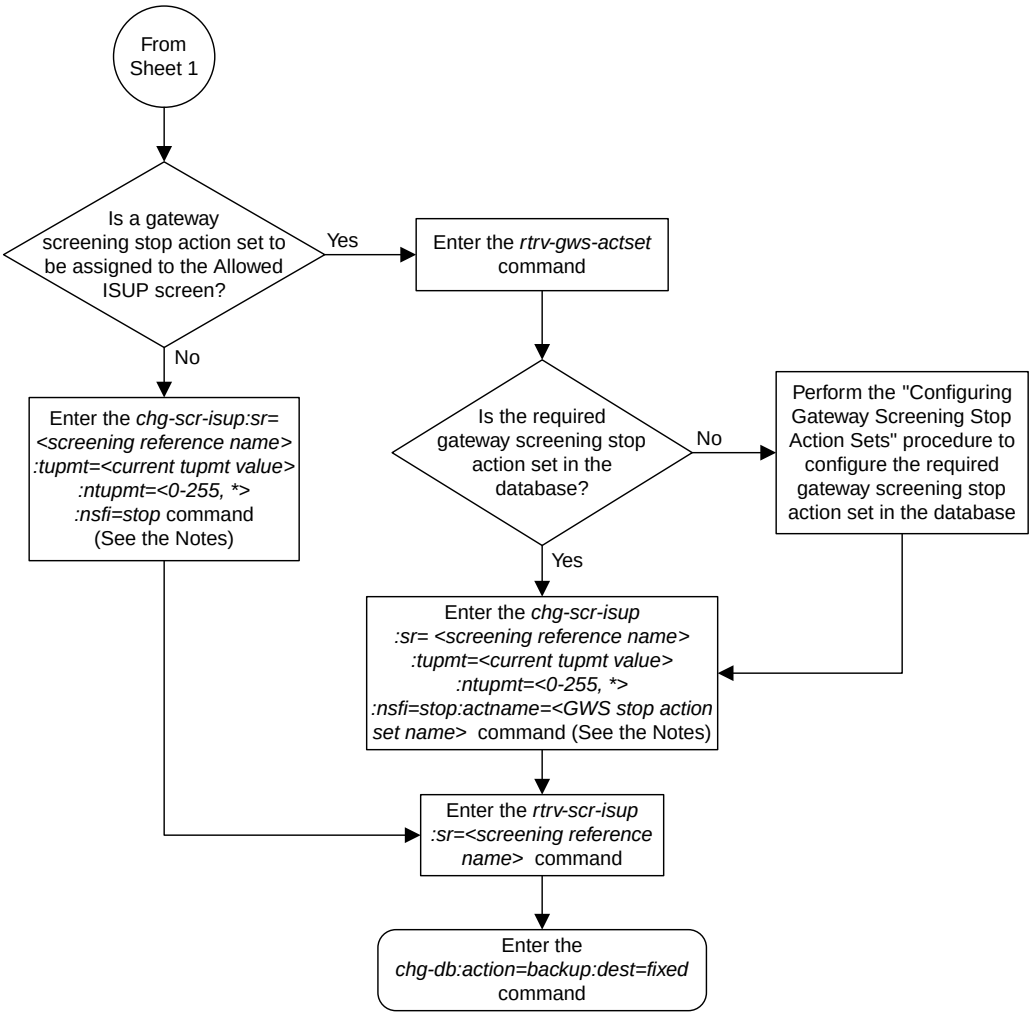
5. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

   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.
```


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.
Are ISUP message types or TUP message types being changed?
ISUP Message Types
TUP Message Types
To Sheet 2
Is a gateway screening stop action set to be assigned to the Allowed ISUP screen?
Yes
No
Enter the *rtrv-gws-actset* command
Enter the *chg-scr-isup :sr=<screening reference name>:isupmt=<current isupmt value>:nisupmt=<0-255, *>* command (See the Notes)
Is the required gateway screening stop action set in the database?
No
Yes
Perform the "Configuring Gateway Screening Stop Action Sets" procedure to configure the required gateway screening stop action set in the database
Enter the *chg-scr-isup :sr=<screening reference name>:isupmt=<current isupmt value>:nisupmt=<0-255, *> :actname=<GWS stop action set name>* command (See the Notes)
Enter the *rtrv-scr-isup :sr=<screening reference name>* command
Enter the *chg-db:action=backup:dest=fixed* command
**Notes:**
1. A range of ISUP message types can be specified for the *nisupmt* parameter by inserting double ampersands (&&) between the *isupmt* values defining the range. For example, to specify the range 5 to 27, enter 5&&27 for the *nisupmt* parameter value.
