

Tekelec EAGLE[®] 5

Integrated Signaling System

Release 40.0

Database Administration Manual - Gateway Screening

910-5381-001 Revision A

December 2008



Notice

Information in this documentation is subject to change without notice. Unauthorized use, copying, or translation of this documentation can result in civil or criminal penalties.

Any export of Tekelec products is subject to the export controls of the United States and the other countries where Tekelec has operations.

No part of this documentation may be reproduced, translated, or transmitted in any form or by any means, electronic or mechanical, including photocopying or recording, for any purpose without the express written permission of an authorized representative of Tekelec.

Other product names used herein are for identification purposes only, and may be trademarks of their respective companies.

RoHS 5/6 - As of July 1, 2006, all products that comprise new installations shipped to European Union member countries will comply with the EU Directive 2002/95/EC "RoHS" (Restriction of Hazardous Substances). The exemption for lead-based solder described in the Annex will be exercised. RoHS 5/6 compliant components will have unique part numbers as reflected in the associated hardware and installation manuals.

WEEE - All products shipped to European Union member countries comply with the EU Directive 2002/96/EC, Waste Electronic and Electrical Equipment. All components that are WEEE compliant will be appropriately marked. For more information regarding Tekelec's WEEE program, contact your sales representative.

Trademarks

The Tekelec logo, EAGLE, G-Flex, G-Port, IP7, IP7 Edge, and IP7 Secure Gateway are registered trademarks of Tekelec. TekServer, A-Port, EAGLE 5 ISS, and V-Flex are trademarks of Tekelec. All other trademarks are the property of their respective owners.

Patents

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

U.S. Patent Numbers:

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

Foreign Patent Numbers:

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

Ordering Information

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

Table of Contents

Chapter 1: Introduction.....	1
Overview.....	2
Scope and Audience.....	2
Manual Organization.....	2
Documentation Admonishments.....	3
Customer Care Center.....	4
Emergency Response.....	6
Related Publications.....	7
Documentation Availability, Packaging, and Updates.....	7
Maintenance and Administration Subsystem.....	7
EAGLE 5 ISS Database Partitions.....	8
Locate Product Documentation on the Customer Support Site.....	10
 Chapter 2: Gateway Screening (GWS) Overview.....	 13
Introduction.....	14
TUP Message Screening.....	16
Gateway Screening States.....	17
Linkset Parameters.....	17
Gateway Screening Attributes.....	18
Use of the Character “ c ” for the NI, NC, NCM, ZONE, AREA, ID, NPC, MSA, SSA, and SP Parameters.....	21
Specifying a Range of Values for Gateway Screening Parameters.....	22
Use of the Asterisk “ * ” for the ZONE, AREA, ID, MSA, SSA, and SP Parameters.....	24
User Interface Requirements.....	26
Command Summary.....	27
Enter Commands.....	27
Change Commands.....	28
Delete Commands.....	28
Retrieve Commands.....	28
14-Bit ITU National Point Code Formats.....	32
Converting Single Number 14-Bit ITU National Point Codes.....	32
Converting Multiple Part 14-Bit ITU National Point Codes.....	33
Gateway Screening Using Duplicate ITU National Point Codes.....	34
Gateway Screening Configuration.....	35

Gateway Screening Configuration Examples.....	40
Adding an GLS Card.....	50
Removing a GLS Card.....	58
Configuring Gateway Screening Stop Action Sets.....	61
Configuring TLNP Gateway Screening Stop Action Sets.....	73
Removing Gateway Screening Stop Action Sets.....	86
Setting the Threshold for Reporting Gateway Screening Activity.....	89
Setting the Maximum Number of Gateway Screening Rejected Messages.....	93

Chapter 3: Allowed Affected Point Code (AFTPC) Screen

Configuration.....	95
Introduction.....	96
Gateway Screening Actions.....	96
Allowed AFTPC Screening Actions.....	97
Adding an Allowed Affected Point Code Screen.....	100
Removing an Allowed Affected Point Code Screen.....	108
Changing an Allowed Affected Point Code Screen.....	112

Chapter 4: Allowed Called Party (CDPA) Screen

Configuration.....	121
Introduction.....	122
Gateway Screening Actions.....	122
Allowed CDPA Screening Actions.....	123
Adding an Allowed Called Party Address Screen.....	126
Removing an Allowed Called Party Address Screen.....	137
Changing an Allowed Called Party Address Screen.....	141

Chapter 5: Allowed Translation Type (TT) Screen

Configuration.....	153
Introduction.....	154
Gateway Screening Actions.....	154
Allowed TT Screening Actions.....	155
Adding an Allowed Translation Type Screen.....	159
Removing an Allowed Translation Type Screen.....	165
Changing an Allowed Translation Type Screen.....	167

Chapter 6: Allowed Calling Party (CGPA) Screen

Configuration.....	175
---------------------------	------------

Introduction.....	176
Gateway Screening Actions.....	176
Allowed CGPA Screening Actions.....	177
Adding an Allowed Calling Party Address Screen.....	182
Removing an Allowed Calling Party Address Screen	192
Changing an Allowed Calling Party Address Screen.....	196

Chapter 7: Allowed Affected Destination Field

(DESTFLD) Screen Configuration.....209

Introduction.....	210
Gateway Screening Actions.....	210
Allowed Affected Destination Screening Actions.....	211
Adding an Allowed Affected Destination Field Screen.....	214
Removing an Allowed Affected Destination Field Screen.....	222
Changing an Allowed Affected Destination Field Screen.....	225

Chapter 8: Blocked Destination Point Code (BLKDPC)

Screen Configuration.....235

Introduction.....	236
Gateway Screening Actions.....	236
Blocked DPC Screening Actions.....	237
Adding a Blocked DPC Screen.....	240
Removing a Blocked DPC Screen.....	252
Changing a Blocked DPC Screen.....	256

Chapter 9: Allowed Destination Point Code (DPC) Screen

Configuration.....269

Introduction.....	270
Gateway Screening Actions.....	270
Allowed DPC Screening Actions.....	271
Adding an Allowed DPC Screen.....	274
Removing an Allowed DPC Screen.....	287
Changing an Allowed DPC Screen.....	290

Chapter 10: Allowed Signaling Information Octet (SIO)

Screen Configuration.....303

Introduction.....	304
Gateway Screening Actions.....	304

Allowed SIO Screening Actions.....	305
Adding an Allowed SIO Screen.....	309
Removing an Allowed SIO Screen.....	318
Changing an Allowed SIO Screen.....	321

Chapter 11: Blocked Originating Point Code (BLKOPC)

Screen Configuration.....329

Introduction.....	330
Gateway Screening Actions.....	330
Blocked OPC Screening Actions.....	331
Adding a Blocked OPC Screen.....	334
Removing a Blocked OPC Screen.....	347
Changing a Blocked OPC Screen.....	351

Chapter 12: Allowed Originating Point Code (OPC)

Screen Configuration.....363

Introduction.....	364
Gateway Screening Actions.....	364
Allowed OPC Screening Actions.....	365
Adding an Allowed OPC Screen.....	368
Removing an Allowed OPC Screen.....	381
Changing an Allowed OPC Screen.....	384

Chapter 13: Screen Set Configuration.....397

Introduction.....	398
Automatic Destination Field Screening.....	398
Adding a Screen Set.....	398
Removing a Screen Set.....	405
Changing a Screen Set.....	407

Chapter 14: Calling Name Conversion Facility (CNCF)

Configuration.....415

Introduction.....	416
Configuring the EAGLE 5 ISS for the CNCF Feature.....	418

Chapter 15: Allowed ISUP Message Type Screen

Configuration.....433

Introduction.....	434
Gateway Screening Actions.....	434
TUP Message Screening.....	434
Allowed ISUP Message Type Screening Actions.....	435
Adding an Allowed ISUP Message Type Screen.....	439
Removing an Allowed ISUP Message Type Screen.....	445
Changing an Allowed ISUP Message Type Screen.....	448
Glossary.....	453

List of Figures

Figure 1: EAGLE 5 ISS Database Partitions.....	8
Figure 2: Sample Network Showing Gateway Screening Using Duplicate ITU National Point Codes.....	34
Figure 3: The Gateway Screening Process.....	38
Figure 4: Gateway Screening Configuration - Example 1.....	40
Figure 5: Gateway Screening Configuration - Example 2.....	42
Figure 6: Gateway Screening Configuration - Example 3.....	44
Figure 7: Gateway Screening Configuration - Example 4.....	45
Figure 8: Gateway Screening Configuration - Example 5.....	46
Figure 9: Gateway Screening Configuration - Example 6.....	48
Figure 10: Gateway Screening Configuration - Example 7.....	49
Figure 11: Adding an GLS Card to the Database.....	54
Figure 12: Removing a GLS Card.....	60
Figure 13: Configuring Gateway Screening Stop Action Sets.....	68
Figure 14: Configuring TLNP Gateway Screening Stop Action Sets.....	80
Figure 15: Removing Gateway Screening Stop Action Sets.....	88
Figure 16: Setting the Threshold for Reporting Gateway Screening Activity.....	91
Figure 17: Setting the Maximum Number of Gateway Screening Rejected Messages.....	94
Figure 18: Allowed AFTPC Screening Actions.....	97
Figure 19: Allowed Affected Point Code Screening Function.....	99
Figure 20: Adding an Allowed Affected Point Code Screen	106
Figure 21: Removing an Allowed Affected Point Code Screen.....	110
Figure 22: Changing an Allowed Affected Point Code Screen.....	117
Figure 23: Allowed CDPA Screening Actions.....	123
Figure 24: Allowed Called Party Address Screening Function.....	125
Figure 25: Adding an Allowed Called Party Address Screen.....	133
Figure 26: Removing an Allowed Called Party Address Screen	139
Figure 27: Changing an Allowed Called Party Address Screen.....	147
Figure 28: Allowed TT Screening Actions.....	155
Figure 29: Allowed Translation Type Screening Function.....	157
Figure 30: Adding an Allowed Translation Type Screen	162
Figure 31: Removing an Allowed Translation Type Screen	167
Figure 32: Changing an Allowed Translation Type Screen	170
Figure 33: Allowed CGPA Screening Actions.....	177
Figure 34: Allowed Calling Party Address Screening Function.....	180
Figure 35: Adding an Allowed Calling Party Address Screen.....	188

Figure 36: Removing an Allowed Calling Party Address Screen	194
Figure 37: Changing an Allowed Calling Party Address Screen.....	202
Figure 38: Allowed Affected Destination Screening Actions.....	211
Figure 39: Allowed Affected Destination Field Screening Function.....	213
Figure 40: Adding an Allowed Affected Destination Field Screen	219
Figure 41: Removing an Allowed Affected Destination Field Screen.....	224
Figure 42: Changing an Allowed Affected Destination Field Screen.....	230
Figure 43: Blocked DPC Screening Actions.....	237
Figure 44: Blocked DPC Screening Functions.....	239
Figure 45: Adding a Blocked DPC Screen.....	247
Figure 46: Removing a Blocked DPC Screen.....	255
Figure 47: Changing a Blocked DPC Screen.....	262
Figure 48: Allowed DPC Screening Actions.....	271
Figure 49: Allowed DPC Screening Functions.....	273
Figure 50: Adding an Allowed DPC Screen.....	282
Figure 51: Removing an Allowed DPC Screen	289
Figure 52: Changing an Allowed DPC Screen	297
Figure 53: Allowed SIO Screening Actions.....	305
Figure 54: Allowed SIO Screening Function.....	308
Figure 55: Adding an Allowed SIO Screen.....	315
Figure 56: Removing an Allowed SIO Screen	320
Figure 57: Changing an Allowed SIO Screen	326
Figure 58: Blocked OPC Screening Actions.....	331
Figure 59: Blocked OPC Screening Functions.....	333
Figure 60: Adding a Blocked OPC Screen.....	342
Figure 61: Removing a Blocked OPC Screen.....	350
Figure 62: Changing a Blocked OPC Screen.....	356
Figure 63: Allowed OPC Screening Actions.....	365
Figure 64: Allowed OPC Screening Functions.....	367
Figure 65: Adding an Allowed OPC Screen.....	376
Figure 66: Removing an Allowed OPC Screen.....	383
Figure 67: Changing an Allowed OPC Screen	390
Figure 68: Adding a Screen Set.....	403
Figure 69: Removing a Screen Set.....	406
Figure 70: Changing a Screen Set.....	410
Figure 71: PIP/GN Parameter Conversion.....	416
Figure 72: CNCF Gateway Screening Configuration - Example 1.....	418
Figure 73: CNCF Gateway Screening Configuration - Example 2.....	419
Figure 74: CNCF Gateway Screening Configuration - Example 3.....	420
Figure 75: CNCF Gateway Screening Configuration - Example 4.....	421
Figure 76: Calling Name Conversion Facility Configuration	429

Figure 77: Allowed ISUP Message Type Screening Actions	435
Figure 78: Allowed ISUP Message Type Screening Function.....	438
Figure 79: Adding an Allowed ISUP Message Type Screen	443
Figure 80: Removing an Allowed ISUP Message Type Screen.....	447
Figure 81: Changing an Allowed ISUP Message Type Screen.....	451

List of Tables

Table 1: Admonishments.....	3
Table 2: Valid Value Combinations for ANSI Point Code Parameters	22
Table 3: Valid Value Combinations for H0 and H1 Parameters.....	23
Table 4: Valid Parameter Combinations for ANSI Point Code Parameters.....	24
Table 5: Valid Value Combinations for ITU-I Point Code Parameters	25
Table 6: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters	25
Table 7: Valid Parameter Combinations for ITU-I Point Code Parameters.....	25
Table 8: Valid Parameter Combinations for 24-bit ITU-N Point Code Parameters.....	26
Table 9: Gateway Screening Process and Provisioning Order.....	37
Table 10: GLS Card Types.....	51
Table 11: Gateway Screening Stop Action Definitions If the CNCF Feature Is Off.....	63
Table 12: Gateway Screening Stop Action Set Parameter Combinations.....	63
Table 13: Sample TLNP Gateway Screening Stop Action Set Configuration.....	75
Table 14: Example Gateway Screening Allowed AFTPC Configuration Table.....	101
Table 15: Valid Value Combinations for ANSI Point Code Parameters.....	101
Table 16: Valid Value Combinations for ITU-I Point Code Parameters.....	102
Table 17: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters.....	102
Table 18: Valid Value Combinations for ANSI Point Code Parameters.....	112
Table 19: Valid Value Combinations for ITU-I Point Code Parameters	113
Table 20: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters	113
Table 21: Example Gateway Screening Allowed CDPA Configuration Table.....	127
Table 22: Valid Value Combinations for ANSI Point Code Parameters.....	128
Table 23: Valid Value Combinations for ITU-I Point Code Parameters.....	128
Table 24: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters.....	128
Table 25: CDPA Parameter Combinations.....	132
Table 26: Valid Value Combinations for ANSI Point Code Parameters	142
Table 27: Valid Value Combinations for ITU-I Point Code Parameters	143
Table 28: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters	143
Table 29: CDPA Parameter Combinations.....	146
Table 30: Example Gateway Screening Allowed TT Configuration Table.....	159
Table 31: Valid Parameter Combinations for the Allowed CGPA Screening Function.....	177
Table 32: Example Gateway Screening Allowed CGPA Configuration Table.....	182
Table 33: Valid Value Combinations for ANSI Point Code Parameters.....	183
Table 34: Valid Value Combinations for ITU-I Point Code Parameters.....	183
Table 35: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters.....	184
Table 36: Valid Value Combinations for ANSI Point Code Parameters.....	197

Table 37: Valid Value Combinations for ITU-I Point Code Parameters.....	198
Table 38: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters.....	198
Table 39: CGPA Parameter Combinations.....	201
Table 40: Example Gateway Screening Allowed DESTFLD Configuration Table.....	215
Table 41: Valid Value Combinations for ANSI Point Code Parameters.....	215
Table 42: Valid Value Combinations for ITU-I Point Code Parameters.....	216
Table 43: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters.....	216
Table 44: Valid Value Combinations for ANSI Point Code Parameters.....	226
Table 45: Valid Value Combinations for ITU-I Point Code Parameters	227
Table 46: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters	227
Table 47: Example Gateway Screening Blocked DPC Configuration Table.....	241
Table 48: Valid Value Combinations for ANSI Point Code Parameters.....	242
Table 49: Valid Value Combinations for ITU-I Point Code Parameters.....	242
Table 50: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters.....	243
Table 51: Valid Value Combinations for ANSI Point Code Parameters.....	258
Table 52: Valid Value Combinations for ITU-I Point Code Parameters.....	258
Table 53: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters.....	259
Table 54: Example Gateway Screening Allowed DPC Configuration Table.....	275
Table 55: Valid Value Combinations for ANSI Point Code Parameters.....	276
Table 56: Valid Value Combinations for ITU-I Point Code Parameters.....	276
Table 57: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters.....	277
Table 58: Valid Value Combinations for ANSI Point Code Parameters.....	292
Table 59: Valid Value Combinations for ITU-I Point Code Parameters	292
Table 60: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters	292
Table 61: Valid Parameter Combinations for the Allowed SIO Screening Function.....	305
Table 62: Example Gateway Screening Allowed SIO Configuration Table.....	310
Table 63: Valid Value Combinations for H0 and H1 Parameters.....	311
Table 64: Valid Value Combinations for H0 and H1 Parameters.....	323
Table 65: Example Gateway Screening Blocked OPC Configuration Table.....	335
Table 66: Valid Value Combinations for ANSI Point Code Parameters.....	336
Table 67: Valid Value Combinations for ITU-I Point Code Parameters	337
Table 68: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters	337
Table 69: Valid Value Combinations for ANSI Point Code Parameters.....	352
Table 70: Valid Value Combinations for ITU-I Point Code Parameters.....	353
Table 71: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters.....	353
Table 72: Example Gateway Screening Allowed OPC Configuration Table.....	369
Table 73: Valid Value Combinations for ANSI Point Code Parameters.....	370
Table 74: Valid Value Combinations for ITU-I Point Code Parameters.....	371
Table 75: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters.....	371
Table 76: Valid Value Combinations for ANSI Point Code Parameters.....	385
Table 77: Valid Value Combinations for ITU-I Point Code Parameters.....	385

Table 78: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters.....	386
Table 79: Example Gateway Screening Screen Set Configuration Table.....	399
Table 80: ISUP IAM Message Conversion Examples.....	417
Table 81: Example Gateway Screening Allowed DPC Configuration Table for the CNCF Feature.....	424
Table 82: Example Gateway Screening Allowed SIO Configuration Table for the CNCF Feature.....	425
Table 83: Example Gateway Screening Allowed OPC Configuration Table for the CNCF Feature.....	426
Table 84: Example Gateway Screening Screen Set Configuration Table for the CNCF Feature.....	427
Table 85: Linkset Configuration Table for the CNCF Feature.....	428
Table 86: Example Gateway Screening Allowed ISUP Configuration Table.....	440

Chapter 1

Introduction

Topics:

- [*Overview Page 2*](#)
- [*Scope and Audience Page 2*](#)
- [*Manual Organization Page 2*](#)
- [*Documentation Admonishments Page 3*](#)
- [*Customer Care Center Page 4*](#)
- [*Emergency Response Page 6*](#)
- [*Related Publications Page 7*](#)
- [*Documentation Availability, Packaging, and Updates Page 7*](#)
- [*Maintenance and Administration Subsystem Page 7*](#)
- [*EAGLE 5 ISS Database Partitions Page 8*](#)
- [*Locate Product Documentation on the Customer Support Site Page 10*](#)

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

Overview

The *Database Administration Manual – Gateway Screening* describes the procedures used to configure the EAGLE 5 ISS 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 5 ISS against predefined criteria in the EAGLE 5 ISS 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: Before enabling any the Gateway Screening feature, make sure you have purchased this feature to be turned on. If you are not sure whether you have purchased this feature to be turned on, contact your Tekelec Sales Representative or Account Representative.

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 the *Commands Manual* 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.

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](#) on page 1 contains general information about the gateway screening feature, the database, and the organization of this manual.

[Gateway Screening \(GWS\) Overview](#) on page 13 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](#) on page 95 contains the procedures necessary to configure allowed affected point code screens.

[Allowed Called Party \(CDPA\) Screen Configuration](#) on page 121 contains the procedures necessary to configure allowed called party address screens.

[Allowed Translation Type \(TT\) Screen Configuration](#) on page 153 contains the procedures necessary to configure allowed translation type screens.

[Allowed Calling Party \(CGPA\) Screen Configuration](#) on page 175 contains the procedures necessary to configure allowed calling party address screens.

[Allowed Affected Destination Field \(DESTFLD\) Screen Configuration](#) on page 209 contains the procedures necessary to configure allowed affected destination field screens.

[Blocked Destination Point Code \(BLKDPC\) Screen Configuration](#) on page 235 contains the procedures necessary to configure blocked destination point code screens.

[Allowed Destination Point Code \(DPC\) Screen Configuration](#) on page 269 contains the procedures necessary to configure allowed destination point code screens.

[Allowed Signaling Information Octet \(SIO\) Screen Configuration](#) on page 303 contains the procedures necessary to configure allowed signaling information octet screens.

[Blocked Originating Point Code \(BLKOPC\) Screen Configuration](#) on page 329 contains the procedures necessary to configure blocked originating point code screens.

[Allowed Originating Point Code \(OPC\) Screen Configuration](#) on page 363 contains the procedures necessary to configure allowed originating point code screens.

[Screen Set Configuration](#) on page 397 contains the procedures necessary to configure screen sets.


[Calling Name Conversion Facility \(CNCF\) Configuration](#) on page 415 contains a description of the Calling Name Conversion Facility feature the procedure necessary to configure this feature.



[Allowed ISUP Message Type Screen Configuration](#) on page 433 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

	<p>DANGER:</p> <p>(This icon and text indicate the possibility of <i>personal injury</i>.)</p>
---	---

	WARNING: (This icon and text indicate the possibility of <i>equipment damage</i> .)
	CAUTION: (This icon and text indicate the possibility of <i>service interruption</i> .)

Customer Care Center

The Tekelec Customer Care Center offers a point of contact for product and service support through highly trained engineers or service personnel. When a call is received, a Customer Service Report (CSR) is issued to record the request for service. Each CSR includes an individual tracking number.

After a CSR is issued, the Customer Care Center determines the classification of the trouble. If a critical problem exists, emergency procedures are initiated. If the problem is not critical, information regarding the serial number of the system, Common Language Location Identifier (CLLI), initial problem symptoms (includes outputs and messages) is recorded. A primary Customer Care Center engineer is also assigned to work on the CSR and provide a solution to the problem. The CSR is closed when the problem is resolved.

The Tekelec Customer Care Center is available 24 hours a day, 7 days a week at the following locations:

Tekelec - Global

Email (All Regions): support.tekelec.com

- **USA and Canada**

Phone:

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

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

TAC Regional Support Office Hours:

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

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

Phone:

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

TAC Regional Support Office Hours (except Brazil):

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

- **Argentina**

Phone:

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

- **Brazil**
Phone:
0-800-891-4341 (toll-free)
TAC Regional Support Office Hours:
8:30 a.m. through 6:30 p.m. (GMT minus 3 hours), Monday through Friday, excluding holidays
- **Chile**
Phone:
1230-020-555-5468
- **Columbia**
Phone:
01-800-912-0537
- **Dominican Republic**
Phone:
1-888-367-8552
- **Mexico**
Phone:
001-888-367-8552
- **Peru**
Phone:
0800-53-087
- **Puerto Rico**
Phone:
1-888-367-8552 (1-888-FOR-TKLC)
- **Venezuela**
Phone:
0800-176-6497
- **Europe, Middle East, and Africa**
 - **Signaling**
Phone:
+44 1784 467 804 (within UK)
TAC Regional Support Office Hours:
8:00 a.m. through 7:00 p.m. (GMT), Monday through Friday, excluding holidays
 - **Software Solutions**
Phone:

+33 3 89 33 54 00

TAC Regional Support Office Hours:

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

- **Asia**

- **India**

Phone:

+91 124 436 8552 or +91 124 436 8553

TAC Regional Support Office Hours:

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

- **Singapore**

Phone:

+65 6796 2288

TAC Regional Support Office Hours:

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

Emergency Response

In the event of a critical service situation, emergency response is offered by the Tekelec Customer Care Center 24 hours a day, 7 days a week. 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 an EAGLE 5 ISS that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical problems affect service and/or system operation resulting in:

- 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 the Tekelec Customer Care Center.

Related Publications

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

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.

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 as a set or individually. Exceptions to printed documentation are:

- Hardware or Installation manuals are printed only 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 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.

Maintenance and Administration Subsystem

The maintenance and administration subsystem consists of two processors, MASP (maintenance and administration subsystem processor) A and MASP B.

Each MASP is made up of two cards, the GPSM-II card (general purpose service module) and the TDM (terminal disk module).

The GPSM-II card contains the communications processor and applications processor and provides connections to the IMT bus. The GPSM-II controls the maintenance and database administration activity.

The TDM contains the fixed disk drive, the terminal processor for the 16 serial I/O ports and interfaces to the MDAL (maintenance disk and alarm) card which contains the removable cartridge drive and alarm logic. There is only one MDAL card in the maintenance and administration subsystem and it is shared between the two MASPs.

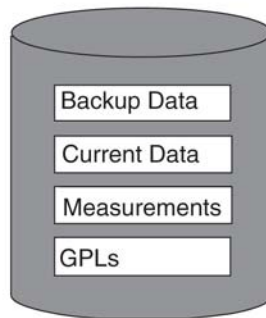
For more information on these cards, go to the *Hardware Manual - EAGLE 5 ISS*.

EAGLE 5 ISS Database Partitions

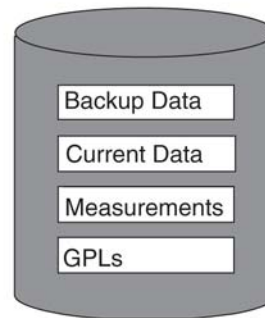
The data that the EAGLE 5 ISS uses to perform its functions are stored in two separate areas: the fixed disk drives, and the removable cartridge. The following sections describe these areas and data that is stored on them. These areas and their partitions are shown in [Figure 1: EAGLE 5 ISS Database Partitions](#) on page 8.

Figure 1: EAGLE 5 ISS Database Partitions

ACTIVE FIXED DISK



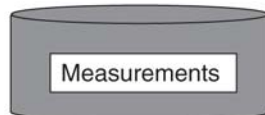
STANDBY FIXED DISK



System Data Removable Cartridge



Measurements Removable Cartridge



Fixed Disk Drive

There are two fixed disk drives on the EAGLE 5 ISS. The fixed disk drives contain the “master” set of data and programs for the EAGLE 5 ISS. The two fixed disk drives are located on the terminal disk modules (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 ISS. 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 effect 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 ISS 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 Cartridge

A removable cartridge 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 TDMs, a single removable cartridge cannot store all of the data in the database, GPL and measurements partitions.

To use a removable cartridge to hold the system data, it must be formatted for system data. To use a removable cartridge to hold measurements data, it must be formatted for measurements data. The EAGLE 5 ISS provides the user the ability to format a removable cartridge for either of these purposes. A removable cartridge can be formatted on the EAGLE 5 ISS by using the `format-disk` command. More information on the `format-disk` command can be found in the *Commands Manual*. More information on the removable cartridge drives can be found in the *Hardware Manual* - EAGLE 5 ISS .

The removable cartridge drive is located on the MDAL card in card location 1117.

Additional and preformatted removable cartridges are available from the [Customer Care Center](#) on page 4.

Locate Product Documentation on the Customer Support Site

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

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

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

2. Click the **Product Support** tab.

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

Chapter 2

Gateway Screening (GWS) Overview

Topics:

- [Introduction Page 14](#)
- [Gateway Screening States Page 17](#)
- [Gateway Screening Attributes Page 18](#)
- [User Interface Requirements Page 26](#)
- [14-Bit ITU National Point Code Formats Page 32](#)
- [Gateway Screening Using Duplicate ITU National Point Codes Page 34](#)
- [Gateway Screening Configuration Page 35](#)
- [Adding an GLS Card Page 50](#)
- [Removing a GLS Card Page 58](#)
- [Configuring Gateway Screening Stop Action Sets Page 61](#)
- [Configuring TLNP Gateway Screening Stop Action Sets Page 73](#)
- [Removing Gateway Screening Stop Action Sets Page 86](#)
- [Setting the Threshold for Reporting Gateway Screening Activity Page 89](#)
- [Setting the Maximum Number of Gateway Screening Rejected Messages Page 93](#)

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:

- Translation Services Modules (TSMs)
- Database Services Modules (DSMs).
- EAGLE 5-Service Module 4 GB (E5-SM4G)

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 TSMs or DSMs) 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](#) on page 18 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](#) on page 61 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 ISUP IAM message for the Calling Name Conversion Facility feature.
- `TLNP` – ISUP IAMs that pass gateway screening are processed either by the ISUP NP with EPAP feature (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).
- `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 `gwsn=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 `gwsn=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 `gwsn=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 `gwsn=on` parameters of the `ent-ls` or `chg-ls` commands.



CAUTION

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 `gwsn` parameters are described in the [Linkset Parameters](#) on page 17 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 too big to be loaded onto the LIM or service module.

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

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 be 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](#) on page 32 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 1 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*, *isupcgpa*, *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 - SCRIN
 - 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](#) on page 22 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](#) on page 23 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](#) on page 24 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      NSF1      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      NSF1      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     NSF1      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](#) on page 25 shows the valid combinations of the ITU-I parameter values. [Table 6: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters](#) on page 25 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 on page 25 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 on page 26 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](#) on page 61 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      NSF1      NSR/ACT
IEC     240     001     010&&200 STOP     -----
IEC     241     *      *      CGPA     cg04
SR      ZONE   AREA   ID      NSF1      NSR/ACT
IEC     1       003     4      BLKOPC   blk1
IEC     1       003     5      STOP     COPY
SR      NPC
IEC     00235
IEC     00240
SR      NI      NC      NCM      NSF1      NSR/ACT
WRD2    243     015&&075 *      STOP     RDCT
WRD3    243     105     002     CGPA     WRD4
SR      NPC
WRD4    00245
WRD4    00247
SR      NSF1      NSR/ACT
IEC     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
```

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  NSF1      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 `npcfmt.i` 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](#) on page 32 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](#) on page 33 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 `npcfmt` 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 `NPCFMT` 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.

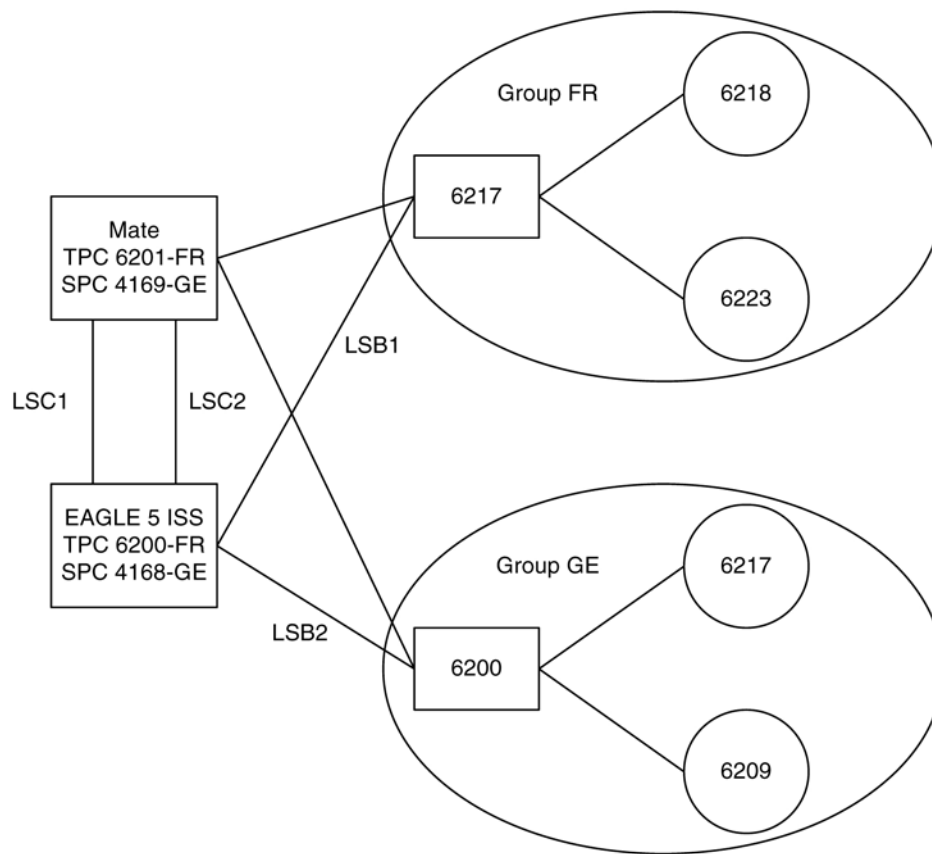
Gateway Screening Using Duplicate ITU National Point Codes

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](#) on page 34, 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](#) on page 40 through [Figure 10: Gateway Screening Configuration - Example 7](#) on page 49). 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 GPL must be configured in the database with the `ent-card:type=tsm:appl=gl: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**

CAUTION: When Gateway Screening is in the screen test mode, as defined by the linkset parameters `gwsa=off` and `gws=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. 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 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](#) on page 38). 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](#) on page 37 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.

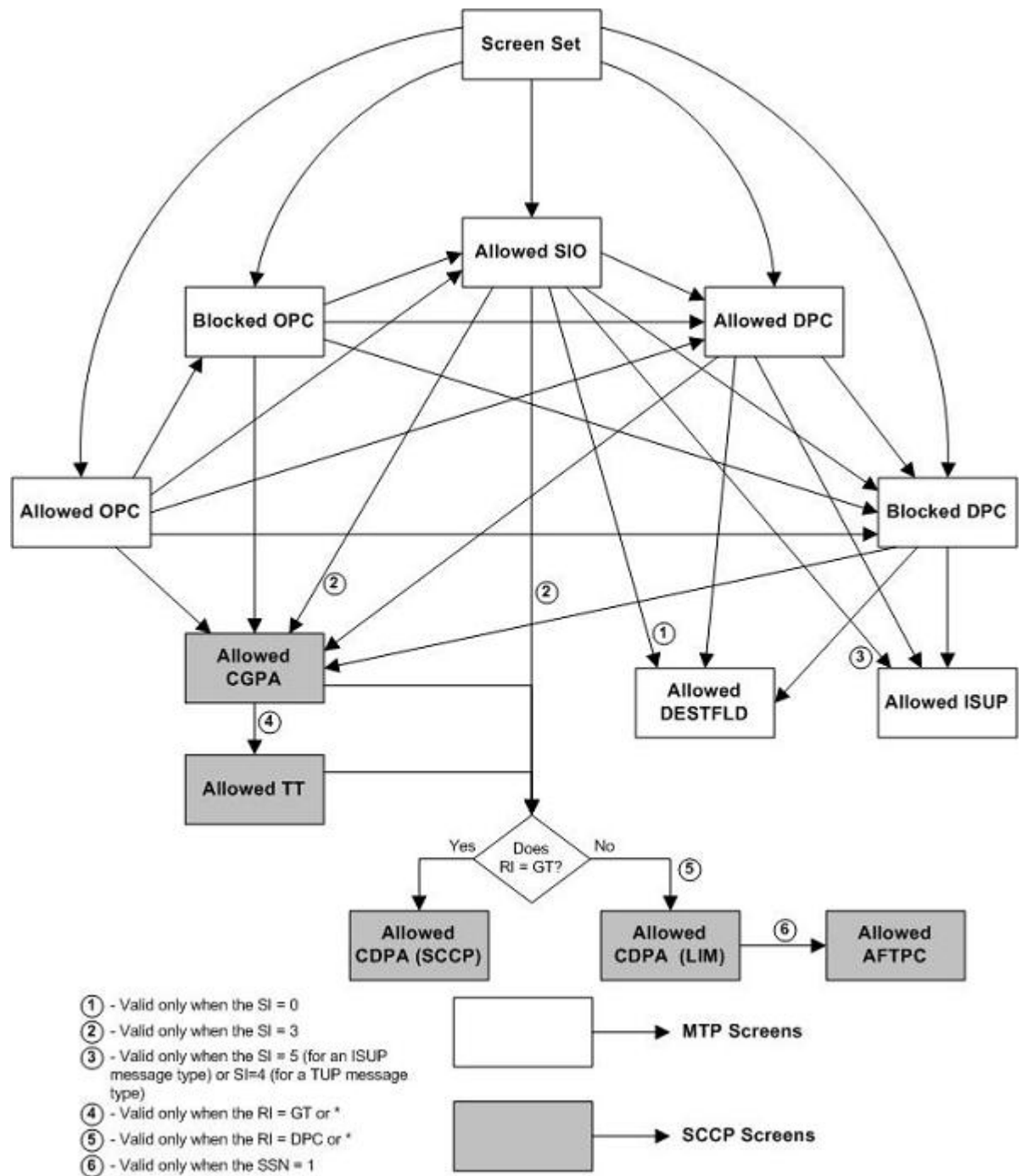
Table 9: Gateway Screening Process and Provisioning Order

MTP Gateway Screening Order		SCCP Gateway 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 9. Allowed CDPA 10. Allowed AFTPC	8. Blocked OPC 9. Allowed OPC 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



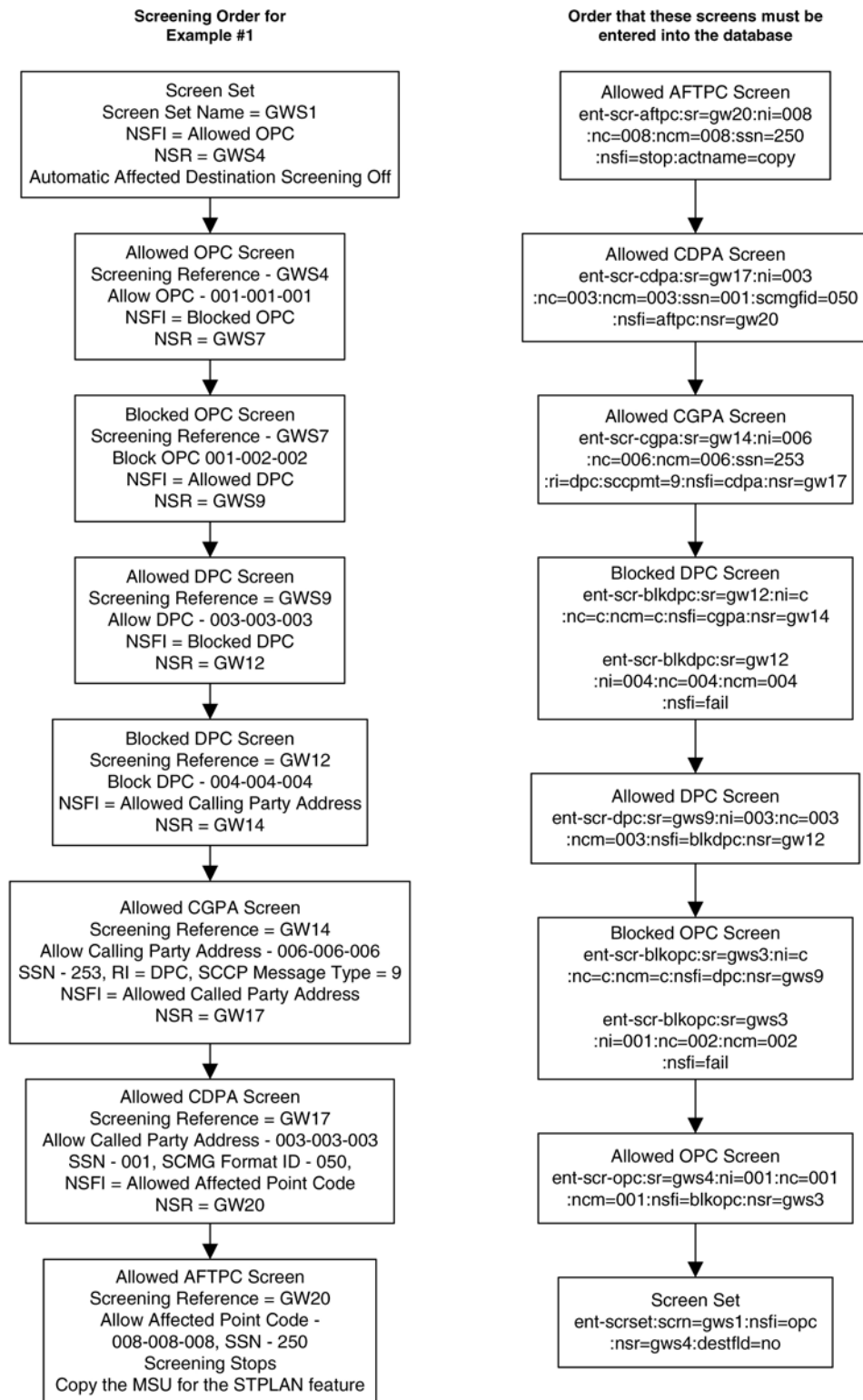
Gateway Screening Configuration Examples

Example 1

Example 1 screens the messages in a linkset for the following criteria. *Figure 4: Gateway Screening Configuration - Example 1* on page 40 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](#) on page 42 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:

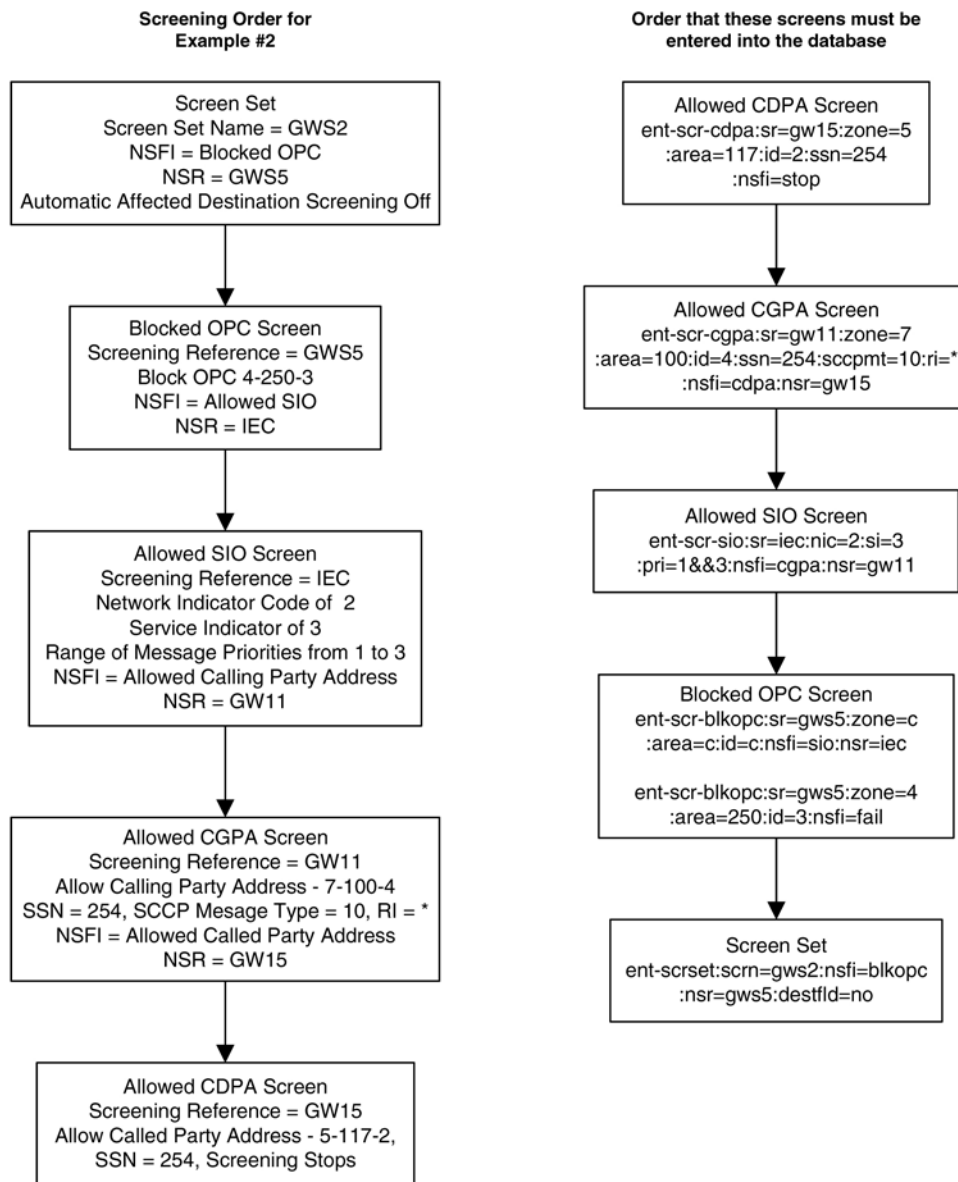
- The network indicator code of 2 (`nic=2`)
- The service indicator of 3 (`si=3`)
- Message priorities ranging from 1 to 3 (`:pri=1&&3`)

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](#) on page 44 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

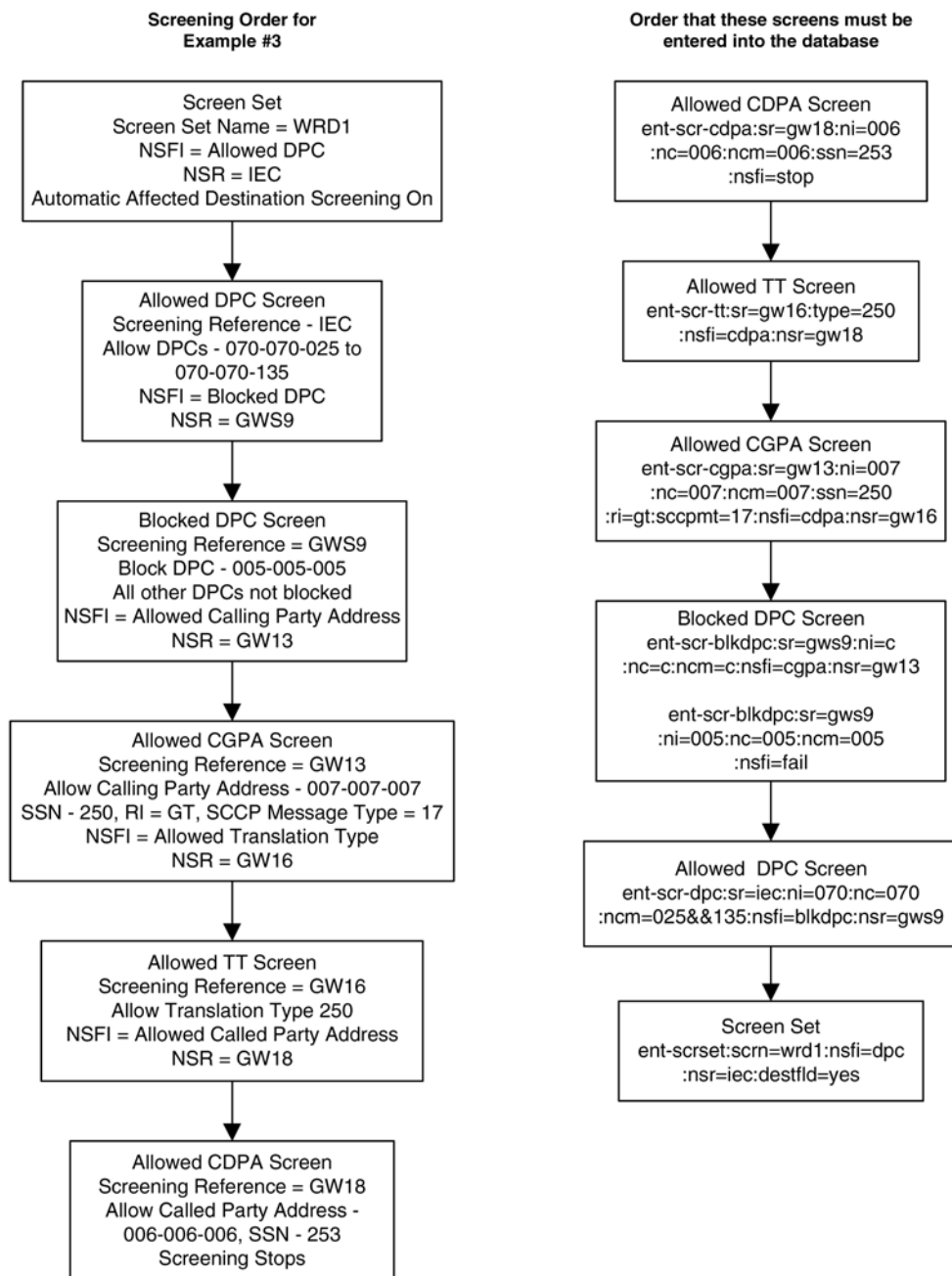
The calling party address (CGPA) 007-007-007, with the subsystem number of 250 and the routing indicator (ri) of gt and the SCCP Message type of XUDT

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](#) on page 45 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:

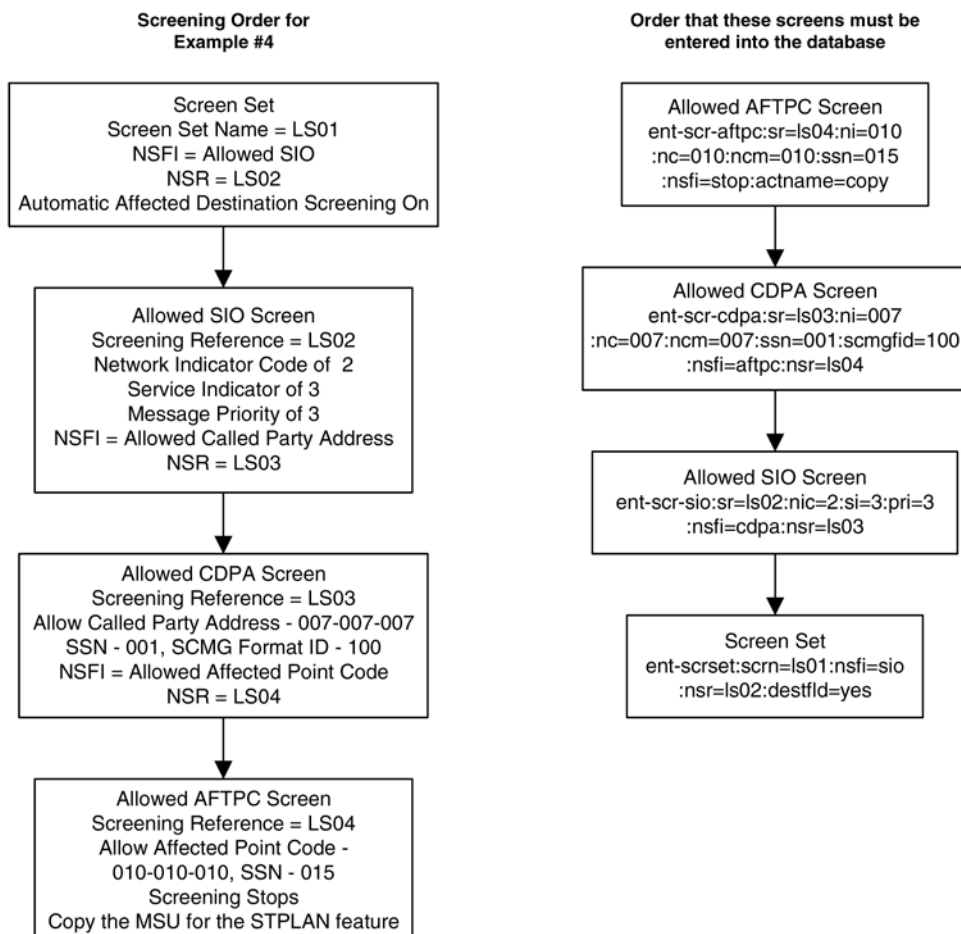
- The network indicator code of 2 (*nic=2*)
- The service indicator of 3 (*si=3*)
- Message priority of 3 (*pri=3*)

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](#) on page 46 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

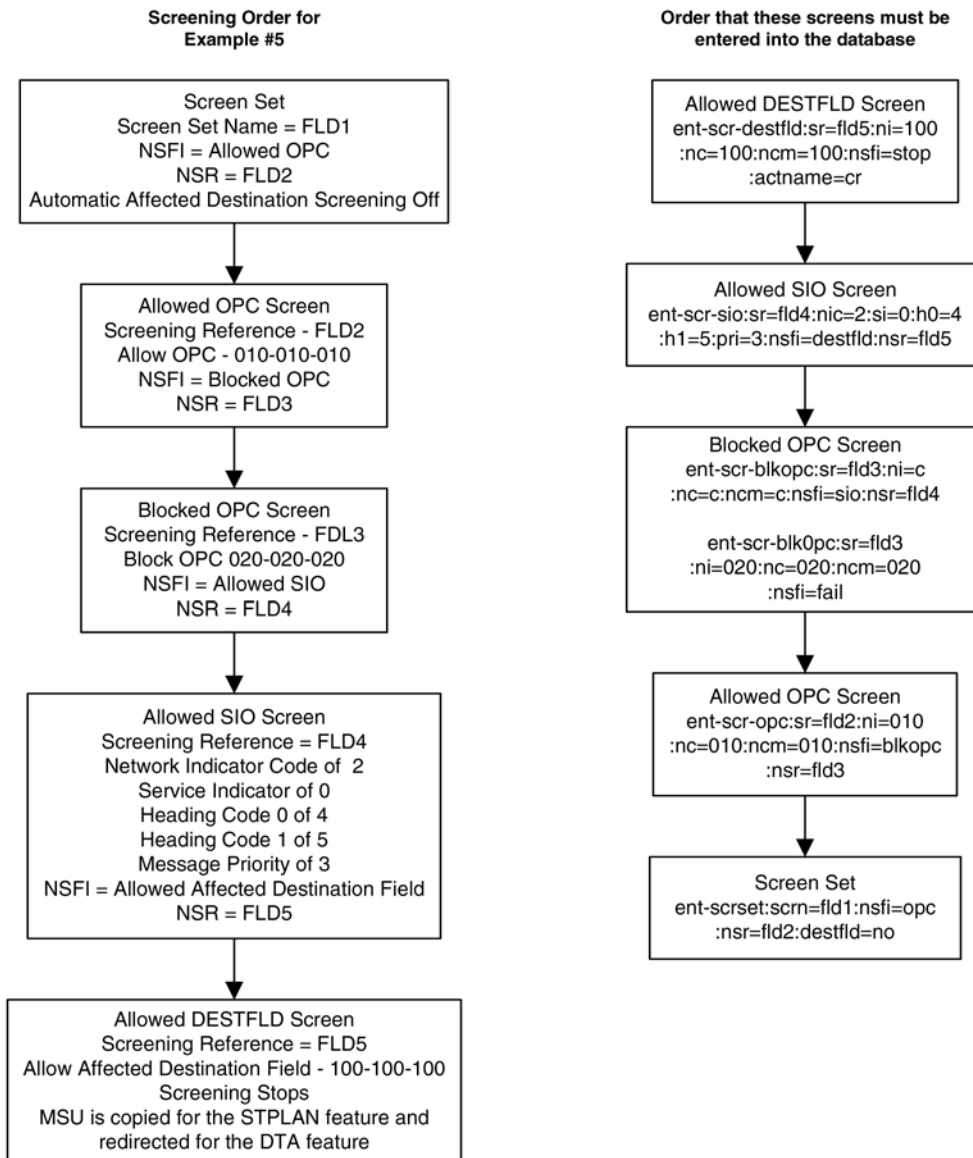
The following SIO information:

- 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](#) on page 48 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

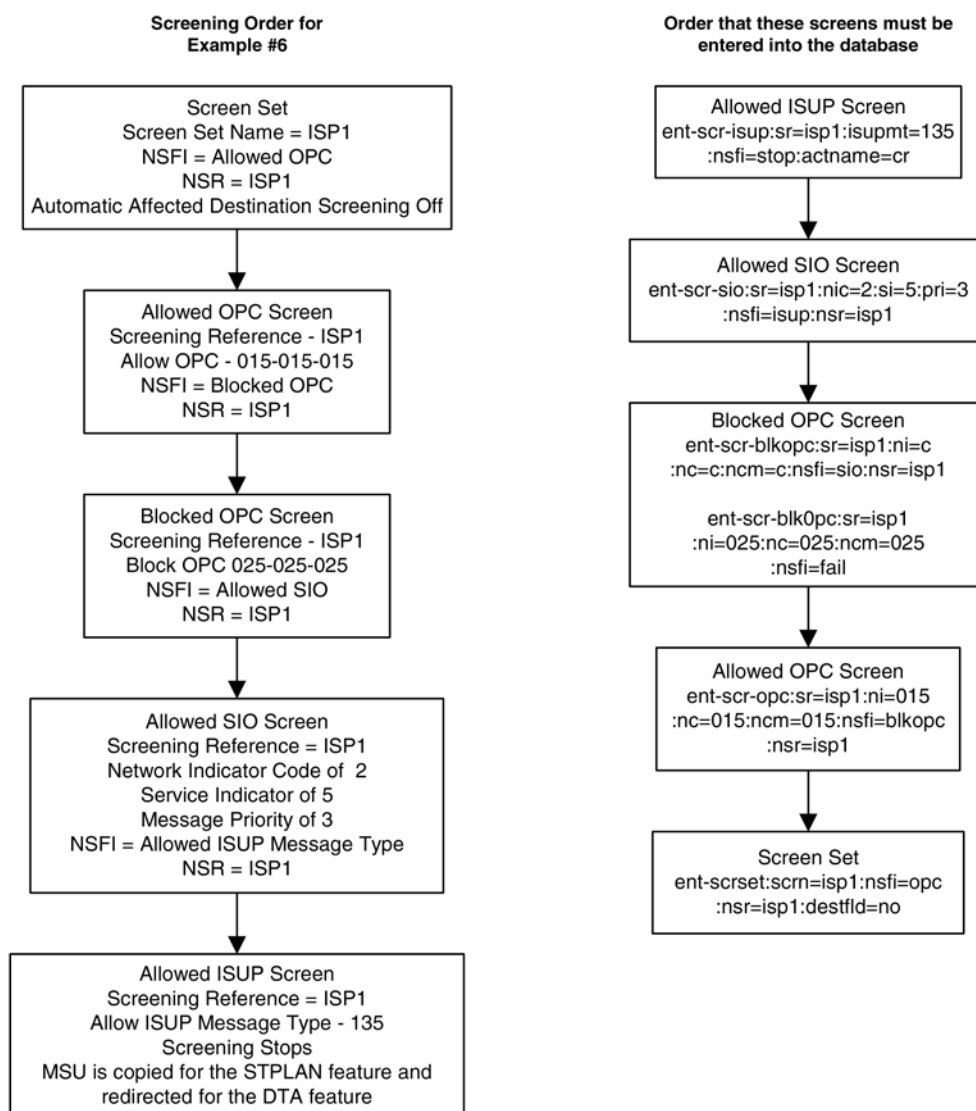
The following SIO information:

- 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



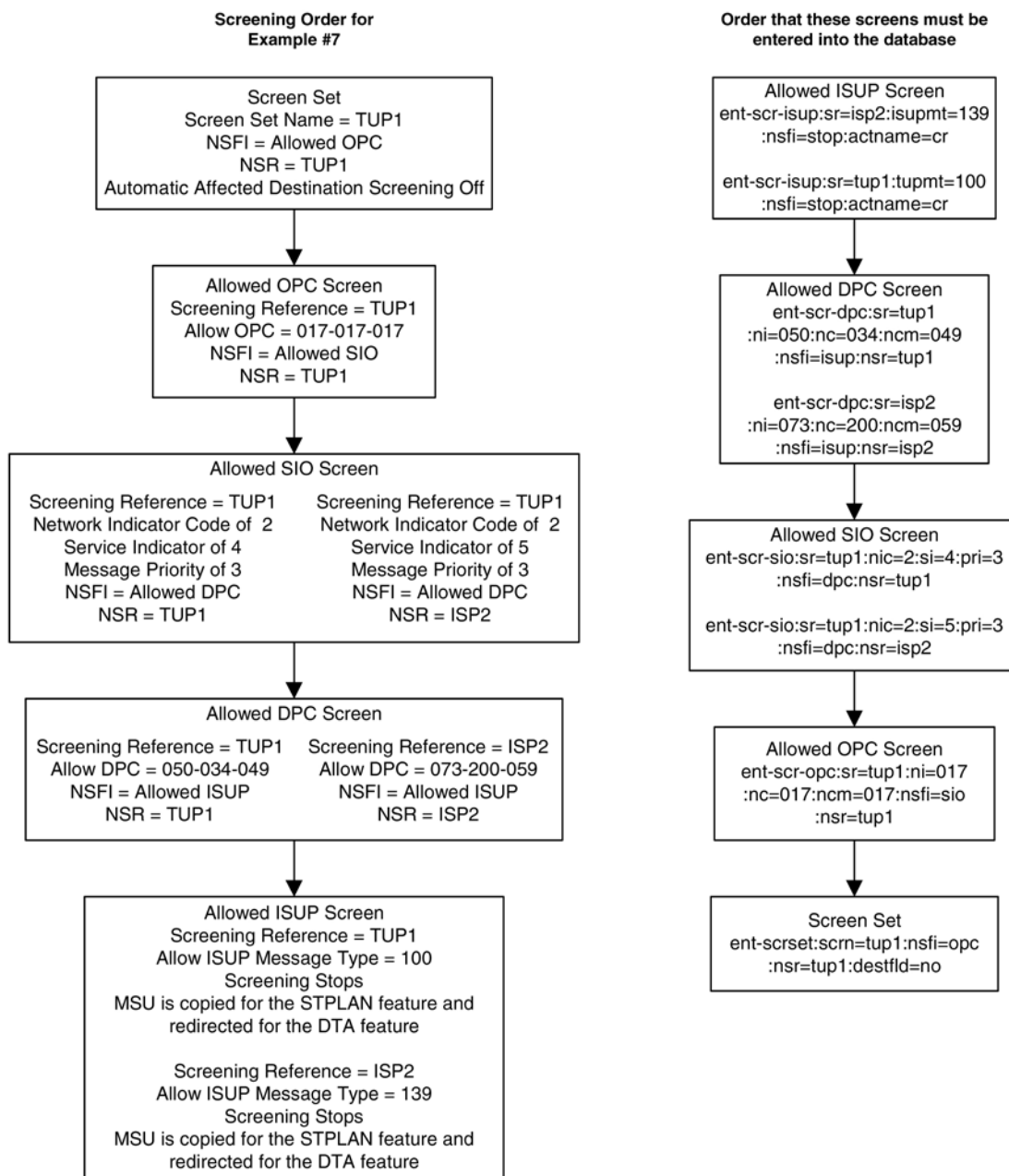
Example 7

Example 7 screens the messages in a linkset for the following criteria. [Figure 10: Gateway Screening Configuration - Example 7](#) on page 49 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 an 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](#) on page 51, using the `ent-card` command.

Table 10: GLS Card Types

Card Type	Part Number
TSM-256	870-1289-XX
TSM-512	870-1290-XX
TSM-768	870-1291-XX
TSM-1024	870-1292-XX
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 or GPL 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 ISS. 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 the *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 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.

1. Display the cards in the EAGLE 5 ISS using the `rtrv-card` command.

This is an example of the possible output. Cards should be distributed throughout the EAGLE 5 ISS for proper power distribution. Refer to the *Installation Manual - EAGLE 5 ISS* for the shelf power distribution. This is an example of the possible output.

```
rlghncxa03w 08-11-25 09:58:31 GMT EAGLE5 40.0.0
CARD   TYPE      APPL      LSET NAME      LINK SLC      LSET NAME      LINK SLC
1101   TSM          SCCP
1102   TSM          GLS
1113   GPSM         EOAM
1114   TDM-A
1115   GPSM         EOAM
```

1116	TDM-B							
1117	MDAL							
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
1207	LIMV35	SS7GX25	nsp1	A	0			
1208	LIMV35	SS7GX25	nsp1	A	1			
1211	TSM	GLS						
1216	ACMENET	STPLAN						
1308	LIMDS0	SS7ANSI	sp6	A	1	sp7	B	0
1314	LIMDS0	SS7ANSI	sp7	A	1	sp5	B	1
1317	ACMENET	STPLAN						

If the APPL field of the `rtrv-card` command output shows cards assigned to the GLS application continue the procedure with [Step 4](#) on page 52.

If the APPL field of the `rtrv-card` command output shows no cards assigned to the GLS application continue the procedure with [Step 2](#) on page 52.

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 the *Commands Manual*.

If the Gateway Screening feature is on, continue the procedure with one of these steps.

- If a TSM is being added, continue the procedure with [Step 6](#) on page 53.
- If an E5-TSM is being added, continue the procedure with [Step 5](#) on page 53.

If the Gateway Screening feature is not on, continue the procedure with [Step 3](#) on page 52.

3. If the gateway screening feature is not on, shown by the `GWS = off` entry in the `rtrv-feat` command output in [Step 2](#) on page 52, 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
```

If an E5-TSM is being added, continue the procedure with [Step 5](#) on page 53.

If a TSM is being added, continue the procedure with [Step 6](#) on page 53.

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

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

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. TSM 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 6](#) on page 53.
 - 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](#) on page 53.
 - 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](#) on page 53.
 - If a TSM is being added, continue the procedure with [Step 6](#) on page 53.
5. Verify that HIPR cards are installed at card locations 9 and 10 in the shelf where the E5-TSM card 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 card will be installed, continue the procedure with [Step 6](#) on page 53.

If HIPR cards are not installed in the shelf where the E5-TSM card will be installed, refer the *Installation Manual - EAGLE 5 ISS* and install the HIPR cards. Once the HIPR cards have been installed, continue the procedure with [Step 6](#) on page 53.

6. 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 7](#) on page 54.

If the GLS card is not in the required card location, continue the procedure by performing one of these actions.

- If the GLS card is a TSM, insert the TSM into the card location. Continue the procedure with [Step 7](#) on page 54.
- If the GLS card is an E5-TSM, insert the E5-TSM into the card location. Continue the procedure with [Step 7](#) on page 54.



CAUTION

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 the *Unsolicited Alarm and Information Messages Manual* before proceeding with this procedure.

7. 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
```

8. 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
```

9. Put the card in service using the `rst-card` command with the card location specified in [Step 7](#) on page 54 . For this example, enter this command.

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

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

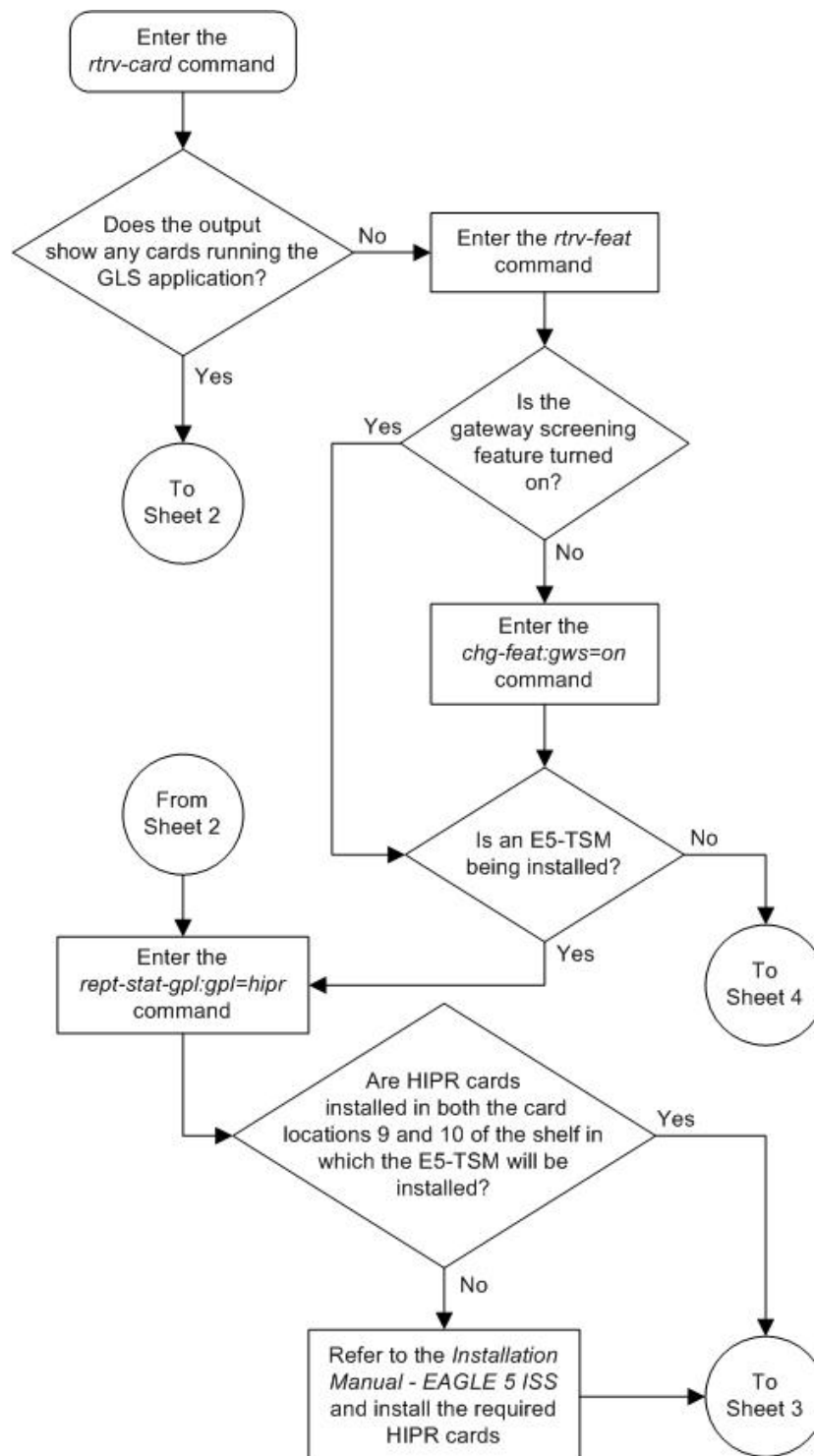
```
rlghncxa03w 06-10-28 08:21:07 GMT EAGLE5 36.0.0
Card has been allowed.
```

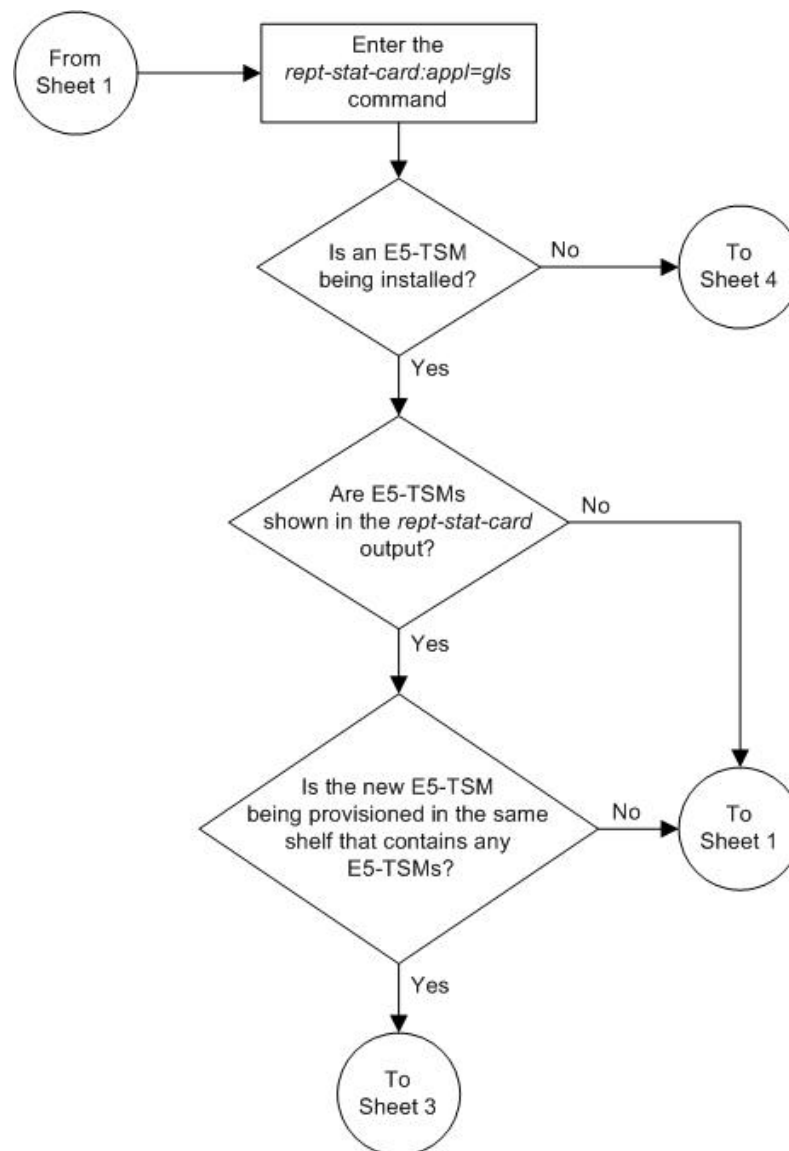
10. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

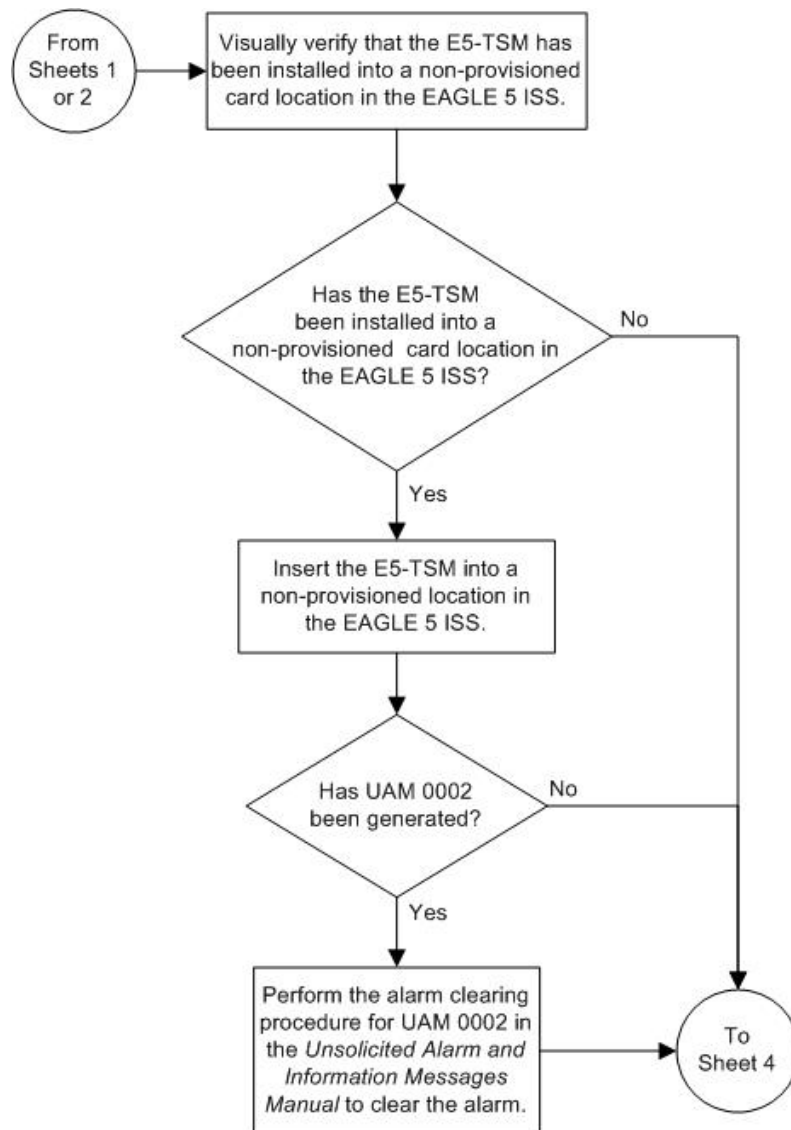
These messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

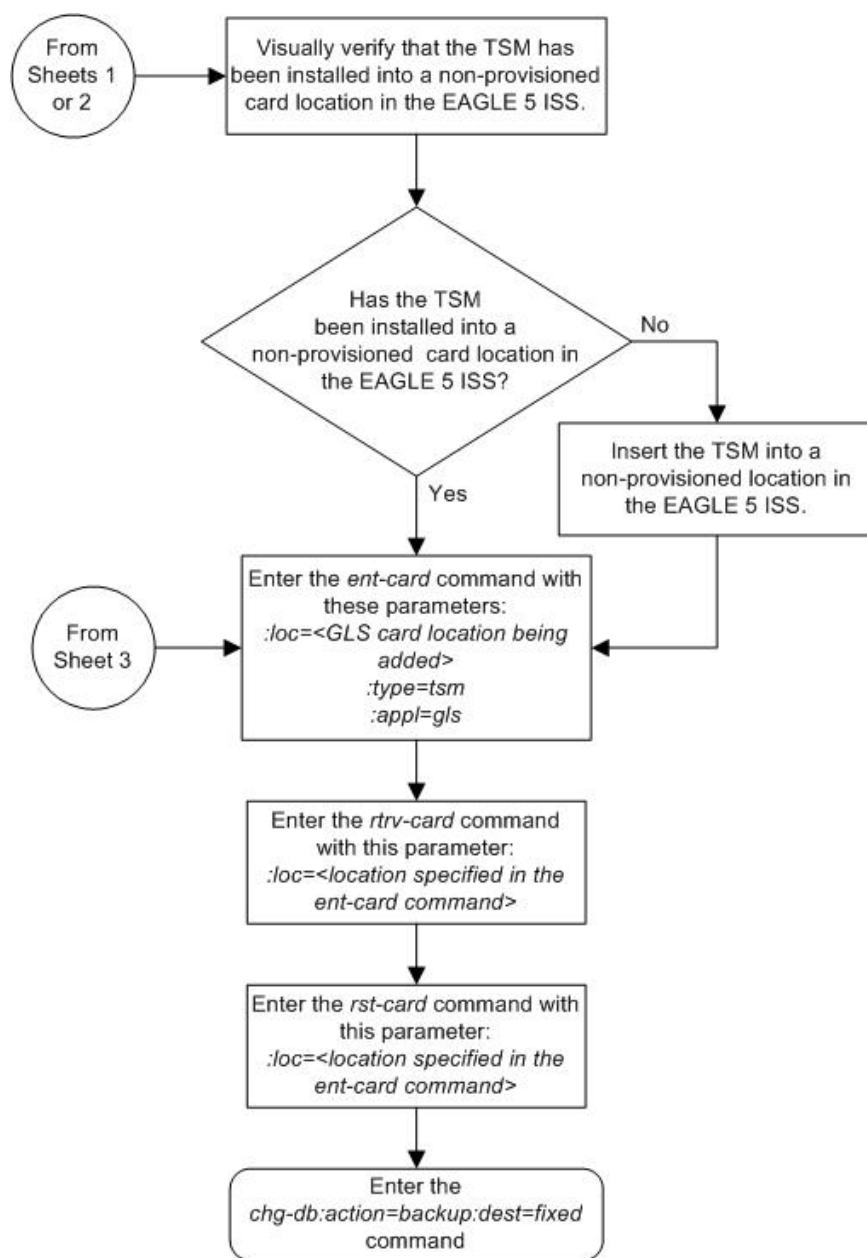
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```

Figure 11: Adding an 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

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 than 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 06-10-25 09:58:31 GMT EAGLE5 36.0.0
CARD  TYPE      APPL      LSET NAME      LINK SLC  LSET NAME      LINK SLC
1101  TSM          SCCP
1102  TSM          GLS
1103  ACMENET      STPLAN
1104  ACMENET      STPLAN
1113  GPSM         EOAM
1114  TDM-A
1115  GPSM         EOAM
1116  TDM-B
1117  MDAL
1201  LIMDS0       SS7ANSI  lsn1           A    0    lsn2           B    1
1202  LIMV35       SS7GX25  lsn2           A    0
1203  LIMV35       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 06-10-25 15:26:30 GMT EAGLE5 36.0.0
CARD  VERSION      TYPE      GPL      PST      SST      AST
1101  110-003-000    TSM      SCCP      IS-NR     Active   ---
1102  110-003-000    TSM      GLS       IS-NR     Active   ---
1103  110-002-000    ACMENET  STPLAN   IS-NR     Active   ---
1104  110-002-000    ACMENET  STPLAN   IS-NR     Active   ---
1109  109-003-000    HMUX     BPHMUX   IS-NR     Active   ---
1110  109-003-000    HMUX     BPHMUX   IS-NR     Active   ---
1201  110-003-000    LIMDS0   SS7ANSI   IS-NR     Active   ---
1202  110-002-000    LIMV35   SS7GX25   IS-NR     Active   ---
1203  110-003-000    LIMV35   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	---

- 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.
```

- 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
```

- 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
```

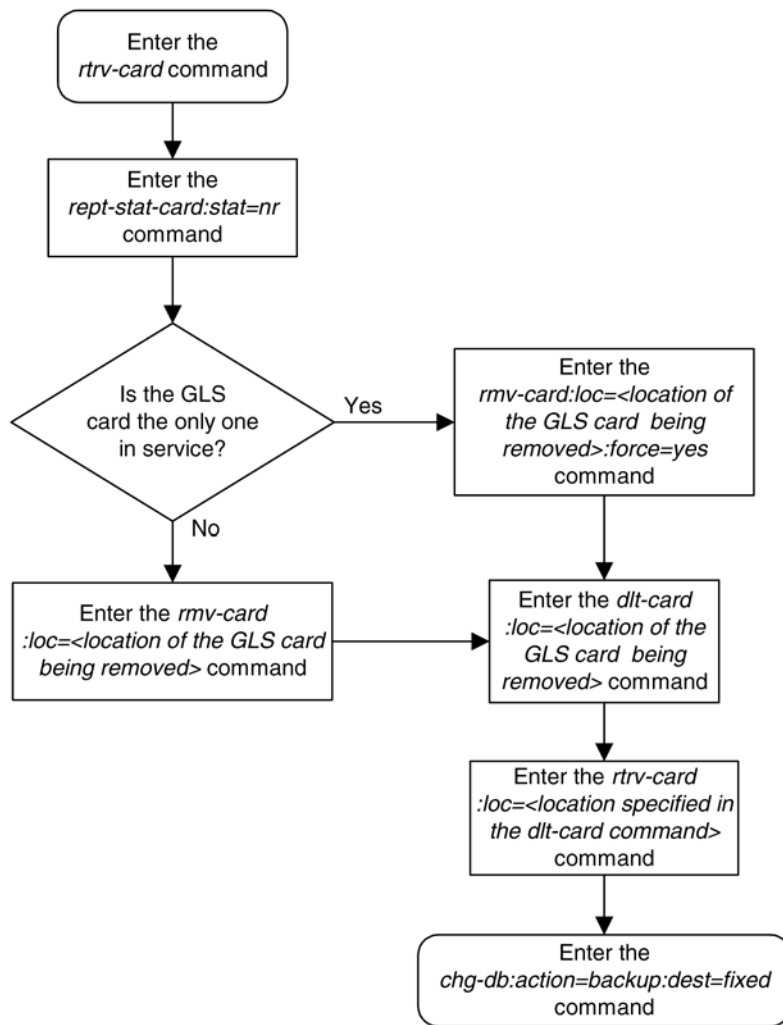
When this command has successfully completed, this message should appear.

```
E2144 Cmd Rej: Location invalid for hardware configuration
```

- 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



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. Eight gateway screening stop actions have been defined.

- 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 ISUP IAM message for the Calling Name Conversion Facility feature.
- TLNP – ISUP IAMs that pass gateway screening are processed either by the ISUP NP with EPAP feature or by the Triggerless LNP feature. This gateway screening stop action is discussed in more detail in the [Configuring TLNP Gateway Screening Stop Action Sets](#) on page 73 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
- NONE – no action is performed on the MSU.



CAUTION: When Gateway Screening is in the screen test mode, as defined by the linkset parameters `gwsa=off` and `gwsn=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](#) on page 86 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](#) on page 63.

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 5 ISS
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](#) on page 63 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		

ACT1	ACT2	ACT3
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	

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

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 the *Commands Manual*.

If the gateway screening feature is turned on, go to [Step 3](#) on page 65 .

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](#) on page 64 , 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 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

4. 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](#) on page 65, or if the `rtrv-feat` output in [Step 1](#) on page 64 shows that the CNCF feature is on, continue the procedure with [Step 6](#) on page 65. If the CNCF feature is not turned on, shown by the CNCF = off entry in the `rtrv-feat` command output in [Step 1](#) on page 64, 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
```

5. The TIF, TIF2, or TIF3 stop actions cannot be specified unless their corresponding features are enabled. If you do not wish to specify these stop actions, or if these stop actions are shown in [Step 3](#) on page 65, continue the procedure with [Step 7](#) on page 66. If these stop actions are not shown in [Step 3](#) on page 65, continue the procedure with [Step 6](#) on page 65.

The TINP stop action cannot be specified unless the TINP stop action is assigned to an existing stop action set. If you do not wish to specify the TINP stop action, or if the TINP stop action is shown in [Step 3](#) on page 65, continue the procedure with [Step 7](#) on page 66. If the TINP stop action is not shown in [Step 3](#) on page 65, the TINP stop action cannot be added to a stop action set. Continue the procedure with [Step 7](#) on page 66.

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](#) on page 66.

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 the *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](#) on page 66.

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](#) on page 63 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=tnp
```

```
chg-gws-actset:actid=9:actname=tnp:act1=tnp
```

```
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
```

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

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 Chapters [Allowed Affected Point Code \(AFTPC\) Screen Configuration](#) on page 95 through [Allowed ISUP Message Type Screen Configuration](#) on page 433 in this manual.



CAUTION

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: 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 5 ISS'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
```

- 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   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

```

GWS action set table is (12 of 16) 75% full

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

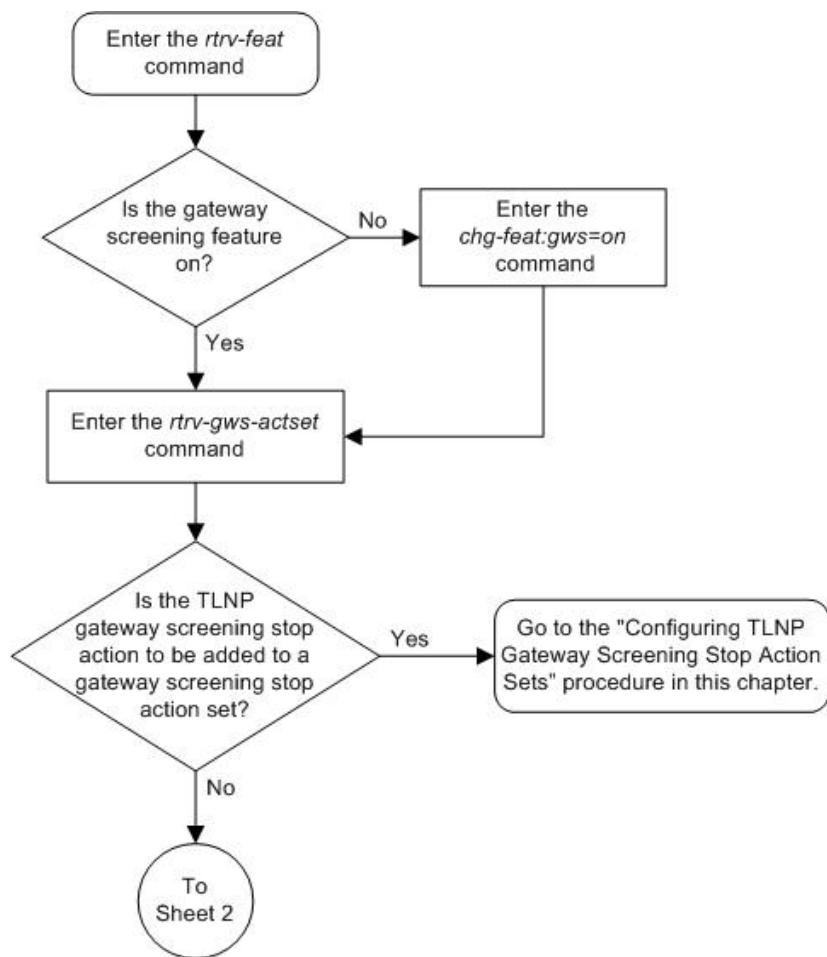
These messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

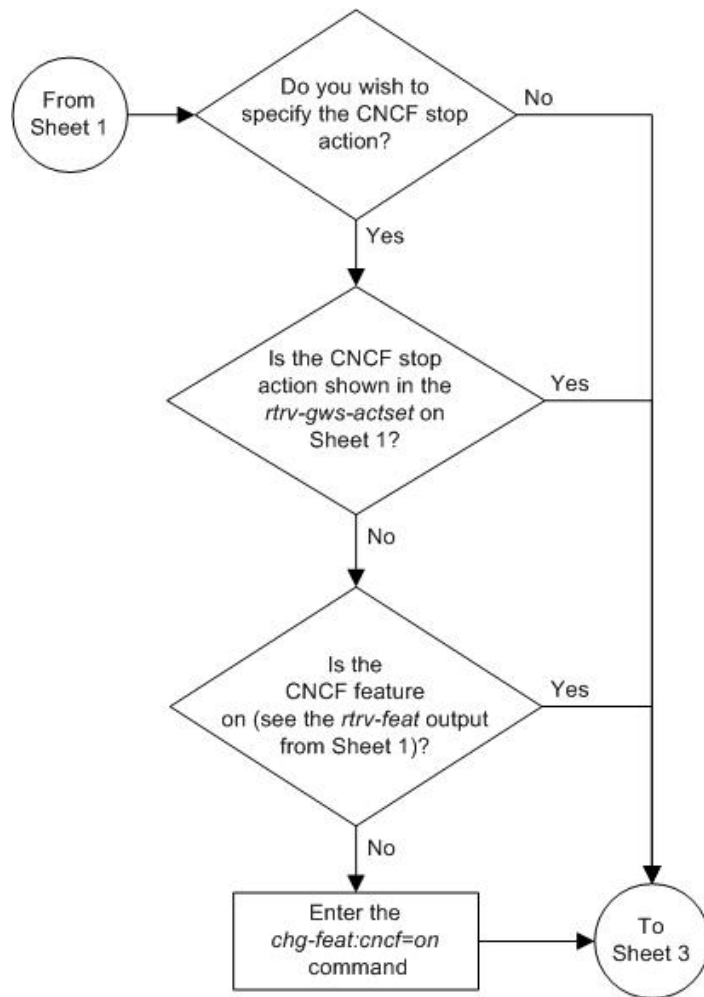
```

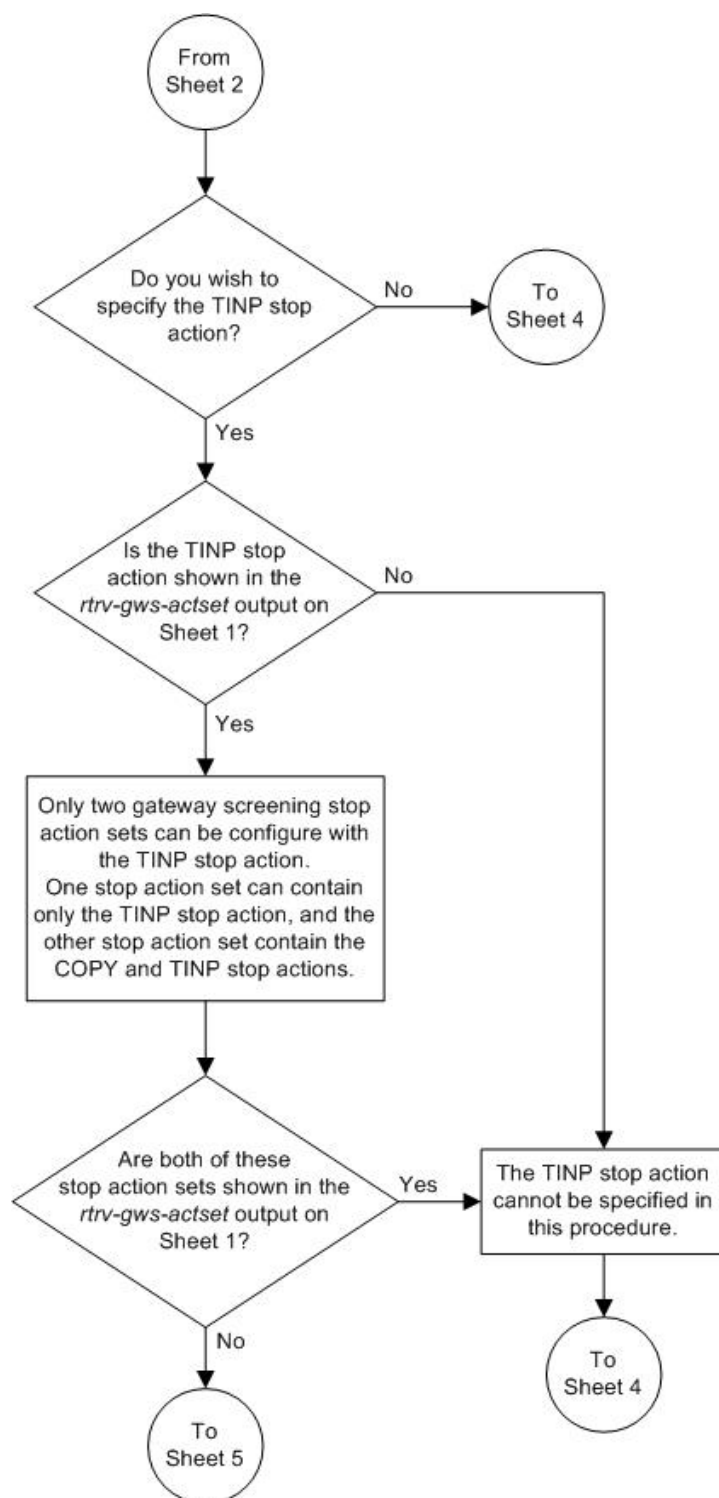
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.

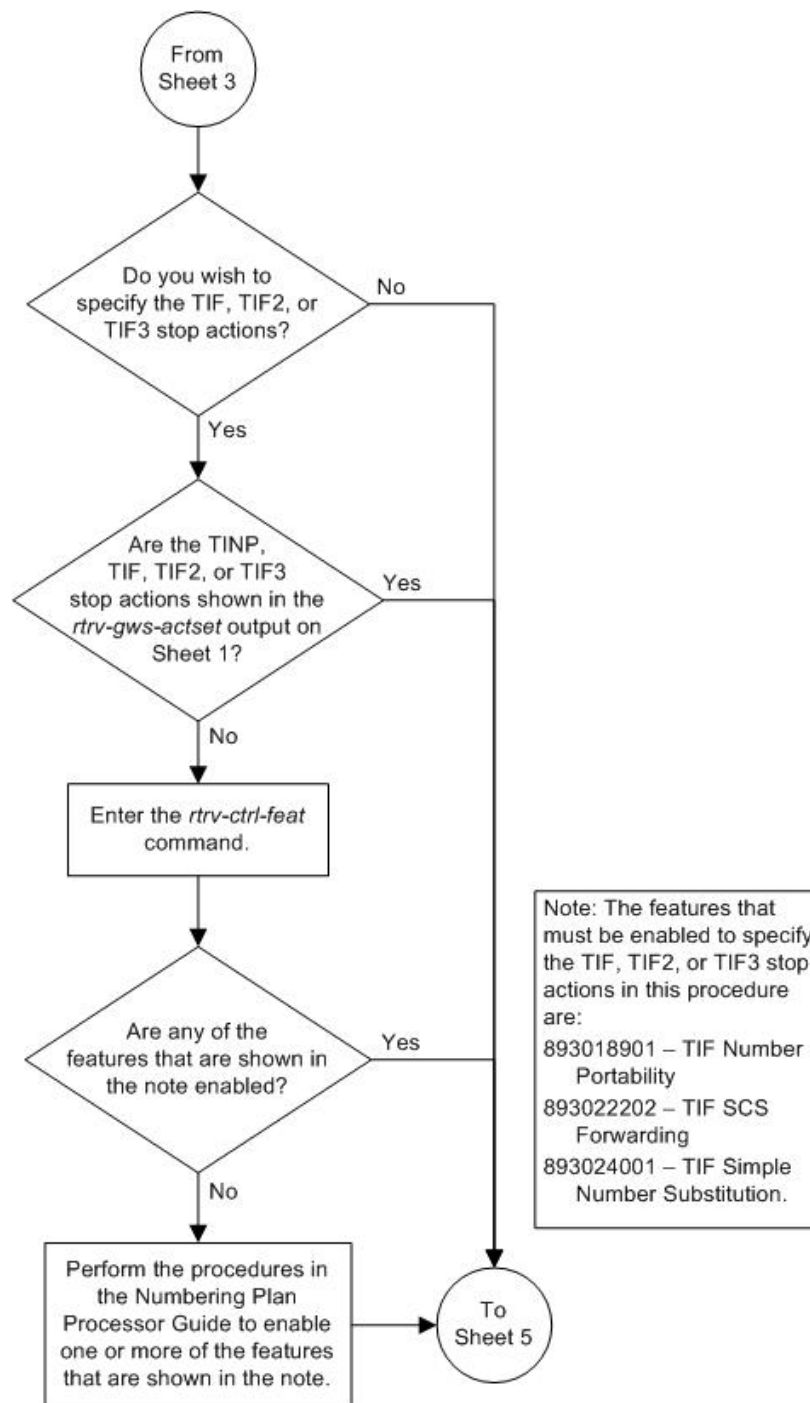
```

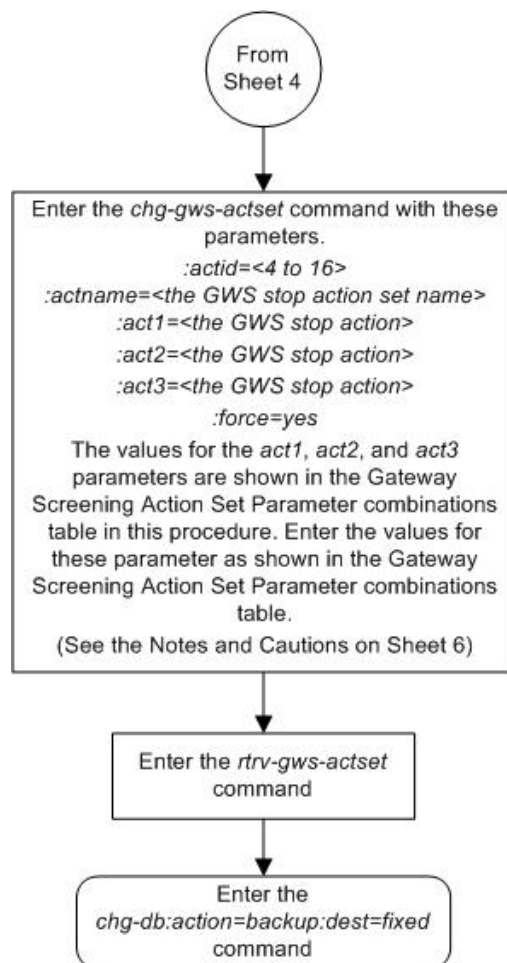
Figure 13: Configuring Gateway Screening Stop Action Sets











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 *actname* parameter must be specified for a new GWS stop action set.
4. The *actname* parameter is not required, but can be specified, if an existing stop action set is being changed.
5. If the *actname* parameter value is different from what is shown in the *rtv-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 (*rtv-scrset*, *rtv-scr-opc*, *rtv-scr-blkopc*, *rtv-scr-sio*, *rtv-scr-dpc*, *rtv-scr-blkdpc*, *rtv-scr-destfld*, *rtv-scr-isup*, *rtv-scr-cgpa*, *rtv-scr-tt*, *rtv-scr-cdpa*, and *rtv-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.

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 *rtv-scr-opc*, *rtv-scr-sio*, or *rtv-scr-dpc* commands, with the *actname* parameter and the GWS stop action set name used in this procedure.

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 the *Feature Manual - G-Port*. The Triggerless LNP feature is discussed in more detail in the *LNP Feature Activation Guide*.

The status of the ISUP NP with EPAP feature can be verified with the `rtrv-ctrl-feat` command. The ISUP NP with EPAP feature also requires that the G-Port feature is enabled and that the 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 the *Feature Manual - G-PORT*.



CAUTION: When Gateway Screening is in the screen test mode, as defined by the linkset parameters `gwsa=off` and `gwsn=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 the *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 ISUP NP with EPAP features are enabled, using the `rtrv-ctrl-feat` command.

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

This is an example of the possible output.

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

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

The following features have been temporarily enabled:

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

The following features have expired temporary keys:

Feature Name	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 the *LNP Feature Activation Guide*.

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

To use the `tlnp` gateway screening stop action for the ISUPNP 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-MIMSLK 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 = ntxxxxxxxxxxxxxx

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 ISUPNP 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 [Customer Care Center](#) on page 4 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](#) on page 75.

```
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**

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 [Allowed Affected Point Code \(AFTPC\) Screen Configuration](#) on page 95 through [Allowed ISUP Message Type Screen Configuration](#) on page 433 in this manual.

**CAUTION**

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
```

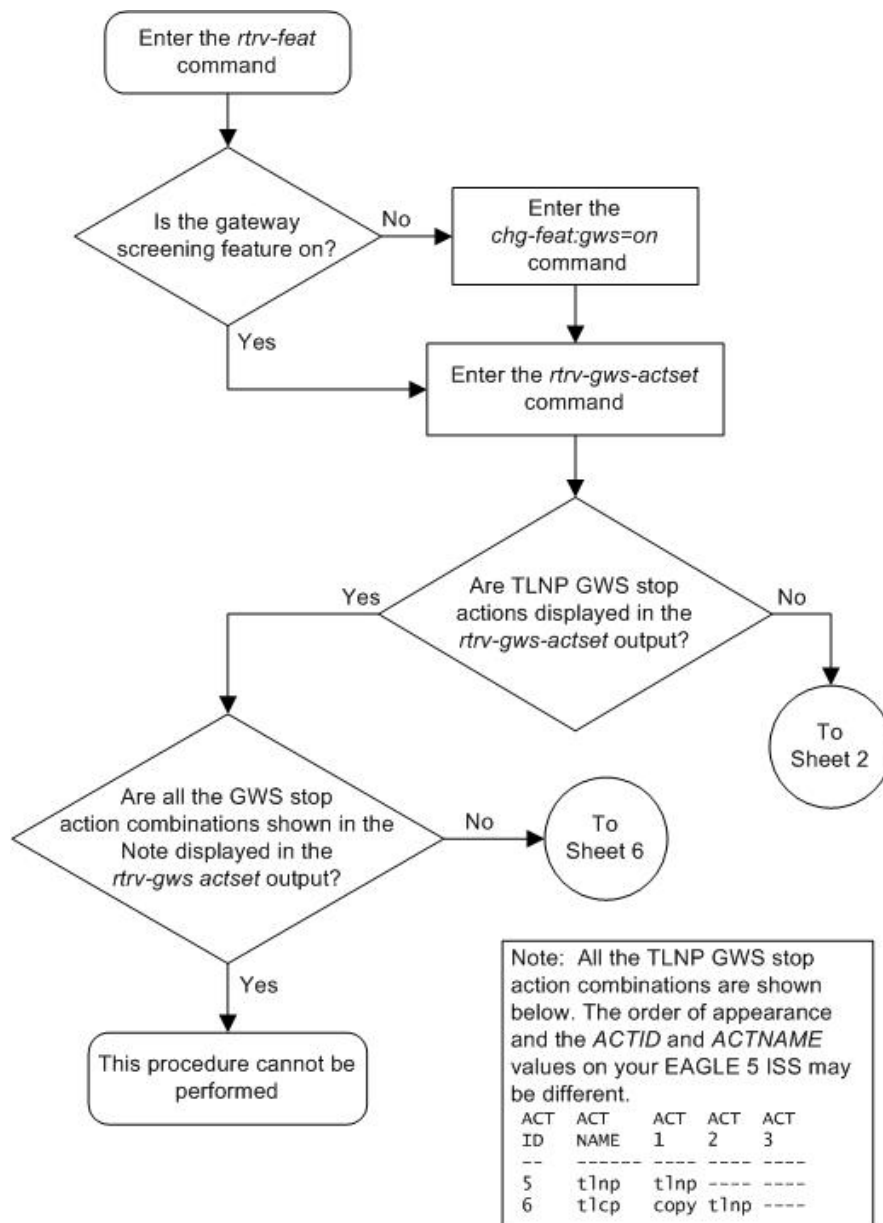
14. Backup the new changes using the chg-db:action=backup:dest=fixed command.

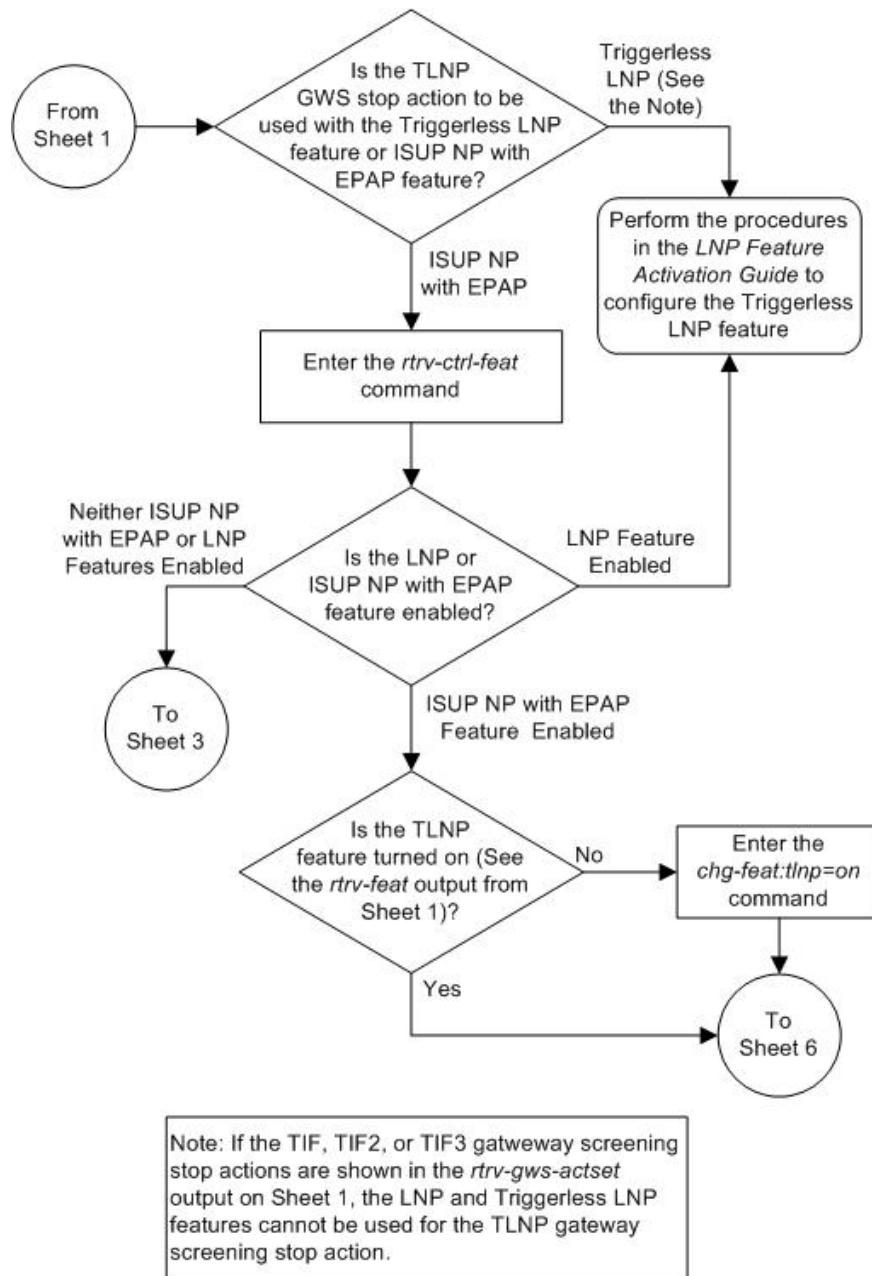
These messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

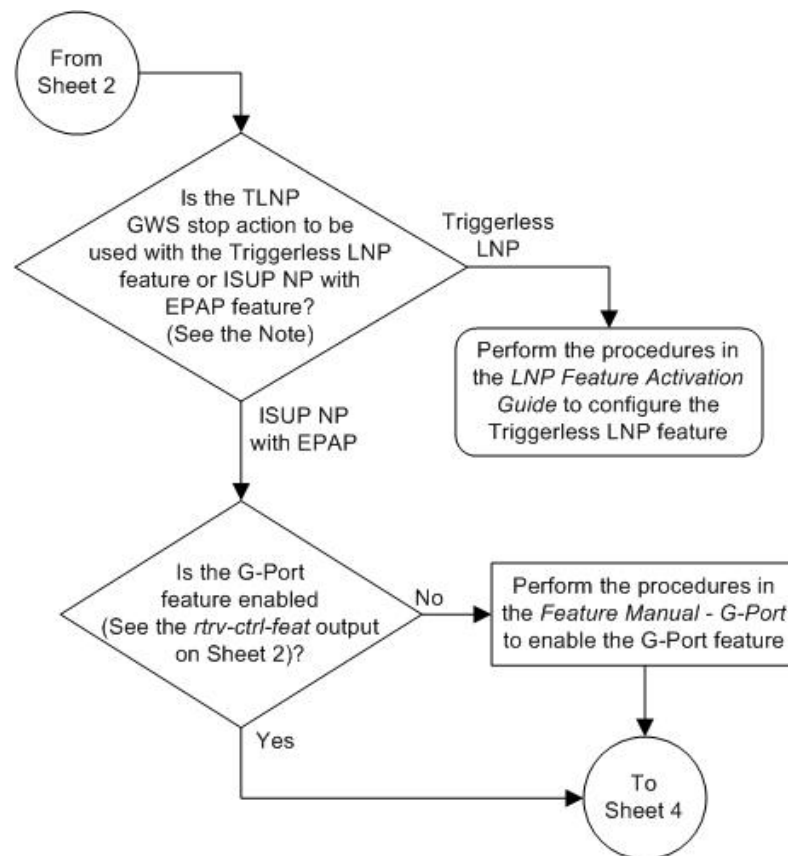
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
```

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

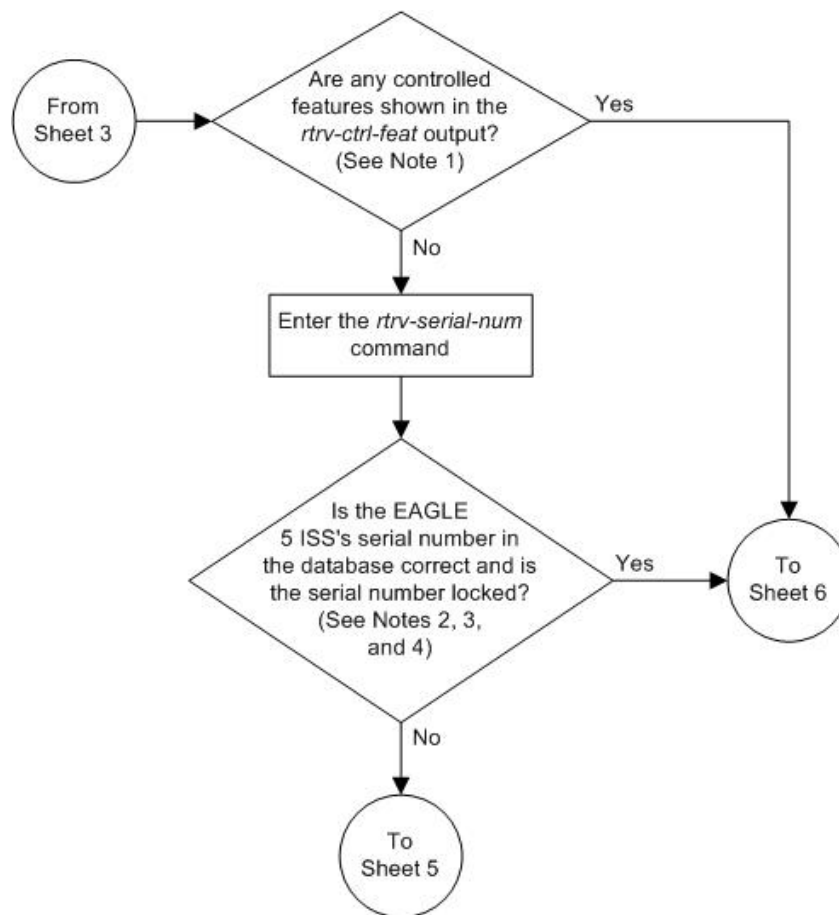
Figure 14: Configuring TLNP Gateway Screening Stop Action Sets





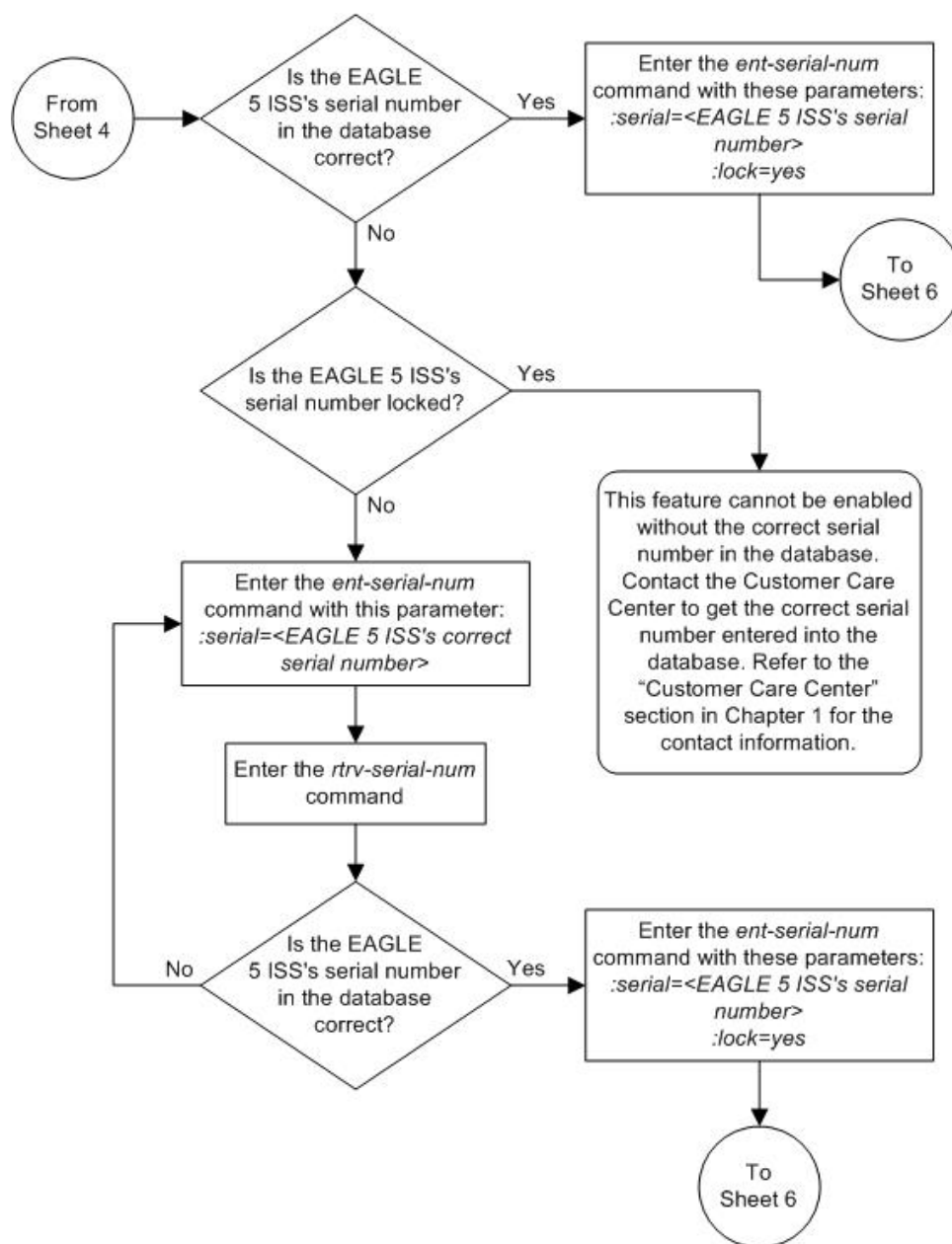


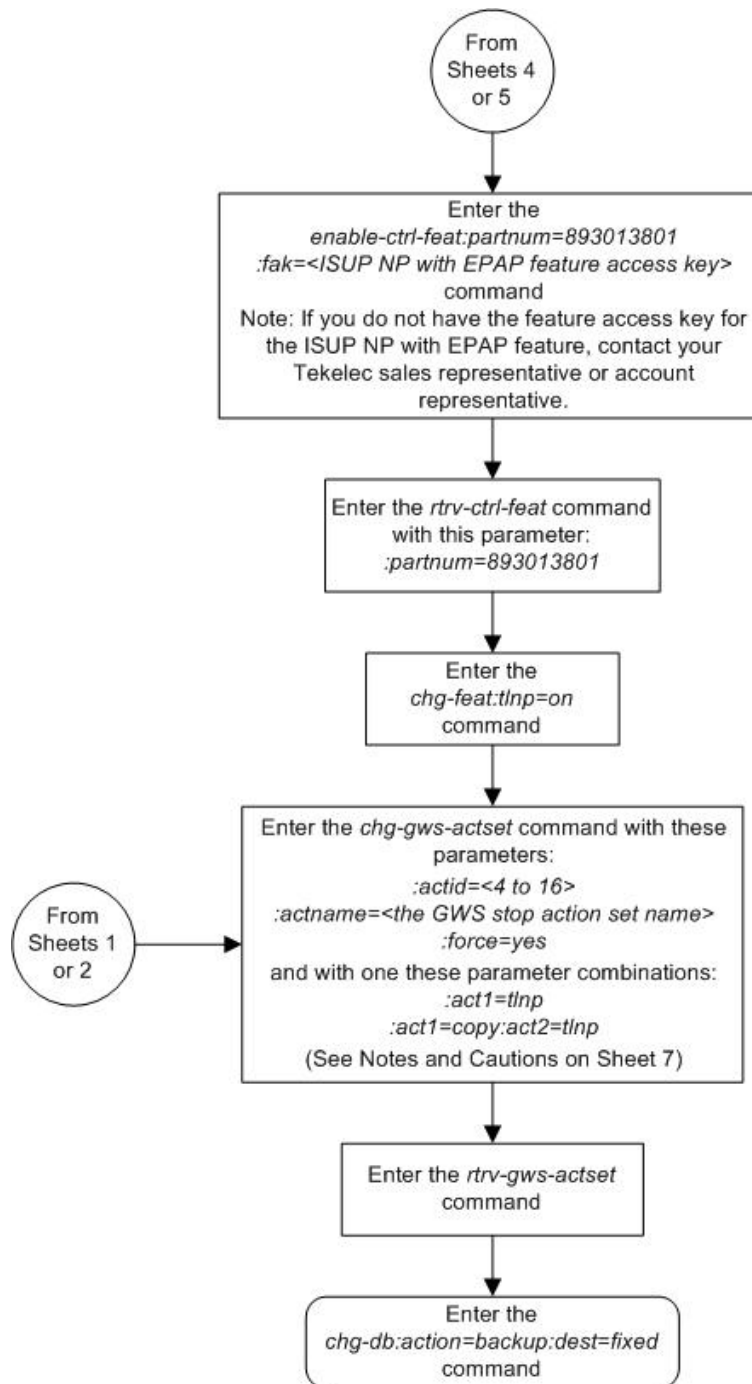
Note: If the TIF Number Portability, TIF SCS Forwarding, or TIF Simple Number Substitution features are shown in the *rtrv-ctrl-feat* output on Sheet 2 as enabled, the LNP and Triggerless LNP features cannot be used for the TLNP gateway screening stop action.



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).





Notes:

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

Cautions:

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

Removing Gateway Screening Stop Action Sets

This procedure is used to remove a gateway screening stop action set from the database or a gateway screening stop action from a gateway screening stop action set from the database using the *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
ID   NAME  1    2    3    4    5    6    7    8    9    10
---  ---
1    copy  copy
2    rdct  rdct
3    cr    copy rdct
4    cnf   cnf
5    cpnf  copy cnf
6    cfrd  copy cnf rdct
7    cnrd  cnf 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: 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.