2. The current *isupmt* value must be specified exactly as it is shown in the *rtrv-scr-isup* output.
3. The asterisk (*) specifies the entire range of values for the *nisupmt* 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*.

Sheet 1 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 *rtrv-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*.

Sheet 2 of 2

**Figure 83: Changing an Allowed ISUP Message Type Screen**

**A**

| | |
|---|---|
| ACT | Activate |
| AFTPC | Affected Point Code<br>The point code in subsystem-prohibited (SSP), subsystem-status-test (SST), and subsystem-allowed (SSA) SCCP management messages used by gateway screening to determine if the messages containing these point codes are allowed in to the network. This point code is in the SCMG Data (SCCP Management) portion of the signaling information field in the MSU. |
| Allowed Affected Destination Field | The gateway screening entity that 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. Messages containing the specified point code are allowed into the network. |
| Allowed AFTPC | The gateway screening entity that identifies the messages containing a specific affected point code. Messages containing the specified affected point code are allowed into the network. |
| Allowed DPC | The gateway screening entity that identifies the destination point codes that are allowed to receive |

**A**

| | |
|---|---|
| | SS7 messages from the EAGLE. Messages containing the specified destination point codes go on to the next step in the gateway screening process, or are allowed into the network if the gateway screening process stops with this entity. |
| Allowed ISUP | The gateway screening entity that identifies the ISUP or TUP message types that are allowed into the network. |
| Allowed OPC | The gateway screening entity that identifies the originating point codes that are allowed to send SS7 messages into the network. Messages containing the specified originating point codes go on to the next step in the gateway screening process, or are allowed into the network if the gateway screening process stops with this entity. |
| Allowed SIO | The gateway screening entity that identifies the type of MSUs (ISUP, TUP, TCAP, and so forth) that are allowed into the network. The message type is determined by the network indicator code (NIC), priority (PRI), and service indicator (SI) fields of the signaling information octet (SIO) field in the MSU, and the H0 and H1 heading codes of the signaling information field of the MSU. Messages containing the specified message type go on to the next step in the gateway screening process, or are allowed into the network if the gateway screening process stops with this entity. |

## A

Allowed TT

The gateway screening entity that identifies the SCCP messages that have a specified translation type value in the called party address. SCCP messages containing specified translation type in the called party address go on to the next step in the gateway screening process, or are allowed into the network if the gateway screening process stops with this entity.

ANSI

American National Standards Institute

An organization that administers and coordinates the U.S. voluntary standardization and conformity assessment system. ANSI develops and publishes standards. ANSI is a non-commercial, non-government organization which is funded by more than 1000 corporations, professional bodies, and enterprises.

APC

Adjacent Point Code

The point code that identifies a node adjacent to the EAGLE. This term is used in link sets and routes.

Application Processing Chassis

## B

BLKDPC

Blocked Destination Point Code - The point code that the gateway screening uses to keep MSUs bound for a specific point code out of the network where the EAGLE is located. This point code is in the routing label portion of the signaling information field in the MSU. Messages that do not contain the specified destination point code go on to the next step in the gateway screening process, or are

**B**

| | |
|---|---|
| | allowed into the network if the gateway screening process stops with this entity. |
| BLKOPC | Blocked Originating Point Code - The point code that gateway screening uses to keep MSUs coming from a specific point code out of the network where the EAGLE is located. This point code is in the routing label portion of the signaling information field in the MSU. Messages that do not contain the specified originating point code go on to the next step in the gateway screening process, or are allowed into the network if the gateway screening process stops with this entity. |

**C**

| | |
|---|---|
| CNCF | Calling Name Conversion Facility<br><br>CNCF provides a conversion of ISUP IAM messages using calling name identification presentation (CNIP) for calling name information delivery. CNIP uses either non-standard proprietary ISUP party information (PIP) parameter or ANSI standard ISUP generic name (GN) parameter. |
| CNIP | Calling Name Identification Presentation |