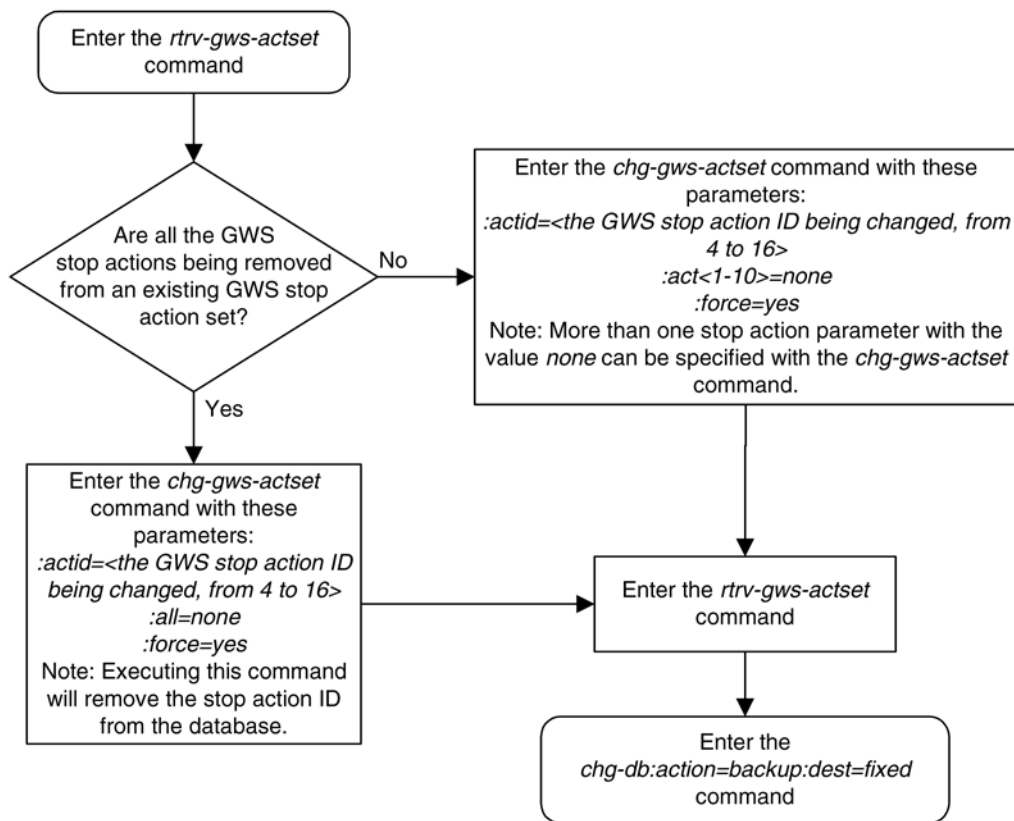
These messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```

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 than 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 06-10-25 15:26:30 GMT EAGLE5 36.0.0

LSN          APCA      (SS7)  SCRNL3T  SLT          GWS  GWS  GWS
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

LSN          APCA      (X25)  SCRNL3T  SLT          GWS  GWS  GWS
ls6          244-010-004  ss04  1   4   no   A   6   off off off --- off
ls7          244-012-005  ss07  1   5   no   C   3   on  on  on --- off
ls8          244-012-006  ss09  1   6   no   C   8   off off off --- off

LSN          APCI      (SS7)  SCRNL3T  SLT          GWS  GWS  GWS
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 --- ---

LSN          APCN      (SS7)  SCRNL3T  SLT          GWS  GWS  GWS
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 ( 12 of 1024) 1% full
```

- 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
```

- 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.

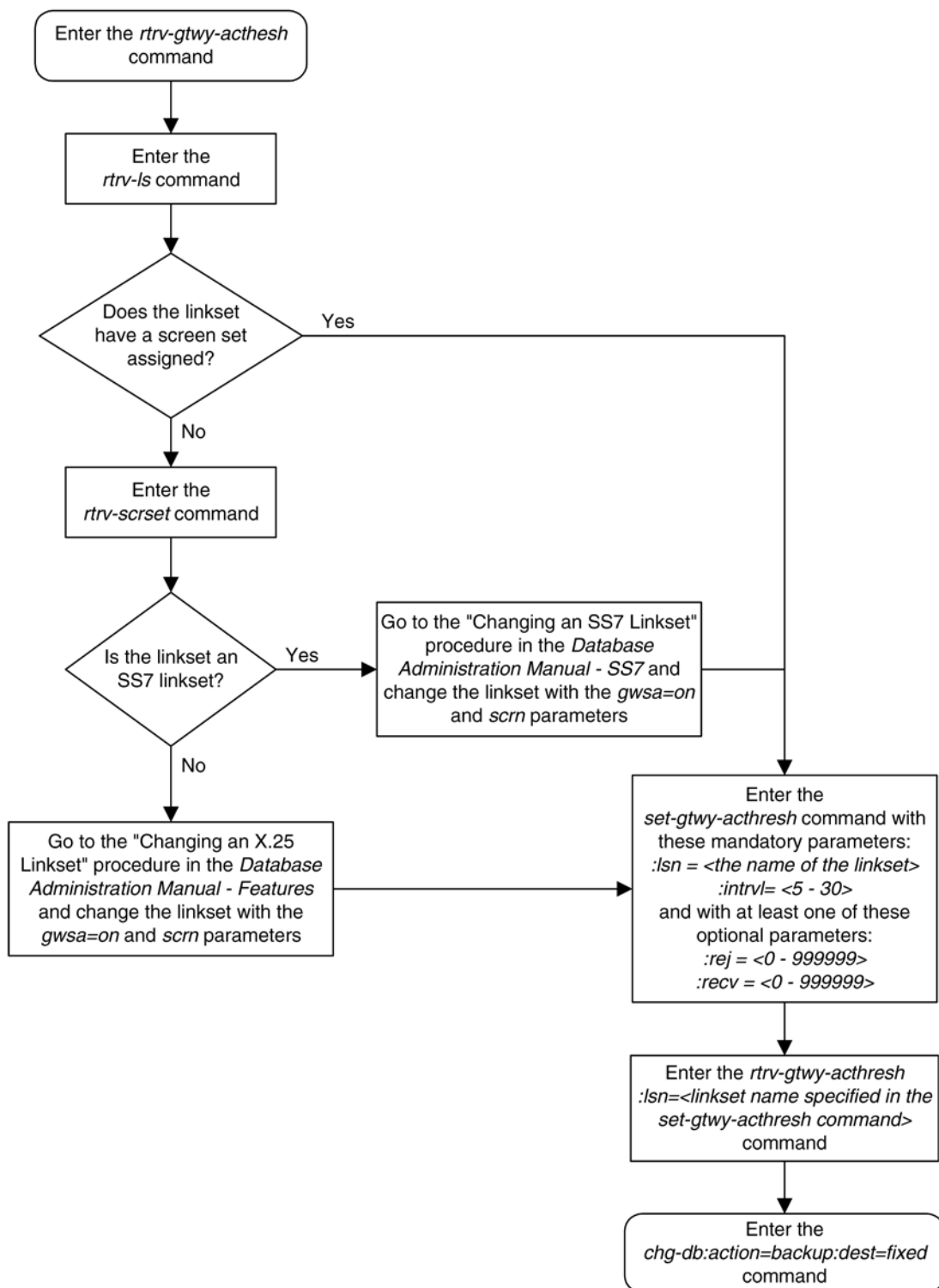
```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0
LSN      REJ      RECV      INTRVL
LSA2     30       2500      20
```

- 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
```

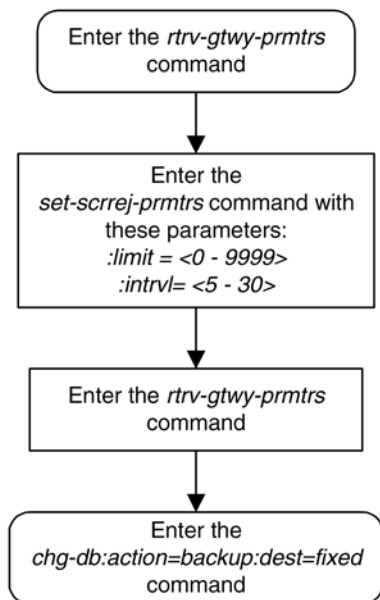
4. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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



Chapter 3

Allowed Affected Point Code (AFTPC) Screen Configuration

Topics:

- [*Introduction Page 96*](#)
- [*Adding an Allowed Affected Point Code Screen Page 100*](#)
- [*Removing an Allowed Affected Point Code Screen Page 108*](#)
- [*Changing an Allowed Affected Point Code Screen Page 112*](#)

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 19: Allowed Affected Point Code Screening Function](#) on page 99 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.

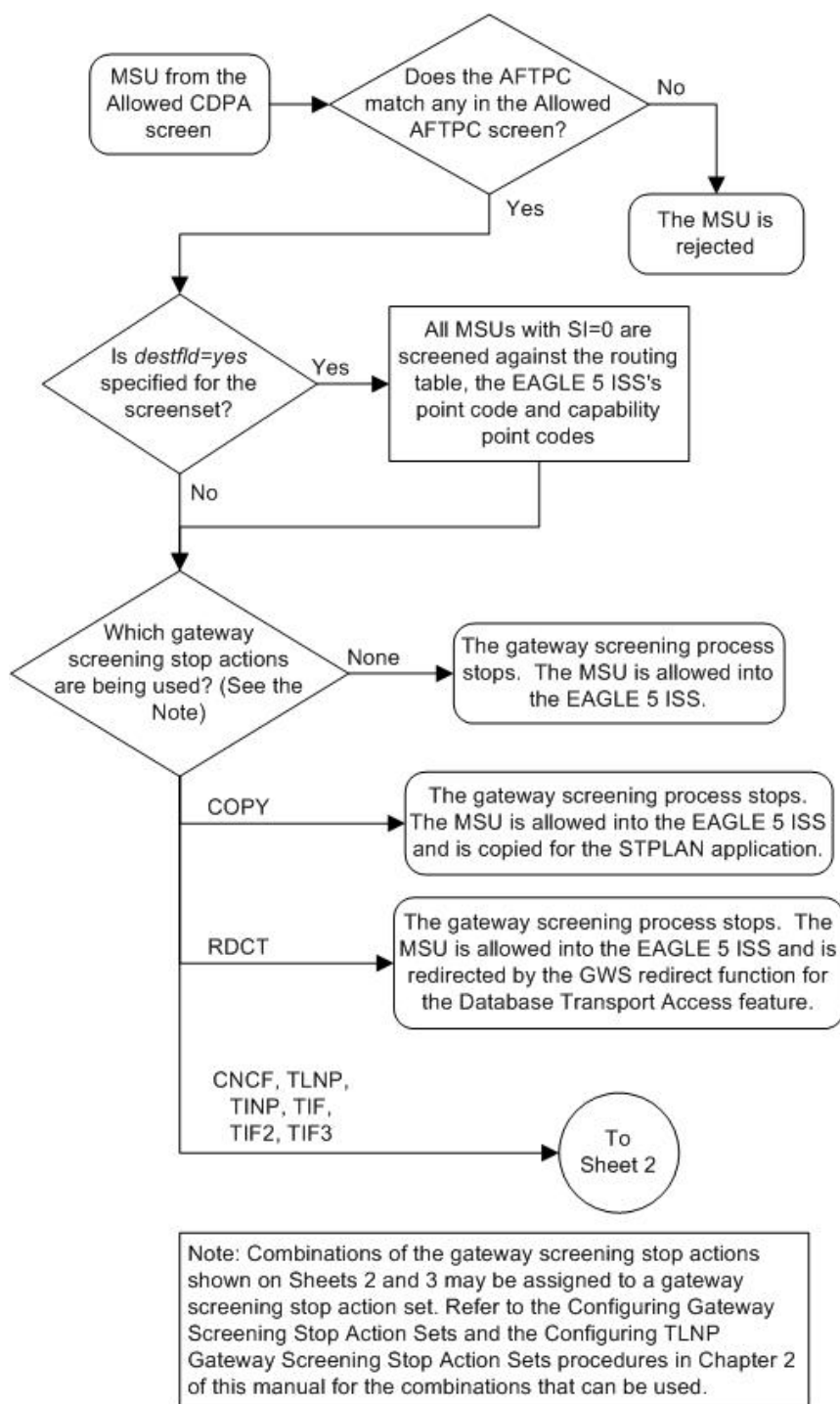
If a match is found, the message is processed. If a gateway screening stop action set is specified with the screen, shown by the `actname` parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

- 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](#) on page 415.
- 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 *LNP Feature Activation Guide*.
- If the `tinp` gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in the *Feature Manual - G-Port*.
- If the `tif`, `tif2`, or `tif3` gateway screening stop actions are specified, TIF processing is applied to the message.

Allowed AFTPC Screening Actions

Figure 18: Allowed AFTPC Screening Actions on page 97 shows the screening actions of the allowed AFTPC screen.

Figure 18: Allowed AFTPC Screening Actions



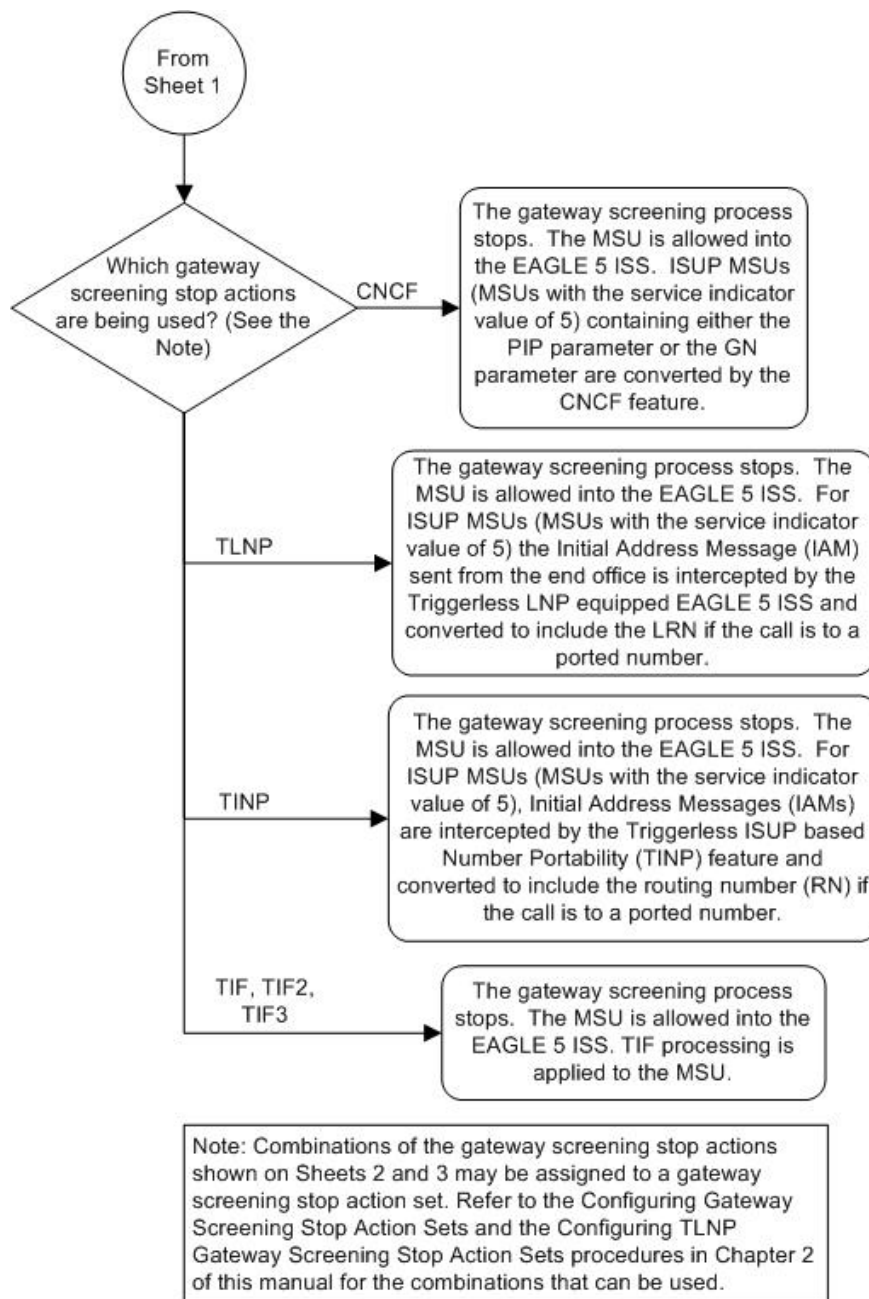


Figure 19: Allowed Affected Point Code Screening Function

ANSI MSU (ANSI Message Signal Unit)

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

ITU-I MSU (ITU International Message Signal Unit)

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

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

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF					
		Routing Label			CGPA	CDPA	SCMG Data Length Message Type\ (SSA, SSP, SST) Affected Subsystem Affected Point Code (NPC) Subsystem Multiplicity
		DPC	OPC	SLS			
		NPC	NPC	xx			

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

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF					
		Routing Label			CGPA	CDPA	SCMG Data Length Message Type\ (SSA, SSP, SST) Affected Subsystem Affected Point Code (SP SSA MSA) Subsystem Multiplicity
		DPC	OPC	SLS			
		SP SSA MSA	SP SSA MSA	xx			

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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 section.

The examples in this procedure are used to add the allowed AFTPC screen data shown in [Table 14: Example Gateway Screening Allowed AFTPC Configuration Table](#) on page 101 and based on the

example configurations shown in [Figure 4: Gateway Screening Configuration - Example 1](#) on page 40 and [Figure 7: Gateway Screening Configuration - Example 4](#) on page 45.

Table 14: 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](#) on page 32 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 15: Valid Value Combinations for ANSI Point Code Parameters](#) on page 101 shows the valid combinations of these parameter values.

Table 15: 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 16: Valid Value](#)

[Combinations for ITU-I Point Code Parameters](#) on page 102 shows the valid combinations of the ITU-I parameter values. [Table 17: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters](#) on page 102 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 16: 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 17: 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      NSF1      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    cnf   cnf
5    cpcnf copy cnf
6    cnf   cnf rdct
7    cpcnf copy cnf 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](#) on page 61 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

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”](#) on page 101 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.

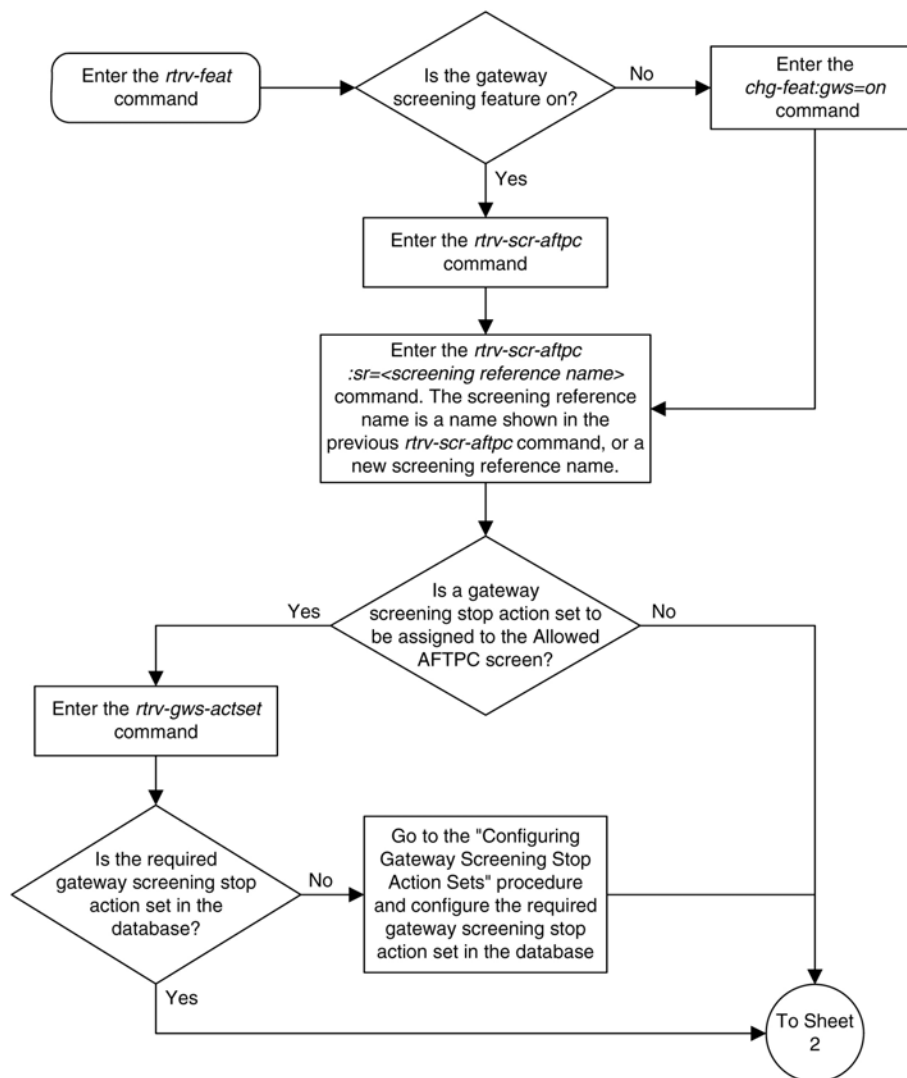
```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED AFTPC
SR  NI      NC      NCM      SSN      NSFI      NSR/ACT
LS04 010      010      010      015      STOP      COPY
```

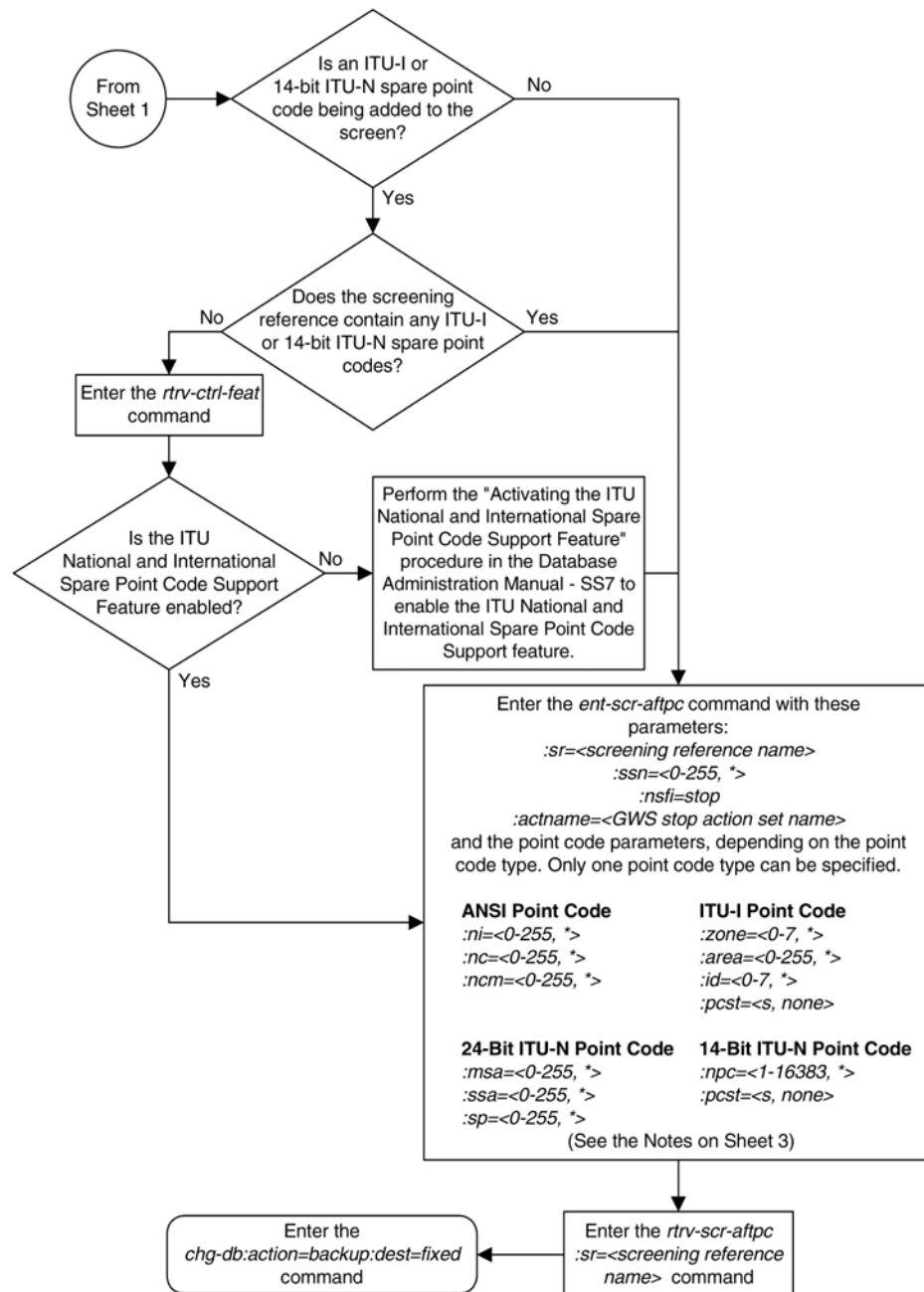
8. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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.
```

Figure 20: Adding an Allowed Affected Point Code Screen





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 in Chapter 2 and the "Specifying a Range of Values" section in this procedure.
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.

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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 32 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](#) on page 141 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=wrld0: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=wrld0
```

The following message should appear.

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

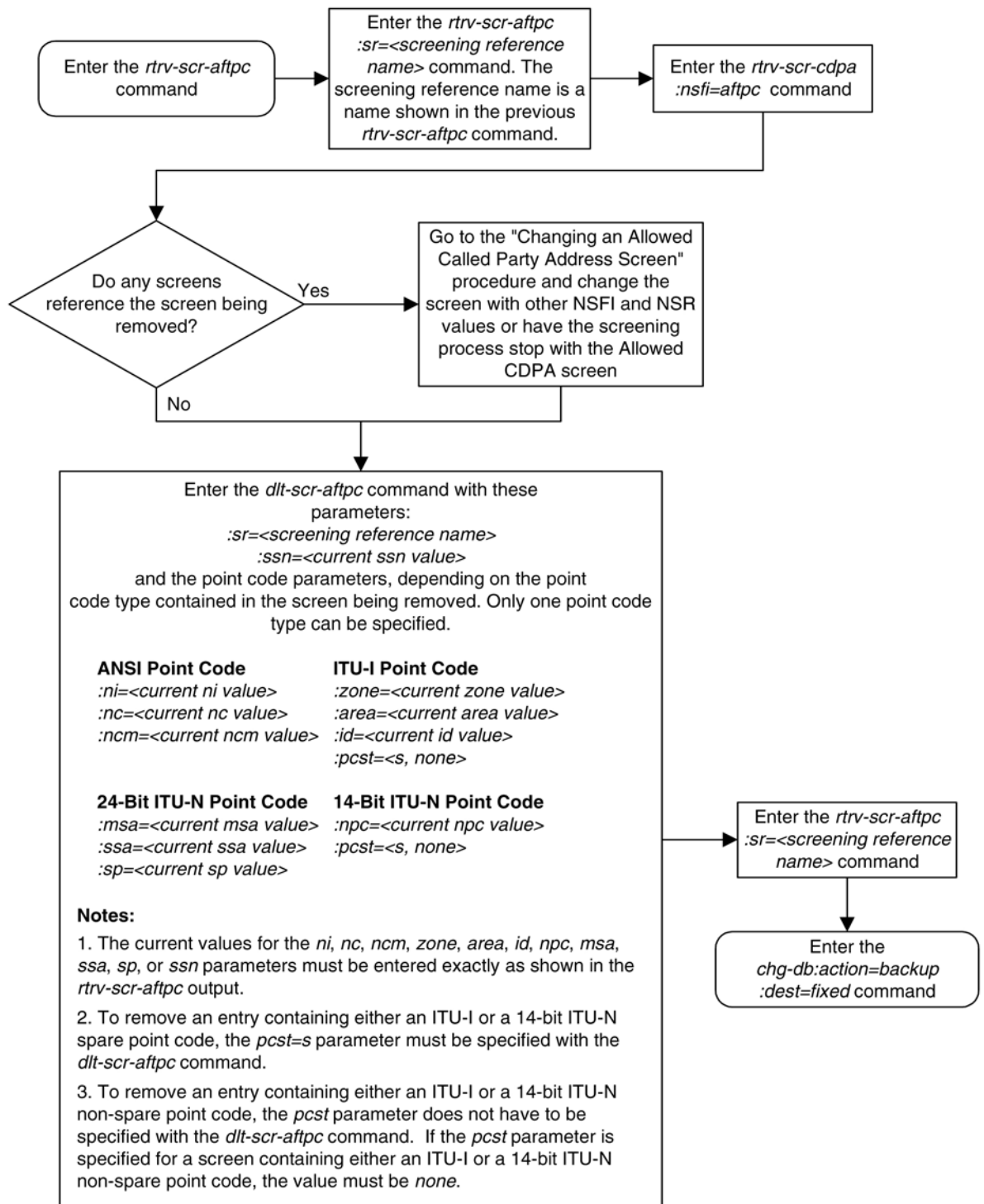
This message shows that the specified screening reference name is not in the database and the action of the `dlt-scr-aftpc` command in step 5 was successful. If the specified screening reference name contained more than one entry when the `dlt-scr-aftpc` command was executed in step 4, the `rtrv-scr-aftpc:sr=` 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 21: 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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 32 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 18: Valid Value Combinations for ANSI Point Code Parameters](#) on page 112 shows the valid combinations of these parameter values.

Table 18: 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

NI	NC	NCM
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 19: Valid Value Combinations for ITU-I Point Code Parameters](#) on page 113 shows the valid combinations of the ITU-I parameter values. [Table 20: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters](#) on page 113 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 19: 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 20: 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      NSF1      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    cnf    cnf
5    cpncf copy cnf
6    cnf    cnf rdct
7    cpcfrd copy cnf 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](#) on page 61 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 (*)

A range of values can be specified for the `nni`, `nnc`, and `nncm` parameters. See the “[Specifying a Range of Values](#)” on page 112 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 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 `chg-scr-aftpc` command, unsolicited information message (UIM) 1127 is generated when the attempt is made to redirect MSUs from the allowed AFTPC screen. Unsolicited information message (UIM) 1217 is generated when ISUP IAM MSUs are intercepted from the allowed AFTPC screen. For more information on UIMs 1127 and 1217, go to 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      NSF1      NSR/ACT
GW21 100      100      100      150      STOP      -----
```

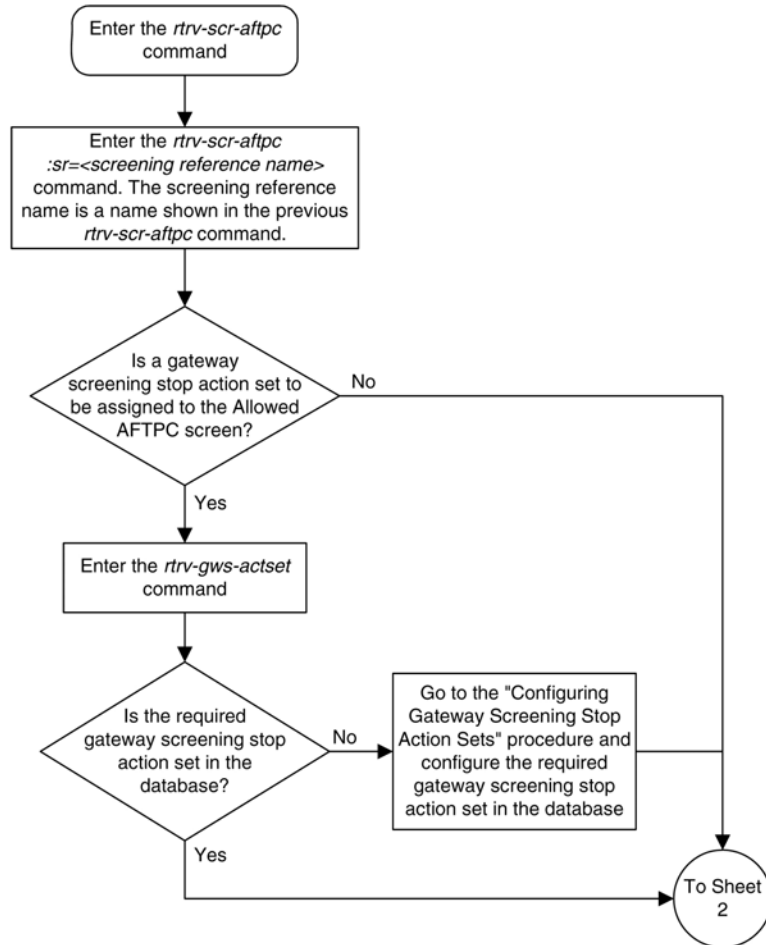
6. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

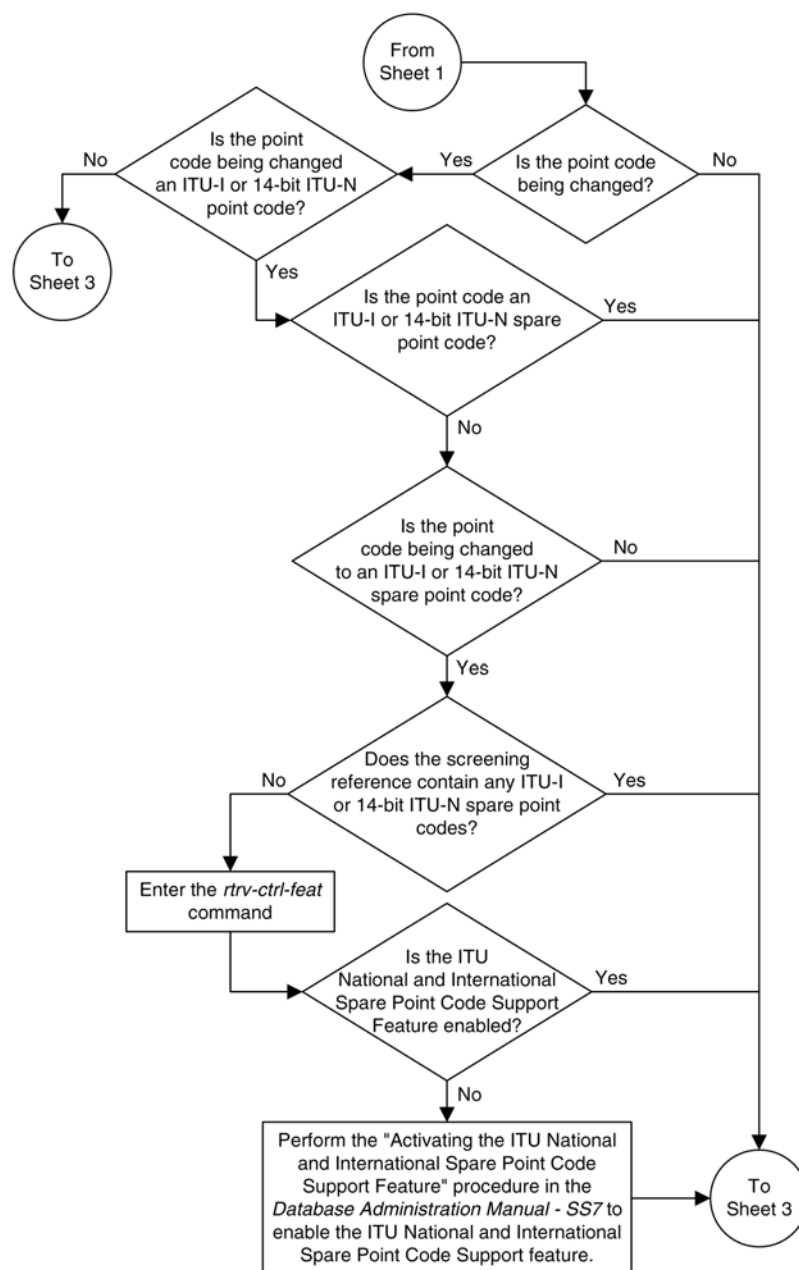
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

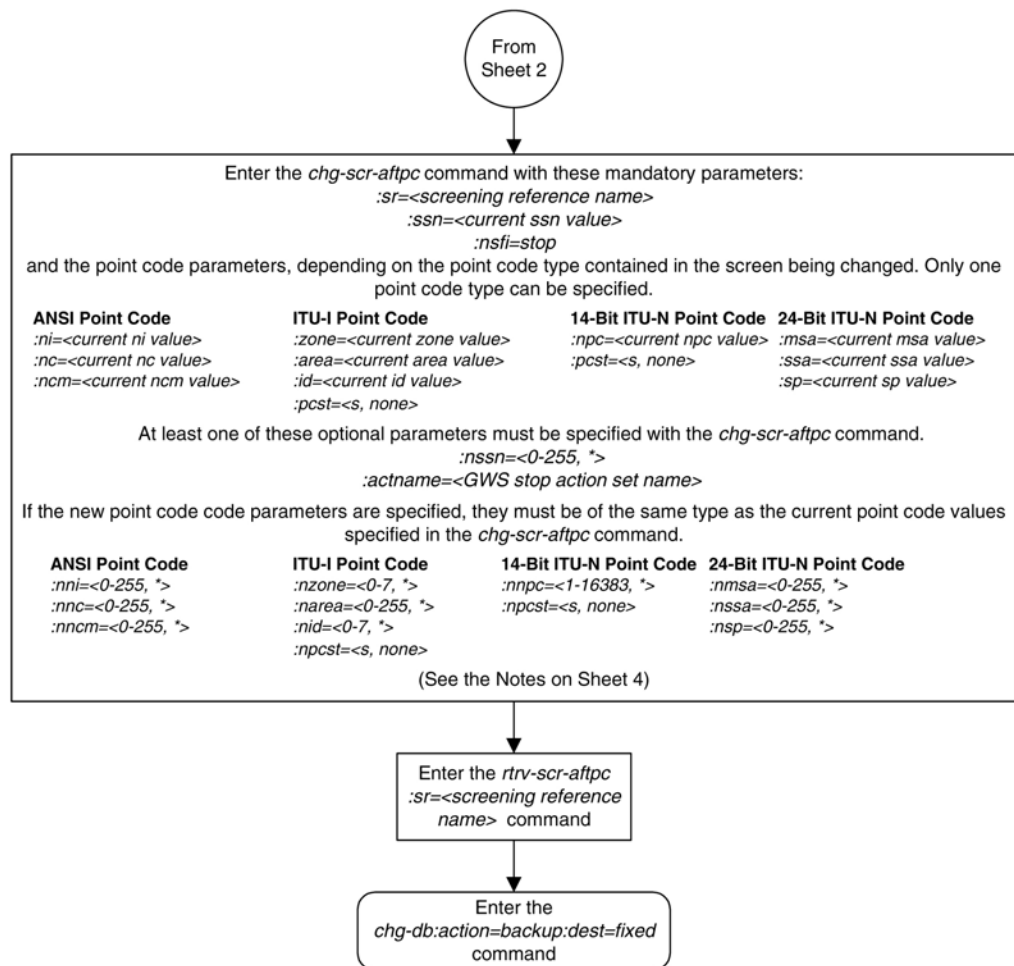
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
```

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

Figure 22: Changing an Allowed Affected Point Code Screen







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 *rtv-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 in Chapter 2 and the "Specifying a Range of Values" section in this procedure.
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 *rtv-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*.

Allowed Called Party (CDPA) Screen Configuration

Topics:

- [*Introduction Page 122*](#)
- [*Adding an Allowed Called Party Address Screen Page 126*](#)
- [*Removing an Allowed Called Party Address Screen Page 137*](#)
- [*Changing an Allowed Called Party Address Screen Page 141*](#)

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 24: Allowed Called Party Address Screening Function](#) on page 125 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.

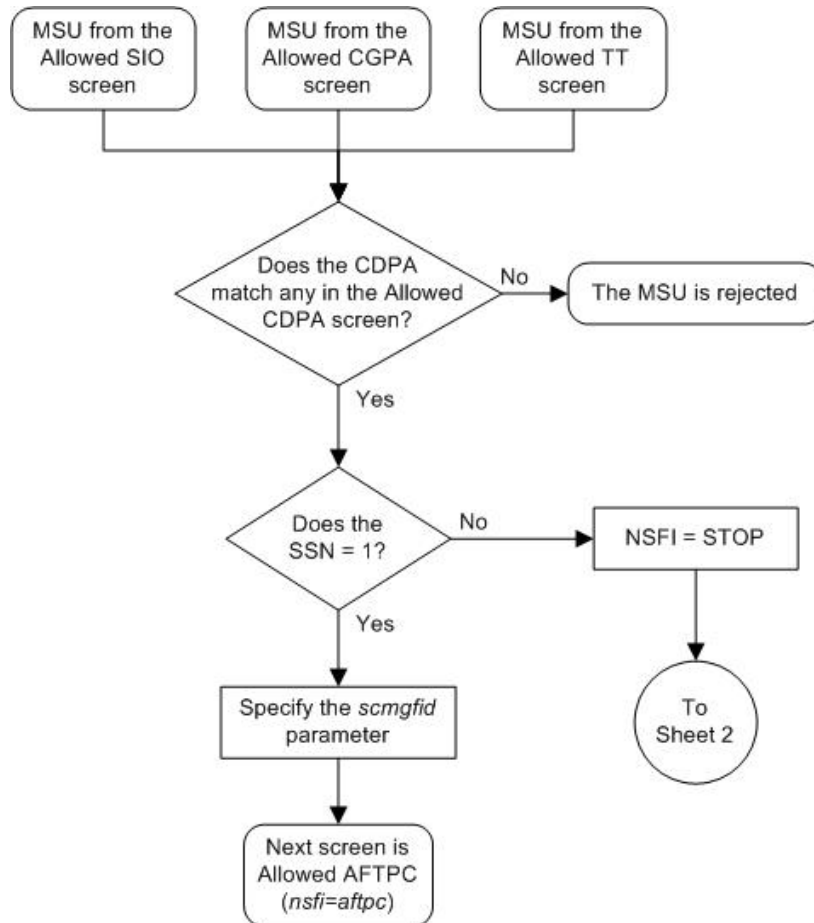
If the `nsfi` is equal to `stop`, the screening process stops and the message is processed. If a gateway screening stop action set is specified with the screen, shown by the `actname` parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

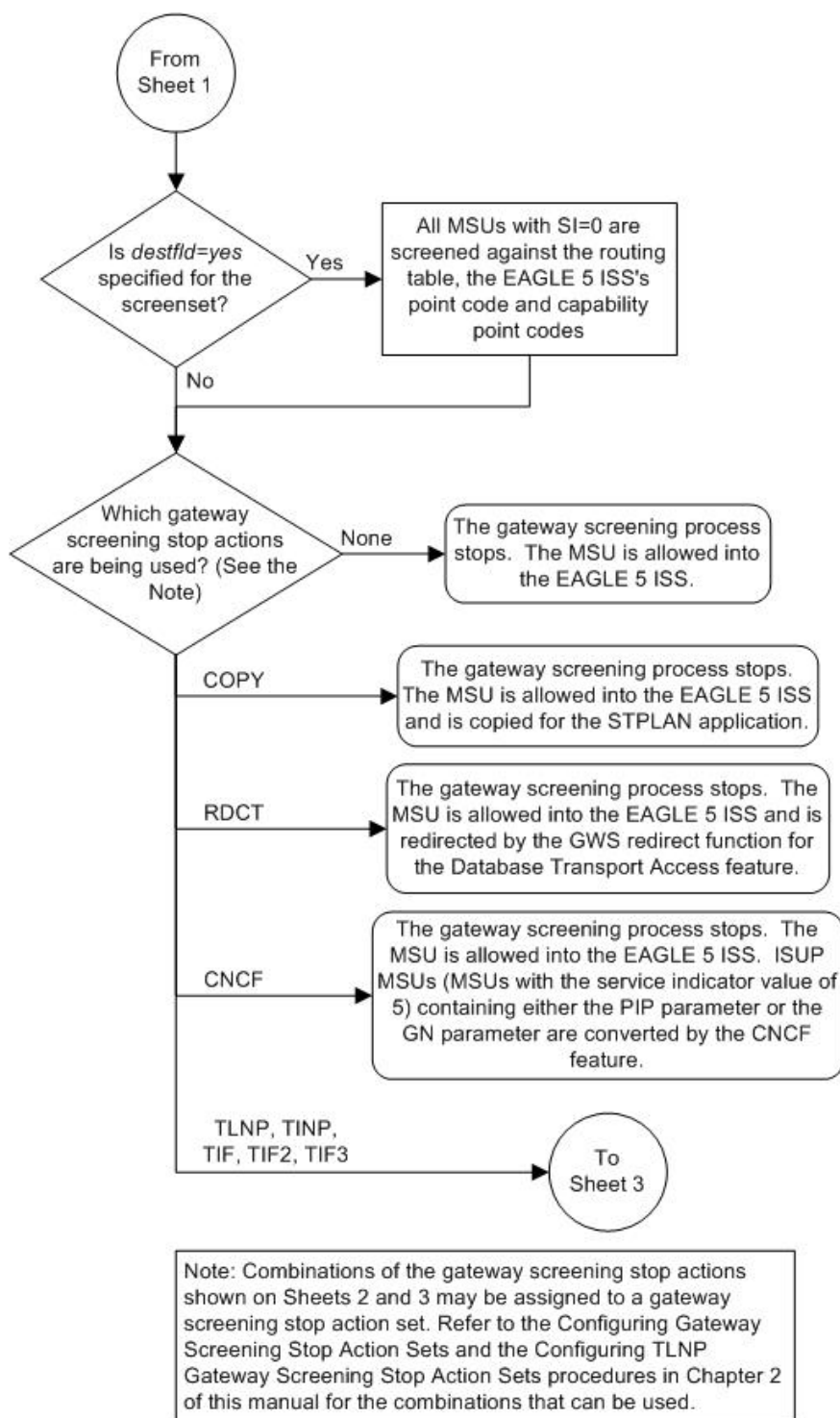
- If the `copy` gateway screening stop action is specified, the message is processed and a copy of the message is sent by the STPLAN feature to an external application.
- If the `rdct` (redirect) gateway screening stop action is specified, the message is diverted from the original destination and sent 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](#) on page 415.
- 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 *LNP Feature Activation Guide*.
- If the `tinp` gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in the *Feature Manual - G-Port*.
- If the `tif`, `tif2`, or `tif3` gateway screening stop actions are specified, TIF processing is applied to the message.

Allowed CDPA Screening Actions

Figure 23: Allowed CDPA Screening Actions on page 123 shows the screening actions of the allowed CDPA screen.

Figure 23: Allowed CDPA Screening Actions





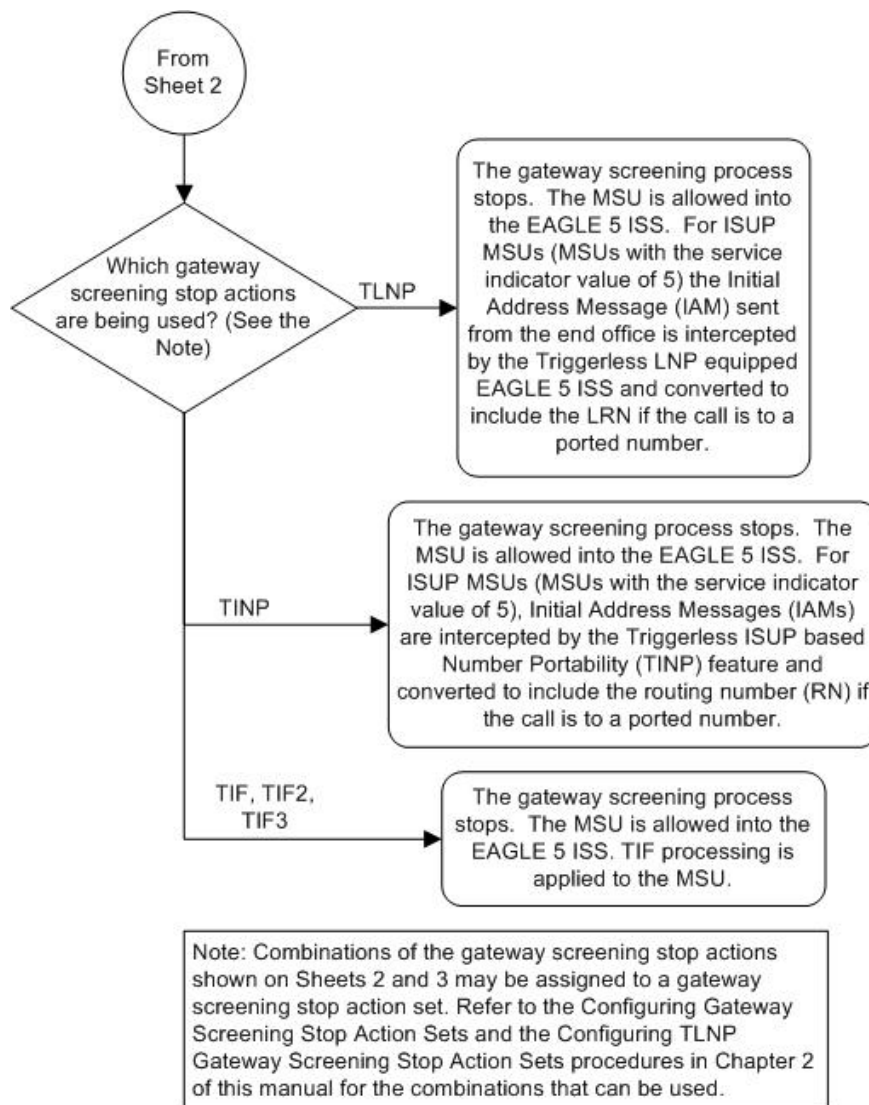


Figure 24: Allowed Called Party Address Screening Function

ANSI MSU (ANSI Message Signal Unit)

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

ITU-I MSU (ITU International Message Signal Unit)

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

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

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

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

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

Adding an Allowed Called Party Address Screen

This procedure is used to add an allowed called party address (CDPA) screen to the database using the `ent-scr-cdpa` command. The parameters used by the `ent-scr-cdpa` command are

shown in the [Gateway Screening Attributes](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 section.

The examples in this procedure are used to add the allowed CDPA screen data shown in [Table 21: Example Gateway Screening Allowed CDPA Configuration Table](#) on page 127 and based on the example configurations shown in [Figure 4: Gateway Screening Configuration - Example 1](#) on page 40 through [Figure 7: Gateway Screening Configuration - Example 4](#) on page 45.

Table 21: 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](#) on page 32 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](#) on page 100
- [Changing an Allowed Affected Point Code Screen](#) on page 112

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 22: Valid Value Combinations for ANSI Point Code Parameters](#) on page 128 shows the valid combinations of these parameter values.

Table 22: 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 23: Valid Value Combinations for ITU-I Point Code Parameters](#) on page 128 shows the valid combinations of the ITU-I parameter values. [Table 24: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters](#) on page 128 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 23: 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 24: 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.

- 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
```

- 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    cnf      cnf
5    cpcnf   copy  cnf
6    cnf     rdct
7    cpcf    copy  cnf  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](#) on page 61 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](#) on page 100
- [Changing an Allowed Affected Point Code Screen](#) on page 112.

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**

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 25: CDPA Parameter Combinations](#) on page 132.

Table 25: 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”](#) on page 127 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.

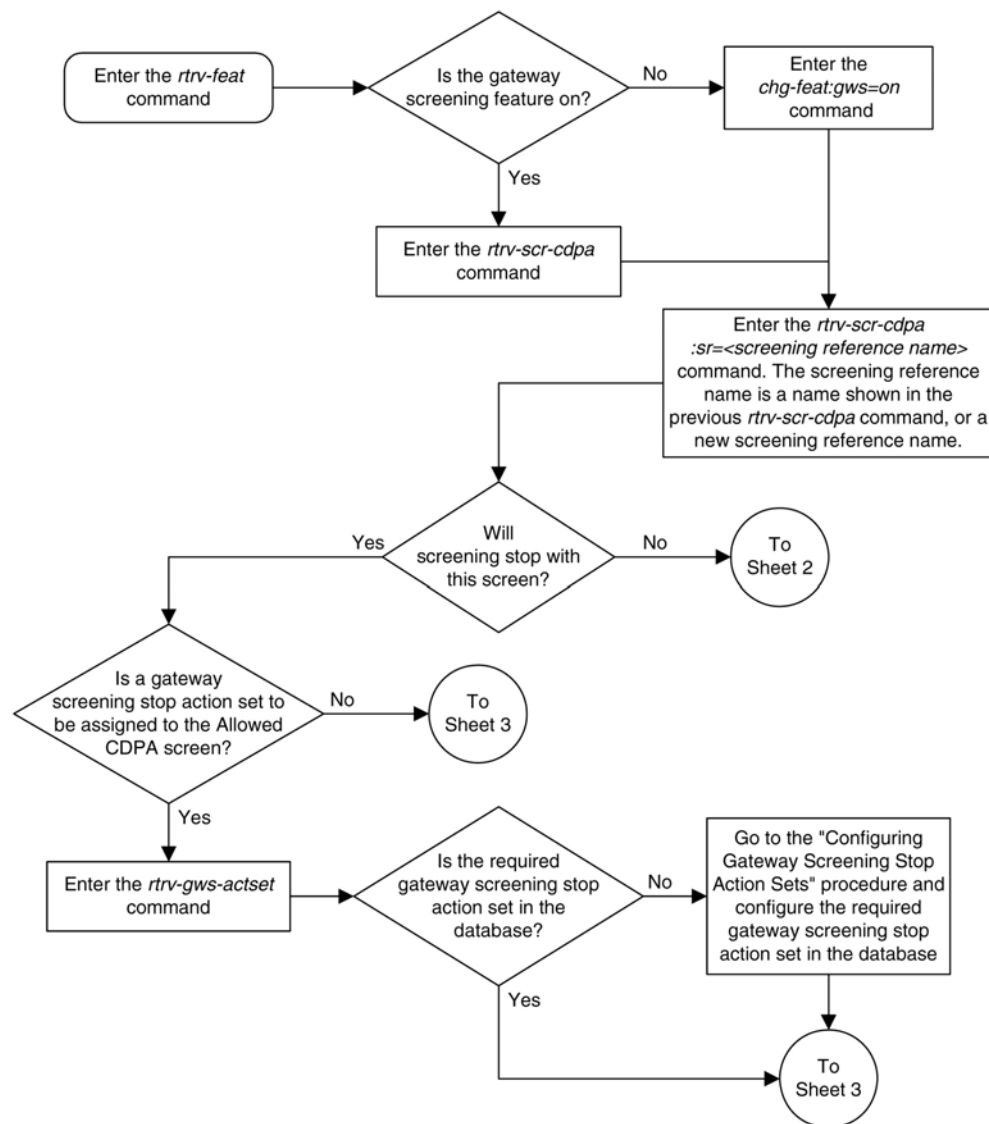
```
rlghncxa03w 06-10-25 15:35:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED CDPA
SR      NI      NC      NCM      SSN      SCMGFID  NSFI    NSR/ACT
LS03    007     007     007     001     100      AFTPC   -----
```

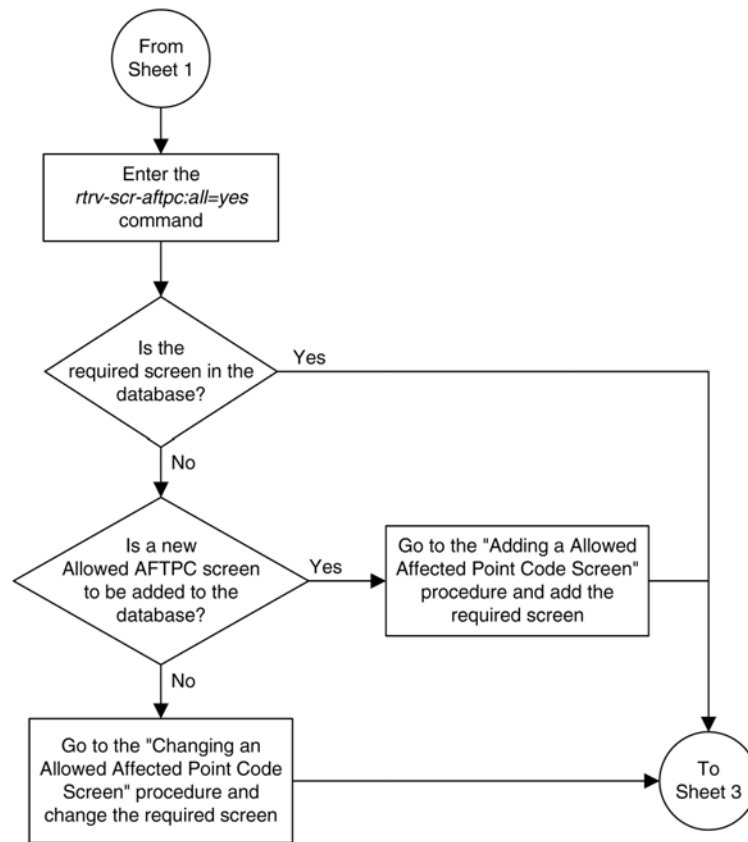
9. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

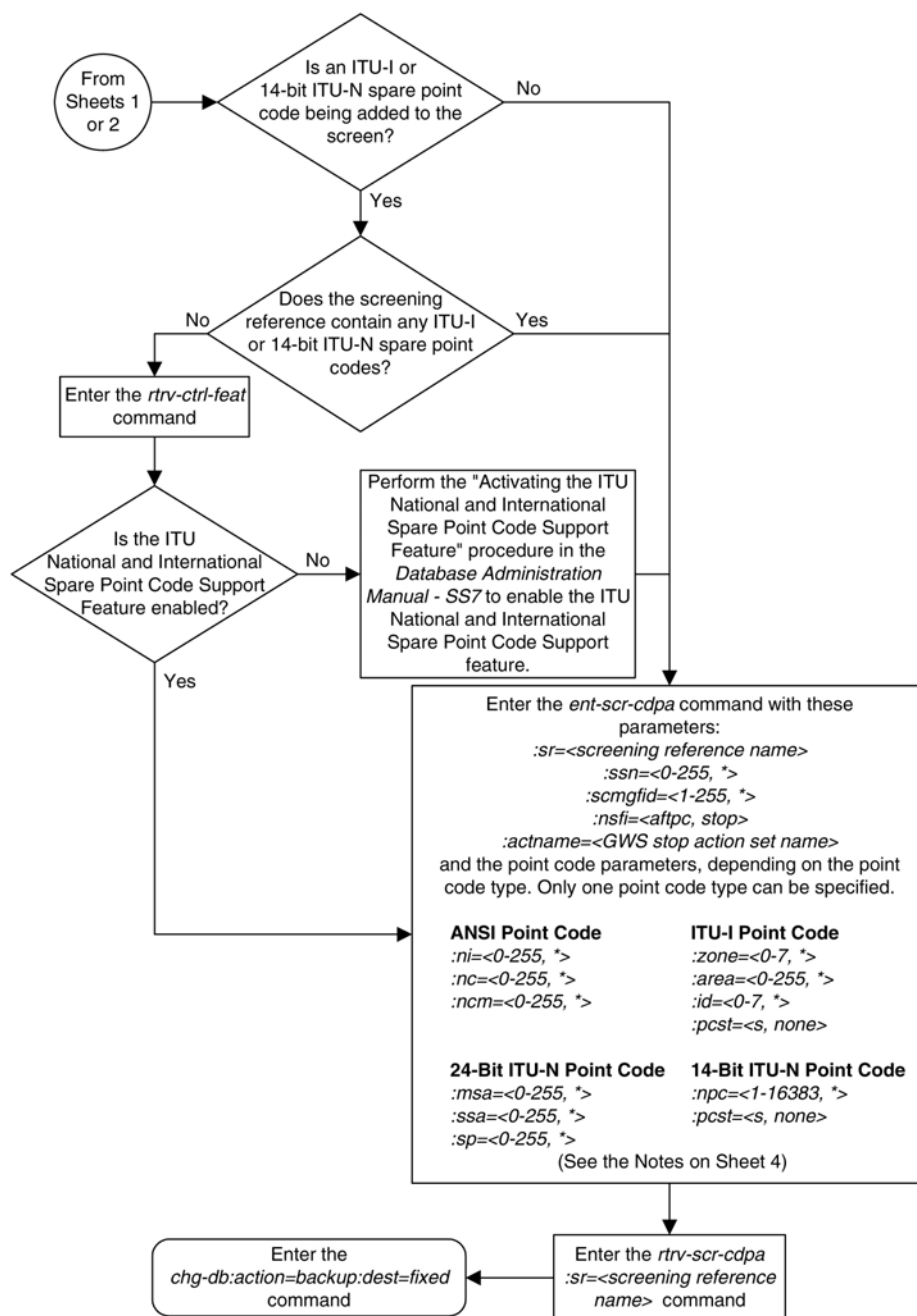
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
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.
```

Figure 25: Adding an Allowed Called Party Address Screen







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 in Chapter 2 and the "Specifying a Range of Values" section in this procedure.
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 2 through 255, or *.
 4. To specify the *nsfi=atpc* parameter, the *ssn* parameter value must be 1.
 5. If the *ssn* parameter value is 2 through 255, or *, the *nsfi* parameter value must be *stop*.
 6. If the *ssn* parameter value is 1, the *nsfi* parameter value can be *atpc* or *stop*.
 7. The *nsr* parameter can be specified only, and must be specified, if the *nsfi=atpc* 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 *rtv-gws-actset* output on Sheet 1.
 9. To add a non-spare point code, the *pcst* parameter does not have to be specified. If the *pcst* parameter is specified for a screen containing an ITU-I or 14-bit ITU-N non-spare point code, the value must be *none*.
 10. To add a spare point code, the *pcst=s* parameter must be specified.

Removing an Allowed Called Party Address Screen

This procedure is used to remove an allowed called party address (CDPA) screen from the database using the `dlt-scr-cdpa` command. The parameters used by the `dlt-scr-cdpa` command are shown in the [Gateway Screening Attributes](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 32 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, perform one of these procedures.

- [Changing an Allowed Translation Type Screen](#) on page 167
- [Changing an Allowed Calling Party Address Screen](#) on page 196
- [Changing an Allowed SIO Screen](#) on page 321

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](#) on page 137 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](#) on page 137 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`, `ssn`, and `scmgfid` 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 `dlt-scr-cdpa` command.

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:scmgfid=050
```

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
```

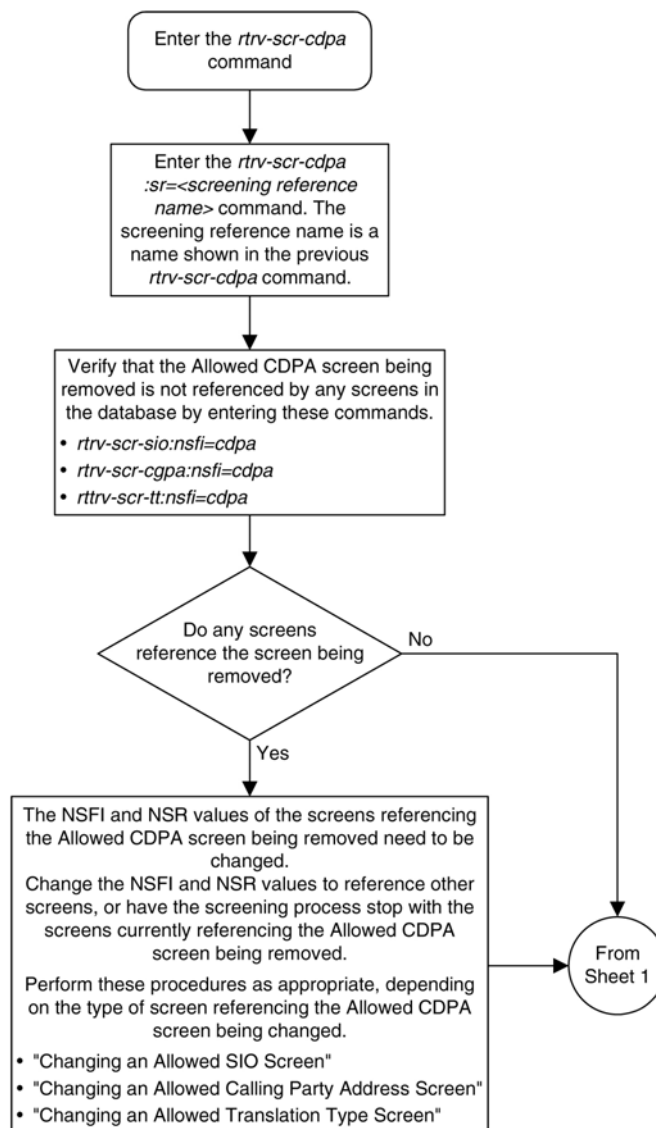
This message shows that the specified screening reference name is not in the database and the action of the `dlt-scr-cdpa` command in step 3 was successful. If the specified screening reference name contained more than one entry when the `dlt-scr-cdpa` command was executed in step 3, the `rtrv-scr-cdpa:sr=`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

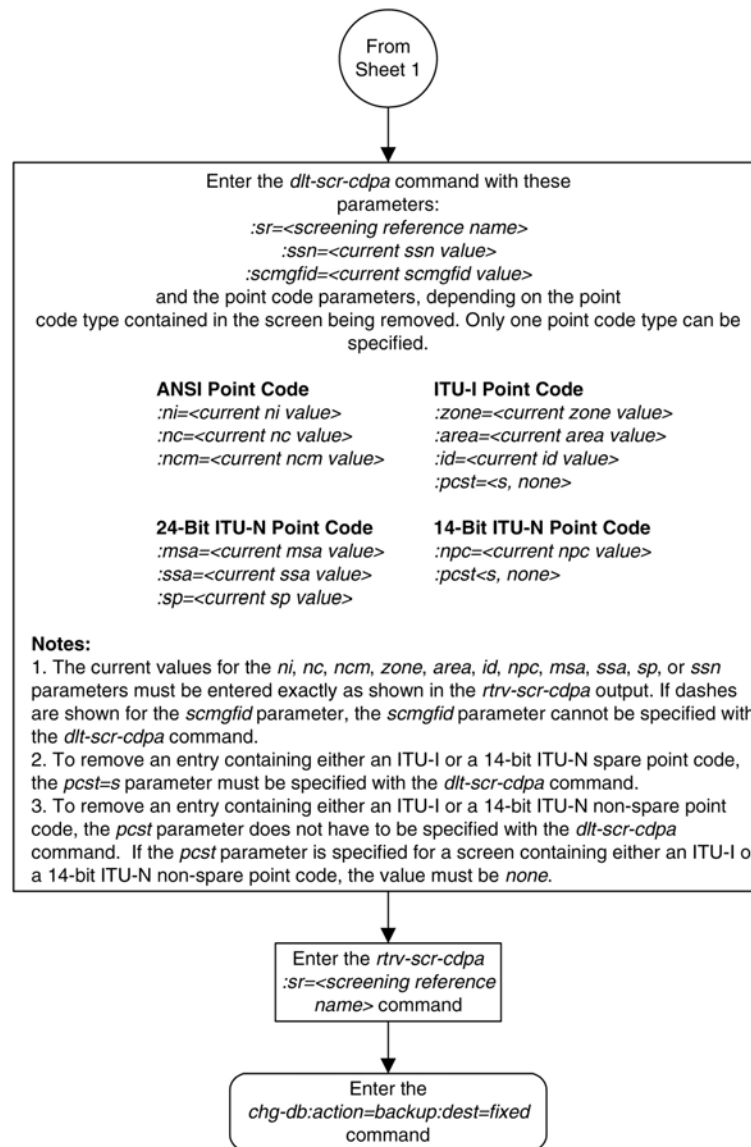
5. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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.
```

Figure 26: 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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 32 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](#) on page 100
- [Changing an Allowed Affected Point Code Screen](#) on page 112

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 26: Valid Value Combinations for ANSI Point Code Parameters](#) on page 142 shows the valid combinations of these parameter values.

Table 26: 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 27: Valid Value Combinations for ITU-I Point Code Parameters](#) on page 143 shows the valid combinations of the ITU-I parameter values. [Table 28: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters](#) on page 143 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 27: 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 28: 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    cnf      cnf
5    cpnf     copy cnf
6    cnf      cnf rdct
7    cpcfrd   copy cnf 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](#) on page 61 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](#) on page 100
- [Changing an Allowed Affected Point Code Screen](#) on page 112.

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**

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 `chg-scr-cdpa` command, unsolicited information message (UIM) 1125 is generated when the attempt is made to redirect MSUs from the allowed CDPA screen. Unsolicited information message (UIM) 1215 is generated when ISUP IAM MSUs are intercepted from the allowed CDPA screen. For more information on UIMs 1125 and 1215, go to 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 29: CDPA Parameter Combinations](#) on page 146 shows the valid parameter combinations for the ssn, scmgfid, nsfi, and nsr parameter values.

Table 29: 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”](#) on page 142 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=it1
```

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.

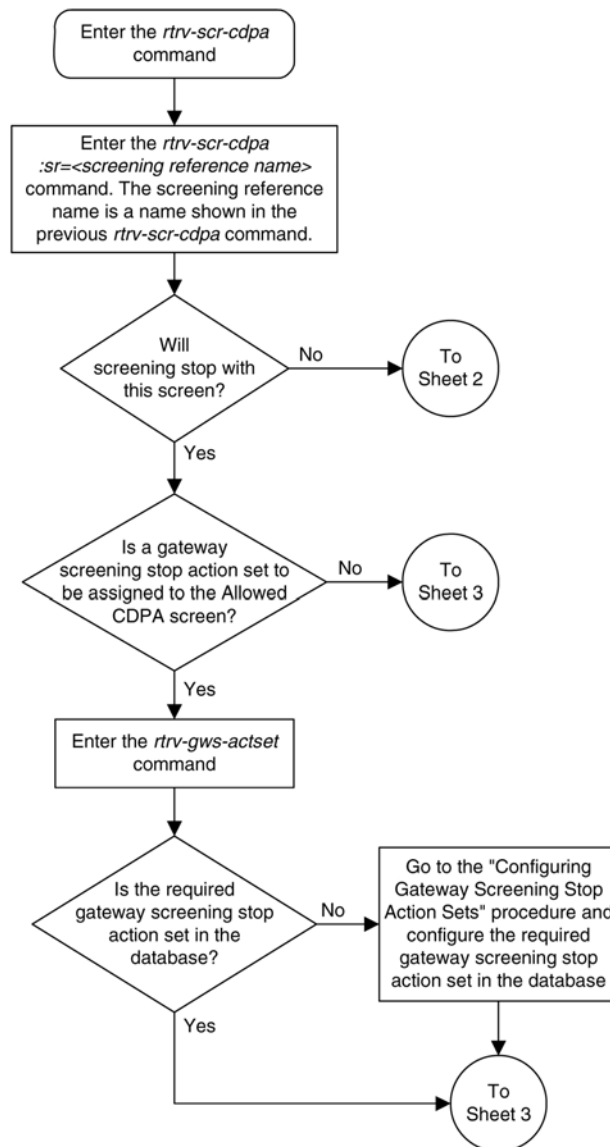
```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED CDPA
SR      ZONE  AREA  ID      SSN      SCMGFID  NSFI      NSR/ACT
GW15    2      230   7       001      150      AFTPC     ITU1
```

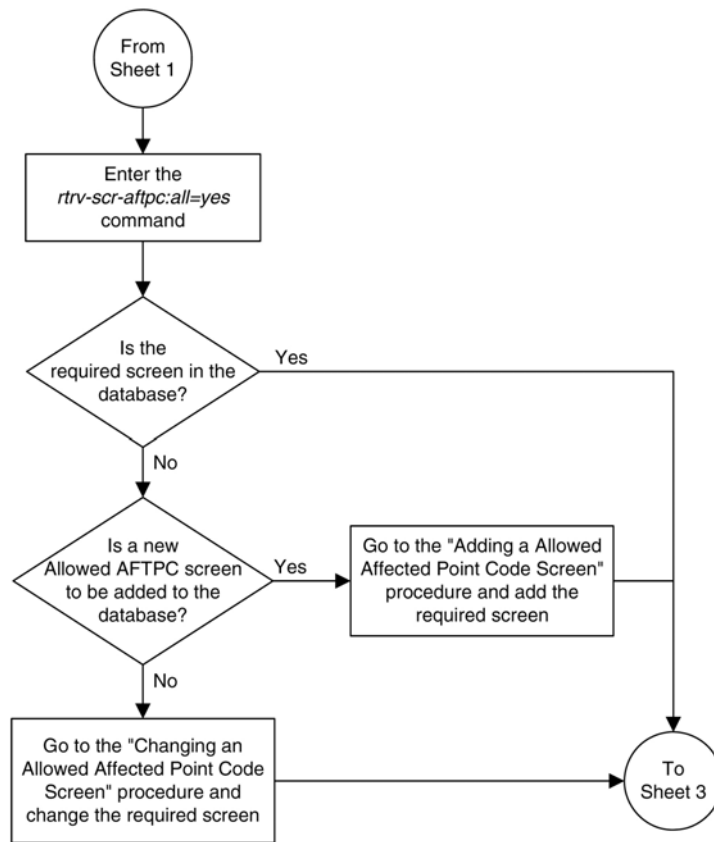
7. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

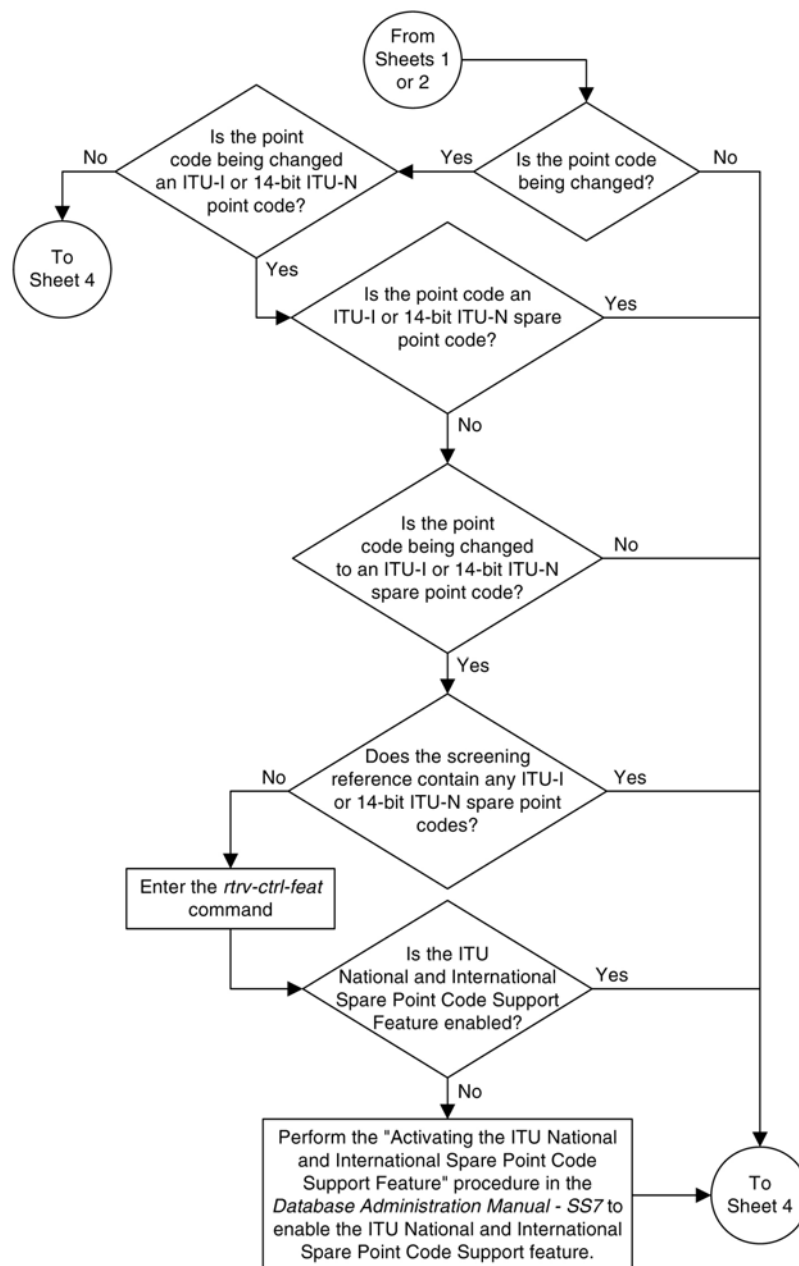
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

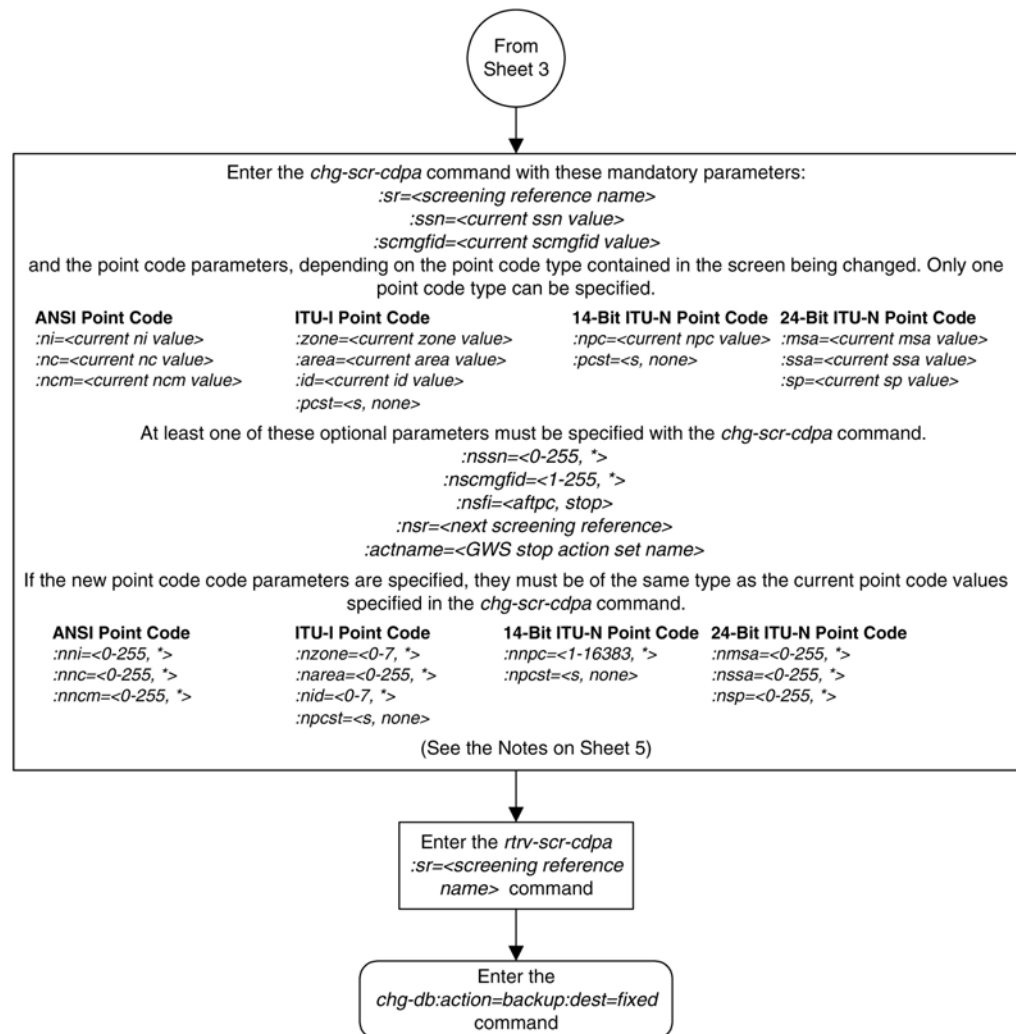
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```

Figure 27: Changing an Allowed Called Party Address Screen









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 in Chapter 2 and the "Specifying a Range of Values" section in this procedure.
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 2 through 255, or *.
4. To specify the *nsfi=attpc* 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 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 *attpc* or *stop*.
7. The *nsr* parameter can be specified only, and must be specified, if the *nsfi=attpc* 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*, *nmc*, *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*.

Chapter 5

Allowed Translation Type (TT) Screen Configuration

Topics:

- [*Introduction Page 154*](#)
- [*Adding an Allowed Translation Type Screen Page 159*](#)
- [*Removing an Allowed Translation Type Screen Page 165*](#)
- [*Changing an Allowed Translation Type Screen Page 167*](#)

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 29: Allowed Translation Type Screening Function](#) on page 157 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.

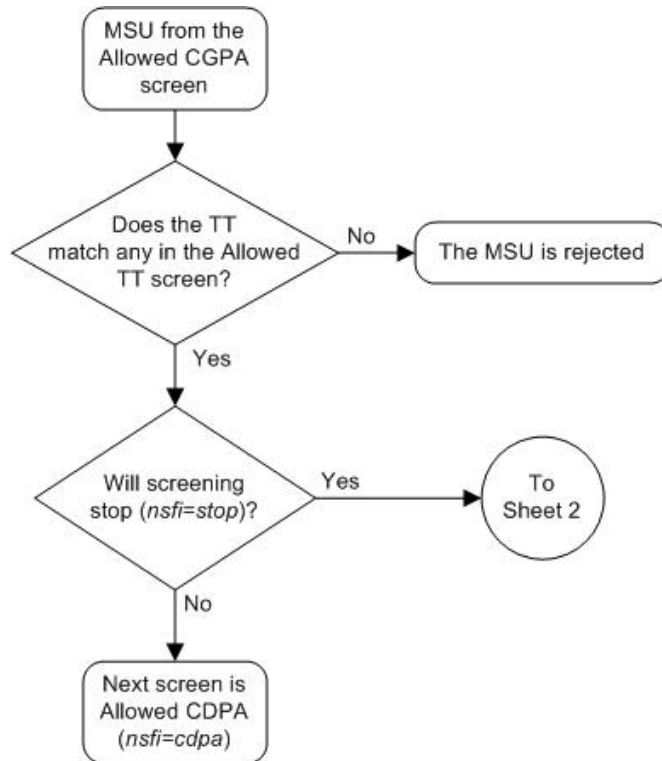
If the `nsfi` is equal to `stop`, the screening process stops and the message is processed. If a gateway screening stop action set is specified with the screen, shown by the `actname` parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

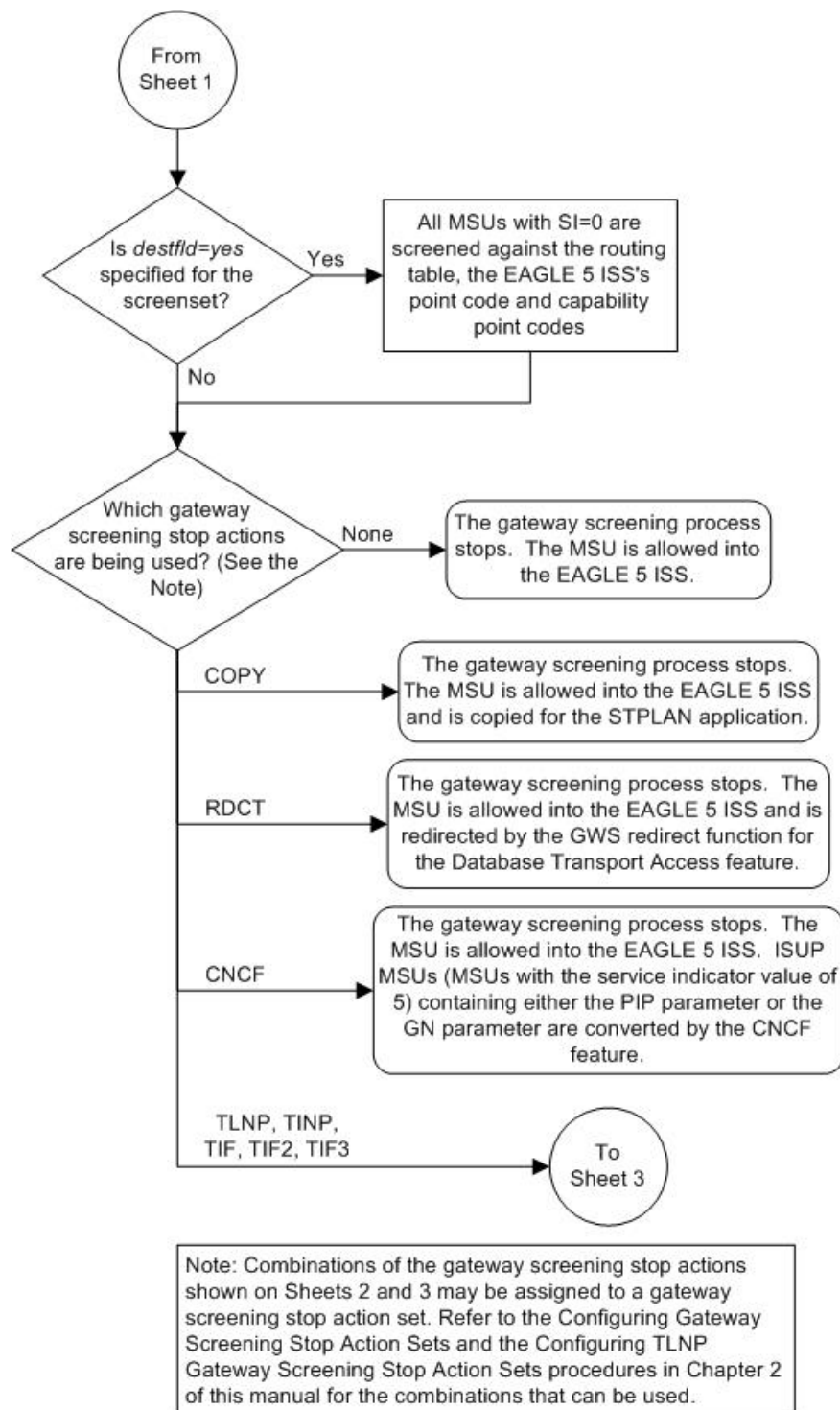
- If the `copy` gateway screening stop action is specified, the message is processed and a copy of the message is sent by the STPLAN feature to an external application.
- If the `rdct` (redirect) gateway screening stop action is specified, the message is diverted from the original destination and sent 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](#) on page 415.
- 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 *LNP Feature Activation Guide*.
- If the `tinp` gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in the *Feature Manual - G-Port*.
- If the `tif`, `tif2`, or `tif3` gateway screening stop actions are specified, TIF processing is applied to the message.

Allowed TT Screening Actions

[Figure 28: Allowed TT Screening Actions](#) on page 155 shows the screening actions of the allowed TT screen.

Figure 28: Allowed TT Screening Actions





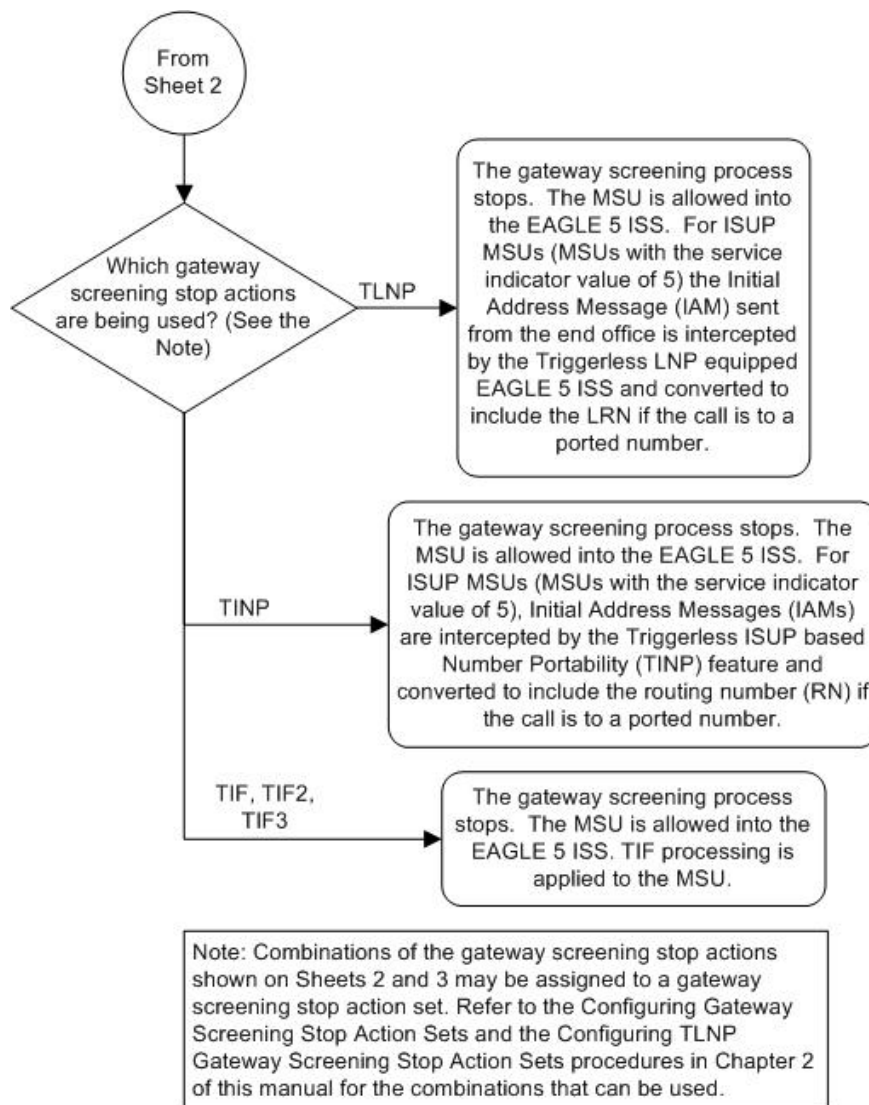


Figure 29: Allowed Translation Type Screening Function

ANSI MSU (ANSI Message Signal Unit)

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

ITU-I MSU (ITU International Message Signal Unit)

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

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

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

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

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

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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 section.

The examples in this procedure are used to add the allowed TT screen data shown in [Table 30: Example Gateway Screening Allowed TT Configuration Table](#) on page 159 and based on the example configuration shown in [Figure 6: Gateway Screening Configuration - Example 3](#) on page 44.

Table 30: 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](#) on page 126
- [Changing an Allowed Called Party Address Screen](#) on page 141

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   cpncf  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](#) on page 61 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](#) on page 126
- [Changing an Allowed Called Party Address Screen](#) on page 141.

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

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”](#) on page 159 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.

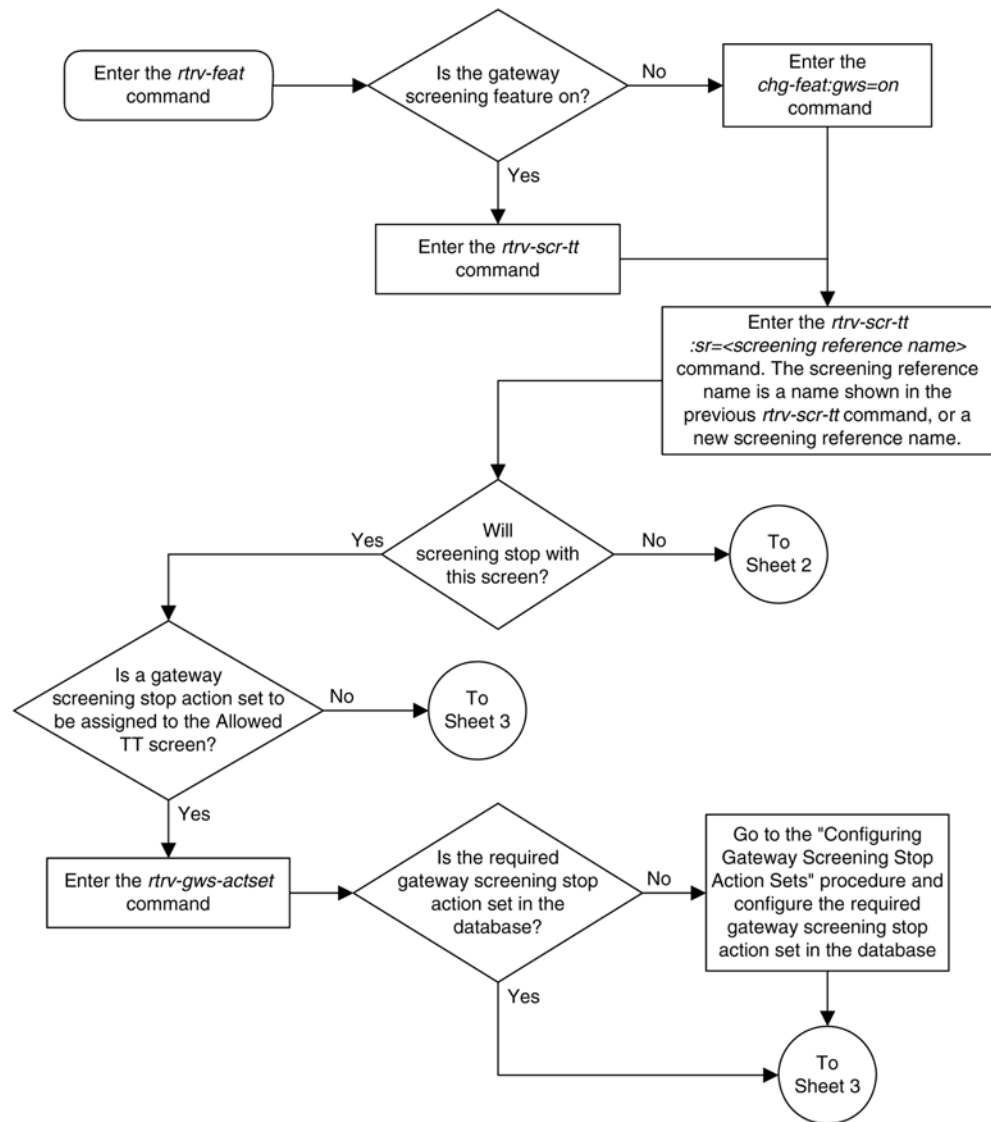
```
rlghncxa03w 06-10-25 15:29:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED TT
SR      TYPE      NSFI      NSR/ACT
GW16    250        CDPA      GW18
```

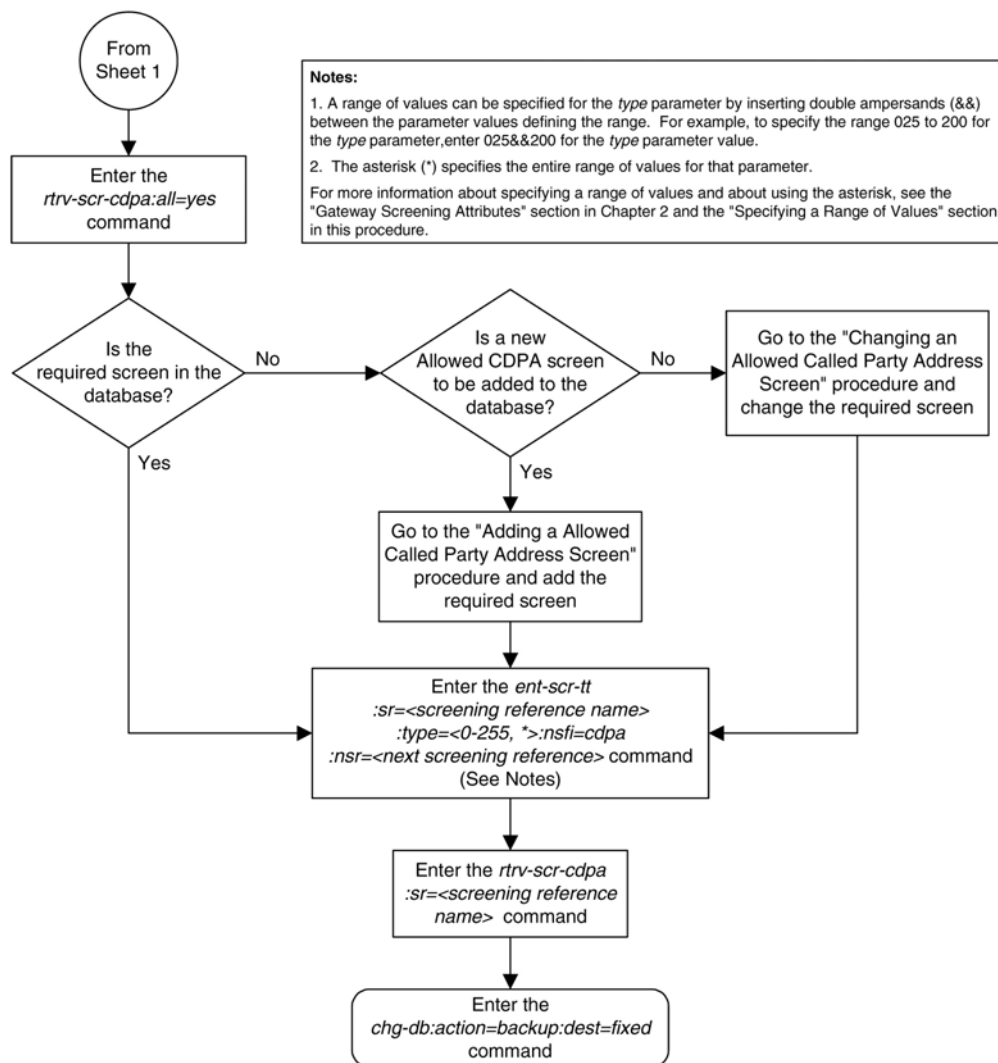
8. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

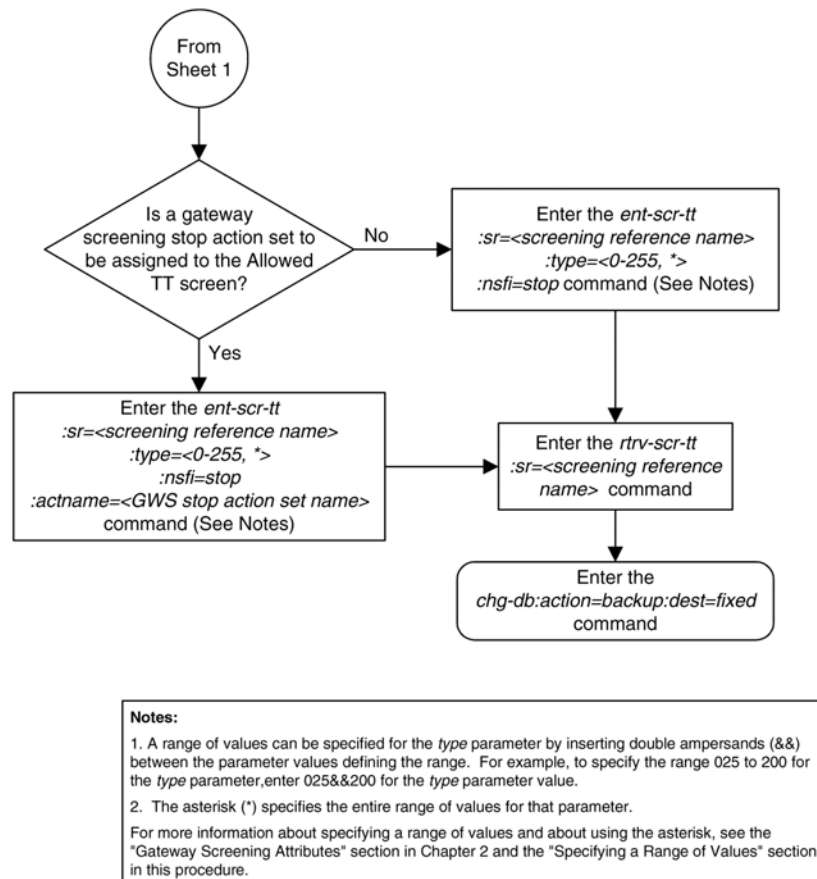
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
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.
```

Figure 30: 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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 196 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](#) on page 196 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    -----
```

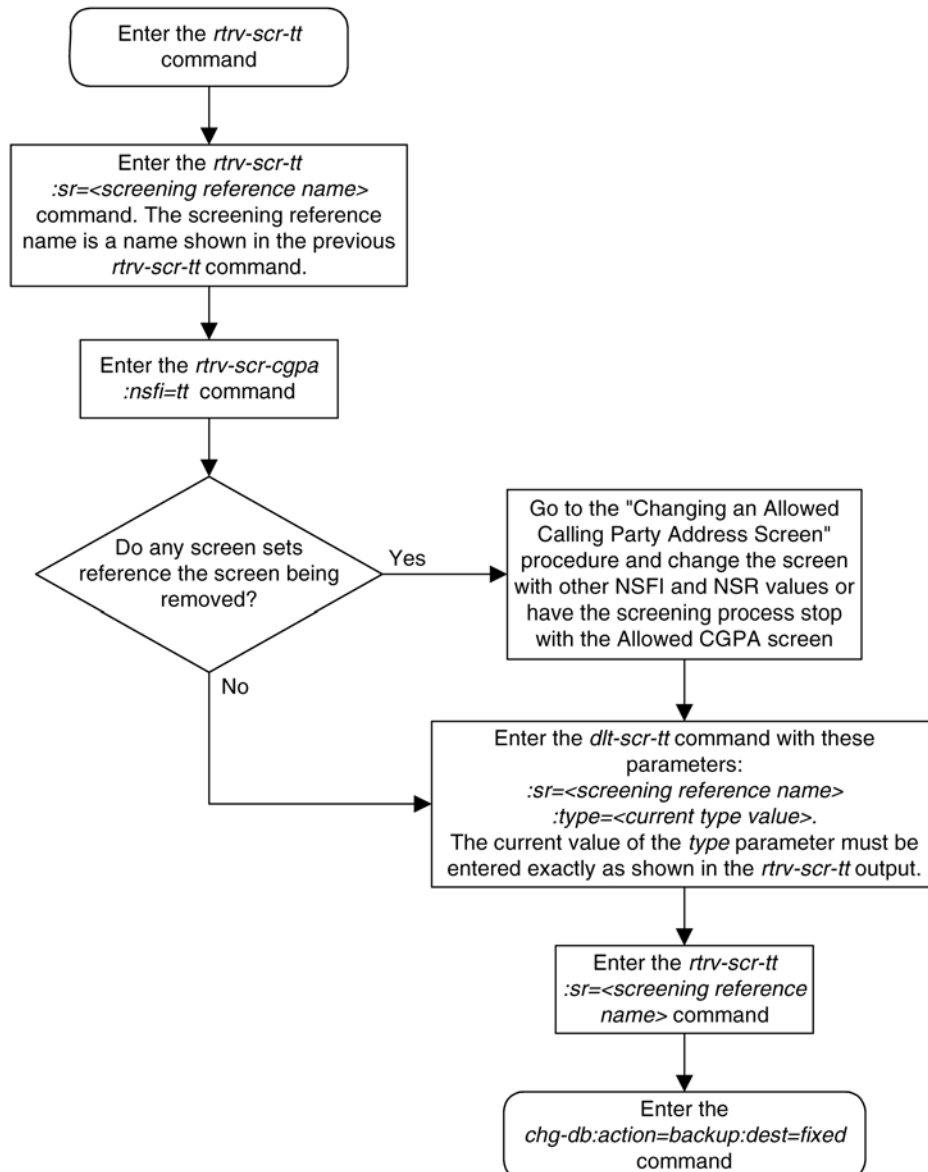
5. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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 31: 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](#) on page 18 section. The general rules that apply to

configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 126
- [Changing an Allowed Called Party Address Screen](#) on page 141

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    cnf    cnf
5    cpcnf  copy cnf
6    cnf    rdct
7    cpcnf  copy cnf 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](#) on page 61 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](#) on page 126
- [Changing an Allowed Called Party Address Screen](#) on page 141.

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

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 `chg-scr-tt` command, unsolicited information message (UIM) 1128 is generated when the attempt is made to redirect MSUs from the allowed TT screen. Unsolicited information message (UIM) 1218 is generated when ISUP IAM MSUs are intercepted from the allowed TT screen. For more information on UIMs 1128 and 1218, go to 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”](#) on page 168 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.

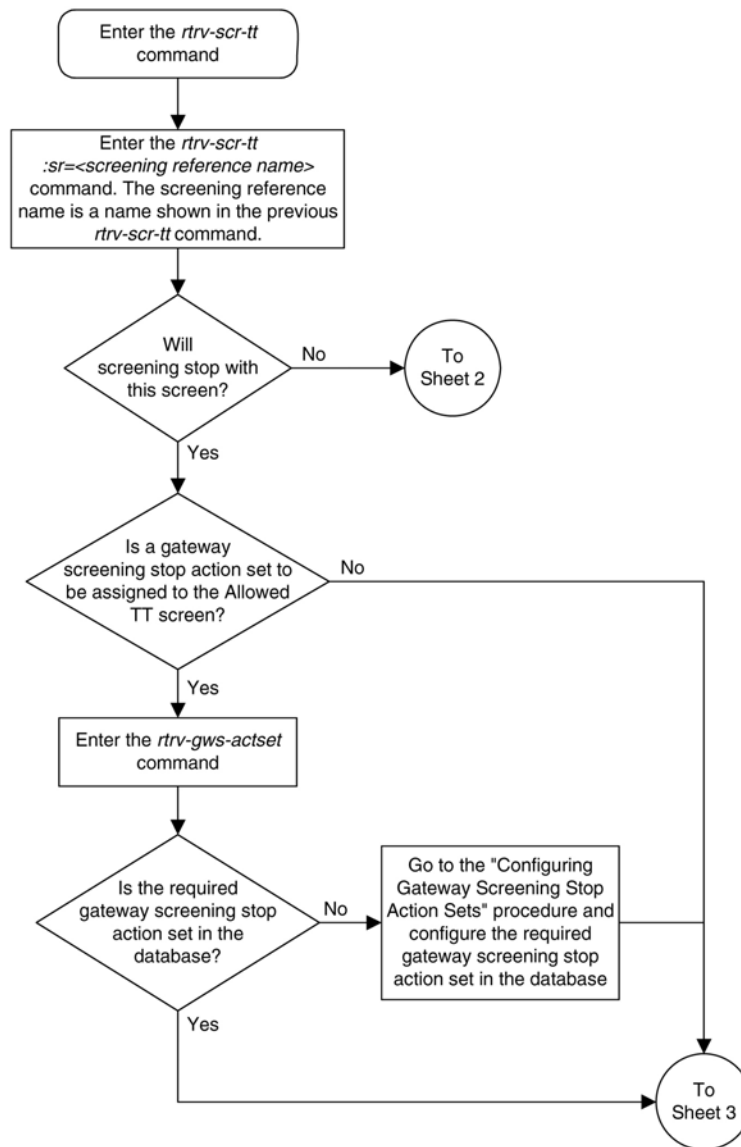
```
rlghncxa03w 06-10-25 15:26:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED TT
SR      TYPE      NSFI      NSR/ACT
IEC     005&&010  STOP      -----
IEC     012       STOP      -----
IEC     210       STOP      -----
```

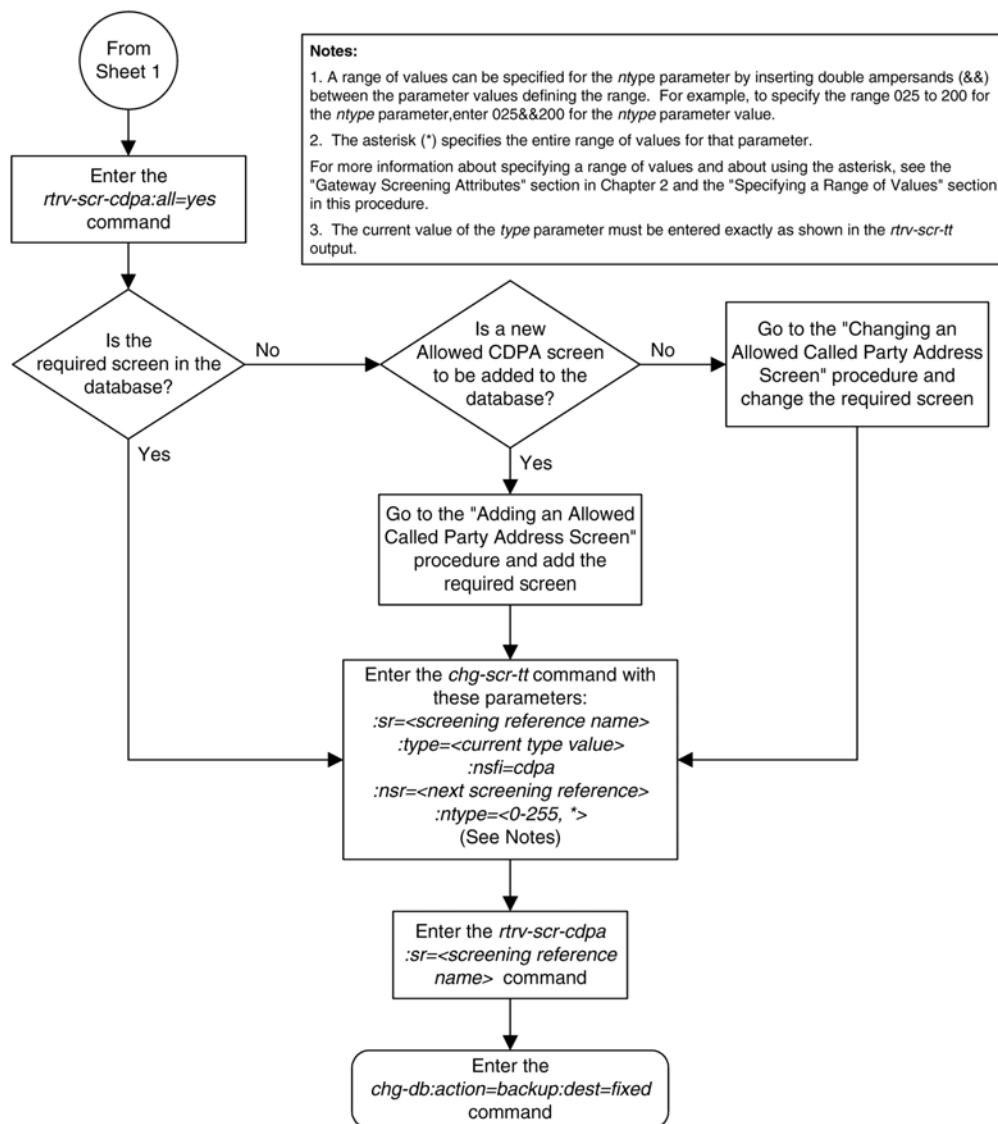
6. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

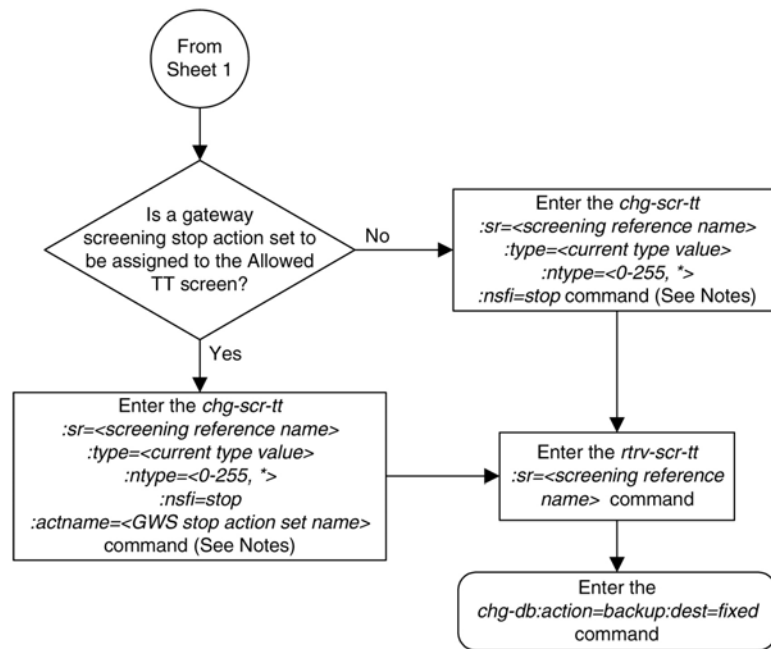
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
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.
```

Figure 32: Changing an Allowed Translation Type Screen







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 in Chapter 2 and the "Specifying a Range of Values" section in this procedure.
3. The current value of the *type* parameter must be entered exactly as shown in the *rtv-scr-tt* output.

Chapter 6

Allowed Calling Party (CGPA) Screen Configuration

Topics:

- [*Introduction Page 176*](#)
- [*Adding an Allowed Calling Party Address Screen Page 182*](#)
- [*Removing an Allowed Calling Party Address Screen Page 192*](#)
- [*Changing an Allowed Calling Party Address Screen Page 196*](#)

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 34: Allowed Calling Party Address Screening Function](#) on page 180 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](#) on page 415.
- 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 *LNP Feature Activation Guide*.
- If the `tinp` gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in the *Feature Manual - G-Port*.
- If the `tif`, `tif2`, or `tif3` gateway screening stop actions are specified, TIF processing is applied to the message.

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.

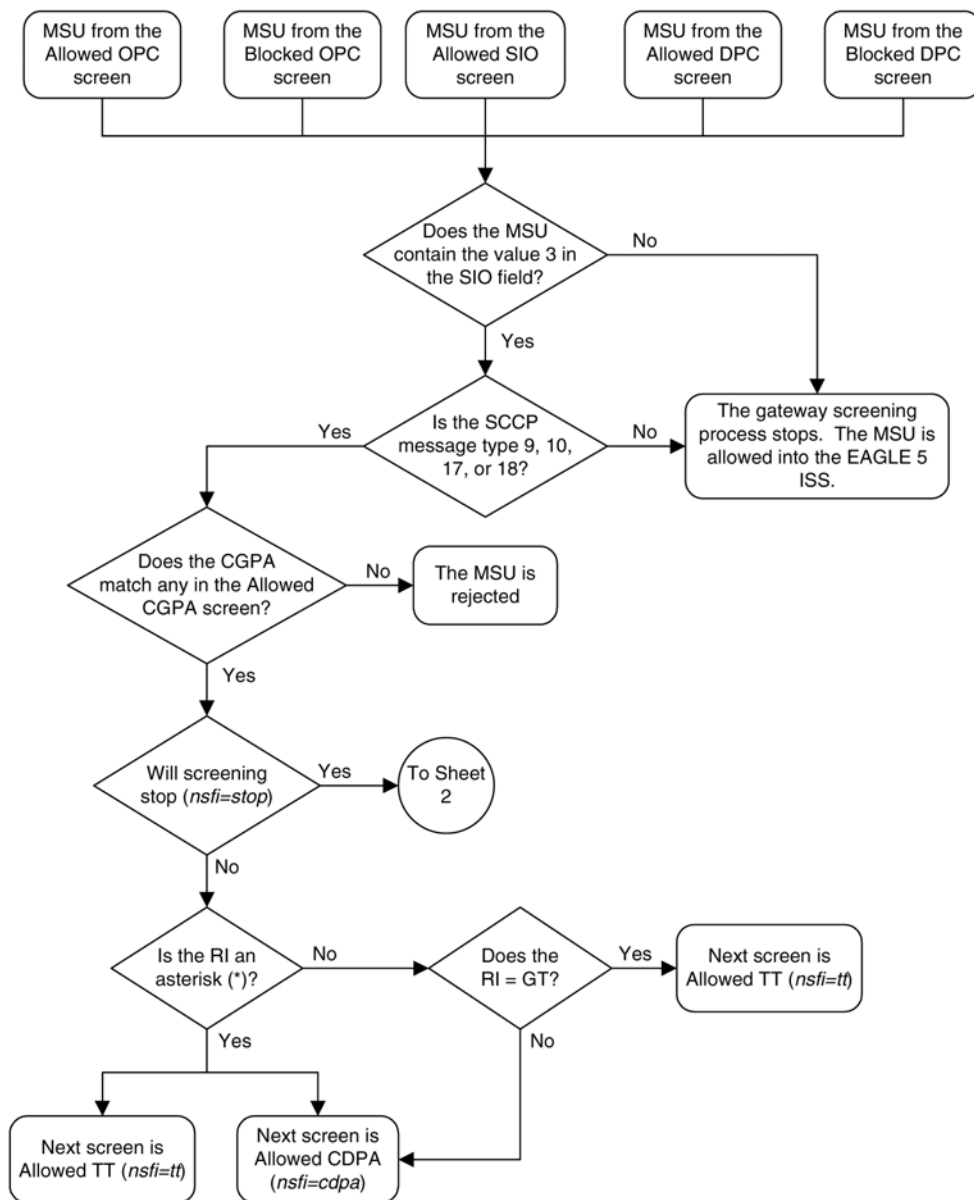
The value of the `nsfi` parameter is based on the value of the routing indicator (`ri`) parameter. [Table 31: Valid Parameter Combinations for the Allowed CGPA Screening Function](#) on page 177 shows the valid combinations of `nsfi` values and routing indicator values.

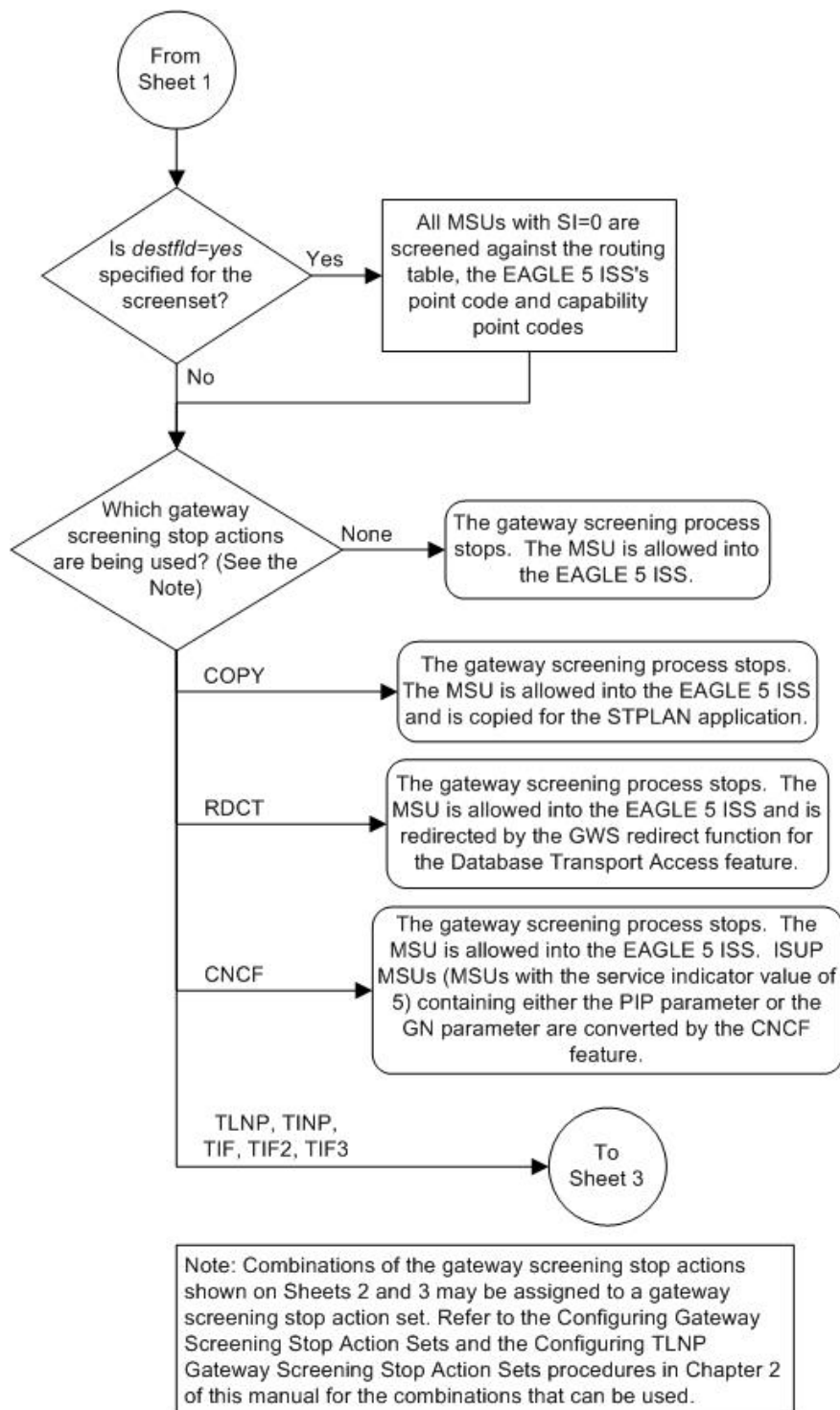
Table 31: Valid Parameter Combinations for the Allowed CGPA Screening Function

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

[Figure 33: Allowed CGPA Screening Actions](#) on page 177 shows the screening actions of the allowed CGPA screen.