| control cards | Cards that occupy slots 1113 through 1118 of the control shelf on an EAGLE and perform OAM, TDM, and database functions for the EAGLE. The legacy set consists of the single-slot GPSM-II card running the OAM application and EOAM GPL, the single-slot TDM |

**C**

| | |
|---|---|
| | card, and the dual-slot MDAL card. The E5-based set consists of the dual-slot E5-MASP card (the E5-MCAP module and the E5-TDM module) and the dual-slot E5-MDAL card.<br>Cards that occupy slots 1113 through 1118 of the control shelf control cards on an EAGLE and perform basic OAM. The E5-based set consists of the dual-slot E5-MASP card (the E5-MCAP module and the E5-TDM module) and the dual-slot E5-MDAL card. |
| CR | Cluster Routing<br>Connection Request |

**D**

| | |
|---|---|
| Database | All data that can be administered by the user, including cards, destination point codes, gateway screening tables, global title translation tables, links, LNP services, LNP service providers, location routing numbers, routes, shelves, subsystem applications, and 10 digit telephone numbers. |
| DESTFLD | 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. |
| Destination | The node to which the signaling link traffic is routed. This destination is identified by a point code, either a full point code or a cluster point code. |

## D

| | |
|---|---|
| DPC | Destination Point Code - DPC refers to the scheme in SS7 signaling to identify the receiving signaling point. In the SS7 network, the point codes are numeric addresses which uniquely identify each signaling point. This point code can be adjacent to the EAGLE, but does not have to be. |
| DTA | Database Transport Access - A feature in the EAGLE that encapsulates specific MSUs into the data portion of SCCP within a new SS7 MSU and sends the new MSU to the destination using global title translation. The EAGLE uses gateway screening to determine which MSUs are used by the DTA feature. |

## E

| | |
|---|---|
| E5-MASP card | E5-based dual-slot card that consists of the E5-MCAP module (occupies slot 1113 and slot 1115) and the E5-TDM module (occupies slot 1114 and slot 1116) in an EAGLE control shelf. Used when the E5-MDAL card is used. |
| E5-MCAP card | The module contains the Communications Processor and Applications Processor and provides connections to the IMT bus. Controls the maintenance and database administration activity and performs both application and communication processing. Runs the OAM application and OAMHC GPL. Occupies slot 1113 and slot 1115 in an EAGLE control shelf. Used when the E5-MDAL card is used. Contains two USB ports. |

**E**

| | |
|---|---|
| E5-MDAL card | The E5 MDAL card processes alarm requests, provides general purpose relays, and provides fan control. Occupies slots 1117 and 1118 in an EAGLE Control Shelf. Used with E5-MASP cards. Does NOT contain a drive for removable cartridges. |
| E5-TDM card | The E5-TDM card provides the EAGLE with 16 ports for user terminals, contains fixed disk storage and distributes Composite Clocks and High Speed Master clocks throughout the EAGLE. Occupies slot 1114 and slot 1116 in an EAGLE Control Shelf. Used when the E5-MDAL card is used. |
| EPAP | EAGLE Provisioning Application Processor |

**F**

| | |
|---|---|
| flush-mounted USB port | USB port on the E5-MCAP card; used with credit card flash memory drives for upgrades and could be used for disaster recovery. |
| FR | Family of Requirement |

**G**

| | |
|---|---|
| GLS | Generic Loading Services<br>An application that is used by the TSM cards for downloading gateway screening to LIM cards. |
| GN | Generic Name |
| GPL | Generic Program Load |

## G

| | |
|---|---|
| | Software that allows the various features in the system to work. GPLs and applications are not the same software. |
| G-Port | GSM Mobile Number Portability<br>A feature that provides mobile subscribers the ability to change the GSM subscription network within a portability cluster, while retaining their original MSISDN(s). |
| GT | Global Title Routing Indicator |
| GWS | Gateway Screening<br>Used at gateway STPs to limit access into the network to authorized users. A gateway STP performs inter-network routing and gateway screening functions. GWS controls access to nonhome SS7 networks. Only an MSU that matches predefined criteria in the EAGLE database is allowed to enter the EAGLE. |
| GWSA | Gateway Screening Action<br>Gateway Screening Application |
| GWSD | Gateway Screening Message Discard |
| GWSM | Gateway Screening Messages<br>Gateway Screening Mode |

## H

| | |
|---|---|
| HC-MIM | High Capacity Multi-Channel Interface Module |

## H

A card that provides access to eight E1/T1 ports residing on backplane connectors A and B. Each data stream consists of 24 T1 or 31 E1 DS0 signaling links assigned in a time-division multiplex (TDM) manner. Each channel occupies a unique timeslot in the data stream and can be selected as a local signaling link on the interface card. Each card has 8 E1 or 8 T1 port interfaces with a maximum of 64 signaling links provisioned among the 8 E1/T1 ports.