Figure 33: Allowed CGPA Screening Actions





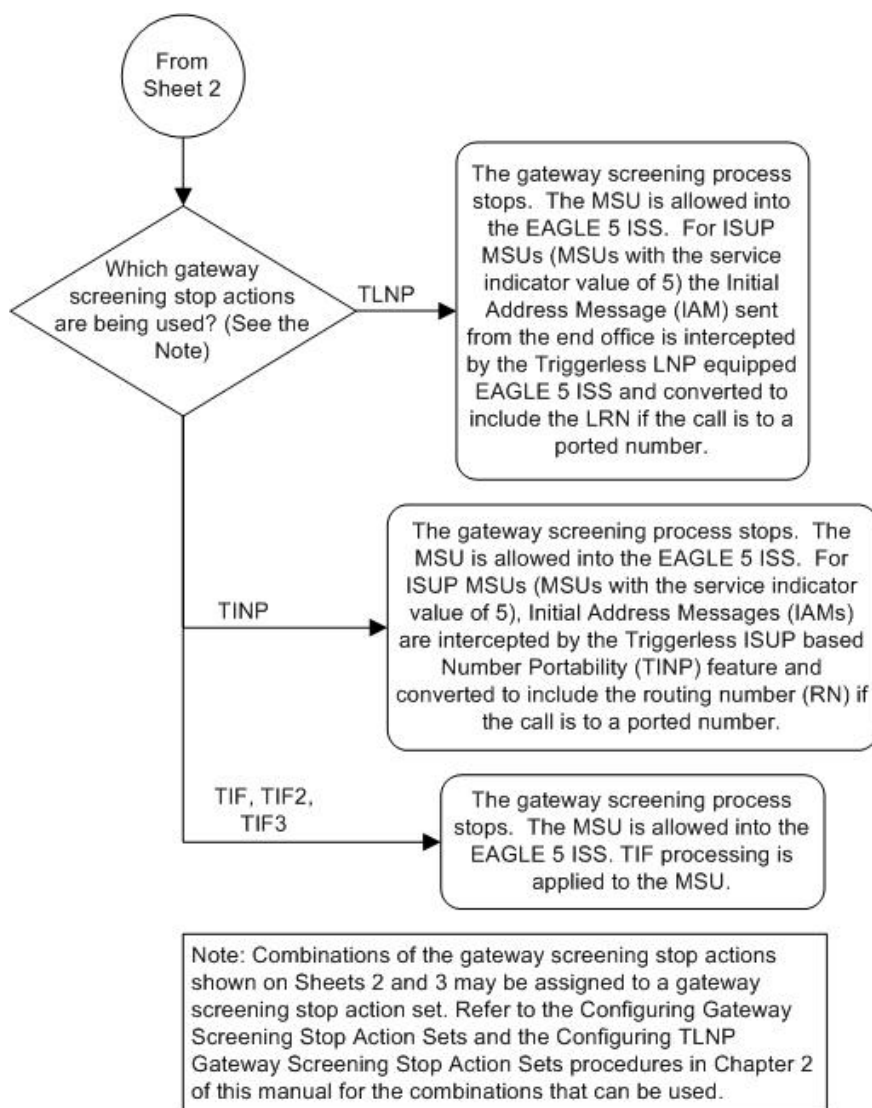


Figure 34: Allowed Calling Party Address Screening Function

ANSI MSU (ANSI Message Signal Unit)

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

ITU-I MSU (ITU International Message Signal Unit)

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

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

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

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

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

Adding an Allowed Calling Party Address Screen

This procedure is used to add an allowed calling party address (CGPA) screen to the database using the `ent-scr-cgpa` command. The parameters used by the `ent-scr-cgpa` command are shown in the [Gateway Screening Attributes](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 section.

The examples in this procedure are used to add the allowed CGPA screen data shown in [Table 32: Example Gateway Screening Allowed CGPA Configuration Table](#) on page 182 and based on the example configurations shown in [Figure 4: Gateway Screening Configuration - Example 1](#) on page 40 through [Figure 6: Gateway Screening Configuration - Example 3](#) on page 44.

Table 32: 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](#) on page 32 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](#) on page 159
- [Adding an Allowed Called Party Address Screen](#) on page 126
- [Changing an Allowed Translation Type Screen](#) on page 167
- [Changing an Allowed Called Party Address Screen](#) on page 141

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 33: Valid Value Combinations for ANSI Point Code Parameters](#) on page 183 shows the valid combinations of these parameter values.

Table 33: 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 34: Valid Value Combinations for ITU-I Point Code Parameters](#) on page 183 shows the valid combinations of the ITU-I parameter values. [Table 35: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters](#) on page 184 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 34: 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 35: 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
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](#) on page 61 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](#) on page 182 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](#) on page 182 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 go 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

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”](#) on page 182 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  NSF1  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  NSF1  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.

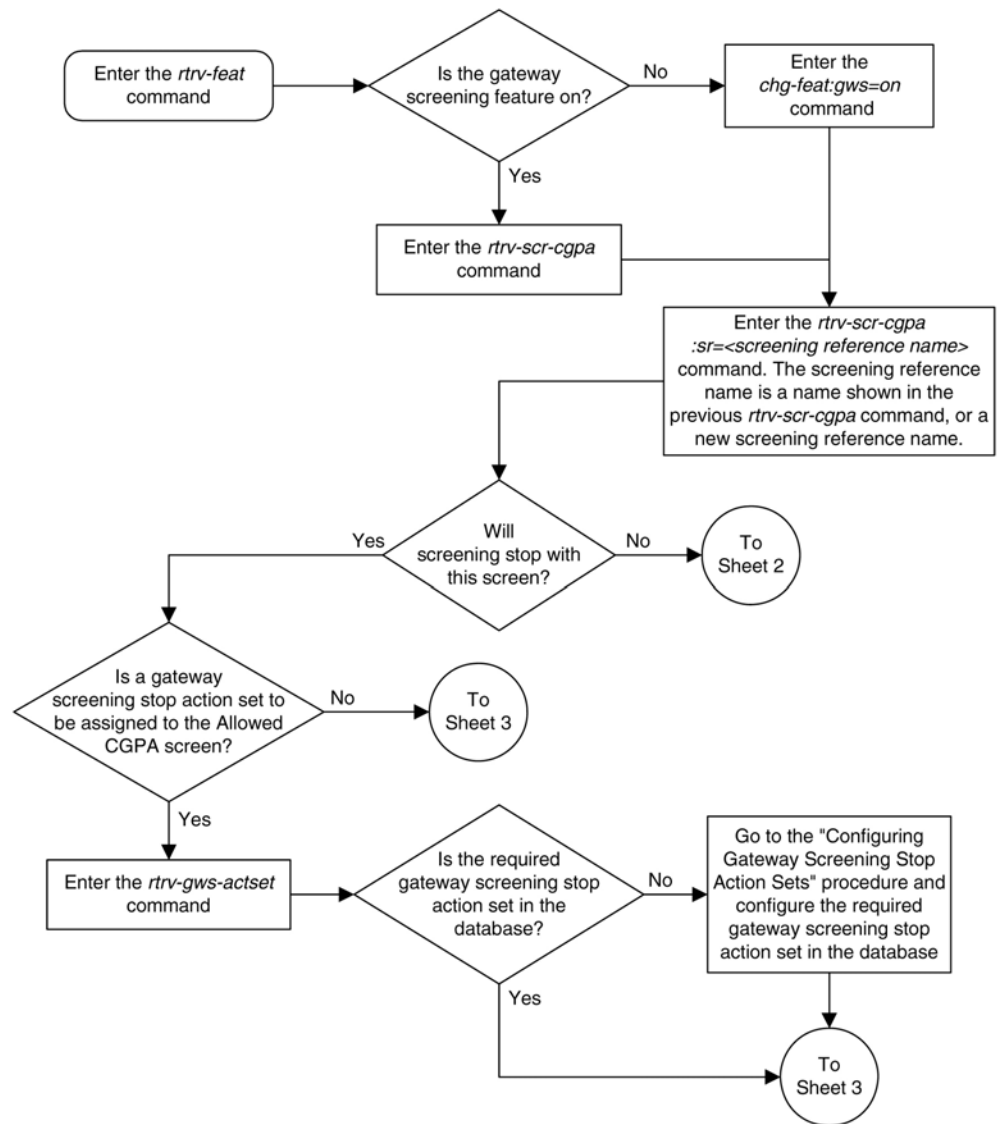
```
rlghncxa03w 06-10-25 15:34:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED CGPA
SR  NI      NC      NCM      SSN      RI      SCCPMT  NSF1  NSR/ACT
GW14 006     006     006     253     GT      009     TT    GW17
```

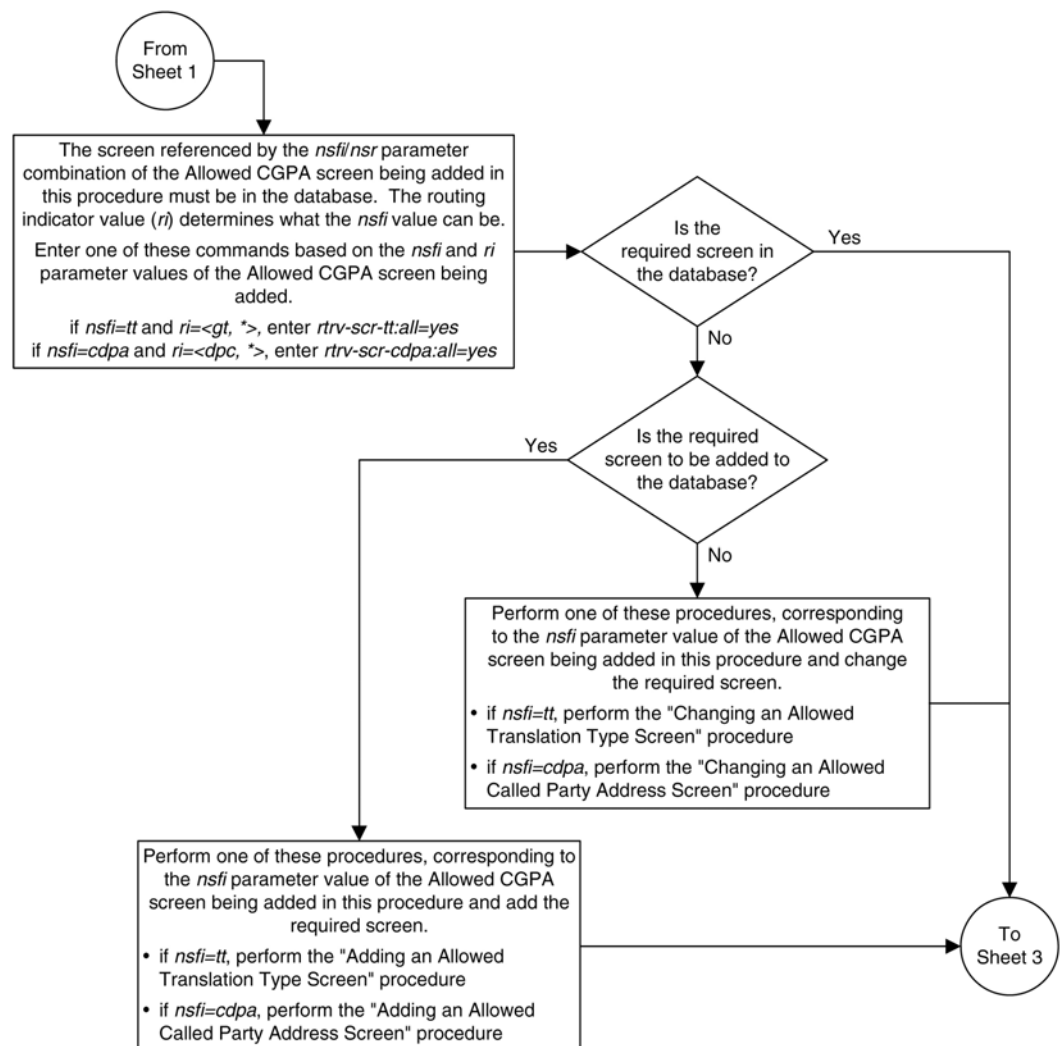
9. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

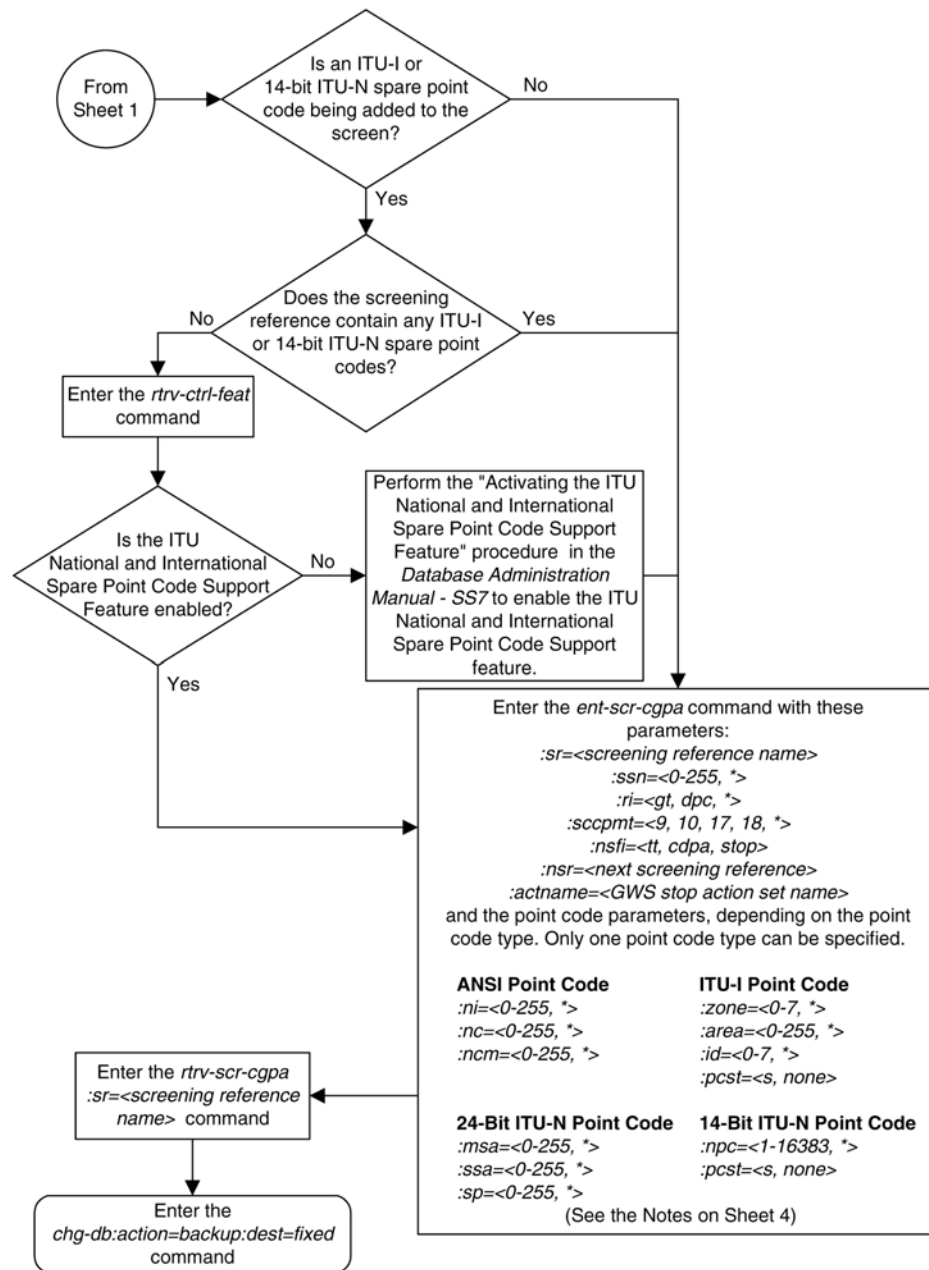
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
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.
```

Figure 35: Adding an Allowed Calling Party Address Screen







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 in Chapter 2 and the "Specifying a Range of Values" section in this procedure.
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.

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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 32 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](#) on page 256
- [Changing an Allowed DPC Screen](#) on page 290
- [Changing an Allowed SIO Screen](#) on page 321
- [Changing a Blocked OPC Screen](#) on page 351
- [Changing an Allowed OPC Screen](#) on page 384

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](#) on page 192 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](#) on page 193 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
```

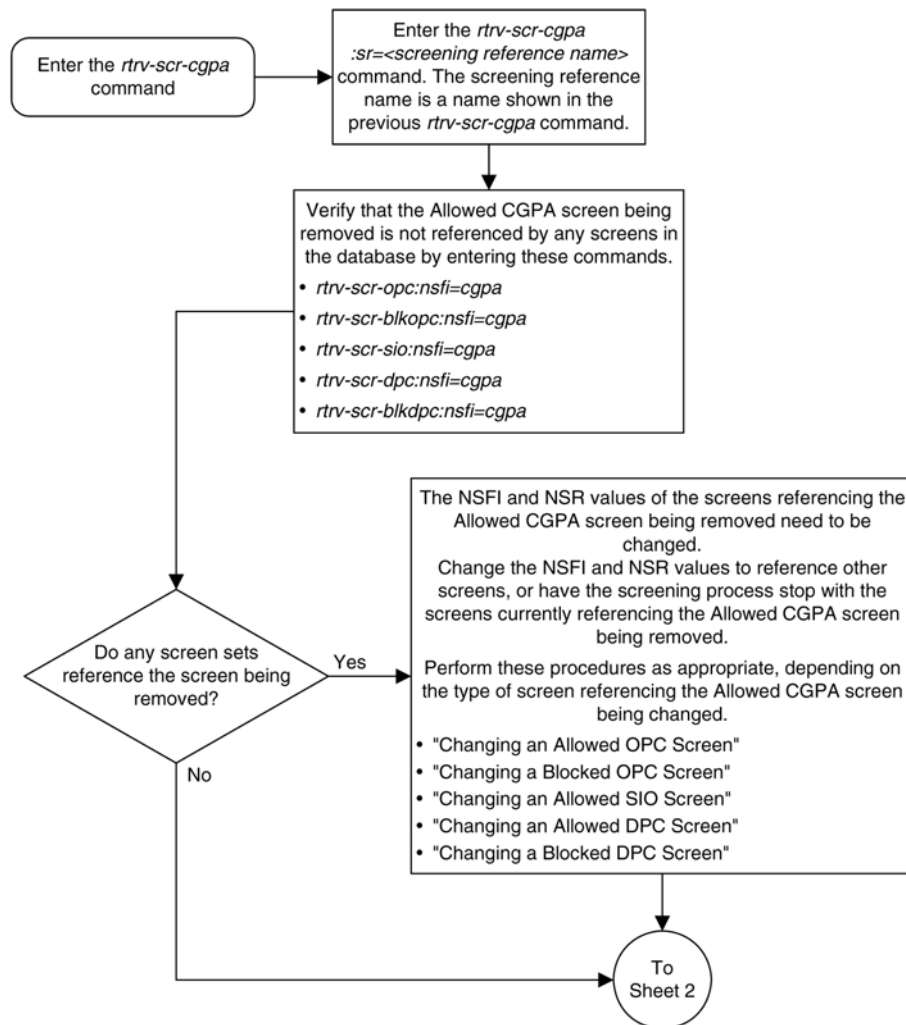
This message shows that the specified screening reference name is not in the database and the action of the `dlt-scr-cgpa` command in step 3 was successful. If the specified screening reference name contained more than one entry when the `dlt-scr-cgpa` command was executed in step 3, the `rtrv-scr-cgpa:sr=`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

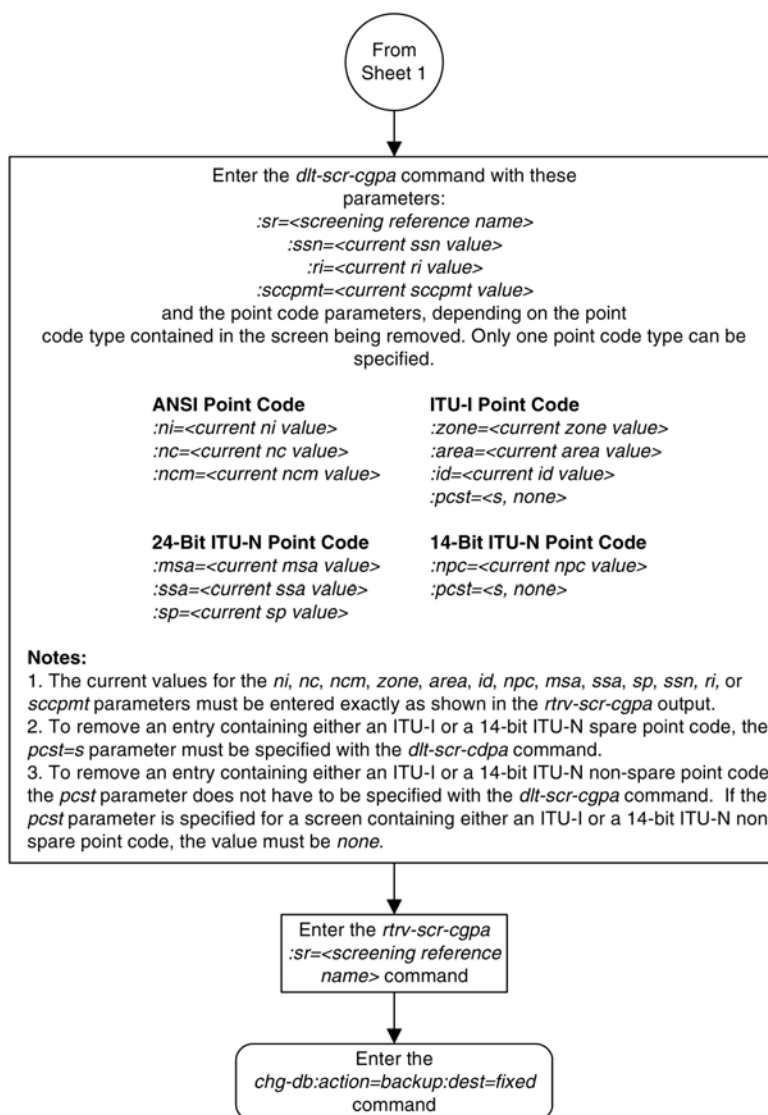
5. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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.
```

Figure 36: 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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 32 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](#) on page 159
- [Adding an Allowed Called Party Address Screen](#) on page 126
- [Changing an Allowed Translation Type Screen](#) on page 167
- [Changing an Allowed Called Party Address Screen](#) on page 141

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 36: Valid Value Combinations for ANSI Point Code Parameters](#) on page 197 shows the valid combinations of these parameter values.

Table 36: 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

NI	NC	NCM
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 37: Valid Value Combinations for ITU-I Point Code Parameters](#) on page 198 shows the valid combinations of the ITU-I parameter values. [Table 38: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters](#) on page 198 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 37: 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 38: 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 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    cnf   cnf
5    cpnf  copy cnf
6    cnf   cnf rdct
7    cpcf  copy cnf 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](#) on page 61 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](#) on page 197 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](#) on page 197 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

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 `chg-scr-cgpa` command, unsolicited information message (UIM) 1126 is generated when the attempt is made to redirect MSUs from the allowed CGPA screen. Unsolicited information message (UIM) 1216 is generated when ISUP IAM MSUs are intercepted from the allowed CGPA screen. For more information on UIMs 1126 and 1216, go to 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 39: CGPA Parameter Combinations](#) on page 201.

Table 39: CGPA Parameter Combinations

New or Current RI Value	NSFI	NSR
GT	TT, STOP	Must be specified if NSFI=TT
DPC	CDPA, STOP	Must be specified if NSFI=CDPA
*	TT, CDPA, STOP	Must be specified if NSFI=TT or NSFI=CDPA

A range of values can be specified for the `nni`, `nnc`, and `nncm` parameters. See the [“Specifying a Range of Values”](#) on page 197 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.

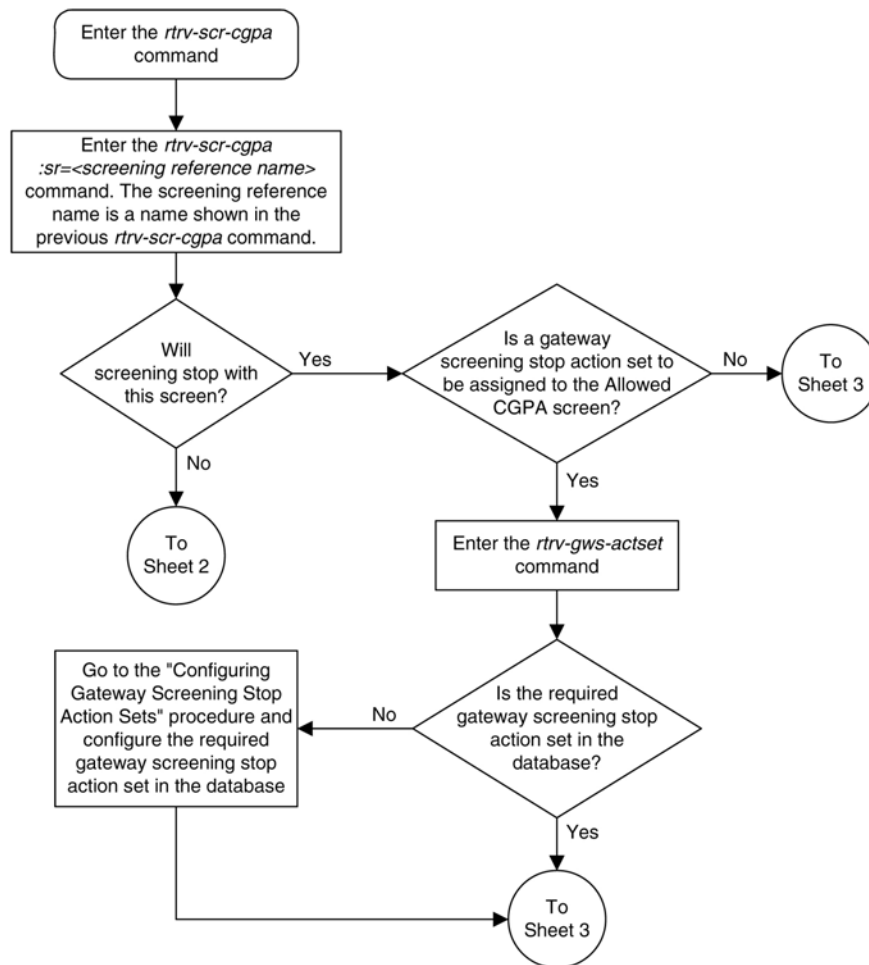
```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED CGPA
SR      NI      NC      NCM      SSN      RI      SCCPMT  NSFI      NSR/ACT
GW14    230      230      230      150      GT      009      TT        GW17
```

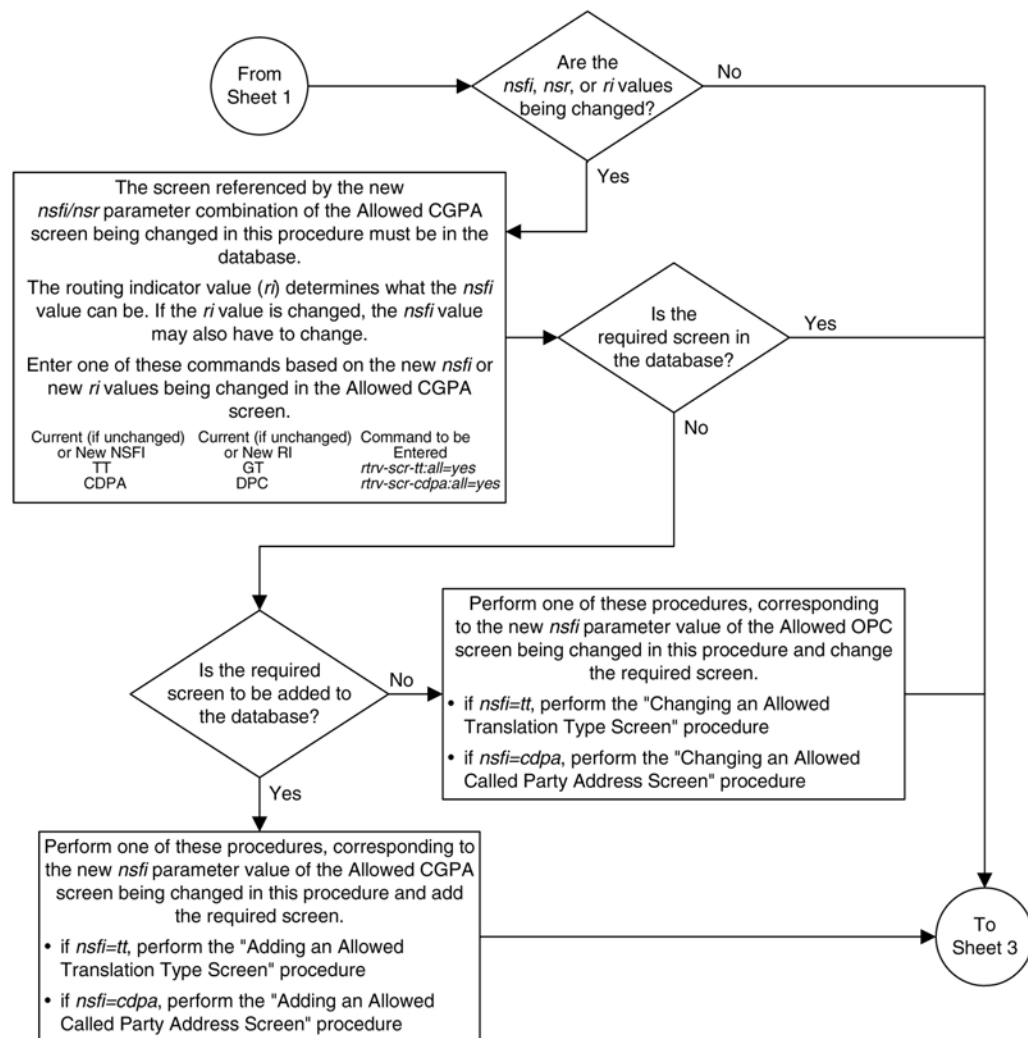
7. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

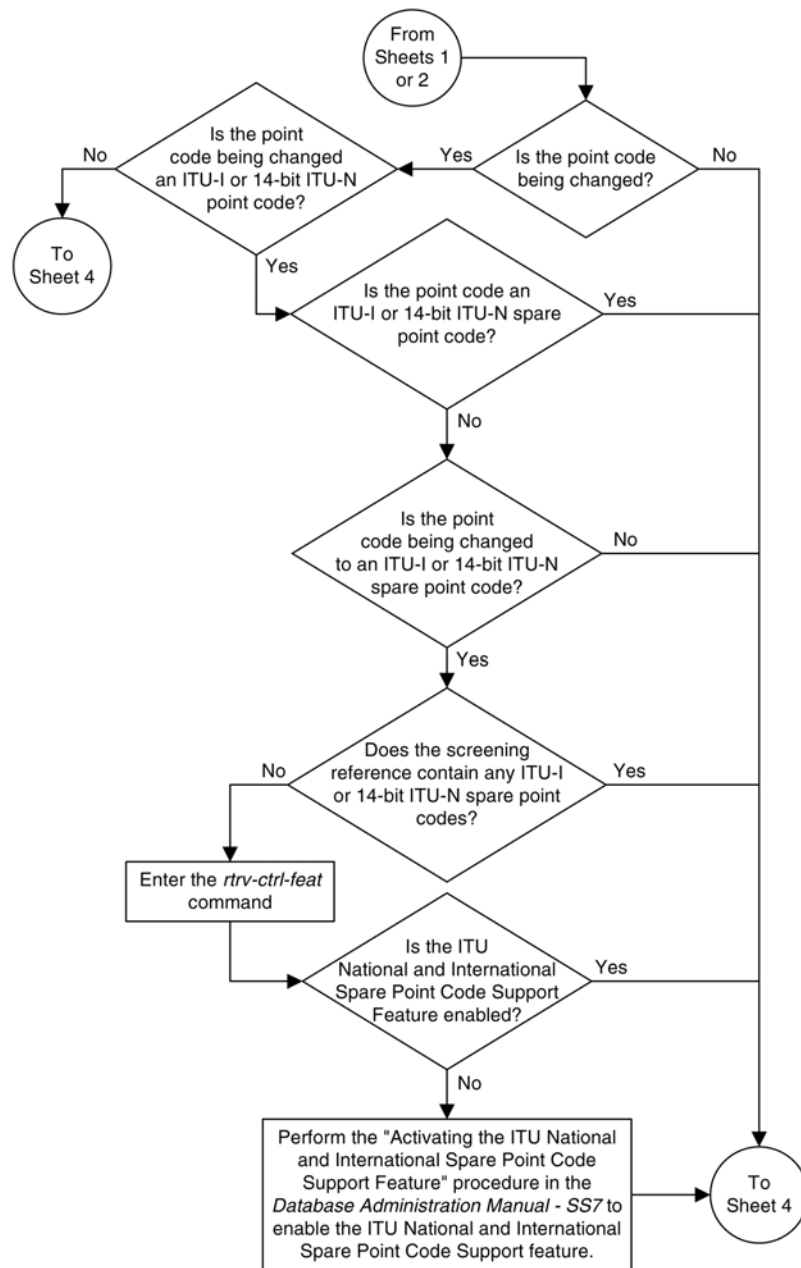
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

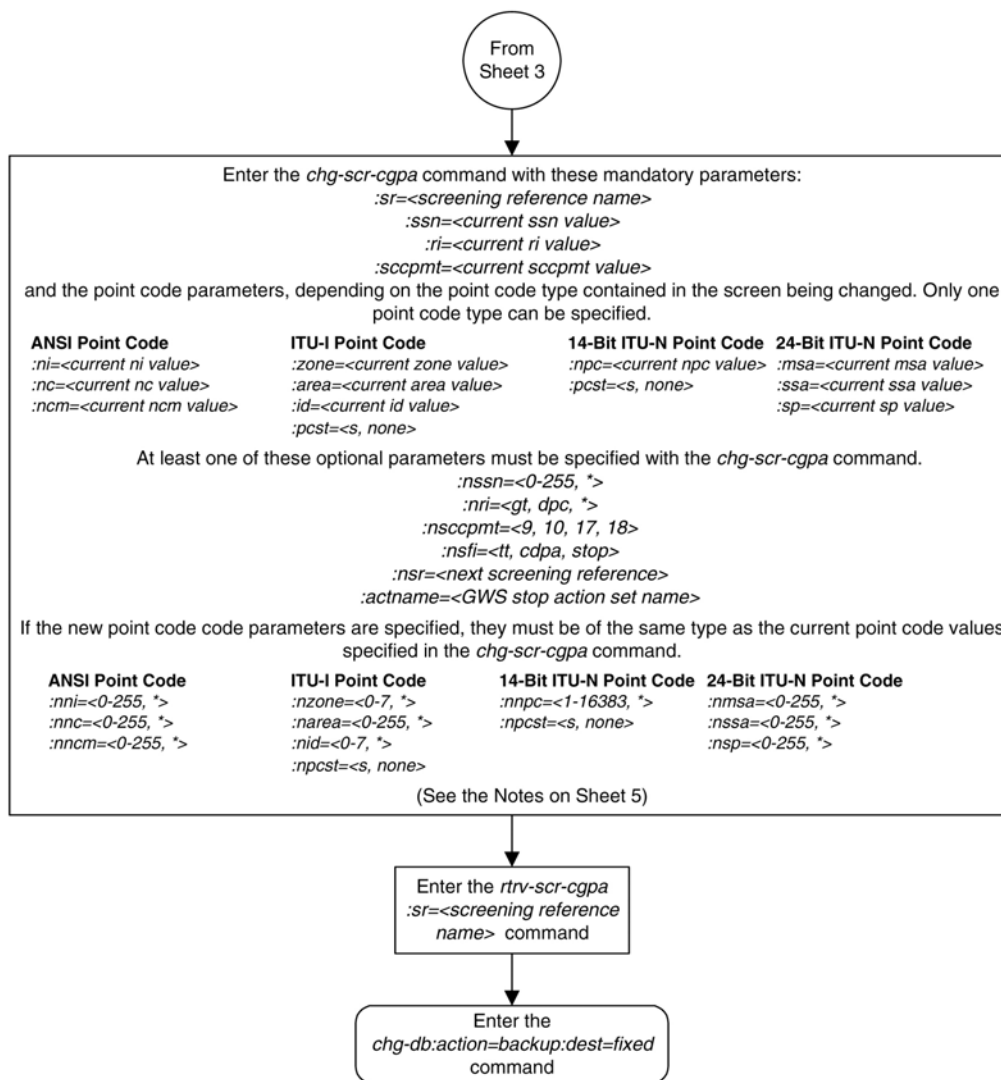
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```

Figure 37: Changing an Allowed Calling Party Address Screen









Notes:

1. A range of values can be specified for the *nni*, *nnn*, or *nnm* 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 in Chapter 2 and the "Specifying a Range of Values" section in this procedure.
3. If either the *nsfi=<tt or cdp>* or *nsr* parameters 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.

Chapter 7

Allowed Affected Destination Field (DESTFLD) Screen Configuration

Topics:

- [*Introduction Page 210*](#)
- [*Adding an Allowed Affected Destination Field Screen Page 214*](#)
- [*Removing an Allowed Affected Destination Field Screen Page 222*](#)
- [*Changing an Allowed Affected Destination Field Screen Page 225*](#)

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 39: Allowed Affected Destination Field Screening Function](#) on page 213 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](#) on page 398.

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](#) on page 415.
- 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 *LNP Feature Activation Guide*.
- If the `tinp` gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in the *Feature Manual - G-Port*.

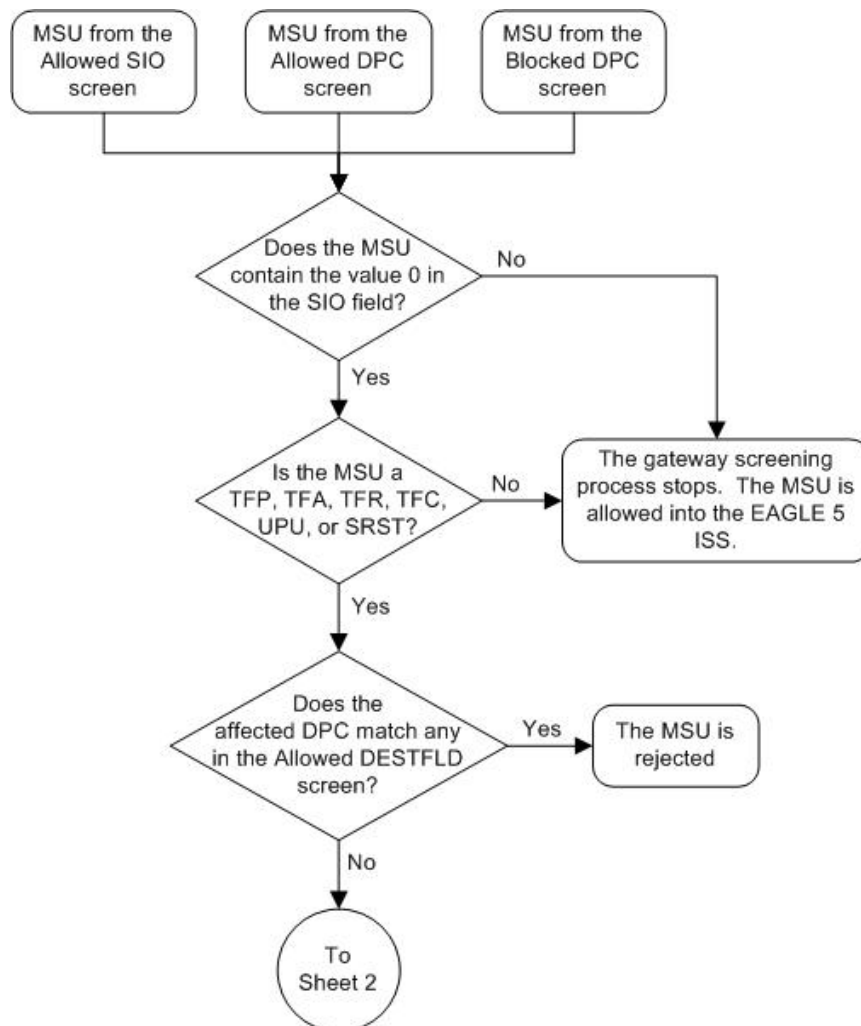
- If the `tif`, `tif2`, or `tif3` gateway screening stop actions are specified, TIF processing is applied to the message.

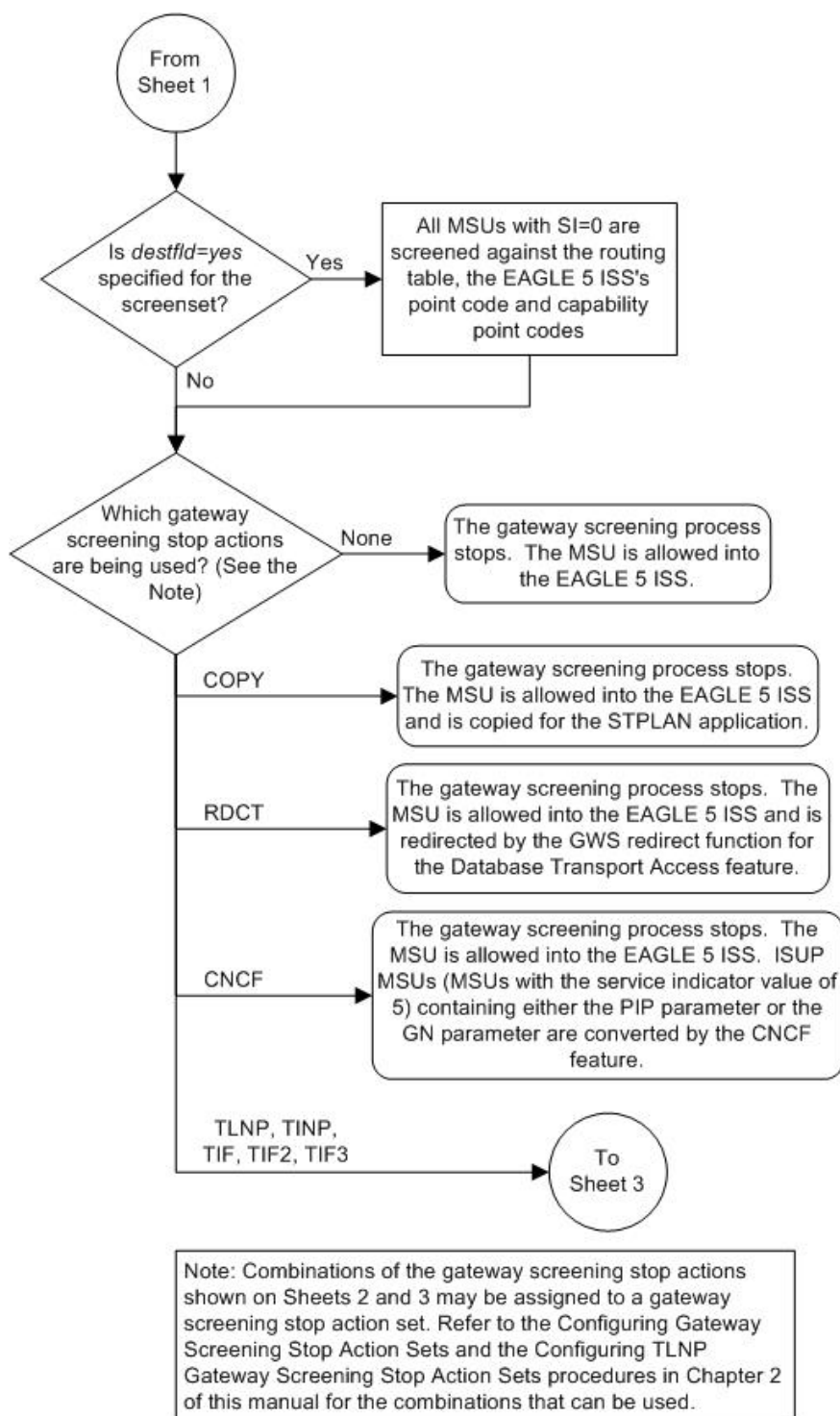
Allowed Affected Destination Screening Actions

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 38: Allowed Affected Destination Screening Actions on page 211 shows the screening actions of the allowed affected destination field screen.

Figure 38: Allowed Affected Destination Screening Actions





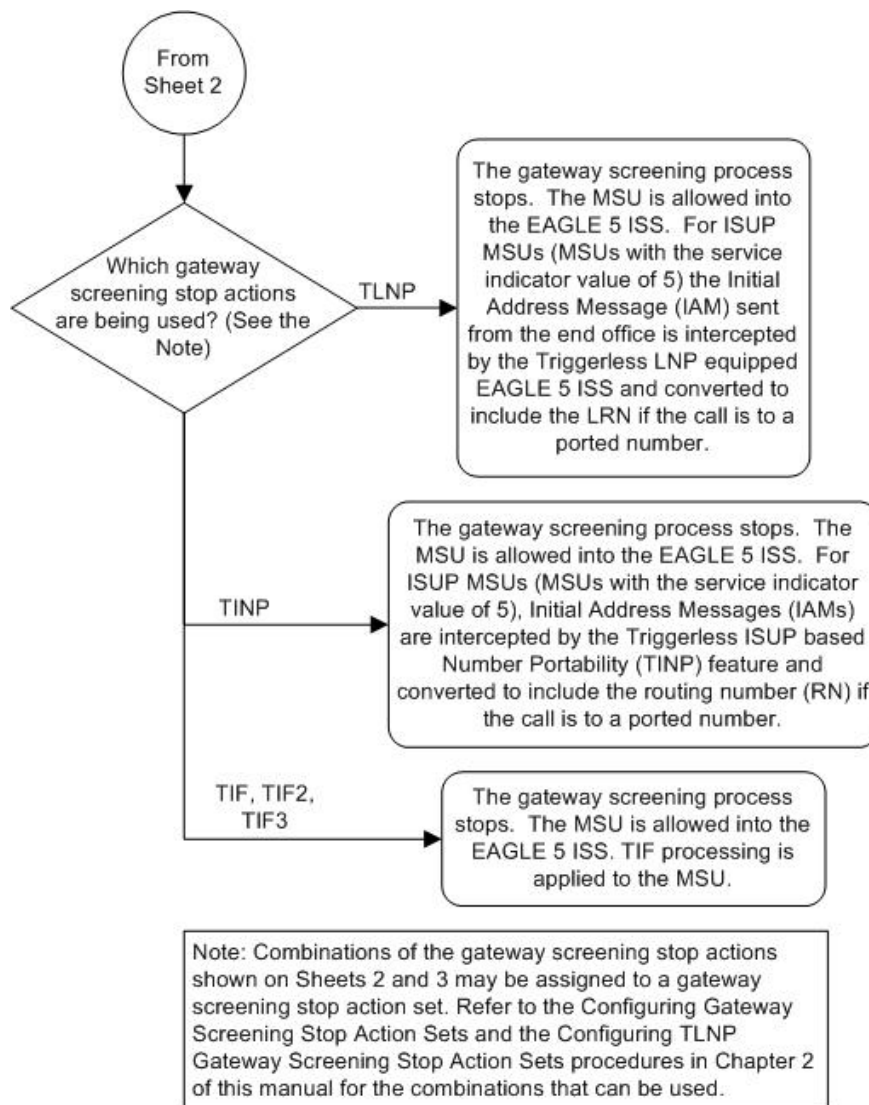


Figure 39: Allowed Affected Destination Field Screening Function

ANSI MSU (ANSI Message Signal Unit)

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		Routing Label DPC OPC SLS NCM NC NI NCM NC NI xx			Affected DPC NCM NC NI

ITU-I MSU (ITU International Message Signal Unit)

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		Routing Label DPC OPC SLS ID AREA ZONE ID AREA ZONE xx			Affected DPC ID AREA ZONE

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

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		Routing Label DPC OPC SLS NPC NPC xx			Affected DPC NPC

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

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		Routing Label DPC OPC SLS SP SSA MSA SP SSA MSA xx			Affected DPC SP SSA MSA

Adding an Allowed Affected Destination Field Screen

This procedure is used to add an allowed affected destination field (DESTFLD) screen to the database using the `ent-scr-destfld` command. The parameters used by the `ent-scr-destfld` command are shown in the [Gateway Screening Attributes](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 section.

The examples in this procedure are used to add the allowed DESTFLD screen data shown in [Table 40: Example Gateway Screening Allowed DESTFLD Configuration Table](#) on page 215 and based on the example configuration shown in [Figure 8: Gateway Screening Configuration - Example 5](#) on page 46.

Table 40: 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](#) on page 32 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 41: Valid Value Combinations for ANSI Point Code Parameters](#) on page 215 shows the valid combinations of these parameter values.

Table 41: 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 42: Valid Value Combinations for ITU-I Point Code Parameters](#) on page 216 shows the valid combinations of the ITU-I parameter values. [Table 43: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters](#) on page 216 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 42: 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 43: 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](#) on page 61 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](#)” on page 215 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.

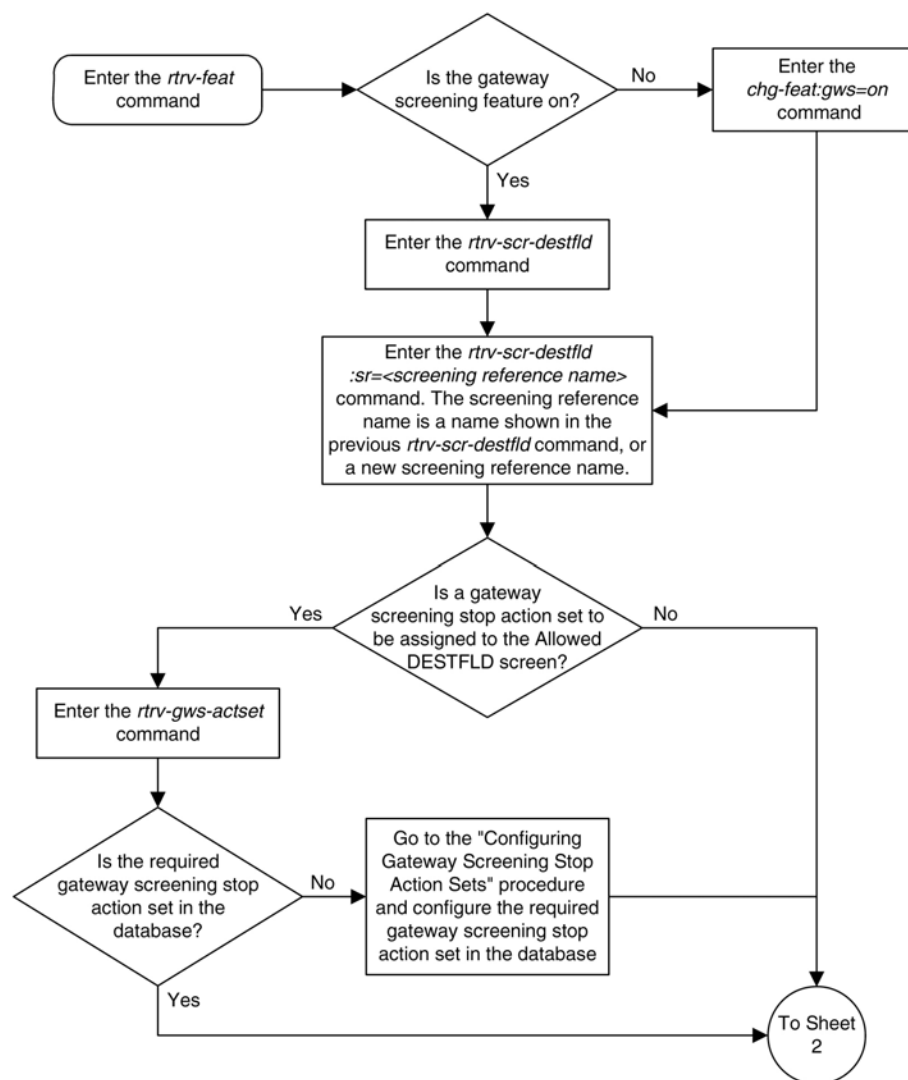
```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED DESTFLD
SR      NI      NC      NCM      NSFI      NSR/ACT
FLD5    100      100      100      STOP      CR
```

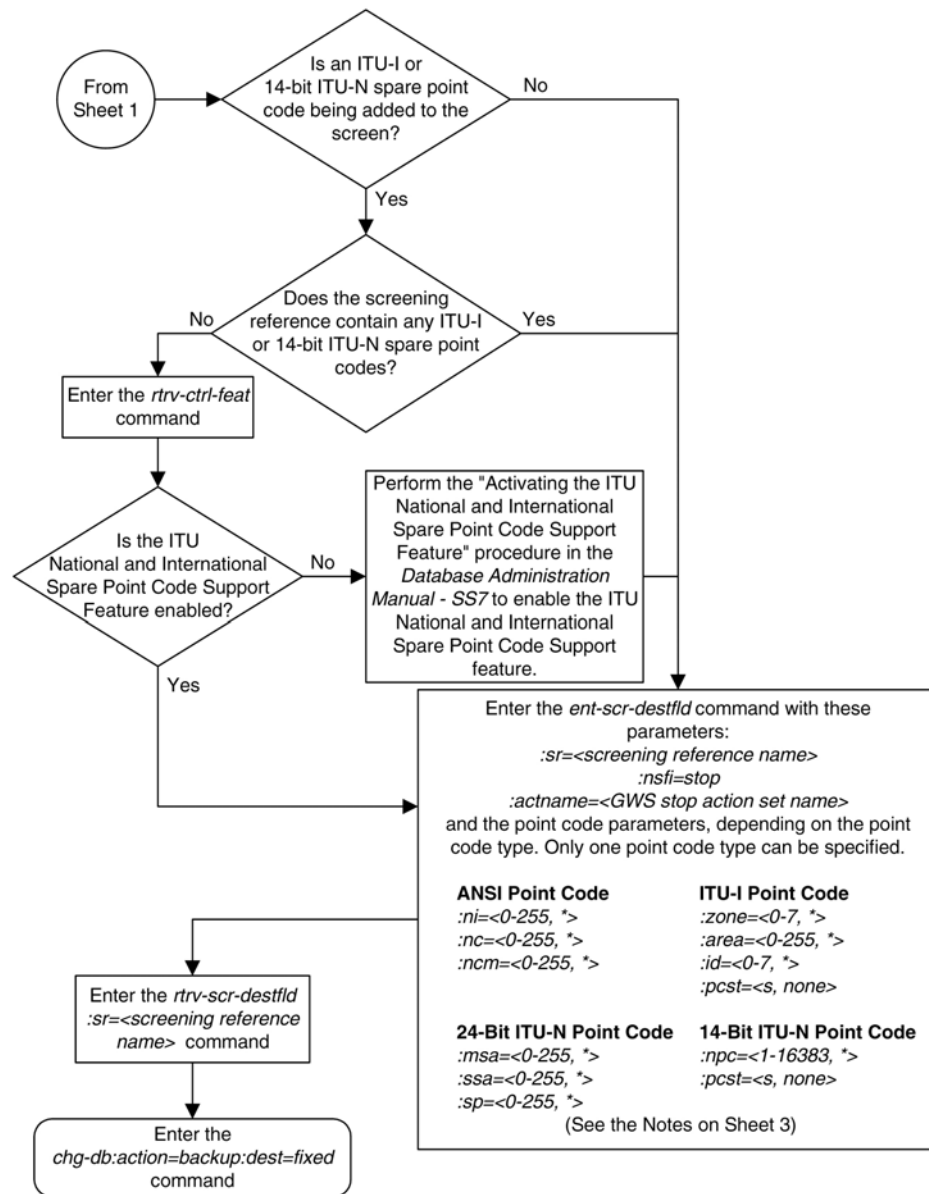
8. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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.
```

Figure 40: Adding an Allowed Affected Destination Field Screen





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 in Chapter 2 and the "Specifying a Range of Values" section in this procedure.
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.

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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 32 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](#) on page 321
- [Changing an Allowed DPC Screen](#) on page 290
- [Changing a Blocked DPC Screen](#) on page 256

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](#) on page 222 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](#) on page 222 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
```

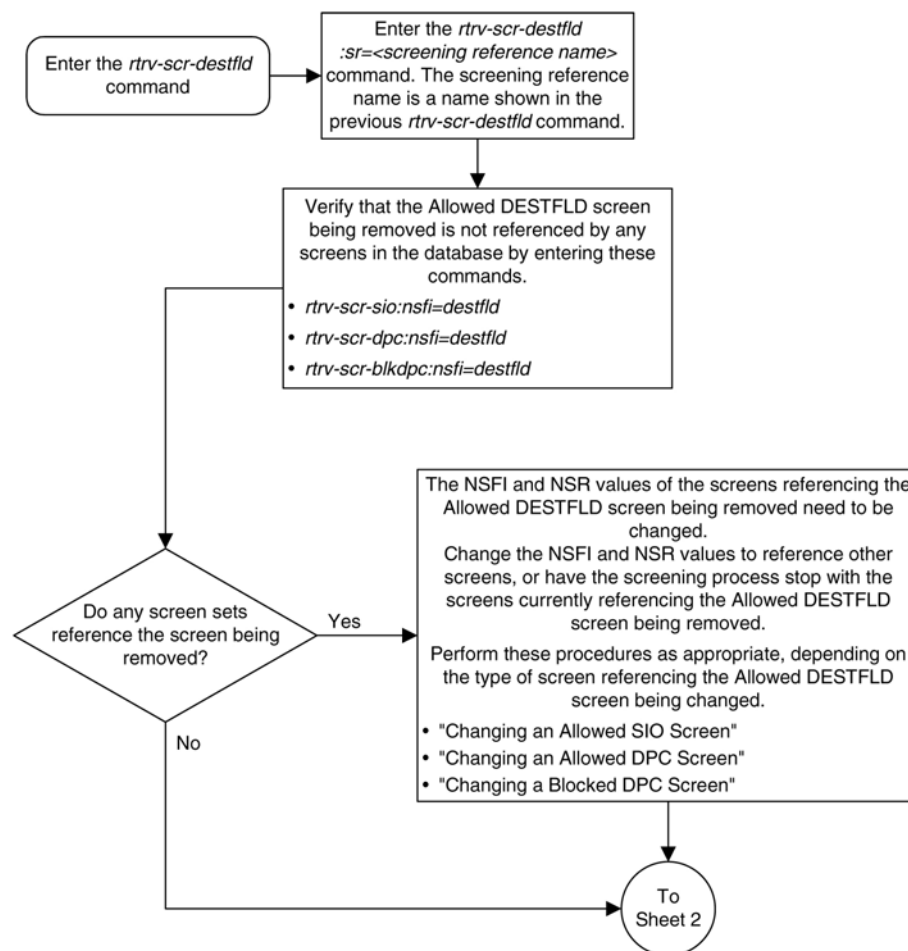
This message shows that the specified screening reference name is not in the database and the action of the `dlt-scr-destfld` command in step 3 was successful. If the specified screening reference name contained more than one entry when the `dlt-scr-destfld` command was executed in step 3, the `rtrv-scr-destfld:sr=`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

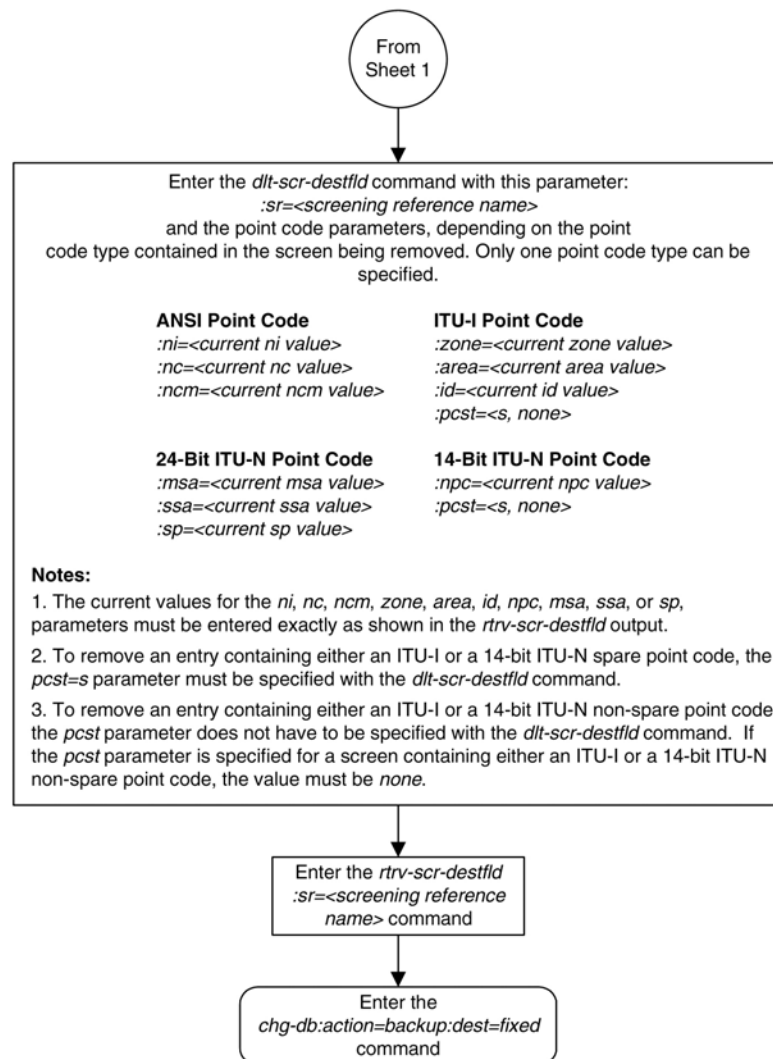
5. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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.
```

Figure 41: 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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 32 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 44: Valid Value Combinations for ANSI Point Code Parameters](#) on page 226 shows the valid combinations of these parameter values.