HIPR

High-Speed IMT Packet Router

A card that provides increased system throughput and traffic capacity. HIPR moves EAGLE from an intra-shelf ring topology to an intra-shelf switch topology. HIPR acts as a gateway between the intra-shelf IMT BUS, running at 125Mbps, and the inter-shelf operating at 1.0625Gbps. The HIPR card will seat in the same slot as an HMUX card (slots xx09 & xx10 of each shelf).

## I

IAM

Initial Address Message

Ensures that the services offered are compatible with the reception devices, and can be used. For example, IAM prevents a phone being connected to a facsimile.

ID

Identity, identifier

IEC

Inter-Exchange Carrier

International Escape Code

**I**

| | |
|---|---|
| ISS | Integrated Signaling System |
| ISUP | ISDN User Part<br>The ISDN-specific part of the transmission with additional information via a signaling channel between exchanges. |
| ITU | International Telecommunications Union<br>An organization that operates worldwide to allow governments and the private telecommunications sector to coordinate the deployment and operating of telecommunications networks and services. The ITU is responsible for regulating, coordinating and developing international telecommunications, and for harmonizing national political interests. |

**L**

| | |
|---|---|
| latched USB port | On the E5-MCAP card, a USB port with a lockable latch. Used with removable media (flash memory ”thumb” drives) to install and back up customer data. |
| LIM | Link Interface Module<br>Provides access to remote SS7, IP and other network elements, such as a Signaling Control Point (SCP) through a variety of signaling interfaces (DS0, MPL, E1/T1 MIM, LIM-ATM, E1-ATM, IPLIMx, IPGWx). The LIMs consist of a main assembly and possibly, an interface appliqué board. These appliqués provide level one and |

**L**

| | |
|---|---|
| | some level two functionality on SS7 signaling links. |
| Link | Signaling Link<br>Signaling Link<br>Carries signaling within a Link Set using a specific Association. A Link can belong to only one Link Set and one Association. There is generally one Link per Association in a Link Set. |
| LNP | Local Number Portability<br>The ability of subscribers to switch local or wireless carriers and still retain the same phone number. |
| LST | Link Set Type |

**M**

| | |
|---|---|
| MAS | Maintenance and Administration Subsystem<br>A set of cards located in the Control Shelf, used to provide a central management point for the EAGLE. The MAS provides user interface, maintenance communication, peripheral services, alarm processing, system disk interface, and measurements using the following three subassemblies: GPSM-II, TDM, and MDAL. |
| MASP | Maintenance and Administration Subsystem Processor<br>The Maintenance and Administration Subsystem Processor (MASP) function is a logical pairing of the GPSM-II card and the TDM card. The GPSM-II |

**M**

card is connected to the TDM card by means of an Extended Bus Interface (EBI) local bus.

The MDAL card contains the removable cartridge drive and alarm logic. There is only one MDAL card in the Maintenance and Administration Subsystem (MAS) and it is shared between the two MASPs.

MSA

Metropolitan Statistical Areas

Main Signaling Area

MSU

Message Signal Unit

The SS7 message that is sent between signaling points in the SS7 network with the necessary information to get the message to its destination and allow the signaling points in the network to set up either a voice or data connection between themselves. The message contains the following information:

- The forward and backward sequence numbers assigned to the message which indicate the position of the message in the traffic stream in relation to the other messages.
- The length indicator which indicates the number of bytes the message contains.
- The type of message and the priority of the message in the signaling information octet of the message.
- The routing information for the message, shown in the routing label of the message, with the identification of the node that sent message (originating point

**M**

code), the identification of the node receiving the message (destination point code), and the signaling link selector which the EAGLE uses to pick which link set and signaling link to use to route the message.

MTP
Message Transfer Part
The levels 1, 2, and 3 of the SS7 protocol that control all the functions necessary to route an SS7 MSU through the network
Module Test Plan

**N**

NC
Network Cluster
Network Code
Not Compliant
North Carolina

NCM
Network Cluster Member

NI
Network Indicator

NIC
Network Identifier Code
Network Information Center
Network Interface Card
Computer hardware that enables computers to communicate with one another over a computer network. Also called a network card or a network adapter.

NP
Number Plan
Numbering Plan
Number Portability

**N**

| | |
|---|---|
| | A capability that permits telecommunications users to maintain the same telephone access number as they change telecommunication suppliers. |
| NPC | National Point Code |
| NSR | Next Screening Reference |

**O**

| | |
|---|---|
| OPC | Originating Point Code<br>Within an SS7 network, the point codes are numeric addresses which uniquely identify each signaling point. The OPC identifies the sending signaling point. |

**P**

| | |
|---|---|
| PIP | Party Information Parameter |
| PRI | Primary Rate Interface<br>Primary Rate ISDN<br>Priority |

**R**

| | |
|---|---|
| removable media | Flash memory or “thumb” drives used in the latched USB port on an E5-MCAP card for installation and backup of customer data. |
| RI | Routing Indicator |
| RN | Routing Number<br>The number provided by the Freephone Service Provider (FSP) to the Access Service Provider (ASP) to enable a pre-determined |

**R**

| | |
|---|---|
| | routing of traffic to a specific network/carrier/customer. |
| RSP | Route Set Test - Prohibited message<br>Remote Signaling Point<br>Represents an SS7 network node (point code) that signaling must be sent to. An RSP has an SS7 domain (ANSI, ITUI, ITUN), a point code, and an optional Adjacent Server Group.<br>Remote Signaling Point<br>A logical element that represents a unique point code within a particular SS7 domain with which the SS7 application's Local Signaling Point interacts. |
| RSR | Reset Request<br>Route Set Test – Restricted message |

**S**

| | |
|---|---|
| SCCP | Signaling Connection Control Part<br>The signaling connection control part with additional functions for the Message Transfer Part (MTP) in SS7 signaling. Messages can be transmitted between arbitrary nodes in the signaling network using a connection-oriented or connectionless approach. |
| SCMG | SCCP Management<br>SCMG manages the status of subsystems and SCCP-capable signaling points (SPs). It maintains the status of remote SCCP SPs and that of local subsystems. |

## S

| | |
|---|---|
| SCP | Service Control Point<br>Service Control Points (SCP) are network intelligence centers where databases or call processing information is stored. The primary function of SCPs is to respond to queries from other SPs by retrieving the requested information from the appropriate database, and sending it back to the originator of the request.<br>Secure Copy |
| SCR | service-configuration request |
| Screen Set | 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. |
| Screening Reference | The name of each entry in the gateway screening tables. Combined with the next screening function identifier (NSFI), it uniquely defines a screening table. This field is used with all screening functions except the screen set screening function. |
| SCRN | Screen Set Name |
| SEAS | Signaling Engineering and Administration System<br>An interface defined by Bellcore and used by the Regional Bell Operating Companies (RBOCs), as well as other Bellcore Client Companies (BCCs), to remotely administer and monitor the |

**S**

| | |
|---|---|
| | signaling points in their network from a central location. |
| SI | Service Indicator |
| SIF | Signaling Information Field |
| SIF | Service Information Field<br>MTP Service Information Field is the payload field of an SS7 MSU header. The first byte of the SIF is the start of the MTP3 routing label. For MTP3-variant networks, the maximum SIF size is 272 bytes. For MTP3b-variant networks, the maximum SIF size is 4095 bytes. |
| SIO | Service Information Octet.<br>The network indicator code (NIC), priority (PRI), and service indicator (SI) in the SIO field in the message signaling unit (MSU). This information identifies the type of MSU (ISUP, TCAP, and so forth) that is allowed in the network where the EAGLE is located. |
| SLTA | Signaling Link Test Acknowledgment |
| SLTM | Signal Link Test Message |
| SP | Service Provider<br>Signaling Point<br>A set of signaling equipment represented by a unique point code within an SS7 domain. |

## S

| | |
|---|---|
| Spare Point Code | The EAGLE ITU International/National Spare Point Code feature allows a network operator to use the same Point Codes across two networks (either ITU-I or ITU-N). The feature also enables National and National Spare traffic to be routed over the same linkset. The EAGLE uses the MSU Network Indicator (NI) to differentiate the same point code of one network from the other. In accordance with the SS7 standard, unique Network Indicator values are defined for Point Code types ITU-I, ITU-N, ITU-I Spare, and ITU-N Spare. |
| SR | Screening Reference |
| SS7 | Signaling System #7<br>A communications protocol that allows signaling points in a network to send messages to each other so that voice and data connections can be set up between these signaling points. These messages are sent over its own network and not over the revenue producing voice and data paths. The EAGLE is an STP, which is a device that routes these messages through the network. |
| SSA | Subsystem Allowed |
| SSN | SS7 Subsystem Number<br>The subsystem number of a given point code. The subsystem number identifies the SCP application that should receive the message, or the subsystem number of the |

**S**

destination point code to be assigned to the LNP subsystem of the EAGLE.