Table 44: 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 45: Valid Value Combinations for ITU-I Point Code Parameters](#) on page 227 shows the valid combinations of the ITU-I parameter values. [Table 46: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters](#) on page 227 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 45: 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 46: 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      NSF1    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    cnf      cnf
5    cpcnf    copy  cnf
6    cnf      cnf   rdct
7    cpcfrd   copy  cnf   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](#) on page 61 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.

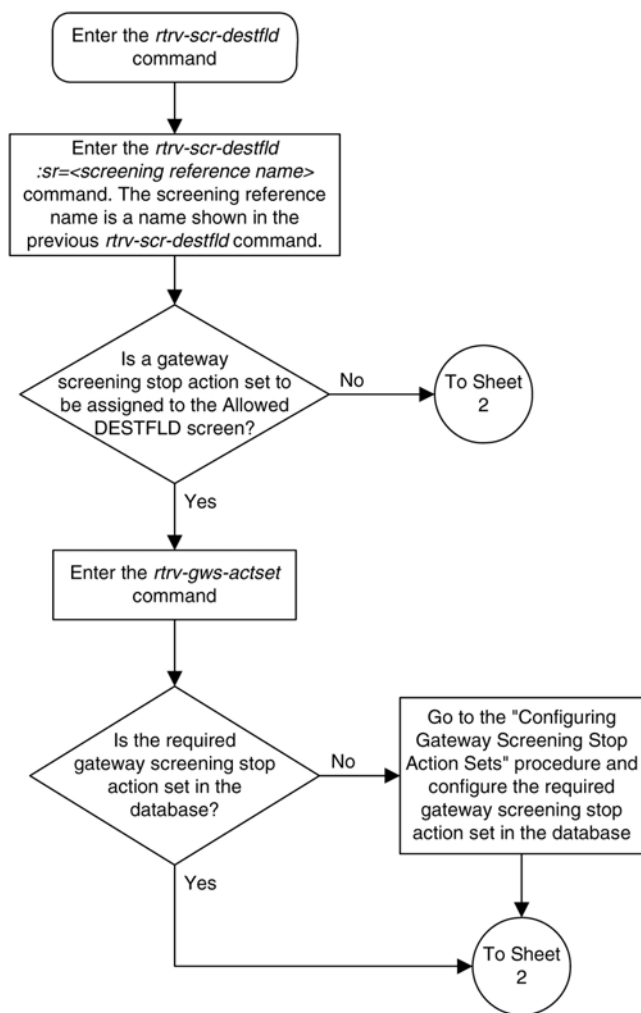
```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED DESTFLD
SR      NI      NC      NCM      NSFI      NSR/ACT
fld5    030      030      030      STOP      rdct
```

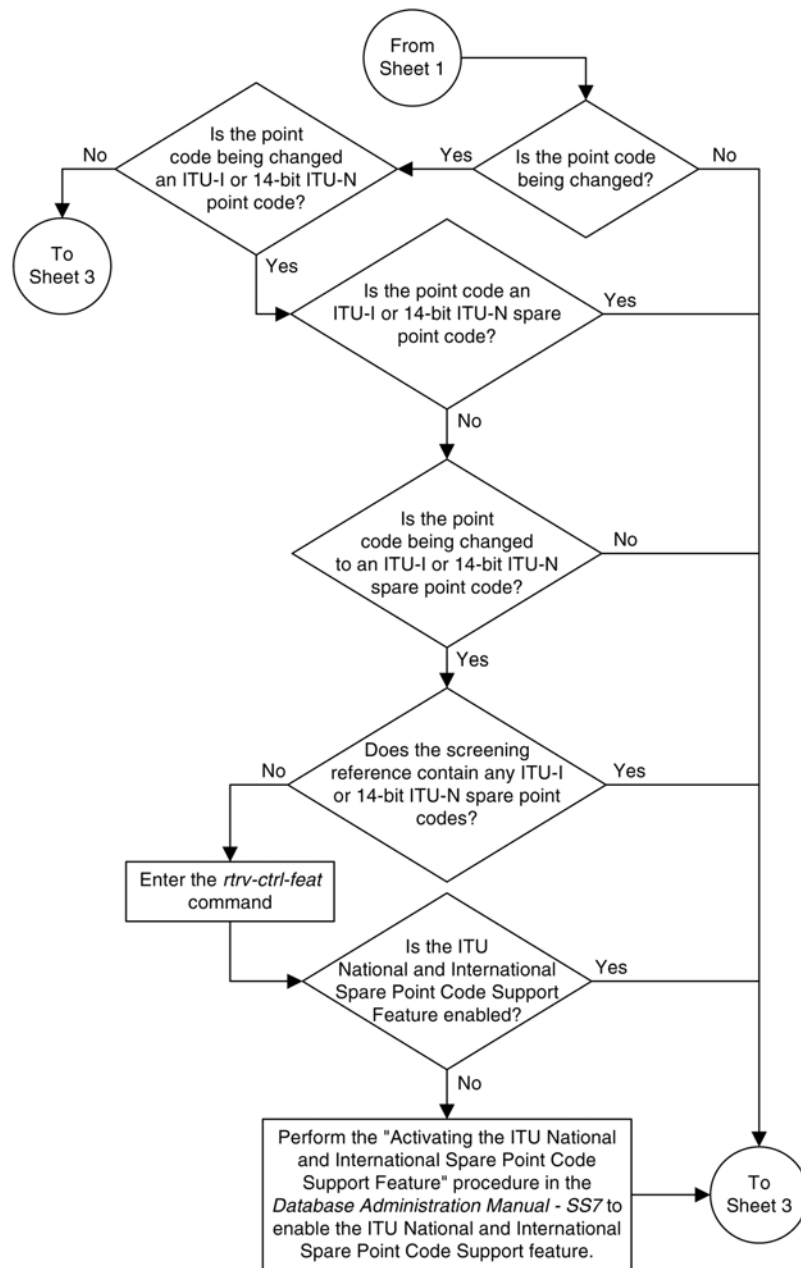
6. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

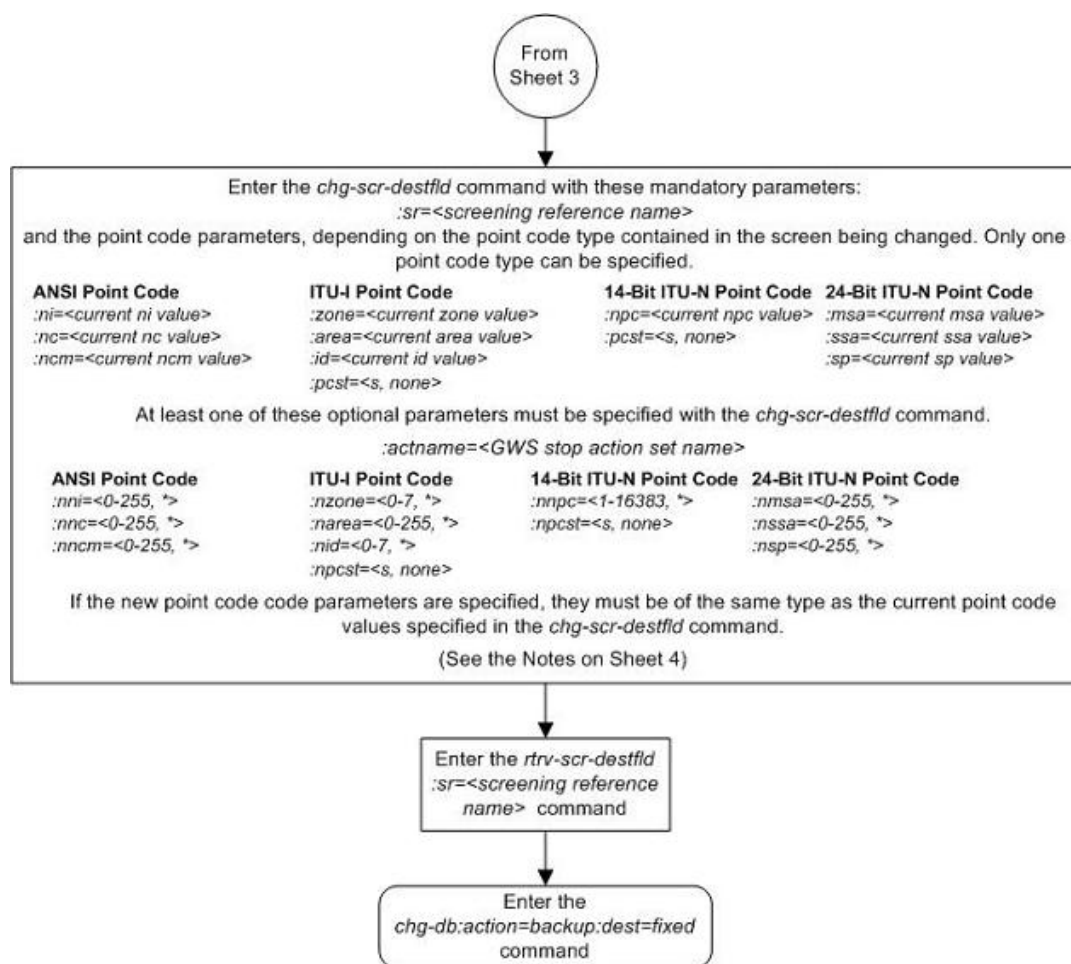
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
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.
```

Figure 42: Changing an Allowed Affected Destination Field Screen







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 in Chapter 2 and the "Specifying a Range of Values" section in this procedure.

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*, *nncm*, *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*.

Chapter 8

Blocked Destination Point Code (BLKDPC) Screen Configuration

Topics:

- [Introduction Page 236](#)
- [Adding a Blocked DPC Screen Page 240](#)
- [Removing a Blocked DPC Screen Page 252](#)
- [Changing a Blocked DPC Screen Page 256](#)

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 44: Blocked DPC Screening Functions](#) on page 239 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.

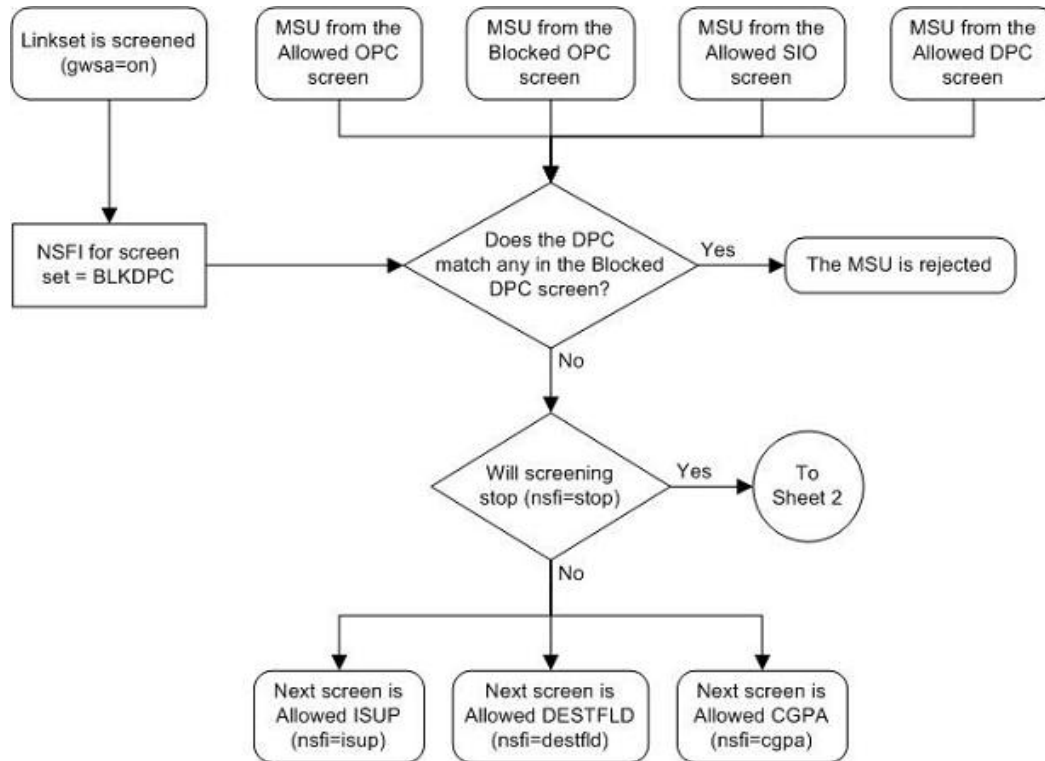
If the `nsfi` is equal to `stop`, the screening process stops and the message is processed. If a gateway screening stop action set is specified with the screen, shown by the `actname` parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

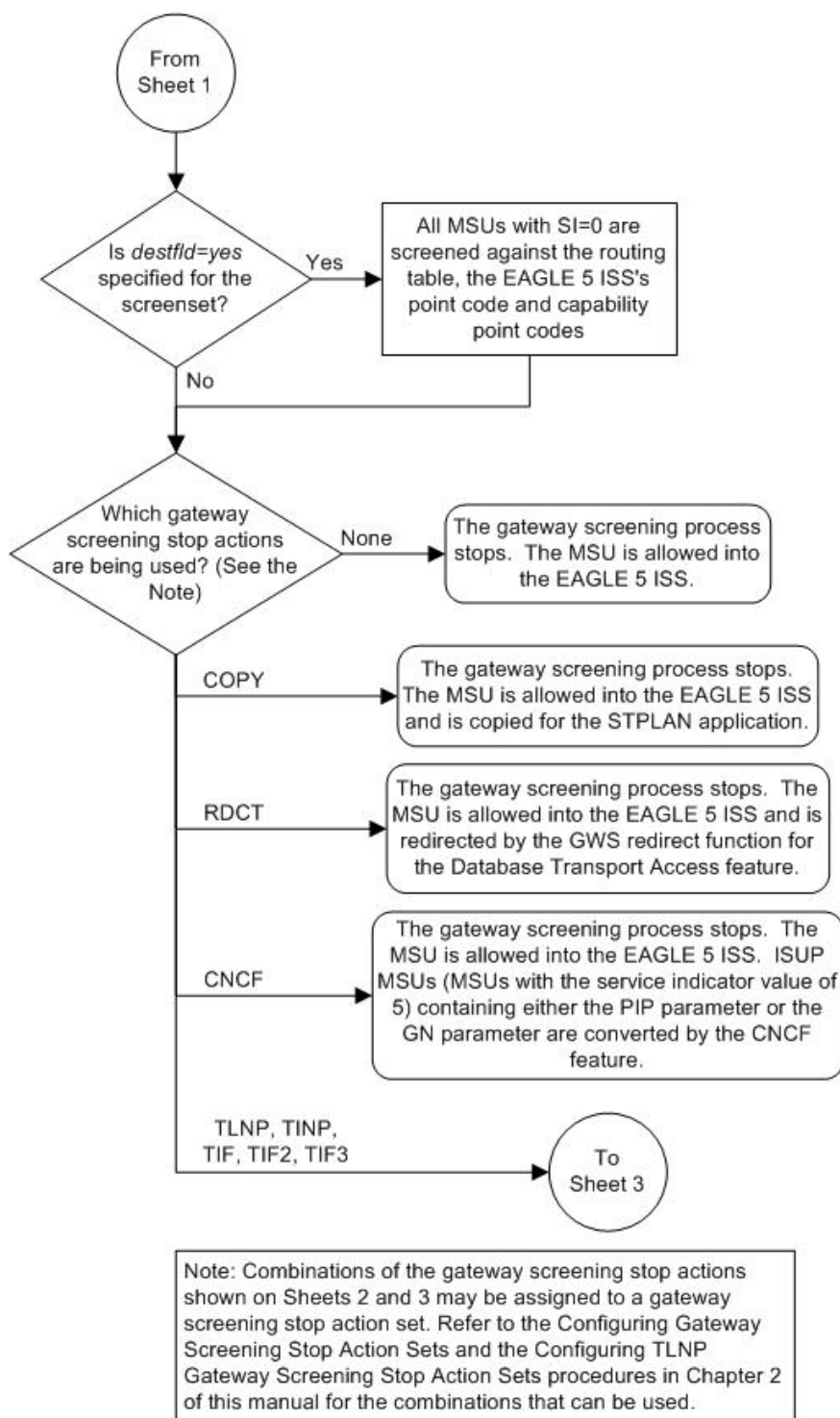
- If the `copy` gateway screening stop action is specified, the message is processed and a copy of the message is sent by the STPLAN feature to an external application.
- If the `rdct` (redirect) gateway screening stop action is specified, the message is diverted from the original destination and sent 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](#) on page 415.
- 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 *LNP Feature Activation Guide*.
- If the `tinp` gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in the *Feature Manual - G-Port*.
- If the `tif`, `tif2`, or `tif3` gateway screening stop actions are specified, TIF processing is applied to the message.

Blocked DPC Screening Actions

Figure 43: Blocked DPC Screening Actions on page 237 shows the screening actions of the blocked DPC screen.

Figure 43: Blocked DPC Screening Actions





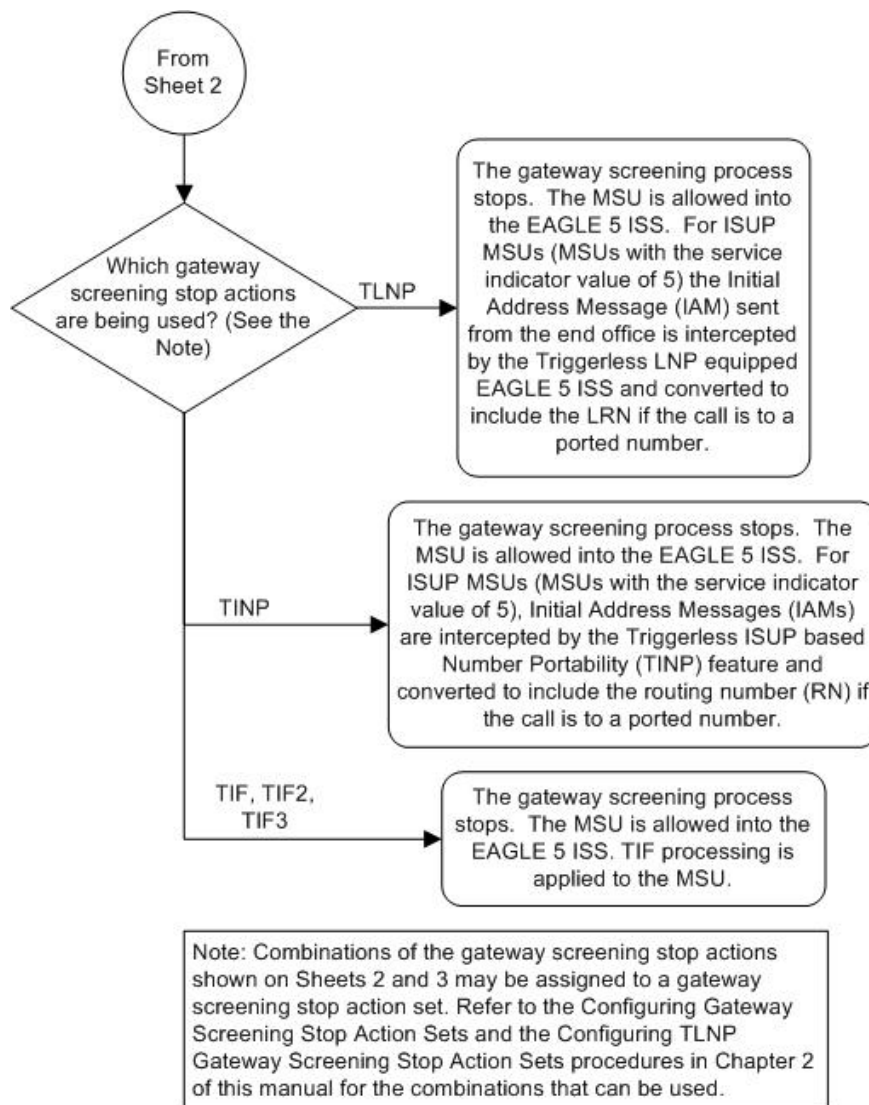


Figure 44: Blocked DPC Screening Functions

ANSI MSU (ANSI Message Signal Unit)

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF		
		DPC NCM NC NI	Routing Label OPC NCM NC NI	SLS xx

ITU-I MSU (ITU International Message Signal Unit)

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF		
		DPC ID AREA ZONE	Routing Label OPC ID AREA ZONE	SLS xx

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

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF		
		DPC NPC	Routing Label OPC NPC	SLS xx

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

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF		
		DPC SP SSA MSA	Routing Label OPC SP SSA MSA	SLS xx

Adding a Blocked DPC Screen

This procedure is used to add a blocked destination point code (DPC) screen to the database using the `ent-scr-blkdpc` command. The parameters used by the `ent-scr-blkdpc` command are shown in the [Gateway Screening Attributes](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 section.

The examples in this procedure are used to add the blocked DPC screen data shown in [Table 47: Example Gateway Screening Blocked DPC Configuration Table](#) on page 241 and based on the example configurations shown in [Figure 4: Gateway Screening Configuration - Example 1](#) on page 40 and [Figure 6: Gateway Screening Configuration - Example 3](#) on page 44.

Table 47: 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](#) on page 32 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](#) on page 214
- [Adding an Allowed Calling Party Address Screen](#) on page 182
- [Adding an Allowed ISUP Message Type Screen](#) on page 439
- [Changing an Allowed Affected Destination Field Screen](#) on page 225
- [Changing an Allowed Calling Party Address Screen](#) on page 196
- [Changing an Allowed ISUP Message Type Screen](#) on page 448

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 48: Valid Value Combinations for ANSI Point Code Parameters](#) on page 242 shows the valid combinations of these parameter values.

Table 48: 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 49: Valid Value Combinations for ITU-I Point Code Parameters](#) on page 242 shows the valid combinations of the ITU-I parameter values. [Table 50: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters](#) on page 243 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 49: 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 50: 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      NSF1      NSR/ACT
IEC     240     001     010     FAIL     -----
IEC     241     010     *       FAIL     -----

SR      NPC
IEC     00235
NSF1     FAIL
NSR/ACT  -----

SR      ZONE     AREA     ID      NSF1      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 NSF1 of the screen being added in this procedure is STOP. If the NSF1 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 NSF1 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    cnf   cnf
5    cpcnf copy cnf
6    cnf   cnf rdct
7    cpcnf copy cnf 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](#) on page 61 procedure to configure the required gateway screening stop action set.

Note: If the NSF1 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](#) on page 241 section to verify that the screen that will be specified by the NSF1/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](#) on page 241 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”](#) on page 241 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.

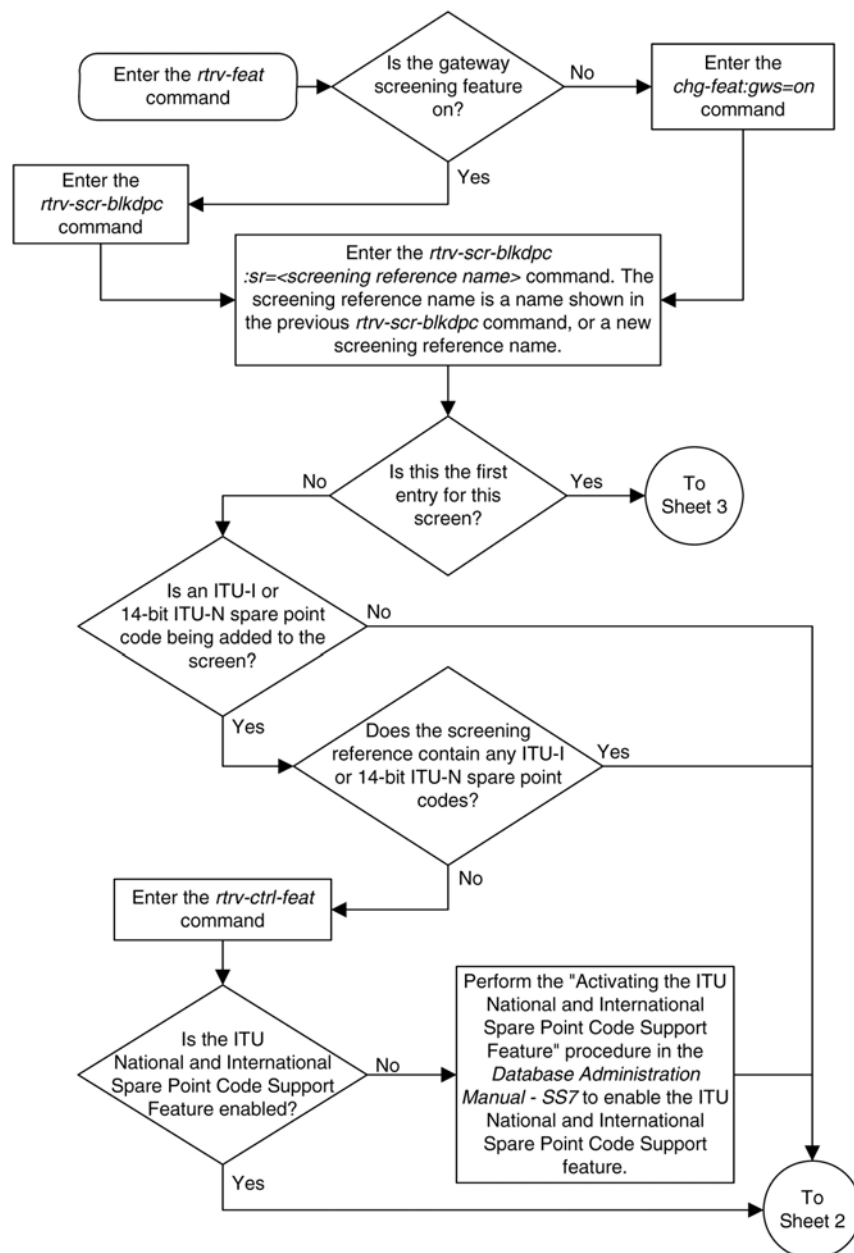
```
rlghncxa03w 06-10-25 15:33:30 GMT EAGLE5 36.0.0
SCREEN = BLOCKED DPC
SR      NI      NC      NCM      NSFI      NSR/ACT
GW12    C      C      C      CGPA      GW14
GW12    004     004     004     FAIL     -----
```

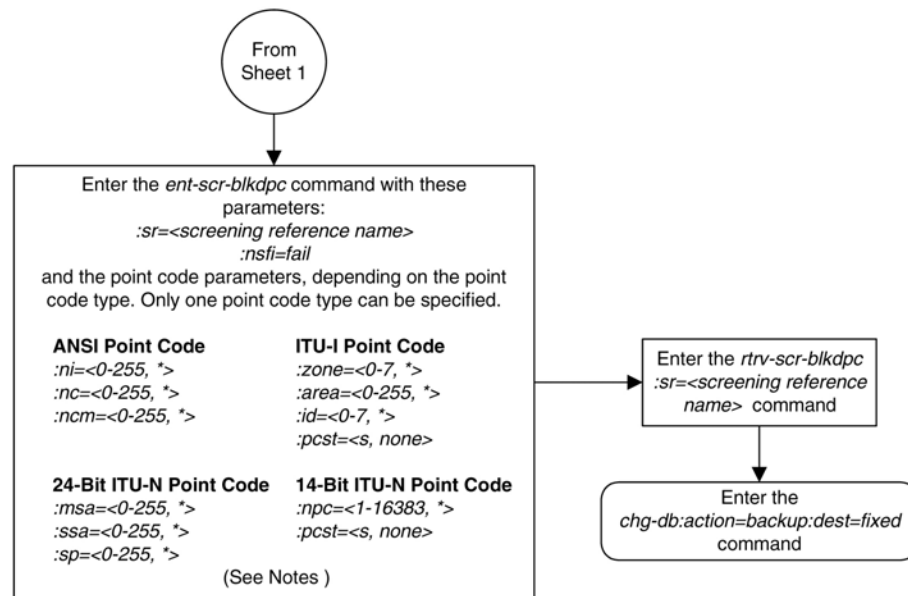
9. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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.
```

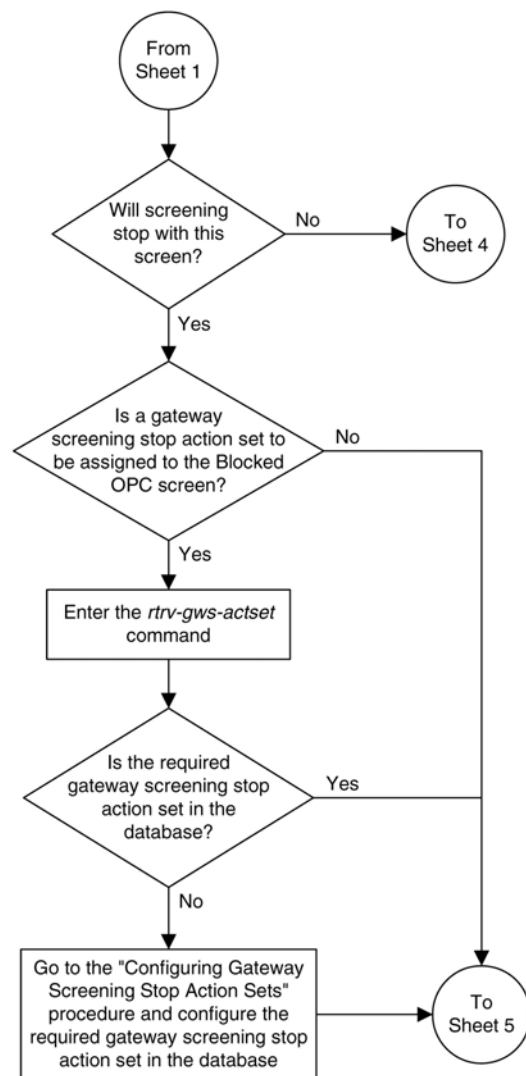
Figure 45: Adding a Blocked DPC Screen

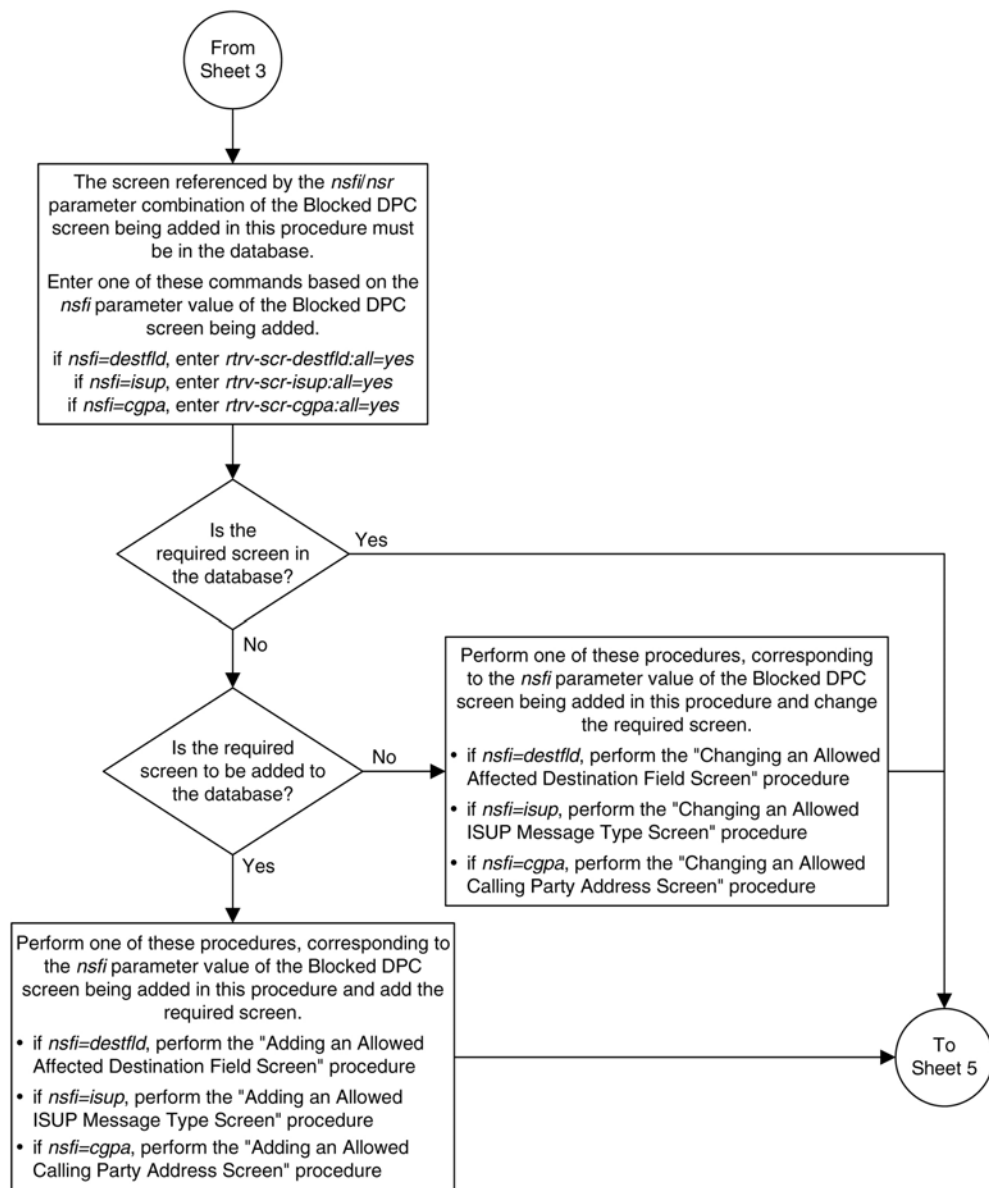


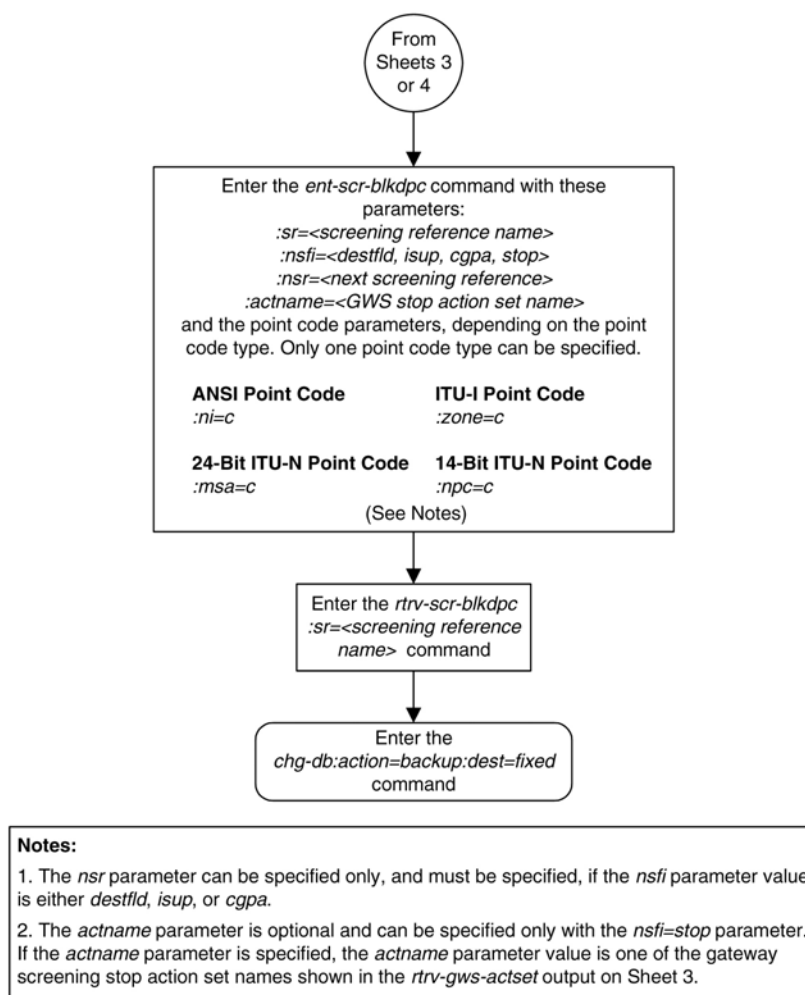


Notes:

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 in Chapter 2 and the "Specifying a Range of Values" section in this procedure.
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.







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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 32 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](#) on page 407
- [Changing an Allowed OPC Screen](#) on page 384
- [Changing a Blocked OPC Screen](#) on page 351
- [Changing an Allowed SIO Screen](#) on page 321
- [Changing an Allowed DPC Screen](#) on page 290

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
IEC     00235      FAIL      NSFI      NSR/ACT
                                -----
```

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](#) on page 253 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](#) on page 253 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
IEC     00235
        NSFI      NSR/ACT
        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.

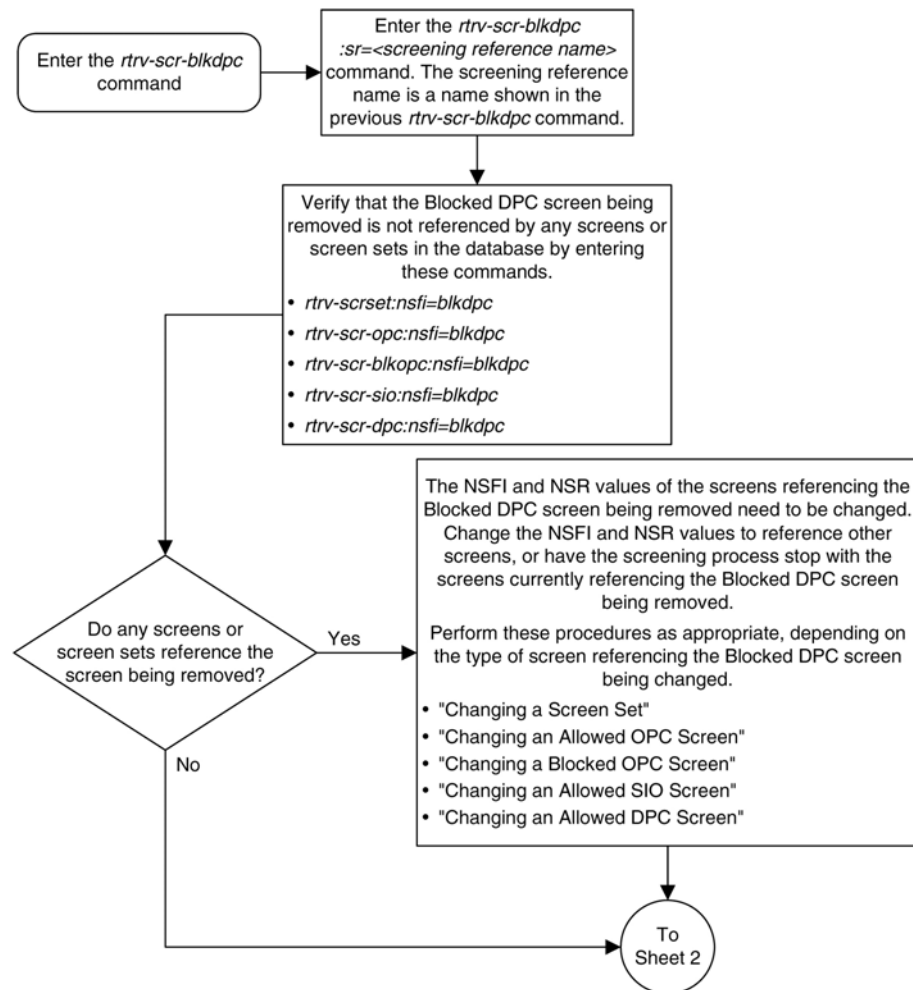
E2573 Cmd Rej: SR or NSR does not reference an existing SR

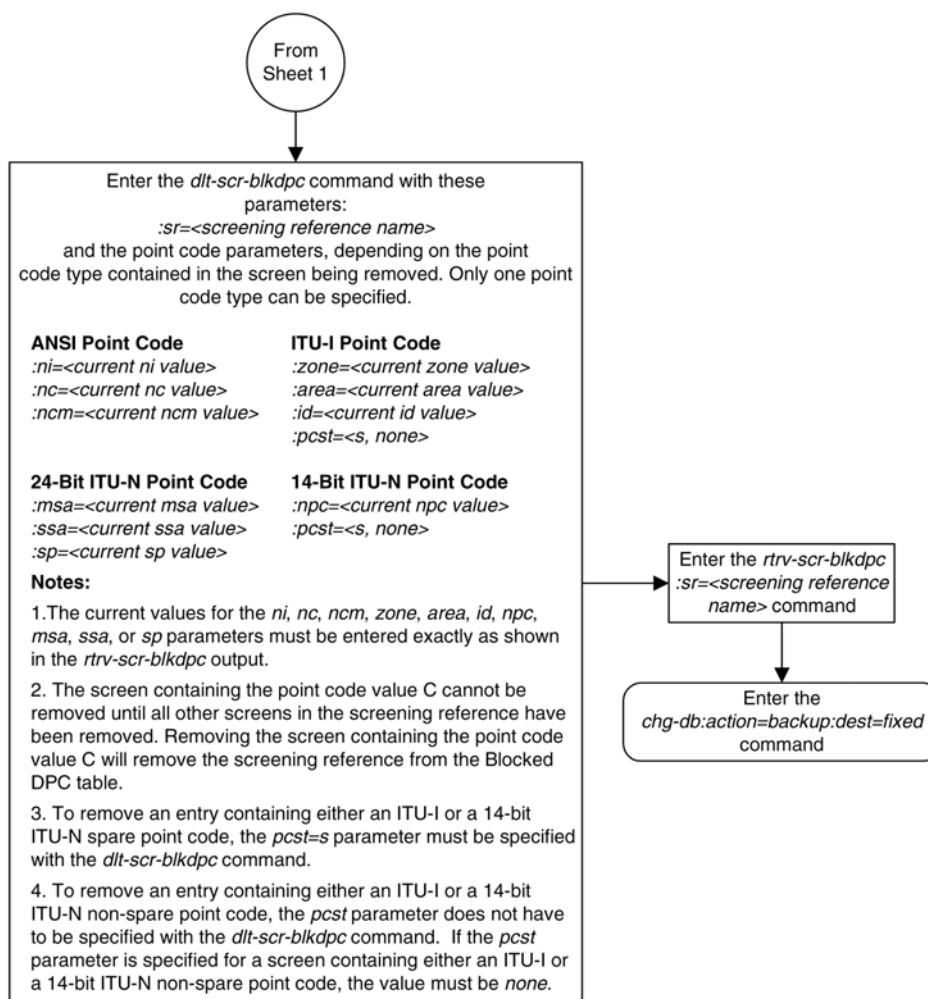
5. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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.
```

Figure 46: 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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 32 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](#) on page 214
- [Adding an Allowed Calling Party Address Screen](#) on page 182
- [Adding an Allowed ISUP Message Type Screen](#) on page 439
- [Changing an Allowed Affected Destination Field Screen](#) on page 225
- [Changing an Allowed Calling Party Address Screen](#) on page 196
- [Changing an Allowed ISUP Message Type Screen](#) on page 448

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 51: Valid Value Combinations for ANSI Point Code Parameters](#) on page 258 shows the valid combinations of these parameter values.

Table 51: 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 52: Valid Value Combinations for ITU-I Point Code Parameters](#) on page 258 shows the valid combinations of the ITU-I parameter values. [Table 53: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters](#) on page 259 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 52: 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 53: 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
ID   NAME  1    2    3    4    5    6    7    8    9   10
```

```

-----
1      copy      copy
2      rdct      rdct
3      cr        copy rdct
4      cnf       cnf
5      cpcnf     copy cnf
6      cnfcrd    cnf rdct
7      cpcfrd    copy cnf 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](#) on page 61 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](#) on page 257 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](#) on page 257 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”](#) on page 257 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.

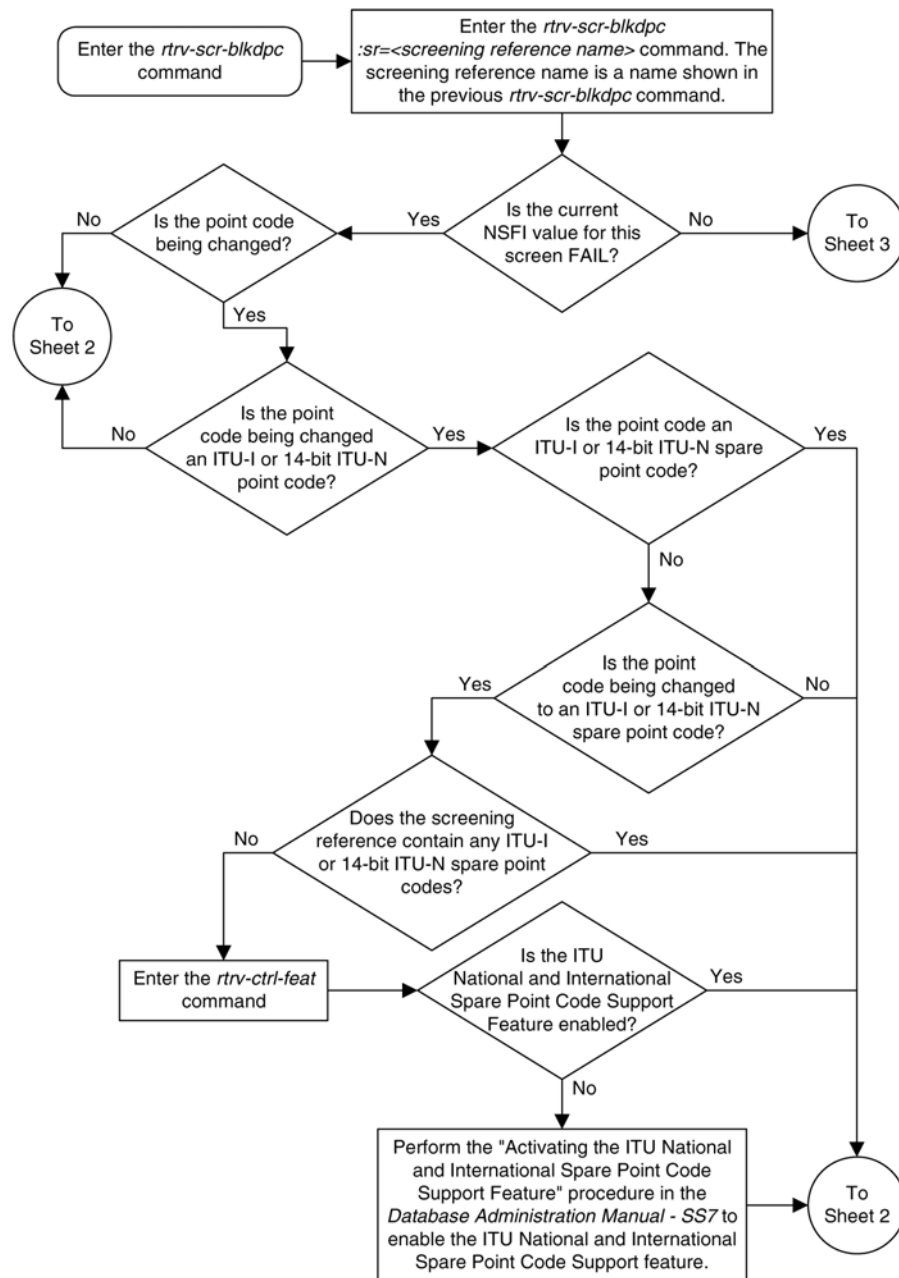
```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
SCREEN = BLOCKED DPC
SR      NI      NC      NCM      NSF1      NSR/ACT
GW12    C        C        C        CGPA      GW14
GW12    230      230      230      FAIL      -----
```