Subsystem Number

A value of the routing indicator portion of the global title translation data commands indicating that no further global title translation is required for the specified entry.

Subsystem Number

Used to update the CdPA.

SSP

Subsystem Prohibited network management message.

Subsystem Prohibited SCCP (SCMG) management message. (CER)

Service Switching Point (SS7 Network)

Signal Switching Point

Signal Switching Points are switches that originate, terminate, or tandem calls. An SSP sends signaling messages to other SSPs to setup, manage, and release voice circuits required to complete a call.

SST

Secondary State

The secondary state of the specified entity.

Subsystem Status Test

Subsystem Status Test network management message.

Subsystem Status Test SCCP (SCMG) management message. (CER)

**S**

| | |
|---|---|
| STPLAN | Signaling Transfer Point Local Area Network<br>The application used by the SLAN card and E5-SLAN card to support the STP LAN feature. This application does not support 24-bit ITU-N point codes. |

**T**

| | |
|---|---|
| TCAP | Transaction Capabilities Application Part - A protocol in the SS7 protocol suite that enables the deployment of advanced intelligent network services by supporting non-circuit related information exchange between signaling points using the Signaling Connection Control Part connectionless service. TCAP also supports remote control - ability to invoke features in another remote network switch. |
| TFA | TransFer Allowed (Msg) |
| TFC | Transfer Control<br>TransFer Controlled (Msg)<br>Transfer Congested |
| TFP | TransFer Prohibited (Msg)<br>A procedure included in the signaling route management (functionality) used to inform a signaling point of the unavailability of a signaling route. |
| TFR | Transfer Restricted |
| TIF | Triggerless ISUP Framework |

## T

| | |
|---|---|
| TINP | Triggerless ISUP based Number Portability |
| TLNP | Triggerless LNP |
| Translation Type | See TT. |
| Triggerless LNP | A feature that gives service providers a method to route calls to ported numbers without having to upgrade their signaling switch (end office or mobile switching center) software. This feature uses the gateway screening stop action TLNP to intercept through-switched ISUP messages on the LIM. |
| TSM | Translation Services Module<br>Provides translation capability and Global Title Translation (GTT) implementation for the Local Number Portability (LNP) function and is used for downloading gateway screening tables to link interface modules (LIMs). |
| TT | Translation Type<br>Resides in the Called Party Address (CdPA) field of the MSU and determines which service database is to receive query messages. The translation type indicates which Global Title Translation table determines the routing to a particular service database. |
| TUP | Telephone User Part |

## U

## U

| | |
|---|---|
| UAM | Unsolicited Alarm Message<br>A message sent to a user interface whenever there is a fault that is service-affecting or when a previous problem is corrected. Each message has a trouble code and text associated with the trouble condition. |
| UDT | Unitdata Transfer |
| UDTS | Unitdata Transfer Service<br>An error response to a UDT message. |
| UIM | Unsolicited Information Message<br>A message sent to a user interface whenever there is a fault that is not service-affecting or when a previous problem is corrected. Each message has a trouble code and text associated with the trouble condition. |
| UPU | User Part Unavailable<br>An MTP3 management message. |
| USB port | Receptacle for flash memory drives on personal computers. On the E5-MDAL card, a flush-mounted USB port used with credit card flash memory drives for upgrade. On the E5-MCAP card, a latched USB port for use with flash memory ”thumb” drives for installation and backup of customer data. |

## X

## X

XUDT
Extended Unit Data
Extended User Data

XUDTS
Extended Unitdata Service message
An error response to an XUDT message.