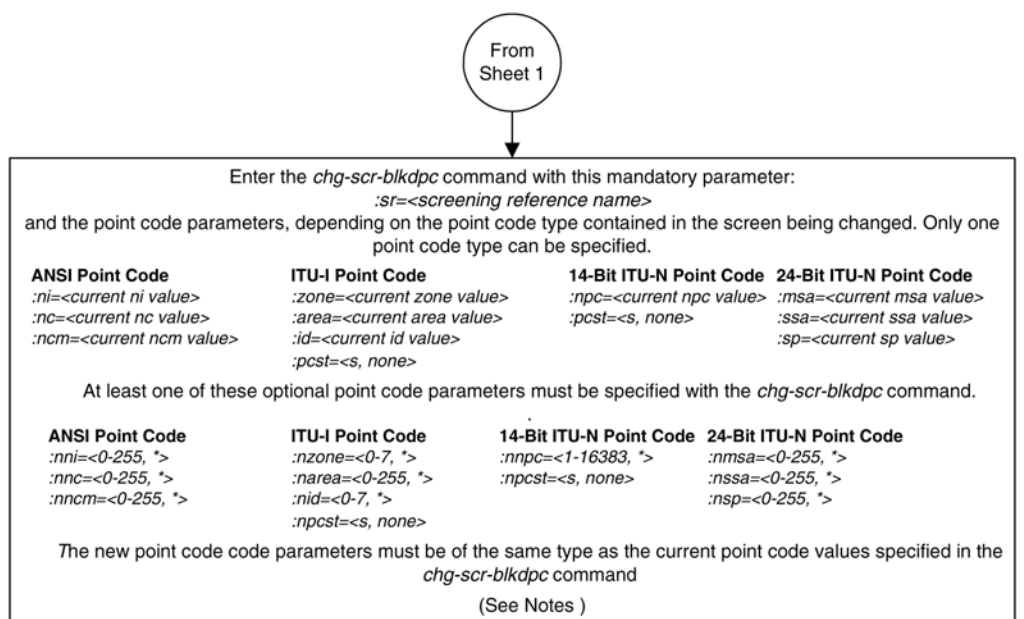
7. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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.
```

Figure 47: Changing a Blocked DPC Screen



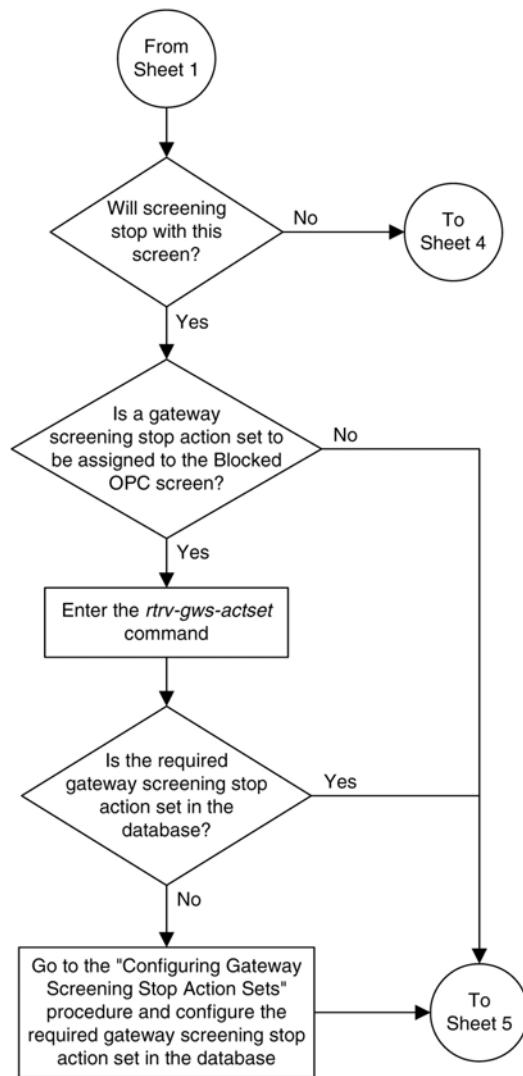


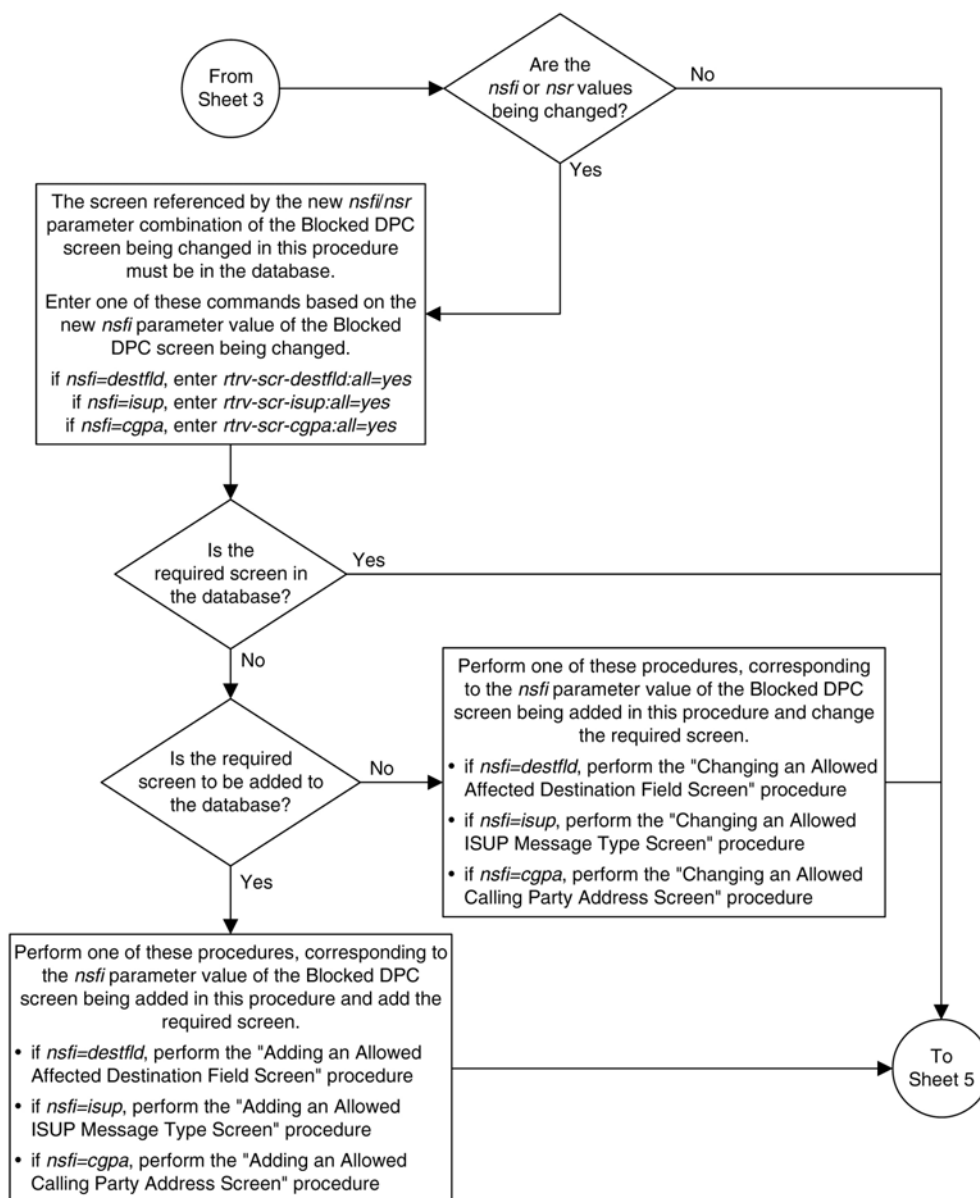
Enter the *rtv-scr-blkdpc*
:sr=<screening reference
name> command

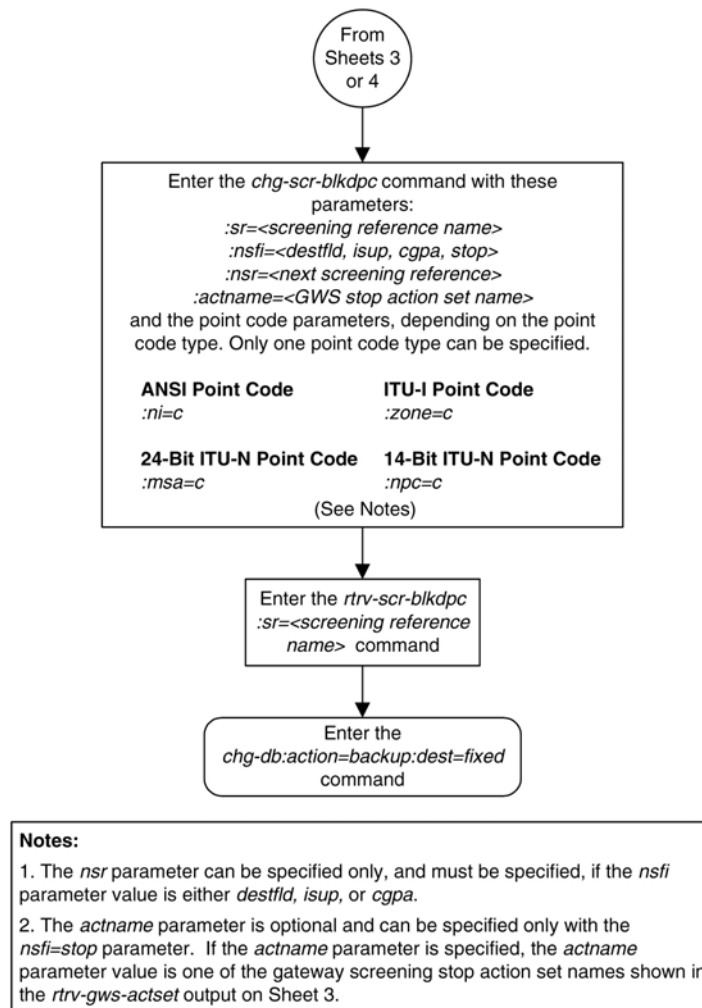
Enter the
chg-db:action=backup:dest=fixed
command

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 *rtv-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 in Chapter 2 and the "Specifying a Range of Values" section in this procedure.
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*.







Chapter

9

Allowed Destination Point Code (DPC) Screen Configuration

Topics:

- [Introduction Page 270](#)
- [Adding an Allowed DPC Screen Page 274](#)
- [Removing an Allowed DPC Screen Page 287](#)
- [Changing an Allowed DPC Screen Page 290](#)

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 49: Allowed DPC Screening Functions](#) on page 273 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.

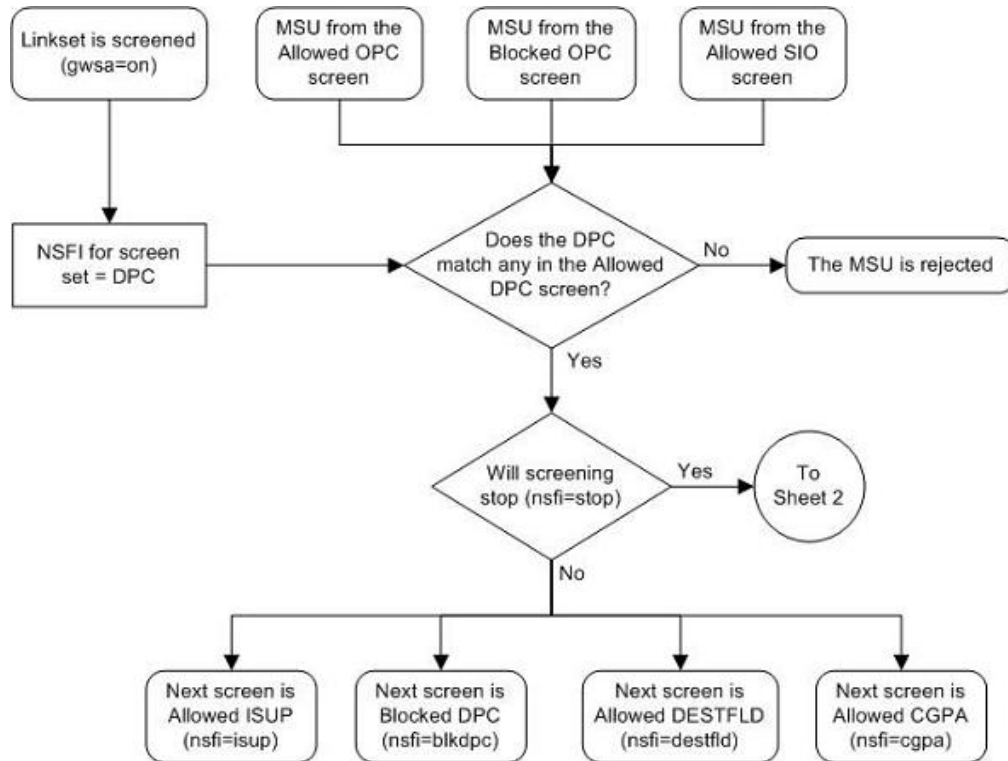
If the `nsfi` is equal to `stop`, the screening process stops and the message is processed. If a gateway screening stop action set is specified with the screen, shown by the `actname` parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

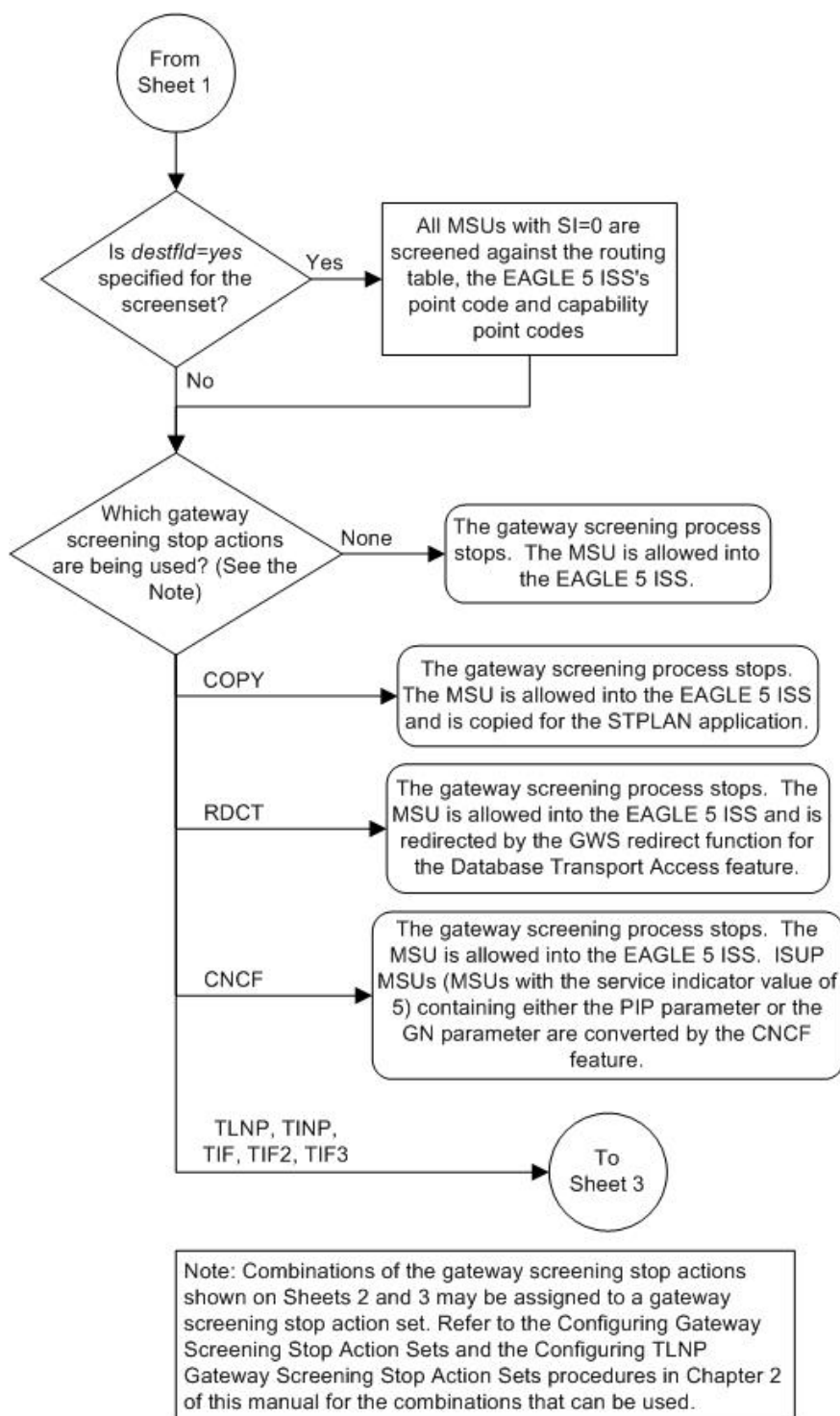
- If the `copy` gateway screening stop action is specified, the message is processed and a copy of the message is sent by the STPLAN feature to an external application.
- If the `rdct` (redirect) gateway screening stop action is specified, the message is diverted from the original destination and sent 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](#) on page 415.
- 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 *LNP Feature Activation Guide*.
- If the `tinp` gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in the *Feature Manual - G-Port*.
- If the `tif`, `tif2`, or `tif3` gateway screening stop actions are specified, TIF processing is applied to the message.

Allowed DPC Screening Actions

Figure 48: Allowed DPC Screening Actions on page 271 shows the screening actions of the allowed DPC screen.

Figure 48: Allowed DPC Screening Actions





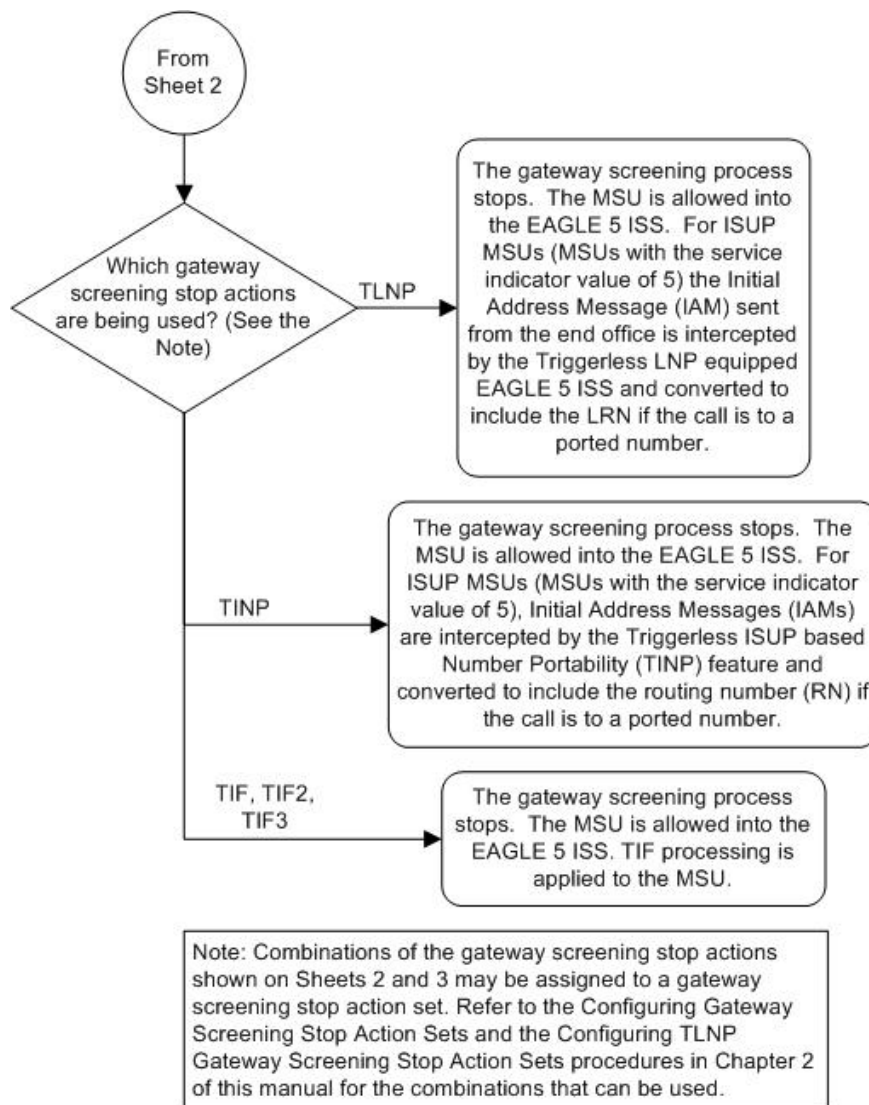


Figure 49: Allowed DPC Screening Functions

ANSI MSU (ANSI Message Signal Unit)

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		DPC NCM NC NI		Routing Label OPC NCM NC NI	SLS xx

ITU-I MSU (ITU International Message Signal Unit)

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		DPC ID AREA ZONE		Routing Label OPC ID AREA ZONE	SLS xx

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

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		DPC NPC		Routing Label OPC NPC	SLS xx

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

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		DPC SP SSA MSA		Routing Label OPC SP SSA MSA	SLS xx

Adding an Allowed DPC Screen

This procedure is used to add an allowed destination point code (DPC) screen to the database using the `ent-scr-dpc` command. The parameters used by the `ent-scr-dpc` command are shown in the [Gateway Screening Attributes](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 section.

The examples in this procedure are used to add the allowed DPC screen data shown in [Table 54: Example Gateway Screening Allowed DPC Configuration Table](#) on page 275 and based on the example configurations shown in [Figure 4: Gateway Screening Configuration - Example 1](#) on page 40, [Figure 6: Gateway Screening Configuration - Example 3](#) on page 44, and [Figure 10: Gateway Screening Configuration - Example 7](#) on page 49.

Table 54: 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](#) on page 32 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](#) on page 240
- [Adding an Allowed Affected Destination Field Screen](#) on page 214
- [Adding an Allowed Calling Party Address Screen](#) on page 182
- [Adding an Allowed ISUP Message Type Screen](#) on page 439
- [Changing a Blocked DPC Screen](#) on page 256
- [Changing an Allowed Affected Destination Field Screen](#) on page 225
- [Changing an Allowed Calling Party Address Screen](#) on page 196
- [Changing an Allowed ISUP Message Type Screen](#) on page 448

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 55: Valid Value Combinations for ANSI Point Code Parameters](#) on page 276 shows the valid combinations of these parameter values.

Table 55: 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 56: Valid Value Combinations for ITU-I Point Code Parameters](#) on page 276 shows the valid combinations of the ITU-I parameter values. [Table 57: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters](#) on page 277 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 56: Valid Value Combinations for ITU-I Point Code Parameters

ZONE	AREA	ID
Single Value	Single Value	Single Value
Single Value	Single Value	Asterisk

ZONE	AREA	ID
Single Value	Asterisk	Asterisk
Asterisk	Asterisk	Asterisk

Table 57: 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
IEC   00235
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    cnf     cnf
5    cpcnf   copy cnf
6    cnf     cnf rdct
7    cpcfrd  copy cnf 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](#) on page 61 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](#) on page 275 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](#) on page 275 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

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”](#) on page 275 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
```

- 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      NSF1      NSR/ACT
ISP2    073      200      059      ISUP      ISP2
```

```
rtrv-scr-dpc:sr=tup1
```

The following is an example of the possible output.

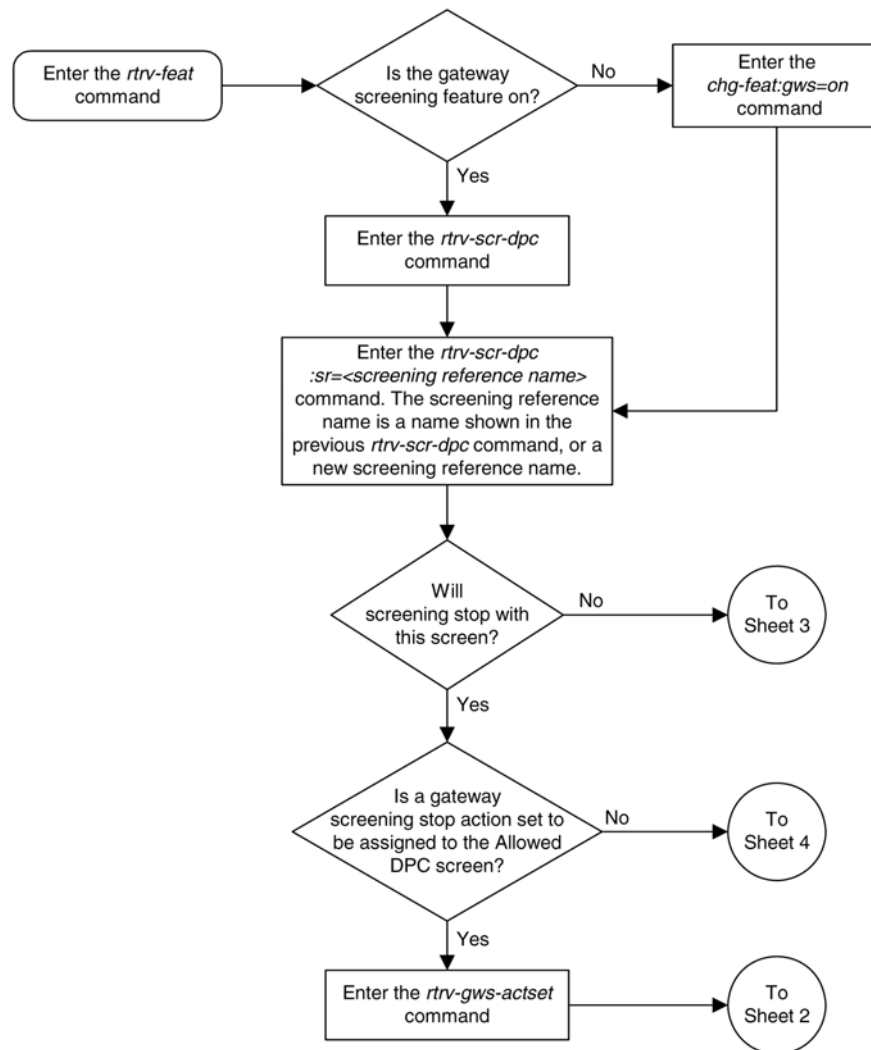
```
rlghncxa03w 06-10-25 15:31:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED DPC
SR      NI      NC      NCM      NSF1      NSR/ACT
TUP1    050      034      049      ISUP      TUP1
```

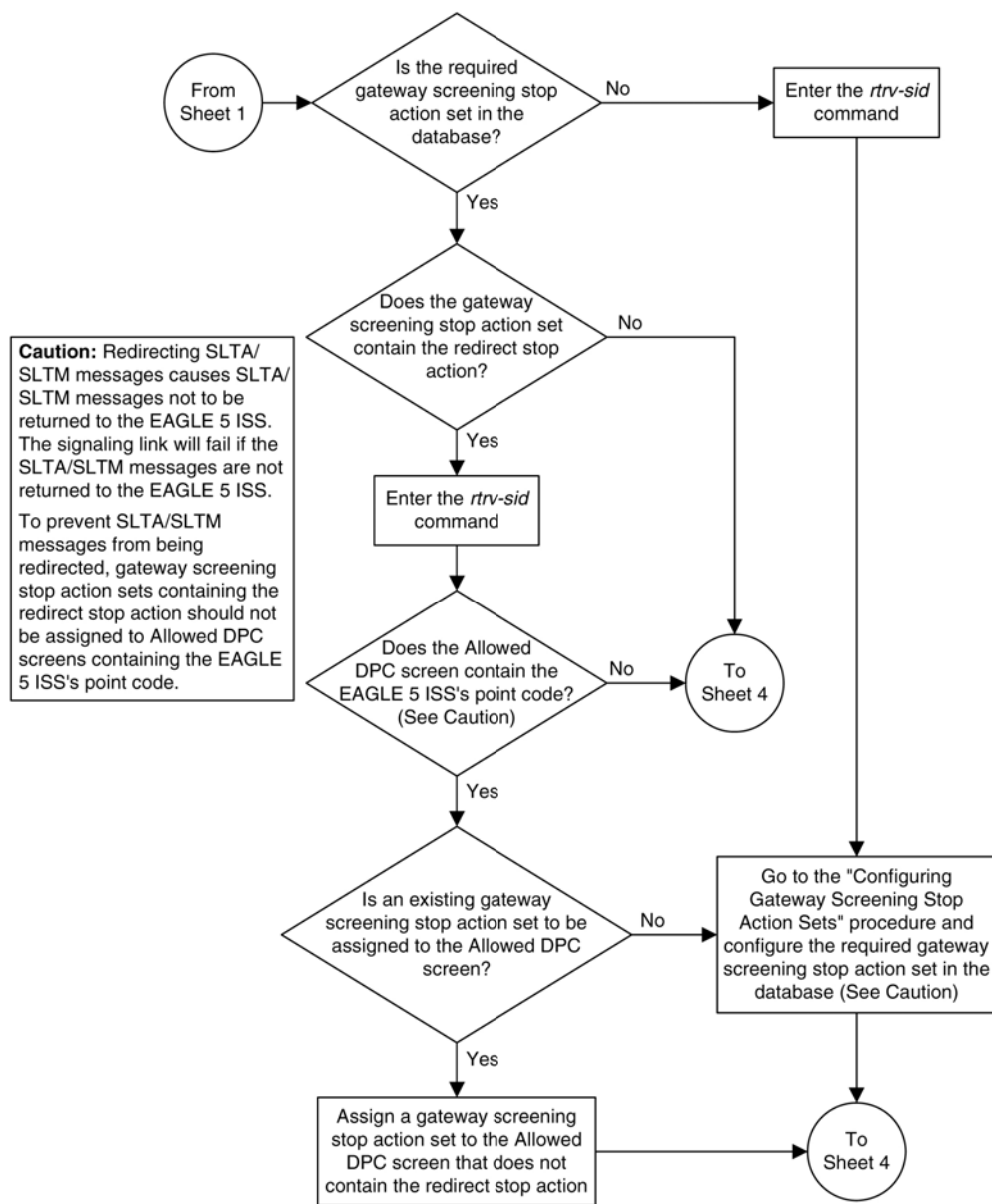
10. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

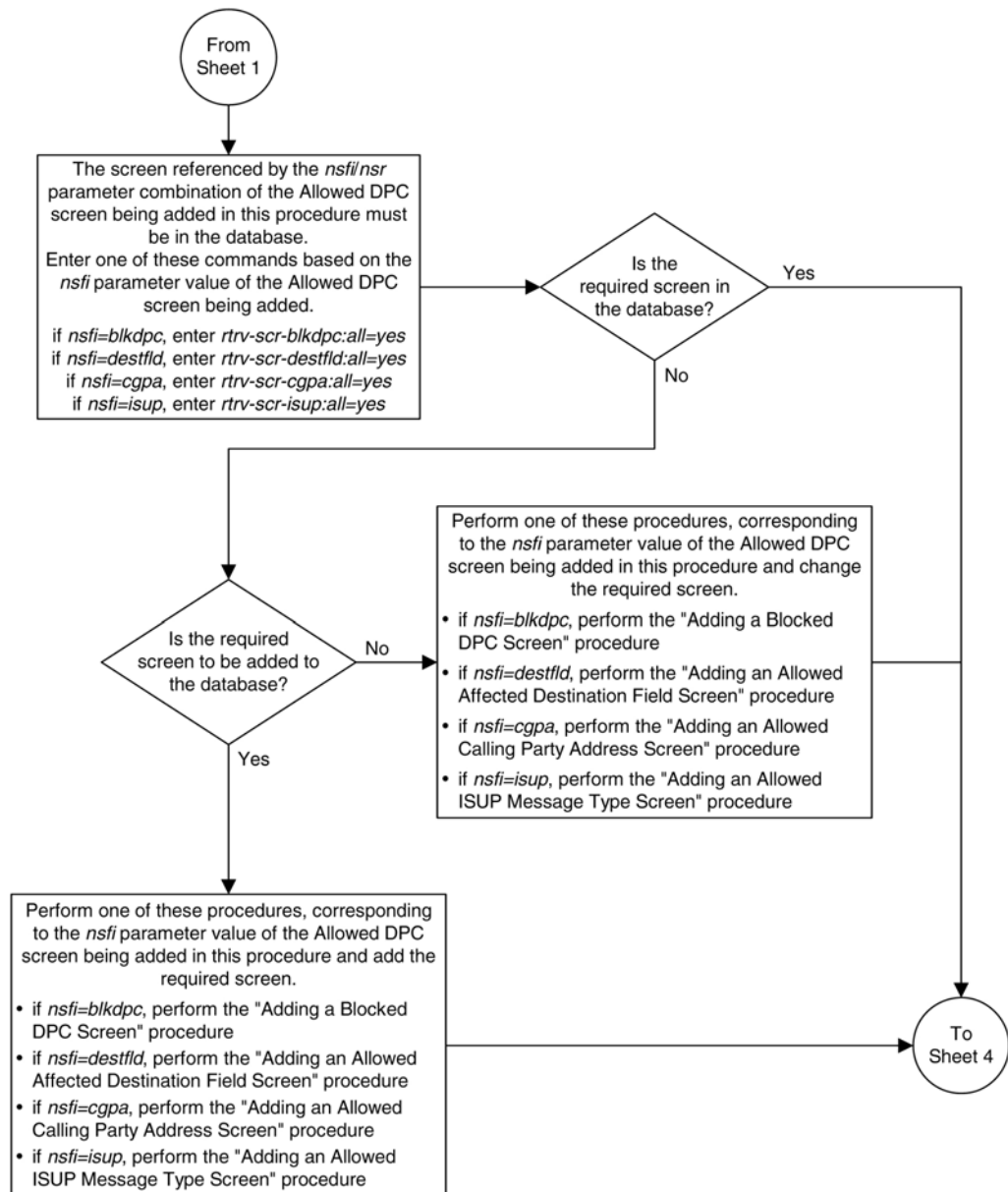
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

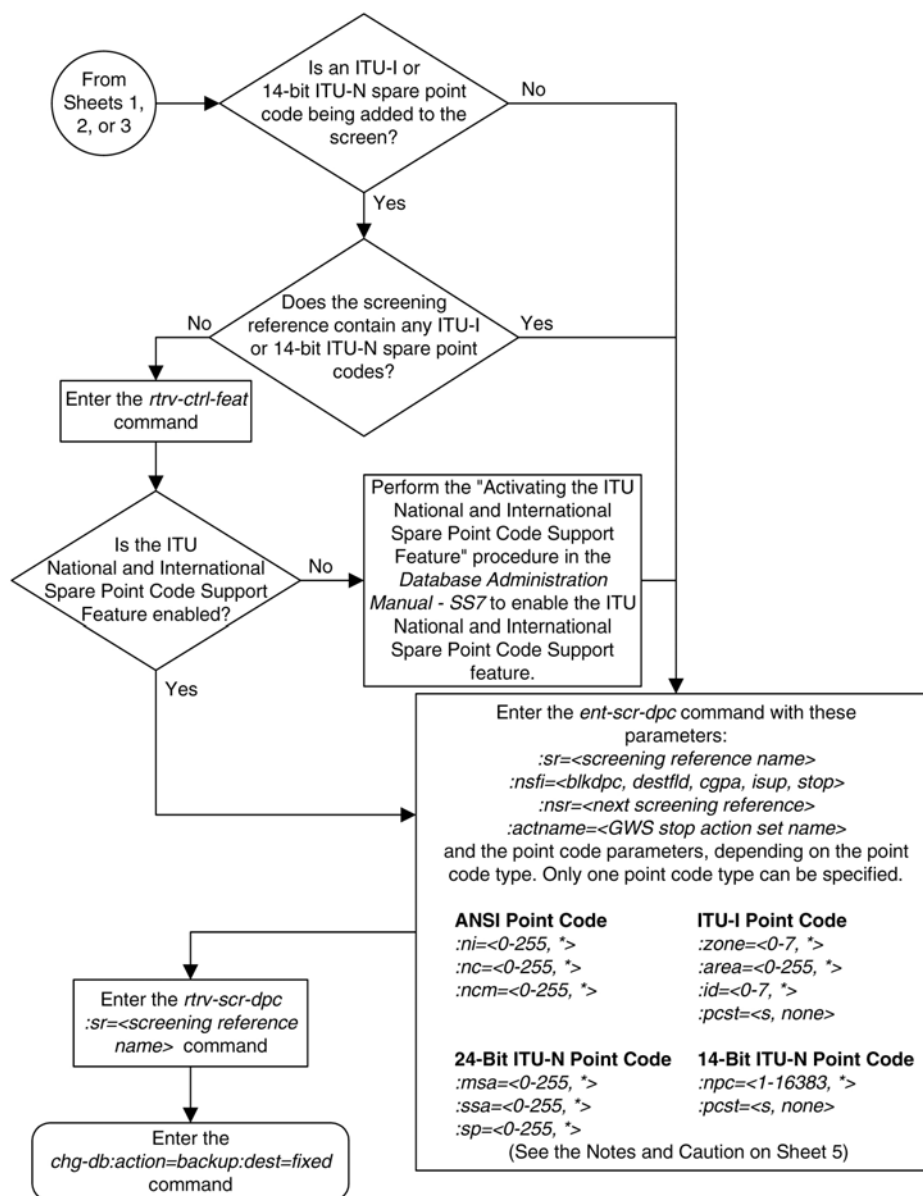
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```

Figure 50: Adding an Allowed DPC Screen









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 in Chapter 2 and the "Specifying a Range of Values" section in this procedure.

3. The *nsr* parameter can be specified only, and must be specified, if the *nsfi* parameter value is either *blkdp*, *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 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.

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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 32 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](#) on page 407
- [Changing an Allowed OPC Screen](#) on page 384
- [Changing a Blocked OPC Screen](#) on page 351
- [Changing an Allowed SIO Screen](#) on page 321

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](#) on page 287 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](#) on page 288 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
```

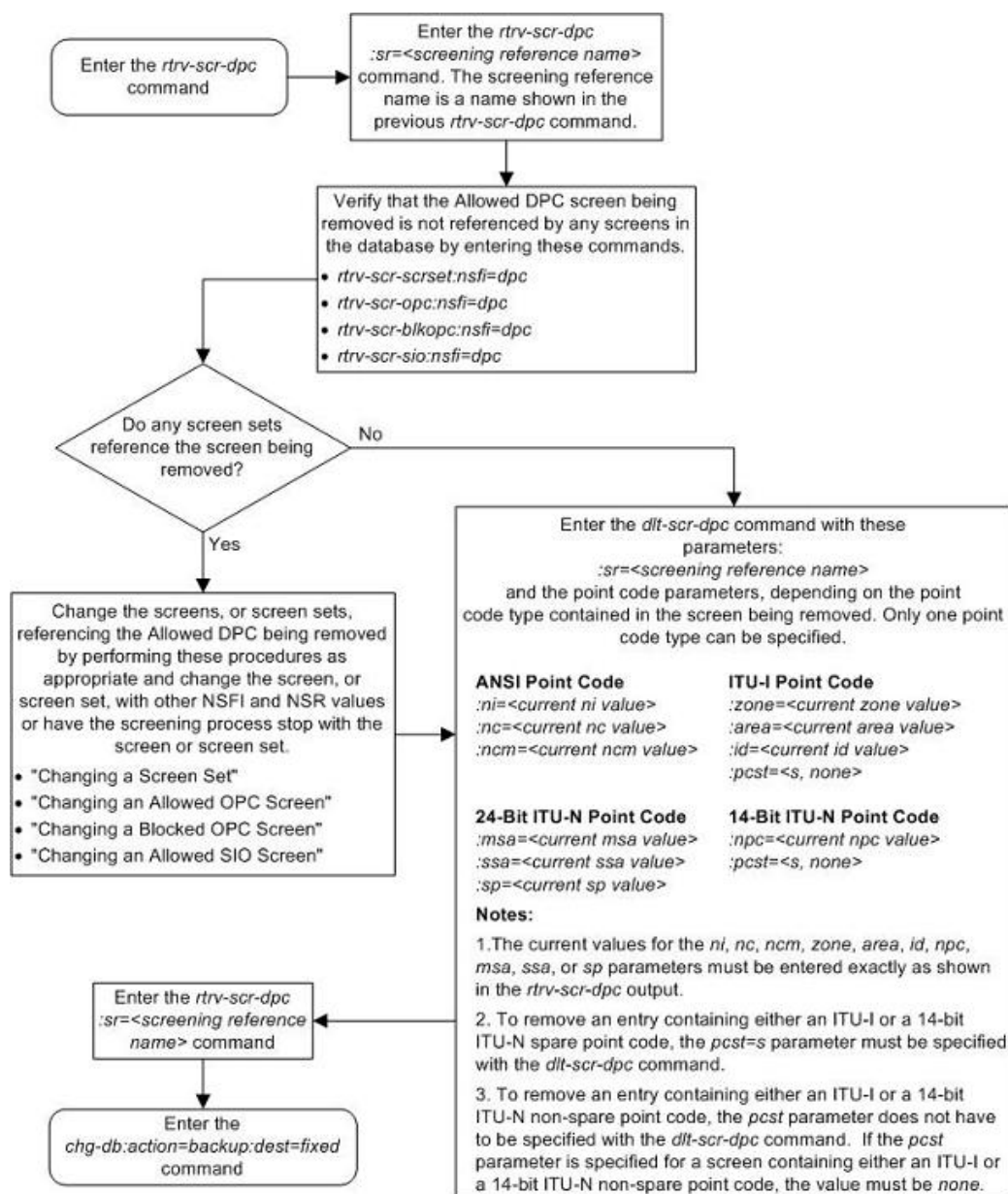
This message shows that the specified screening reference name is not in the database and the action of the `dlt-scr-dpc` command in step 3 was successful. If the specified screening reference name contained more than one entry when the `dlt-scr-dpc` command was executed in step 3, the `rtrv-scr-dpc:sr=` 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 51: 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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 32 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](#) on page 240
- [Adding an Allowed Affected Destination Field Screen](#) on page 214
- [Adding an Allowed Calling Party Address Screen](#) on page 182
- [Adding an Allowed ISUP Message Type Screen](#) on page 439
- [Changing a Blocked DPC Screen](#) on page 256
- [Changing an Allowed Affected Destination Field Screen](#) on page 225
- [Changing an Allowed Calling Party Address Screen](#) on page 196
- [Changing an Allowed ISUP Message Type Screen](#) on page 448

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 58: Valid Value Combinations for ANSI Point Code Parameters on page 292 shows the valid combinations of these parameter values.

Table 58: 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 59: Valid Value Combinations for ITU-I Point Code Parameters* on page 292 shows the valid combinations of the ITU-I parameter values. *Table 60: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters* on page 292 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 59: 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 60: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters

MSA	SSA	SP
Single Value	Single Value	Single Value

MSA	SSA	SP
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](#) on page 61 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](#) on page 291 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](#) on page 291 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**

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`, `ncm`, `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”](#) on page 291 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:nmc=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.

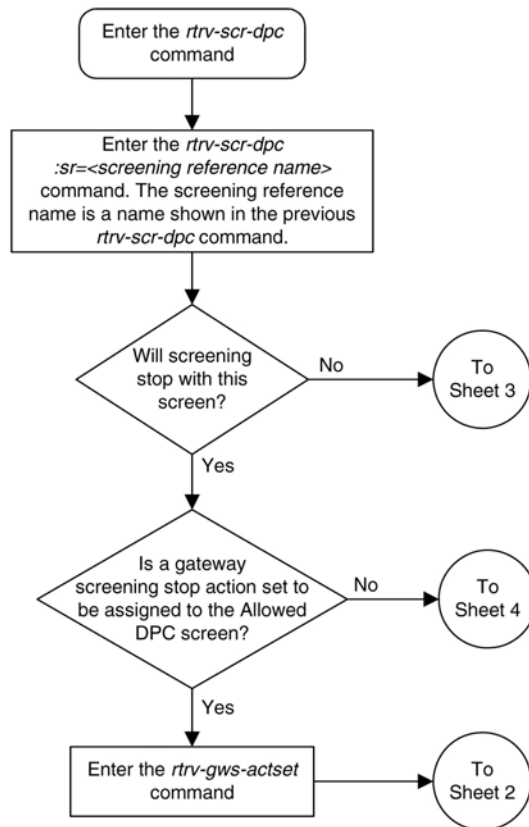
```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED DPC
SR    NI      NC      NCM      NSFI      NSR/ACT
GWS9  009      009      009      STOP      -----
```

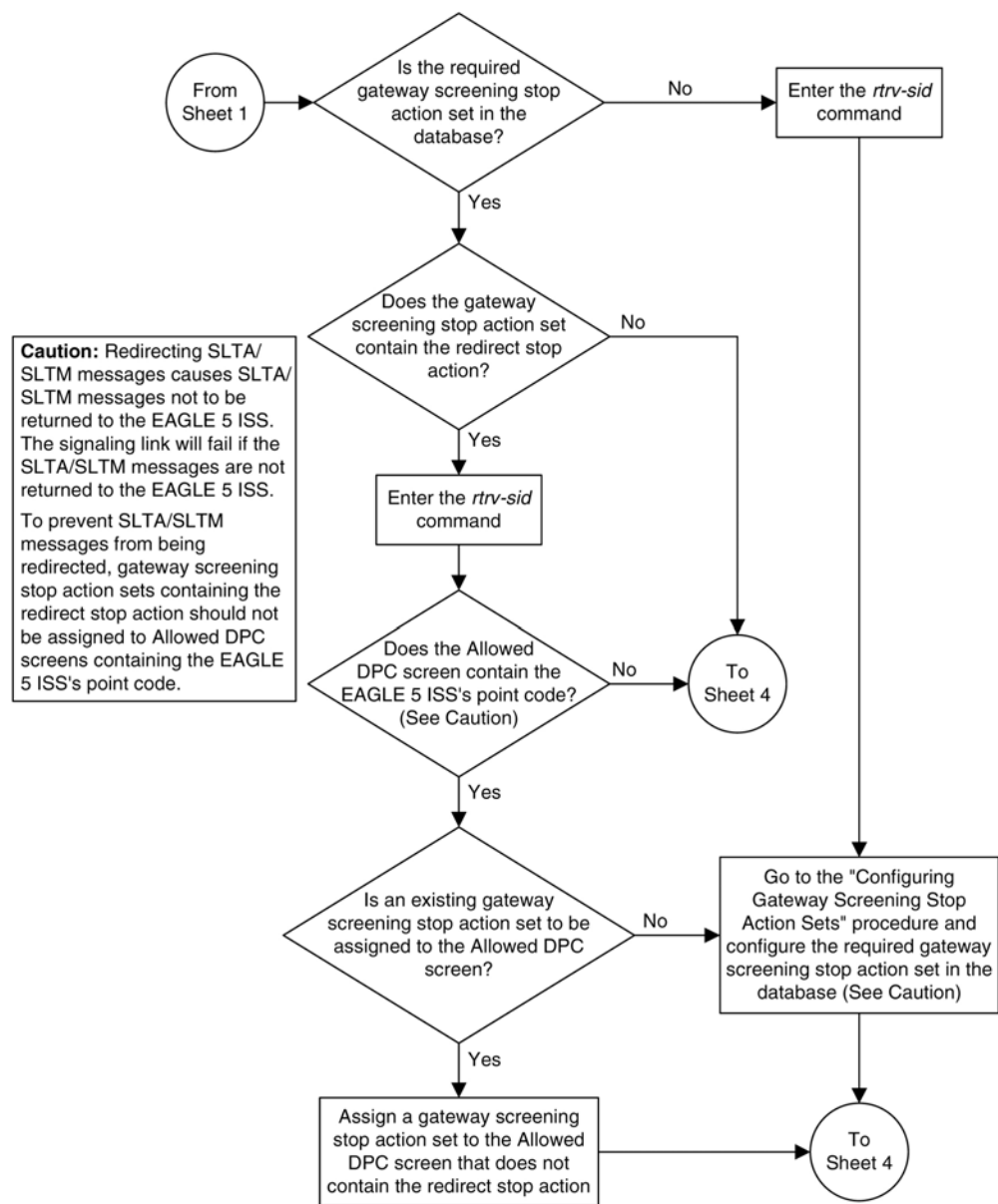
8. Backup the new changes using the chg-db:action=backup:dest=fixed command.

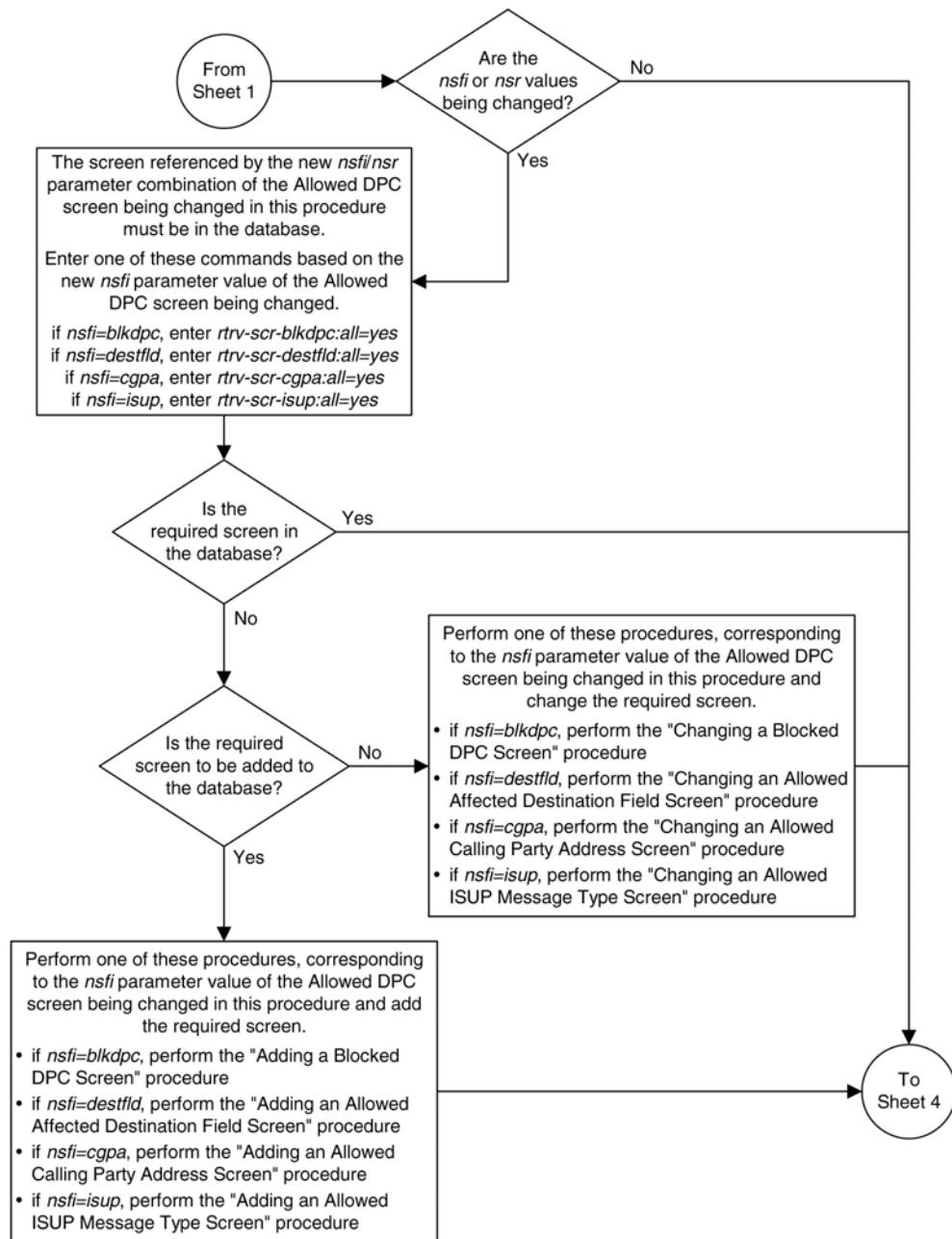
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

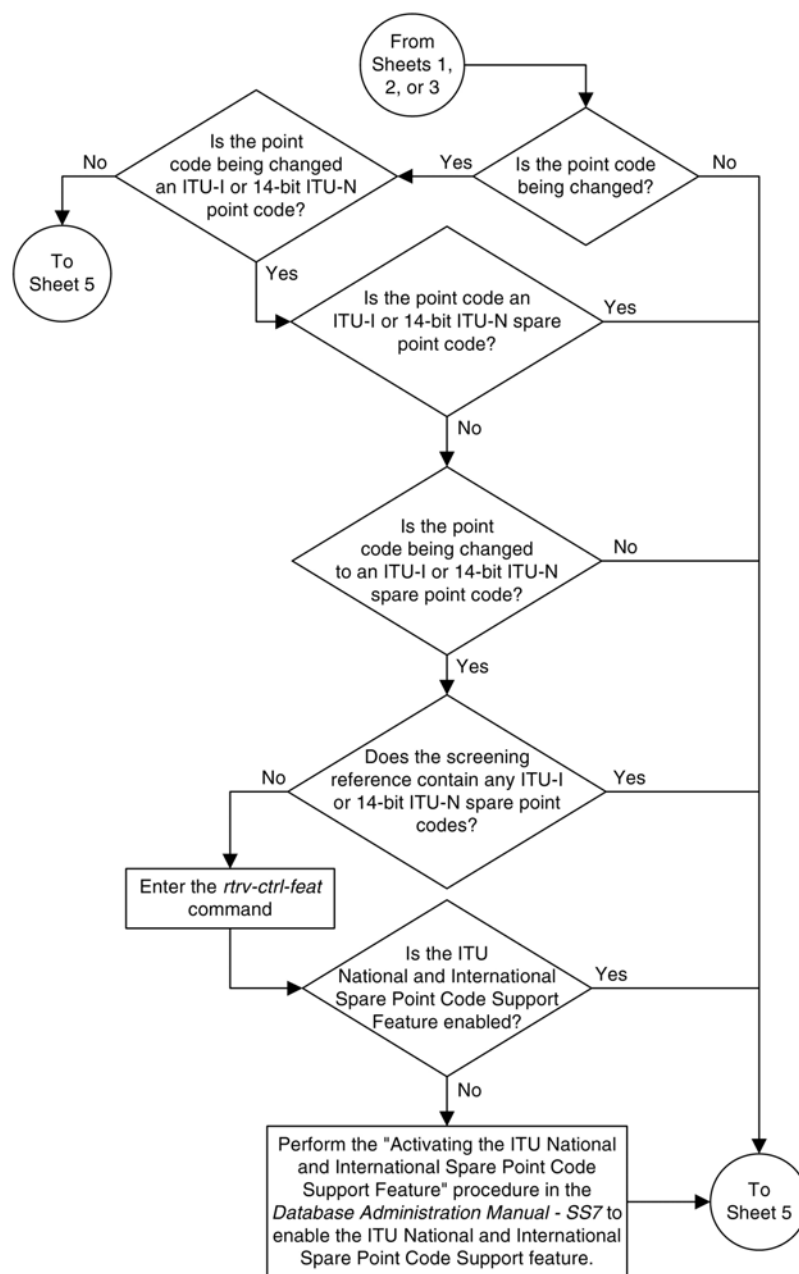
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```

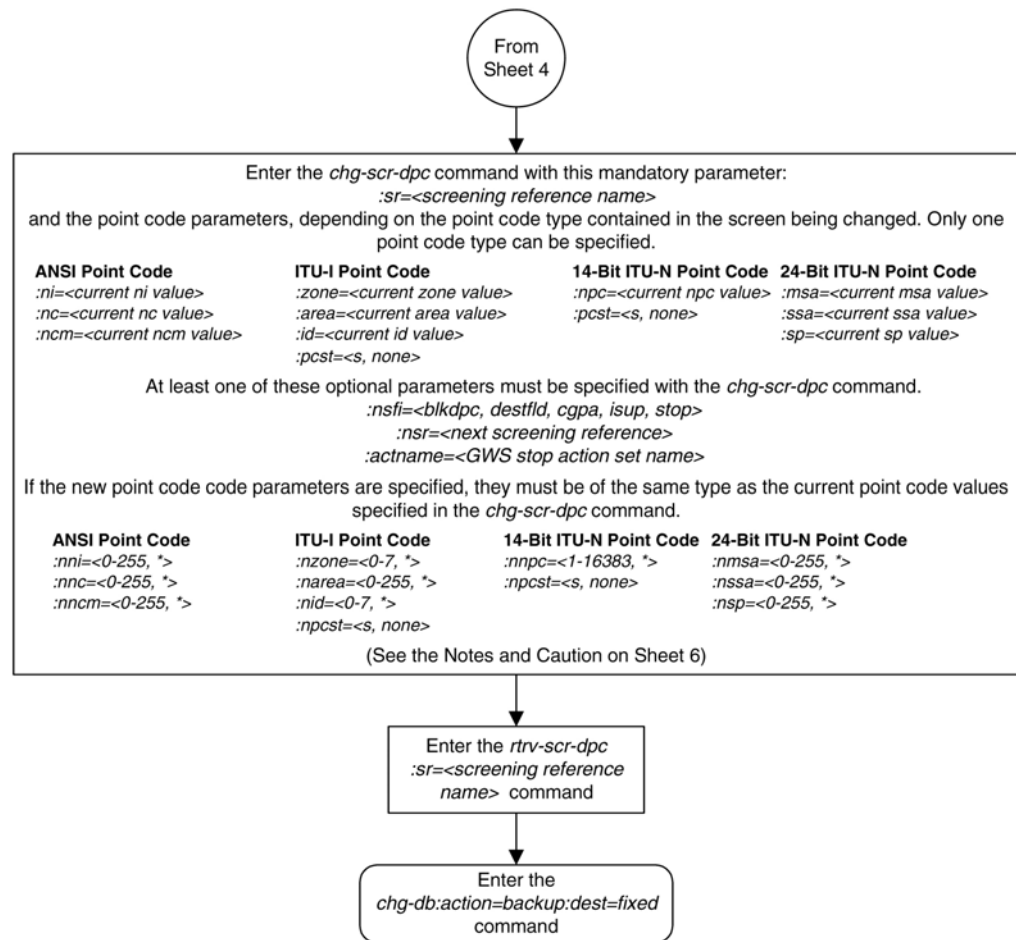
Figure 52: Changing an Allowed DPC Screen











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 in Chapter 2 and the "Specifying a Range of Values" section in this procedure.

3. The *nsr* parameter can be specified, and must be specified, if the *nsfi* parameter value is either *blkdp*, *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 *rtv-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/SLTM 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.

Chapter 10

Allowed Signaling Information Octet (SIO) Screen Configuration

Topics:

- [Introduction Page 304](#)
- [Adding an Allowed SIO Screen Page 309](#)
- [Removing an Allowed SIO Screen Page 318](#)
- [Changing an Allowed SIO Screen Page 321](#)

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 54: Allowed SIO Screening Function](#) on page 308 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](#) on page 415.
- 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 *LNP Feature Activation Guide*.
- If the `tinp` gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in the *Feature Manual - G-Port*.
- If the `tif`, `tif2`, or `tif3` gateway screening stop actions are specified, TIF processing is applied to the message.

Allowed SIO Screening Actions

The value of the `nsfi` parameter is based on the value of the service indicator (`si`) parameter.

[Table 61: Valid Parameter Combinations for the Allowed SIO Screening Function](#) on page 305 shows the valid combinations of `nsfi` values and service indicator values.

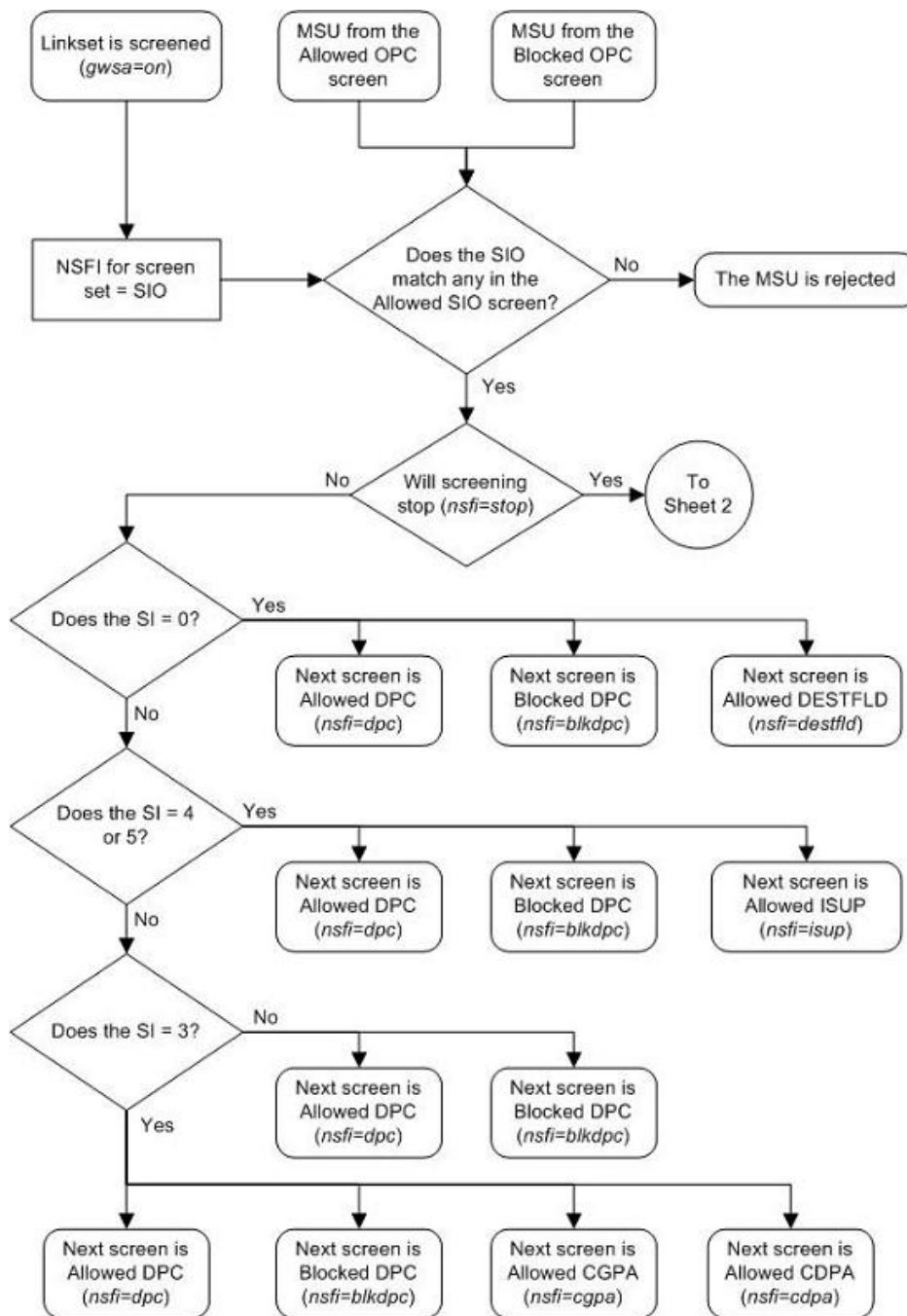
Table 61: Valid Parameter Combinations for the Allowed SIO Screening Function

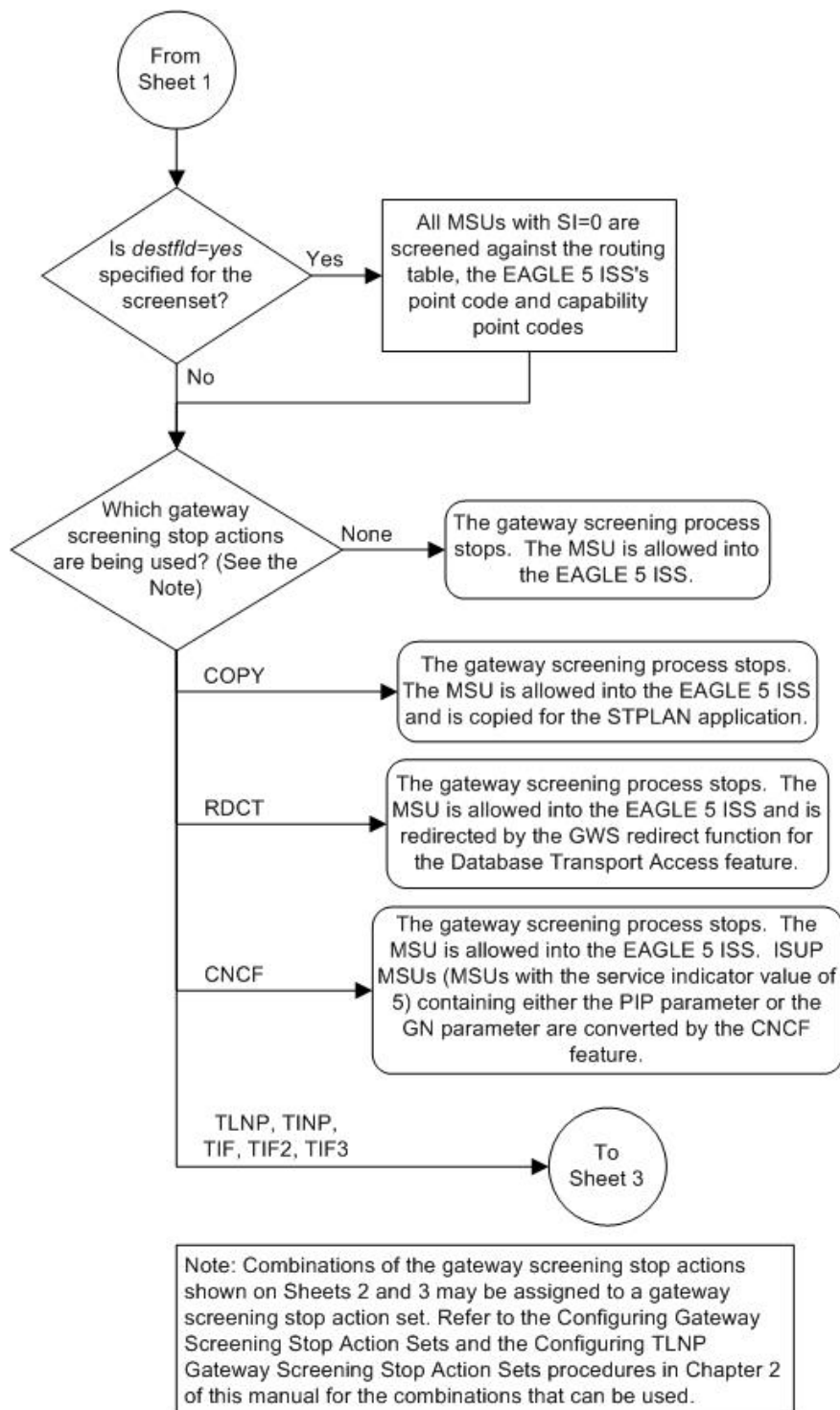
Service Indicator (SI) Values	Nest Screening Function Identifier (NSFI) Values
0	DPC, BLKDPC, DESTFLD
3	DPC, BLKDPC, CGPA, CDPA
4, 5	DPC, BLKDPC, ISUP
All other values (1, 2, 6-15)	DPC, BLKDPC

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 53: Allowed SIO Screening Actions](#) on page 305 shows the screening actions of the allowed SIO screen.

Figure 53: Allowed SIO Screening Actions





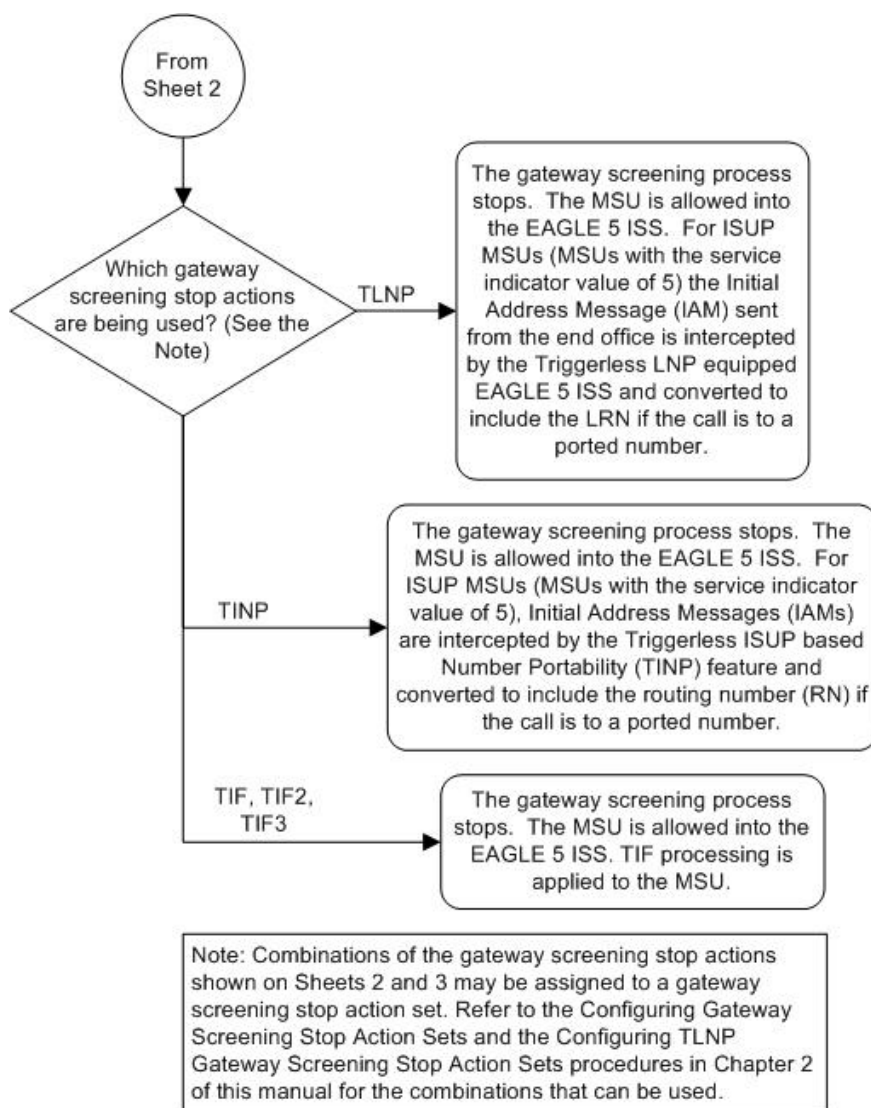


Figure 54: Allowed SIO Screening Function

ANSI MSU (ANSI Message Signal Unit)

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		Routing Label DPC OPC SLS NCM NC NI NCM NC NI xx			H1 H0

ITU-I MSU (ITU International Message Signal Unit)

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		Routing Label DPC OPC SLS ID AREA ZONE ID AREA ZONE xx			H1 H0

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

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		Routing Label DPC OPC SLS NPC NPC xx			H1 H0

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

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		Routing Label DPC OPC SLS SP SSA MSA SP SSA MSA xx			H1 H0

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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 section.

The examples in this procedure are used to add the allowed SIO screen data shown in [Table 62: Example Gateway Screening Allowed SIO Configuration Table](#) on page 310 and based on the example configurations shown in [Figure 5: Gateway Screening Configuration - Example 2](#) on page 42, [Figure 7: Gateway Screening Configuration - Example 4](#) on page 45, [Figure 8: Gateway Screening Configuration - Example 5](#) on page 46, [Figure 9: Gateway Screening Configuration - Example 6](#) on page 48, and [Figure 10: Gateway Screening Configuration - Example 7](#) on page 49.

Table 62: 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](#) on page 274
- [Adding a Blocked DPC Screen](#) on page 240
- [Adding an Allowed Affected Destination Field Screen](#) on page 214
- [Adding an Allowed ISUP Message Type Screen](#) on page 439
- [Adding an Allowed Calling Party Address Screen](#) on page 182
- [Adding an Allowed Called Party Address Screen](#) on page 126
- [Changing an Allowed DPC Screen](#) on page 290

- [Changing a Blocked DPC Screen](#) on page 256
- [Changing an Allowed Affected Destination Field Screen](#) on page 225
- [Changing an Allowed ISUP Message Type Screen](#) on page 448
- [Changing an Allowed Calling Party Address Screen](#) on page 196
- [Changing an Allowed Called Party Address Screen](#) on page 141

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 63: Valid Value Combinations for H0 and H1 Parameters](#) on page 311 shows the valid combinations of these parameter values.

Table 63: 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

- 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    cnf    cnf
5    cpnf   copy cnf
6    cnf    rdct
7    cpnf   copy cnf 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](#) on page 61 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.

- Enter the commands in the [Verifying the Gateway Screening Configuration](#) on page 310 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](#) on page 310 section to add the desired screen to the database or change an existing screen in the database.

- 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

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”](#) on page 311 section for more information. See the [“Specifying H0 and H1 Values”](#) on page 311 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 61: Valid Parameter Combinations for the Allowed SIO Screening Function](#) on page 305 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    NSF1    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    NSF1    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    NSF1    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    NSF1    NSR/ACT
isp1  2    3    5    --     --     ISUP    isp1
```

```
rtrv-scr-sio:sr=tup1
```

The following is an example of the possible output.

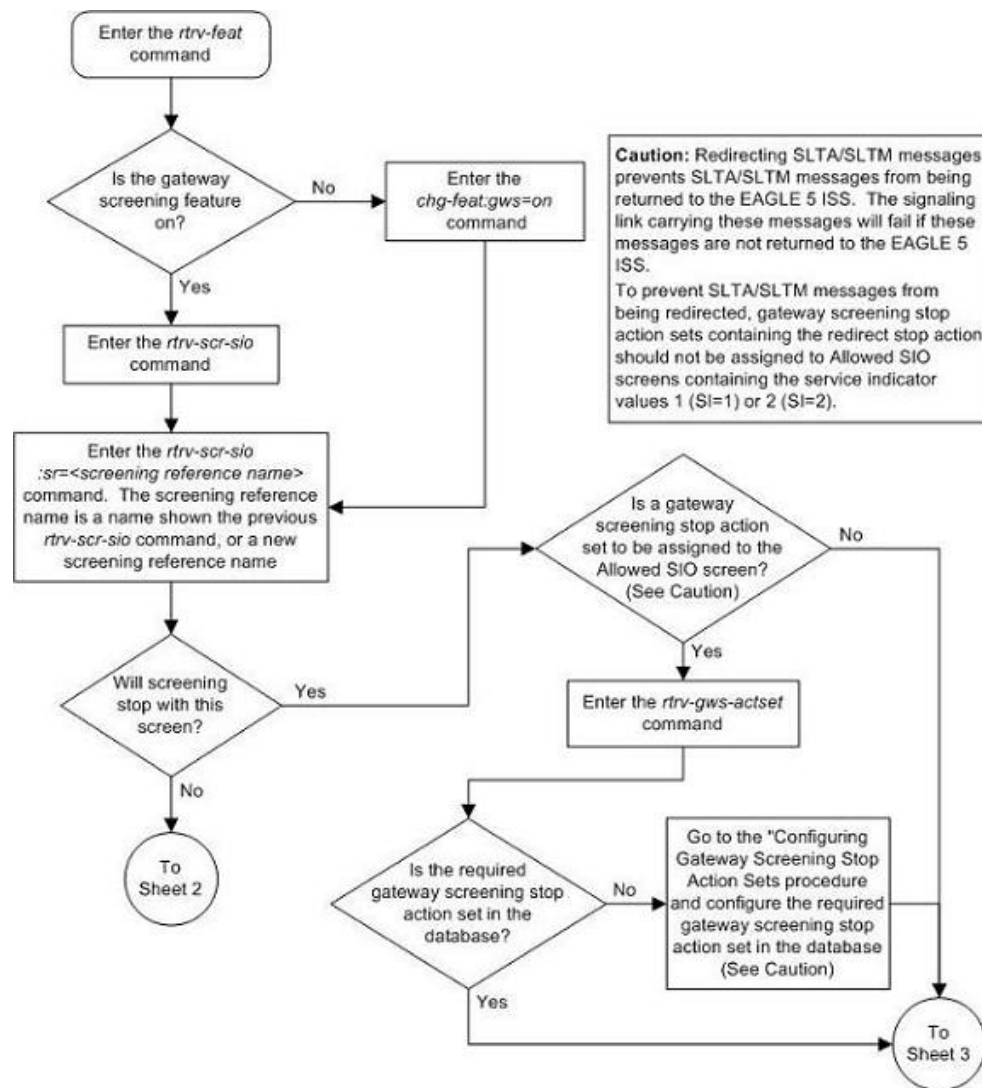
```
rlghncxa03w 06-10-25 15:33:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED SIO
SR    NIC  PRI  SI  H0    H1    NSF1    NSR/ACT
tup1  2    3    4    --     --     DPC     tup1
tup1  2    3    5    --     --     ISUP    isp2
```

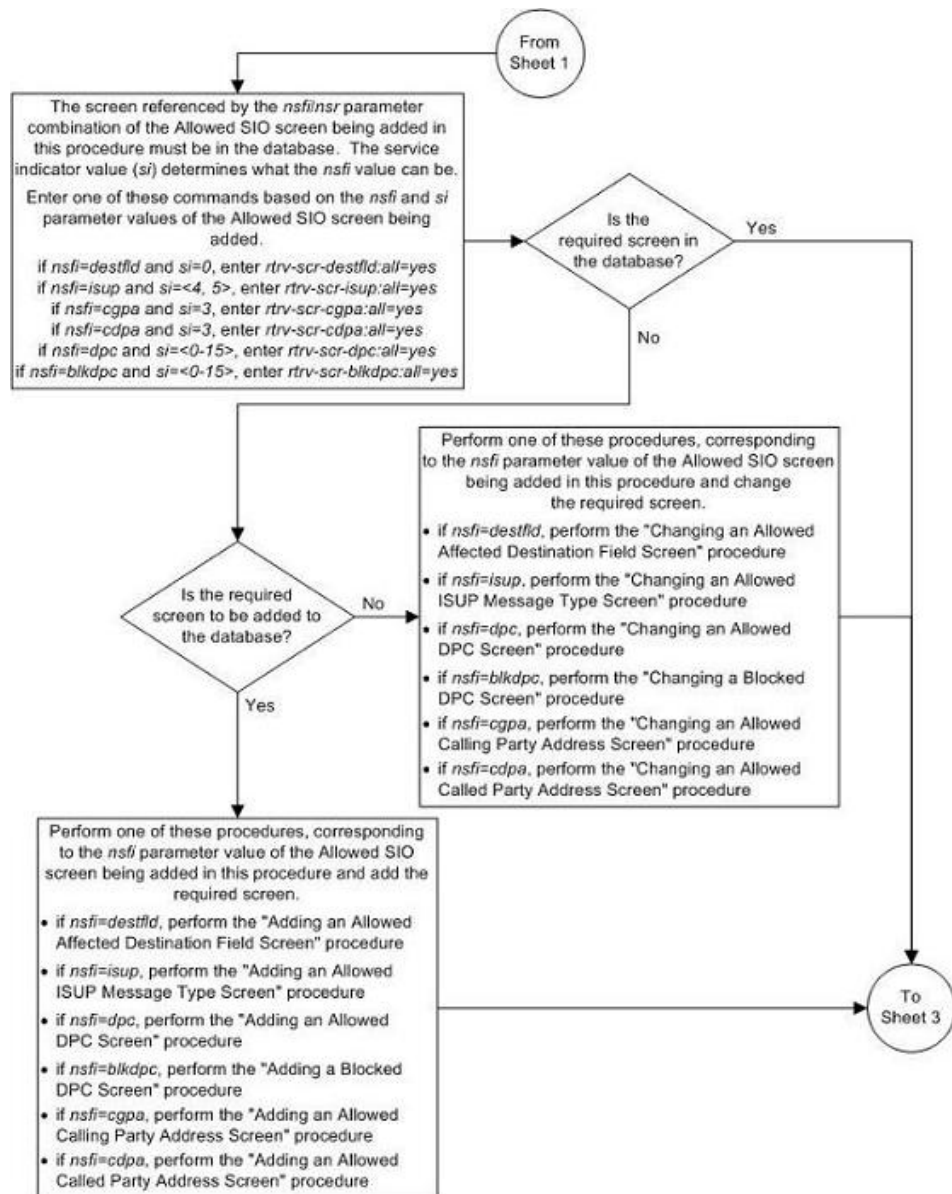
8. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

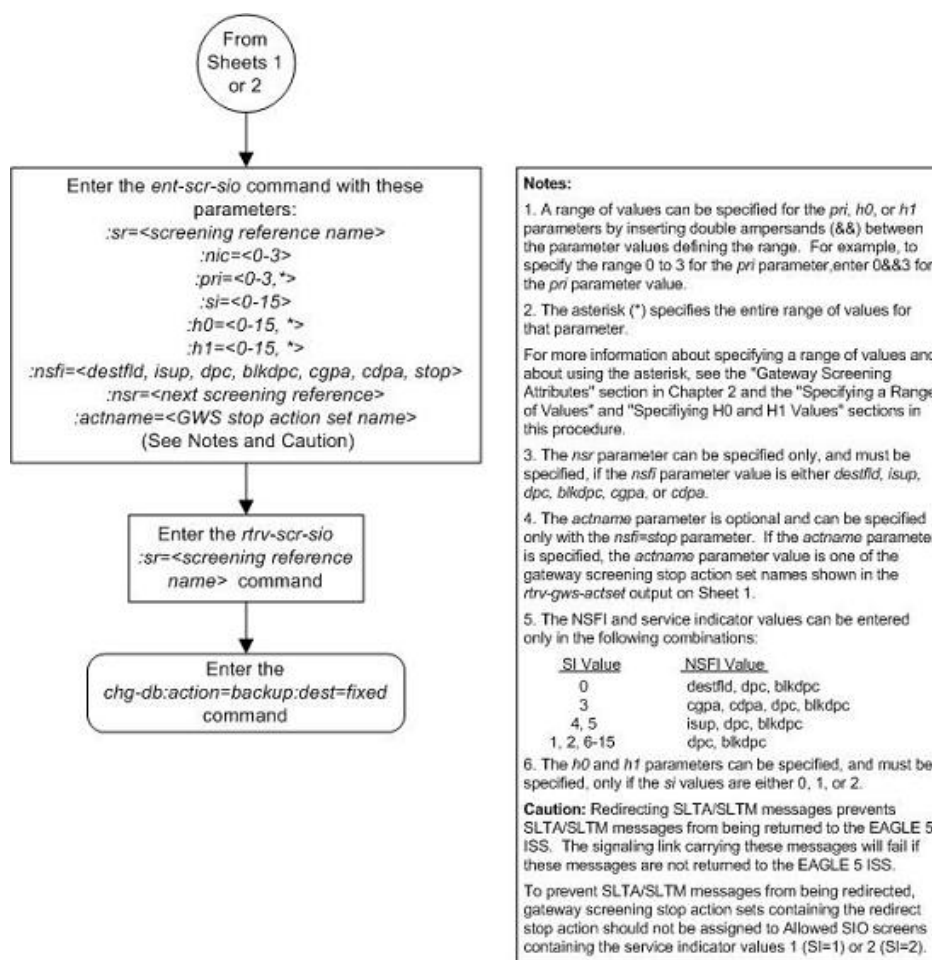
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
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.
```

Figure 55: 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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 section.

The example in this procedure removes the allowed SIO screen 1s02 from the database.

The allowed SIO screen can be referenced by one of the following screens.

- Screen Set
- Allowed OPC
- Blocked OPC

Verifying the Gateway Screening Configuration

Enter the following commands to verify that none of these screens reference the allowed SIO screen being removed from the database.

- `rtrv-scrset:nsfi=sio`
- `rtrv-scr-opc:nsfi=sio`
- `rtrv-scr-blkopc:nsfi=sio`

Gateway Screening Configuration Procedures

To change the NSFI of any of these screens, perform one of these procedures.

- [Changing a Screen Set](#) on page 407
- [Changing an Allowed OPC Screen](#) on page 384
- [Changing a Blocked OPC Screen](#) on page 351

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](#) on page 318 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](#) on page 319 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
```

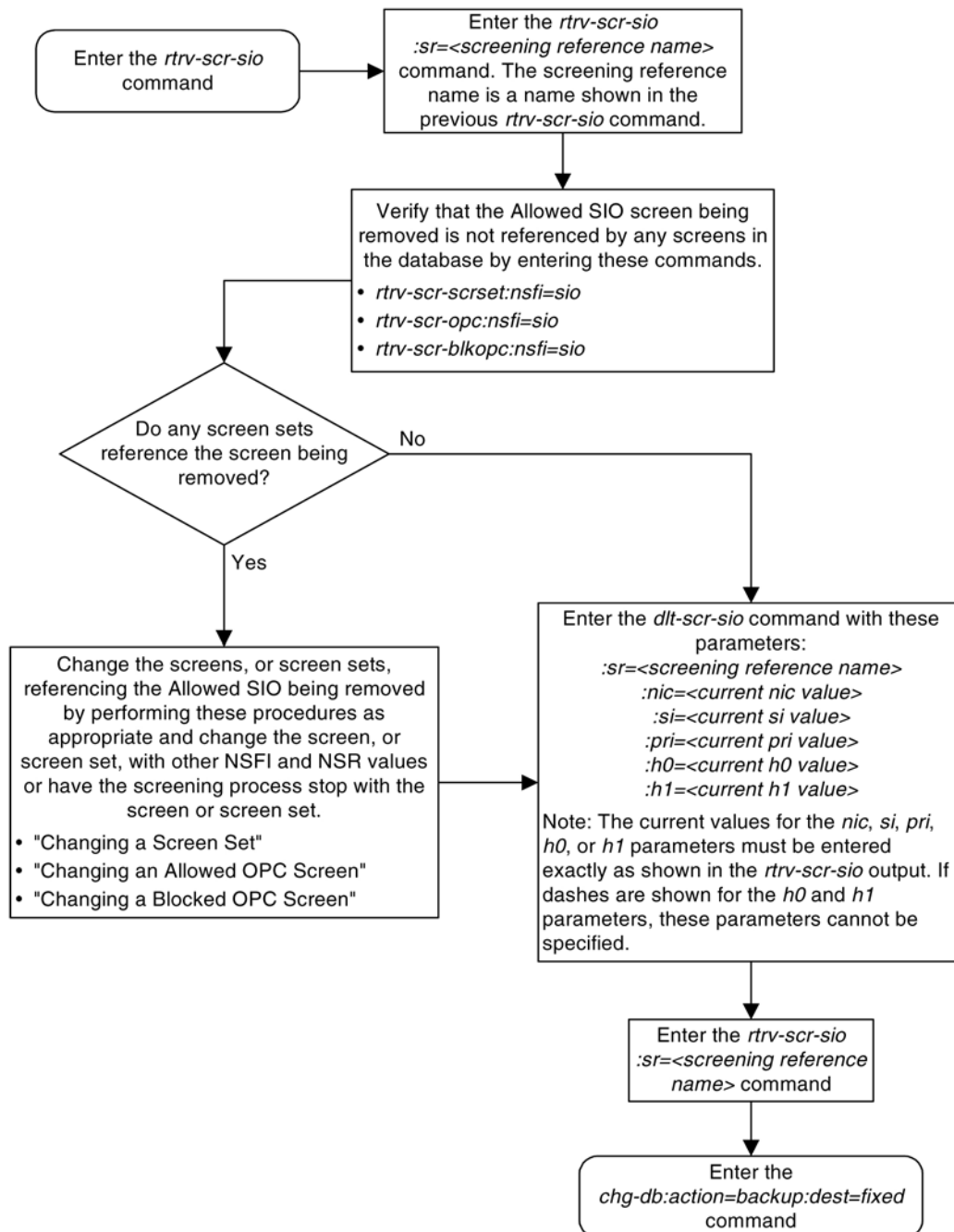
This message shows that the specified screening reference name is not in the database and the action of the `dlt-scr-sio` command in step 3 was successful. If the specified screening reference name contained more than one entry when the `dlt-scr-sio` command was executed in step 3, the `rtrv-scr-sio:sr=` 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 56: 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](#) on page 18 section. The

general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 274
- [Adding a Blocked DPC Screen](#) on page 240
- [Adding an Allowed Affected Destination Field Screen](#) on page 214
- [Adding an Allowed ISUP Message Type Screen](#) on page 439
- [Adding an Allowed Calling Party Address Screen](#) on page 182
- [Adding an Allowed Called Party Address Screen](#) on page 126
- [Changing an Allowed DPC Screen](#) on page 290
- [Changing a Blocked DPC Screen](#) on page 256
- [Changing an Allowed Affected Destination Field Screen](#) on page 225
- [Changing an Allowed ISUP Message Type Screen](#) on page 448
- [Changing an Allowed Calling Party Address Screen](#) on page 196
- [Changing an Allowed Called Party Address Screen](#) on page 141

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 64: Valid Value Combinations for H0 and H1 Parameters](#) on page 323 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. 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    cnf   cnf
5    cpcnf copy cnf
6    cnf   cnf rdct
7    cpcfrd copy cnf 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](#) on page 61 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](#) on page 322 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](#) on page 322 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”](#) on page 322 section for more information. See the [“Changing H0 and H1 Values”](#) on page 323 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 61: Valid Parameter Combinations for the Allowed SIO Screening Function](#) on page 305 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.

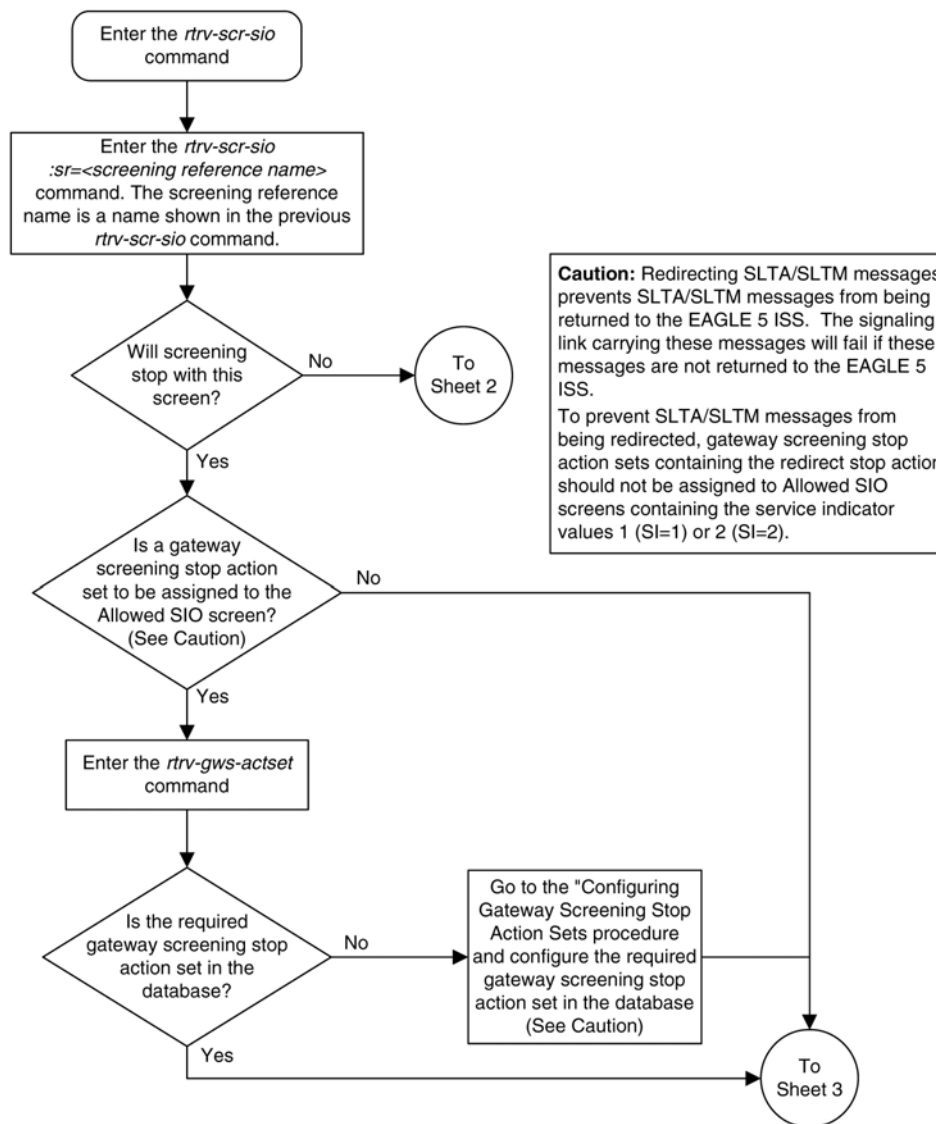
```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED SIO
SR    NIC  PRI  SI  H0    H1    NSFI    NSR/ACT
LS02  2     3   14  --    --    STOP    -----
```

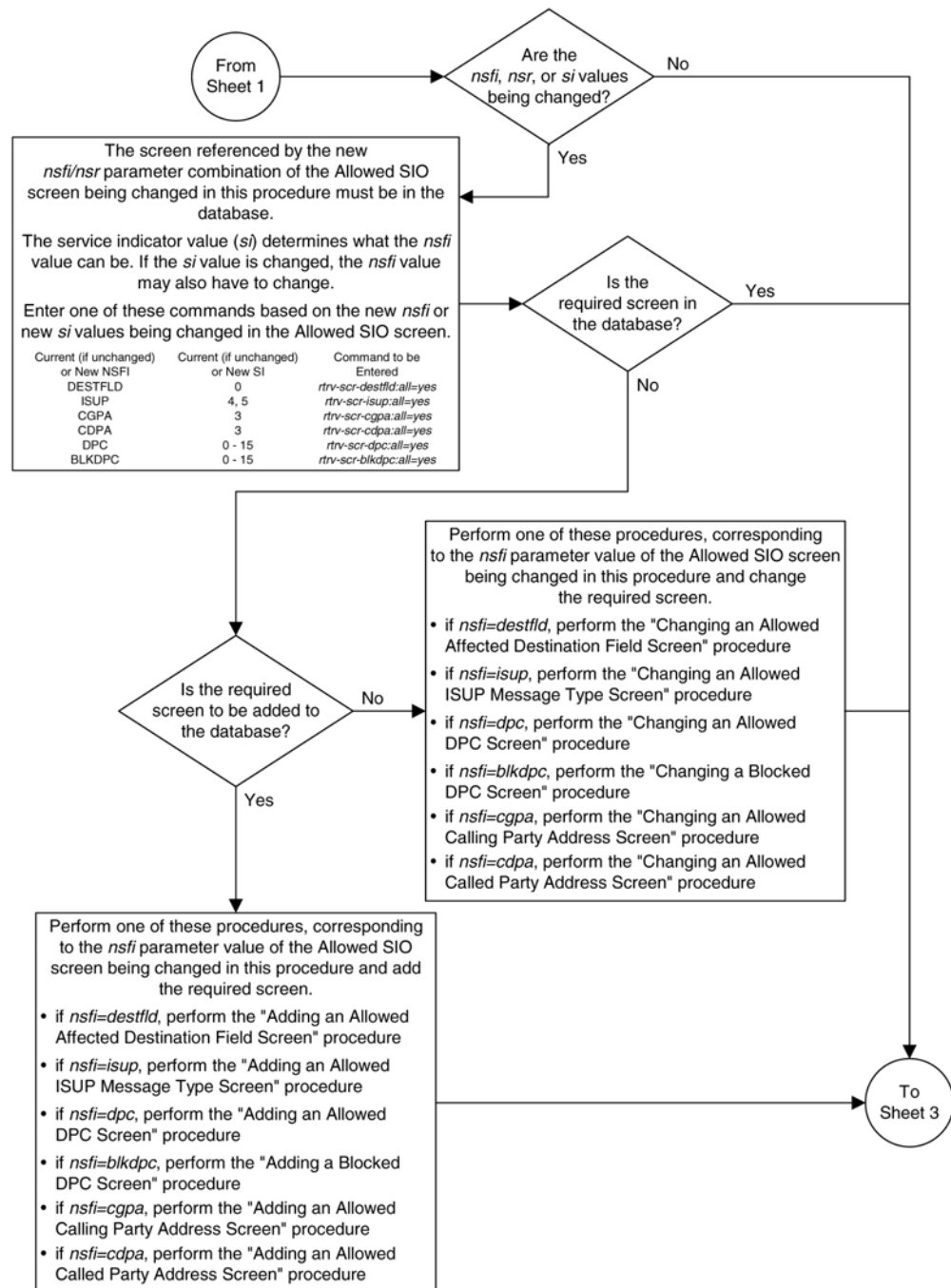
6. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

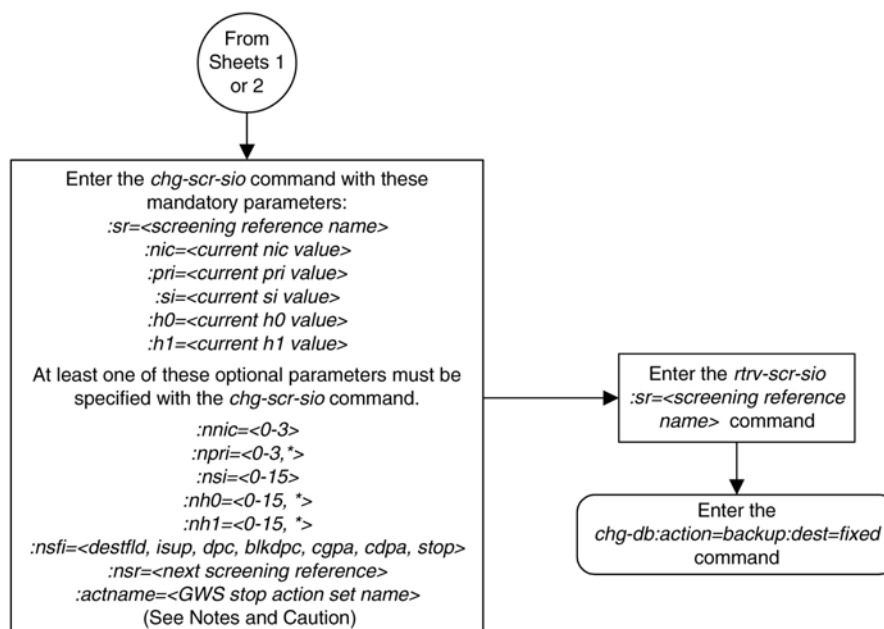
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
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.
```

Figure 57: Changing an Allowed SIO Screen







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 in Chapter 2 and the "Specifying a Range of Values" and "Specifying H0 and H1 Values" sections in this procedure.
3. The current values for the *nic*, *si*, *pri*, *h0*, or *h1* parameters must be entered exactly as shown in the *rtv-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*, *blkdp*, *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 *rtv-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, blkdp
3	cgpa, cdpa, dpc, blkdp
4, 5	isup, dpc, blkdp
1, 2, 6 - 15	dpc, blkdp

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).

Chapter 11

Blocked Originating Point Code (BLKOPC) Screen Configuration

Topics:

- [Introduction Page 330](#)
- [Adding a Blocked OPC Screen Page 334](#)
- [Removing a Blocked OPC Screen Page 347](#)
- [Changing a Blocked OPC Screen Page 351](#)

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 59: Blocked OPC Screening Functions](#) on page 333 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.

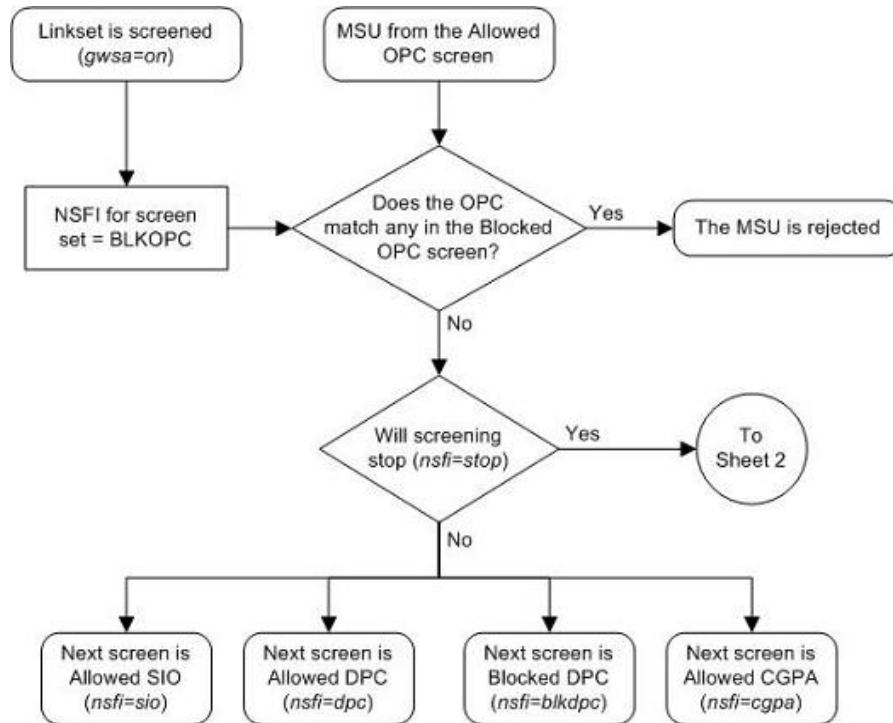
If the `nsfi` is equal to `stop`, the screening process stops and the message is processed. If a gateway screening stop action set is specified with the screen, shown by the `actname` parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

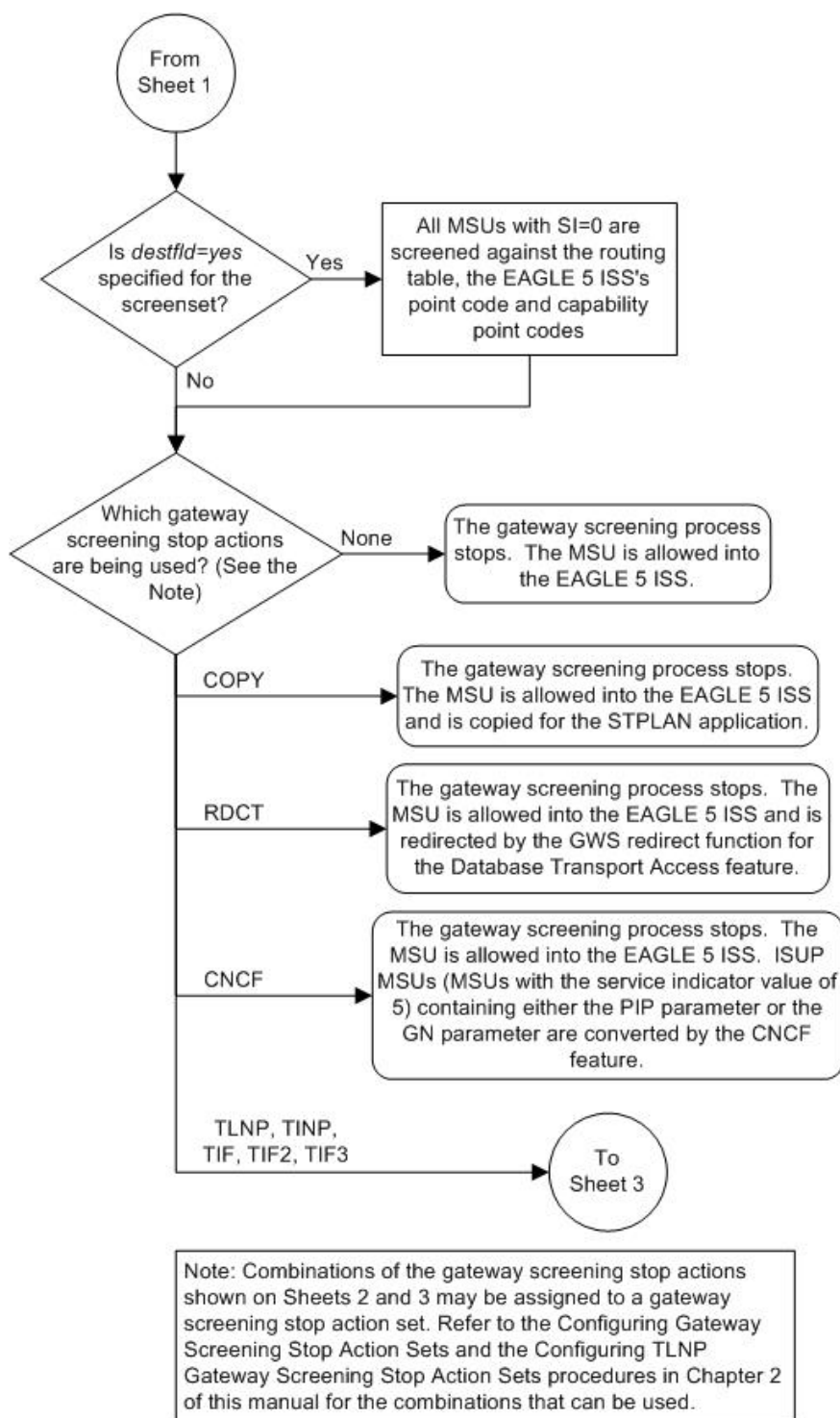
- If the `copy` gateway screening stop action is specified, the message is processed and a copy of the message is sent by the STPLAN feature to an external application.
- If the `rdct` (redirect) gateway screening stop action is specified, the message is diverted from the original destination and sent 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](#) on page 415.
- 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 *LNP Feature Activation Guide*.
- If the `tinp` gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in the *Feature Manual - G-Port*.
- If the `tif`, `tif2`, or `tif3` gateway screening stop actions are specified, TIF processing is applied to the message.

Blocked OPC Screening Actions

Figure 58: Blocked OPC Screening Actions on page 331 shows the screening actions of the blocked OPC screen.

Figure 58: Blocked OPC Screening Actions





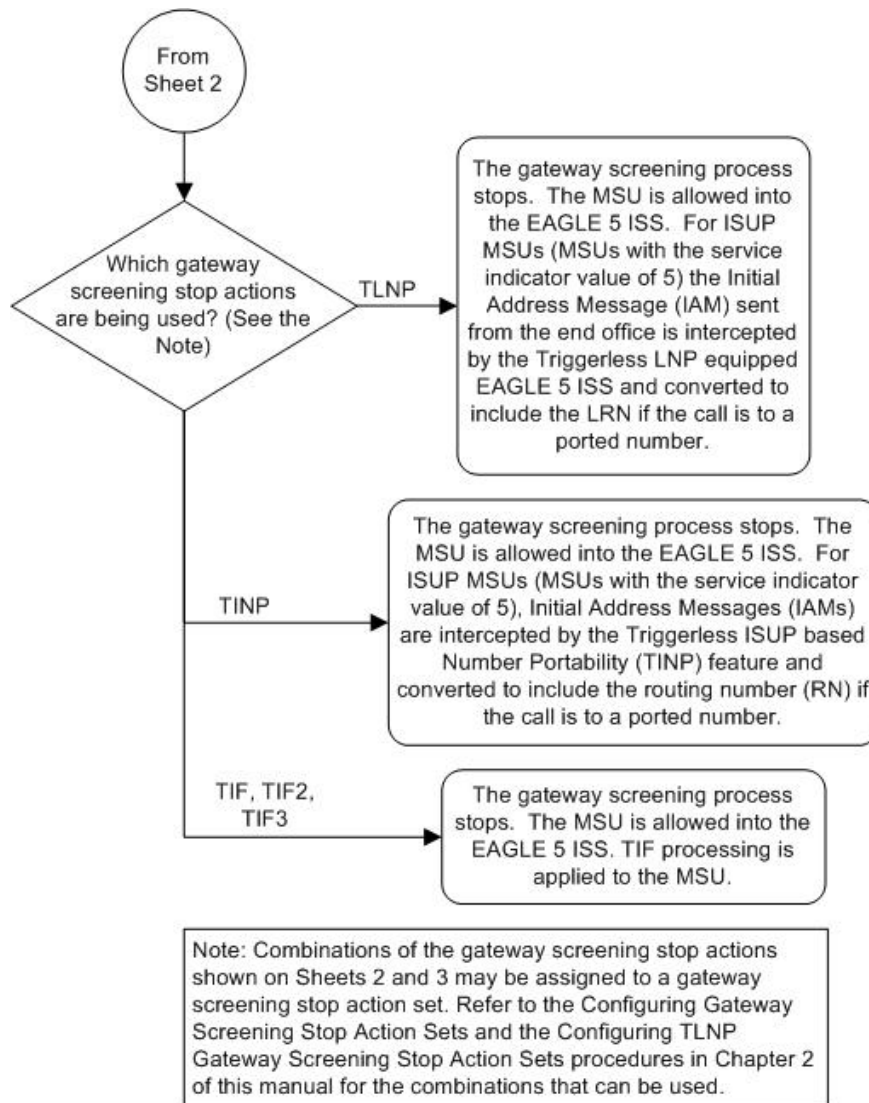


Figure 59: Blocked OPC Screening Functions

ANSI MSU (ANSI Message Signal Unit)

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		DPC NCM NC NI	Routing Label OPC NCM NC NI	SLS xx	

ITU-I MSU (ITU International Message Signal Unit)

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		DPC ID AREA ZONE	Routing Label OPC ID AREA ZONE	SLS xx	

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

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		DPC NPC	Routing Label OPC NPC	SLS xx	

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

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		DPC SP SSA MSA	Routing Label OPC SP SSA MSA	SLS xx	

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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 section.

The examples in this procedure are used to add the blocked OPC screen data shown in [Table 65: Example Gateway Screening Blocked OPC Configuration Table](#) on page 335 and based on the example configurations shown in [Figure 4: Gateway Screening Configuration - Example 1](#) on page 40, [Figure 5: Gateway Screening Configuration - Example 2](#) on page 42, and [Figure 8: Gateway Screening Configuration - Example 5](#) on page 46.

Table 65: 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](#) on page 32 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](#) on page 309
- [Adding an Allowed DPC Screen](#) on page 274
- [Adding a Blocked DPC Screen](#) on page 240
- [Adding an Allowed Calling Party Address Screen](#) on page 182
- [Changing an Allowed SIO Screen](#) on page 321
- [Changing an Allowed DPC Screen](#) on page 290
- [Changing a Blocked DPC Screen](#) on page 256

- [Changing an Allowed Calling Party Address Screen](#) on page 196

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 66: Valid Value Combinations for ANSI Point Code Parameters](#) on page 336 shows the valid combinations of these parameter values.

Table 66: 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 67: Valid Value Combinations for ITU-I Point Code Parameters](#) on page 337 shows the valid combinations of the ITU-I parameter values. [Table 68: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters](#) on page 337 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 67: 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 68: 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      NSF1      NSR/ACT
IEC     240     001     010     FAIL     -----
IEC     241     010     *      FAIL     -----

SR      ZONE    AREA    ID      NSF1      NSR/ACT
IEC     1       003     4       FAIL     -----
IEC     1       003     5       FAIL     -----

SR      NI      NC      NCM      NSF1      NSR/ACT
IEC     C       C       C       STOP     CR
SR      NPC
IEC     00235   FAIL     NSR      -----

SR      NI      NC      NCM      NSF1      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 NSF1 of the screen being added in this procedure is STOP. If the NSF1 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 NSF1 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    cnf   cnf
5    cpnf  copy cnf
6    cnf   cnf rdct
```

```
7      cpcfcd 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](#) on page 61 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](#) on page 335 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](#) on page 335 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 go 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”](#) on page 336 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      NSF1      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.

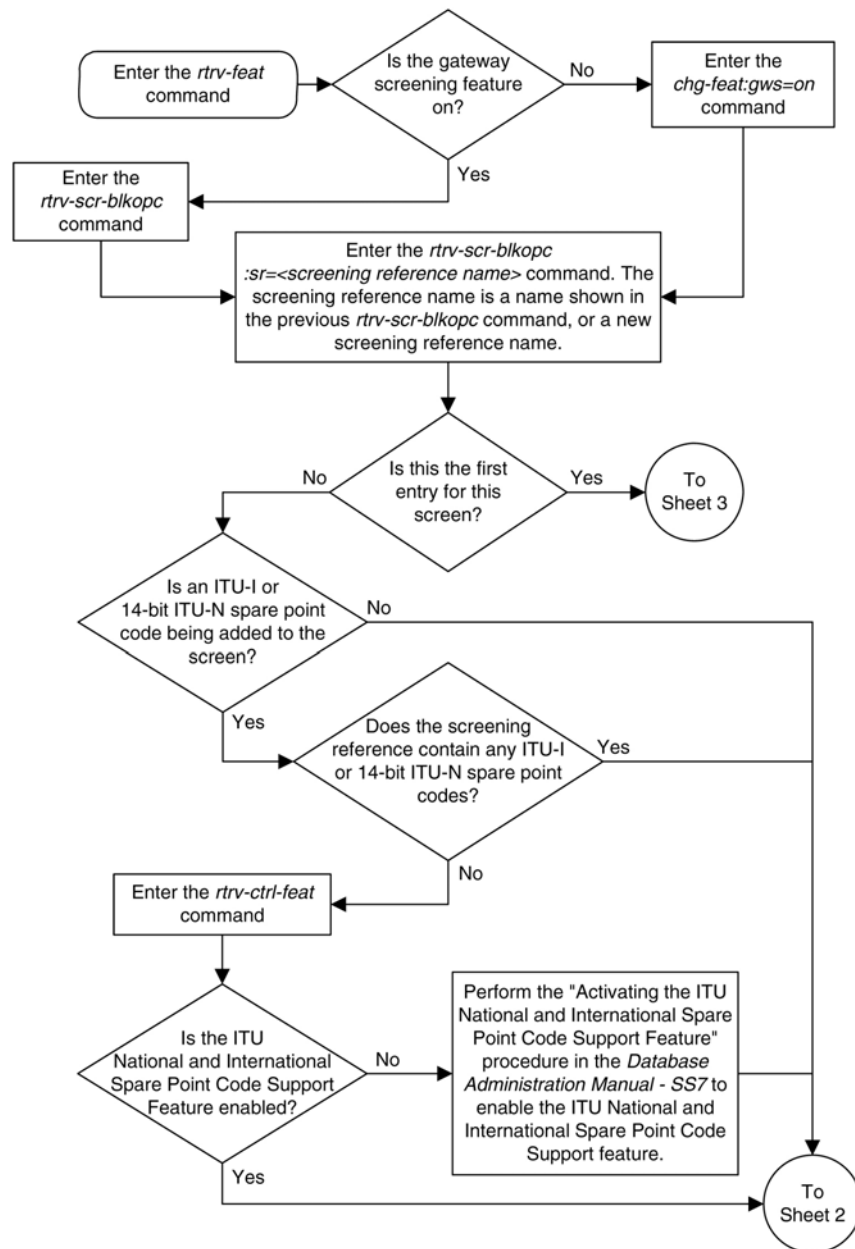
```
rlghncxa03w 06-10-25 15:36:30 GMT EAGLE5 36.0.0
SCREEN = BLOCKED OPC
SR      NI      NC      NCM      NSF1      NSR/ACT
ISP1    025      025      025      FAIL      -----
ISP1    C        C        C        SIO      ISP1
```

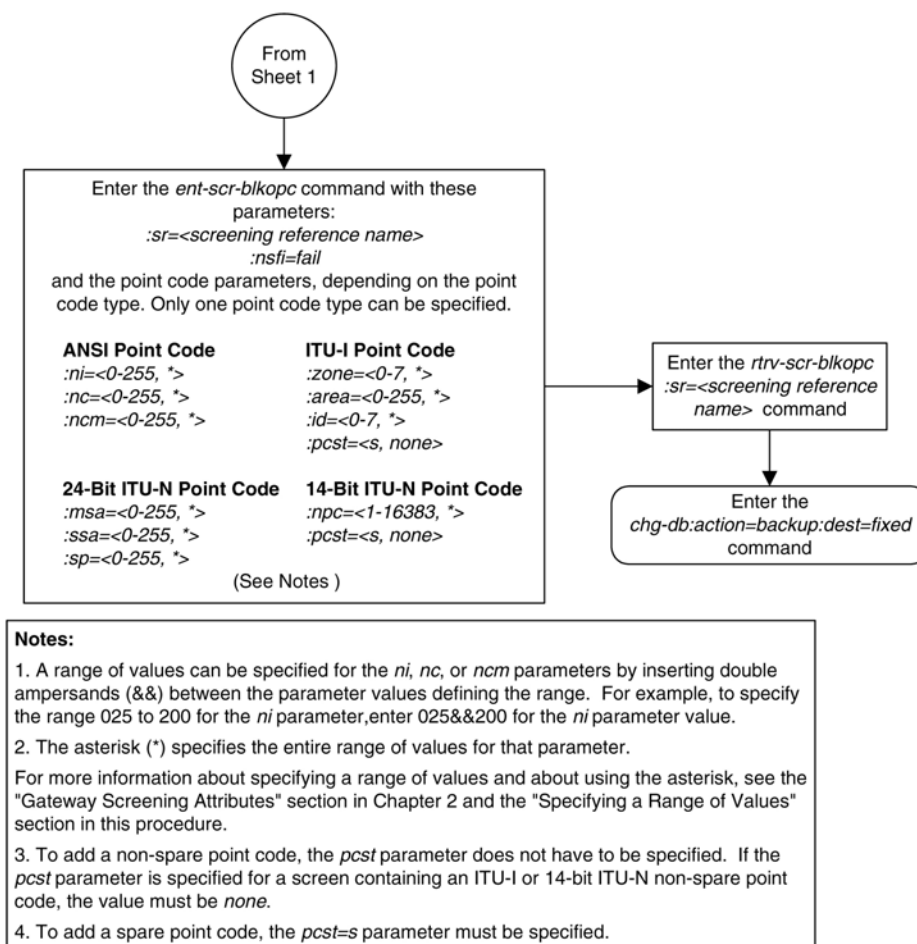
9. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

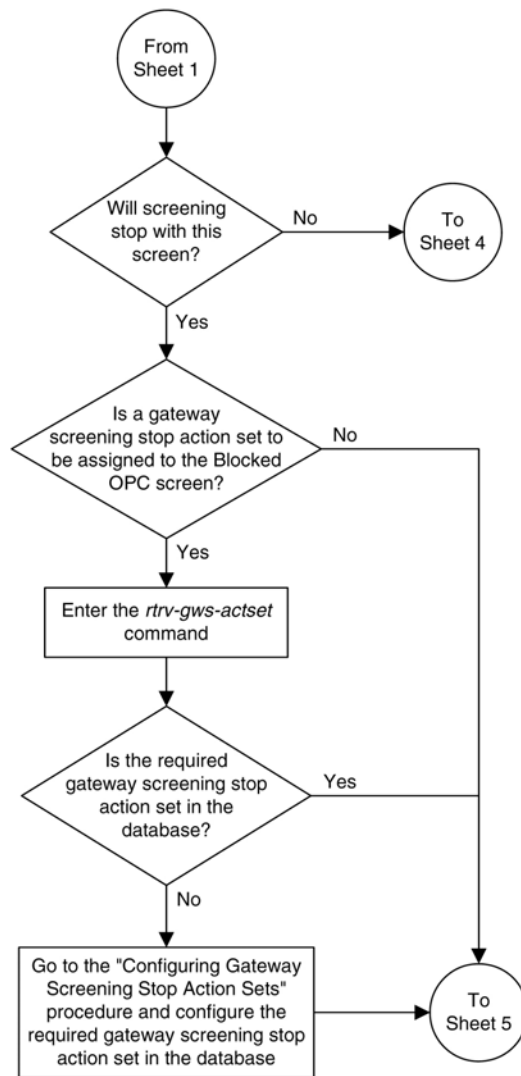
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

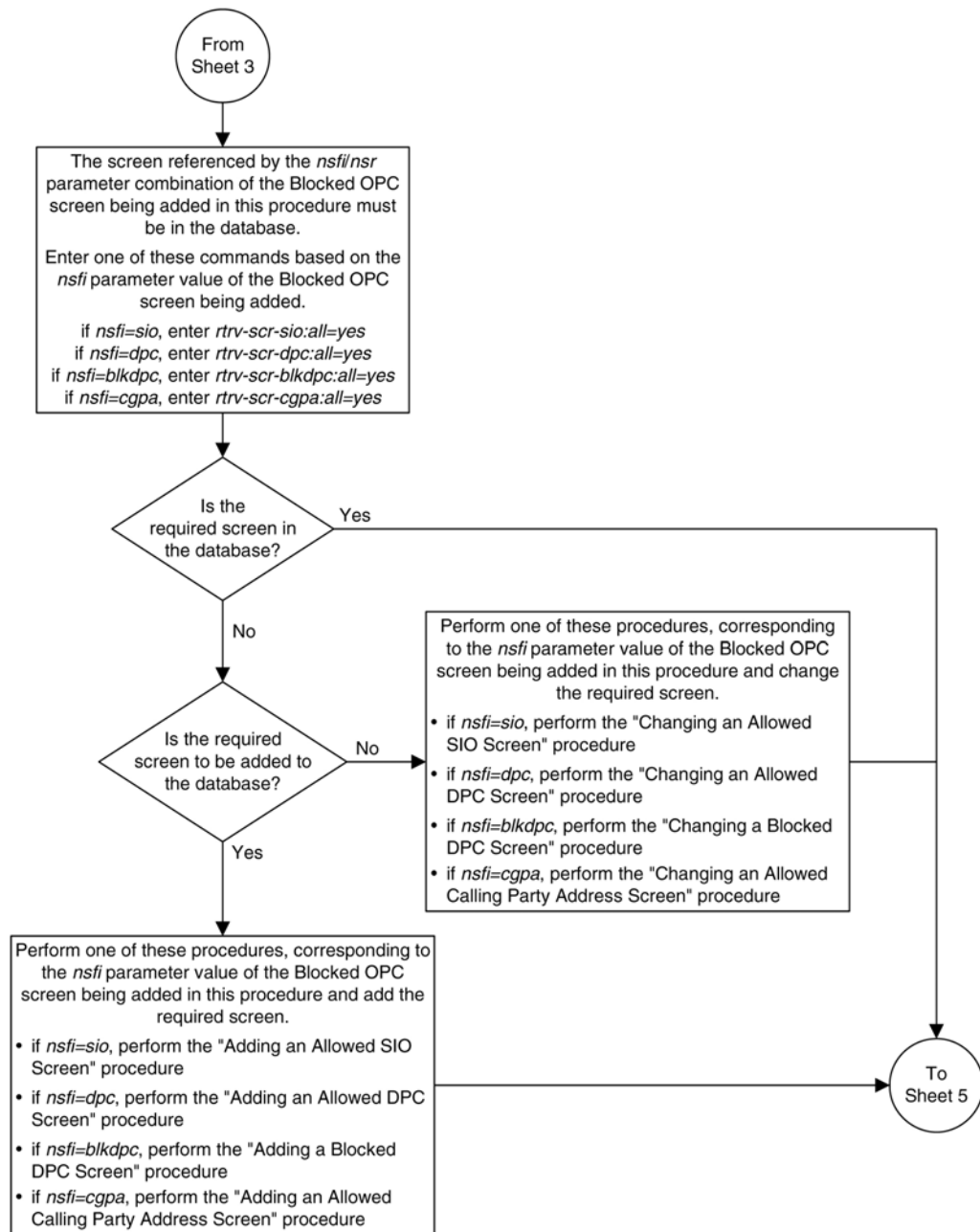
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```

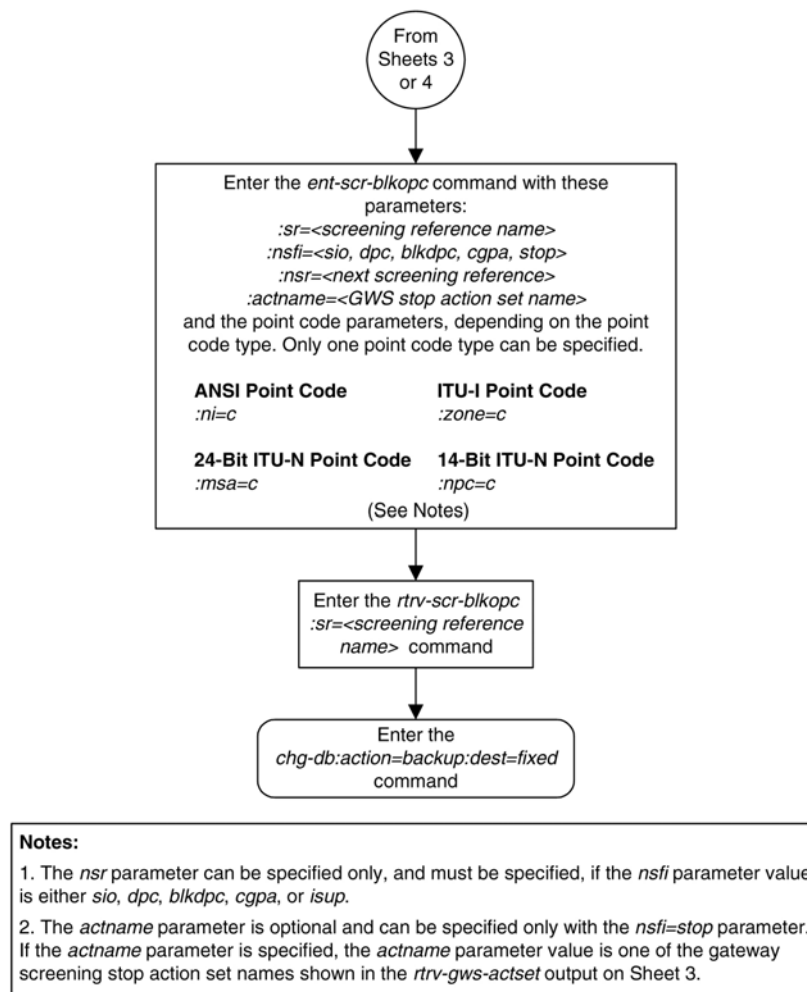
Figure 60: Adding a Blocked OPC Screen











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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 32 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](#) on page 407
- [Changing an Allowed OPC Screen](#) on page 384

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
IEC 00235      NSFI      NSR
                        FAIL     -----
```

2. Enter the commands in the [Verifying the Gateway Screening Configuration](#) on page 348 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](#) on page 348 section to change the NSFI of those screens to reference other screens or change the NSFI of these screens to STOP.

- 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
```

- 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
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.

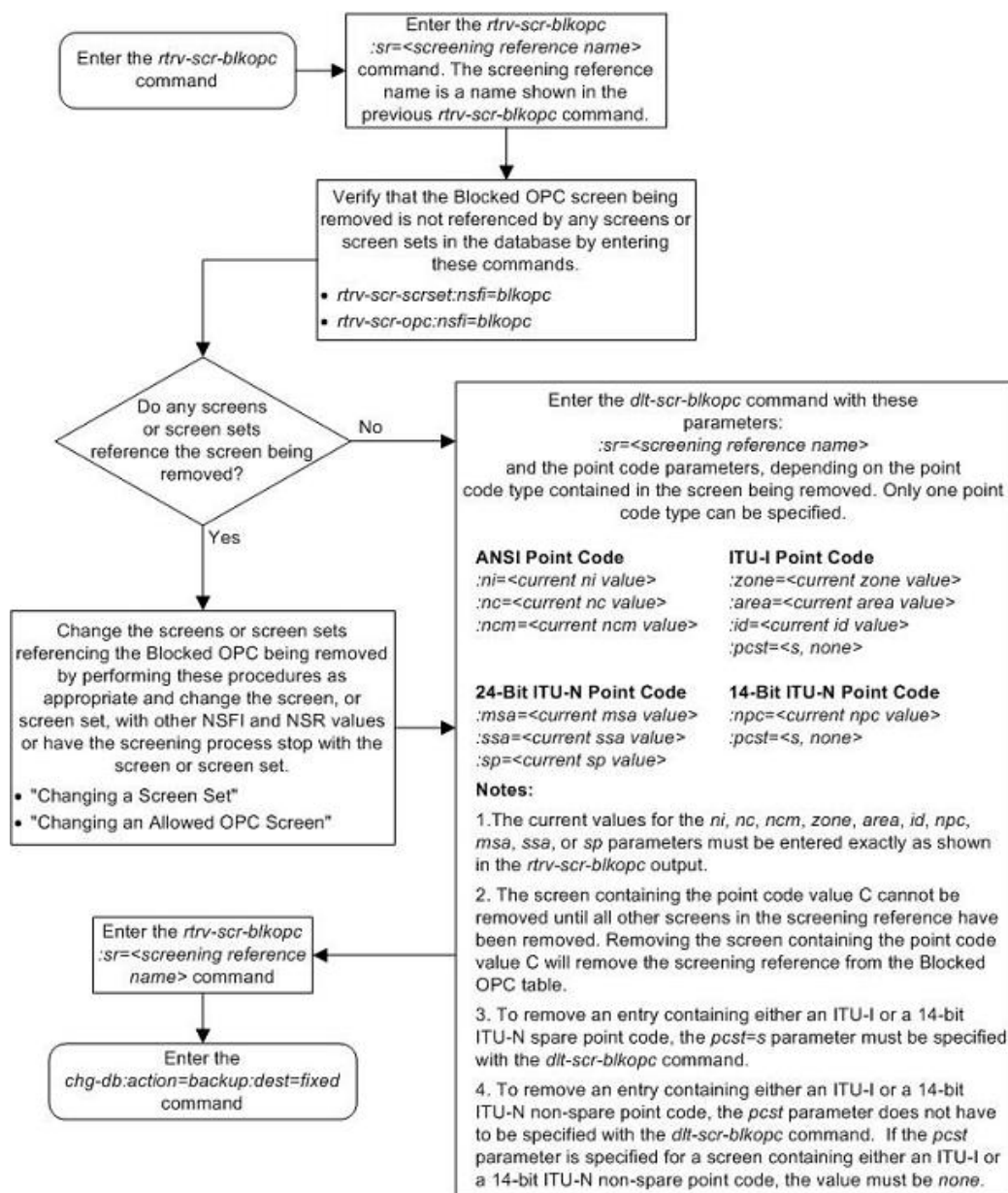
```
E2573 Cmd Rej: SR or NSR does not reference an existing SR
```

- 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 61: 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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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 are using multiple-part ITU national point codes with gateway screening, [14-Bit ITU National Point Code Formats](#) on page 32 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](#) on page 309
- [Adding an Allowed DPC Screen](#) on page 274
- [Adding a Blocked DPC Screen](#) on page 240
- [Adding an Allowed Calling Party Address Screen](#) on page 182
- [Changing an Allowed SIO Screen](#) on page 321
- [Changing an Allowed DPC Screen](#) on page 290
- [Changing a Blocked DPC Screen](#) on page 256
- [Changing an Allowed Calling Party Address Screen](#) on page 196

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 69: Valid Value Combinations for ANSI Point Code Parameters](#) on page 352 shows the valid combinations of these parameter values.

Table 69: 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 70: Valid Value Combinations for ITU-I Point Code Parameters](#) on page 353 shows the valid combinations of the ITU-I parameter values. [Table 71: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters](#) on page 353 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 70: 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 71: 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      NSF1      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 NSF1 of the screen being changed in this procedure is STOP. If the NSF1 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 NSF1 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
ID NAME 1 2 3 4 5 6 7 8 9 10
--
1 copy copy
2 rdct rdct
3 cr copy rdct
4 cnf cnf
5 cpcnf copy cnf
6 cnfcrd cnf rdct
7 cpcfrd copy cnf 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](#) on page 61 procedure to configure the required gateway screening stop action set.

Note: If the NSF1 of the screen being changed in this procedure will be STOP or FAIL, or if the NSF1 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](#) on page 351 section to verify that the screen that will be specified by the NSF1/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](#) on page 351 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”](#) on page 352 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:nmc=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.

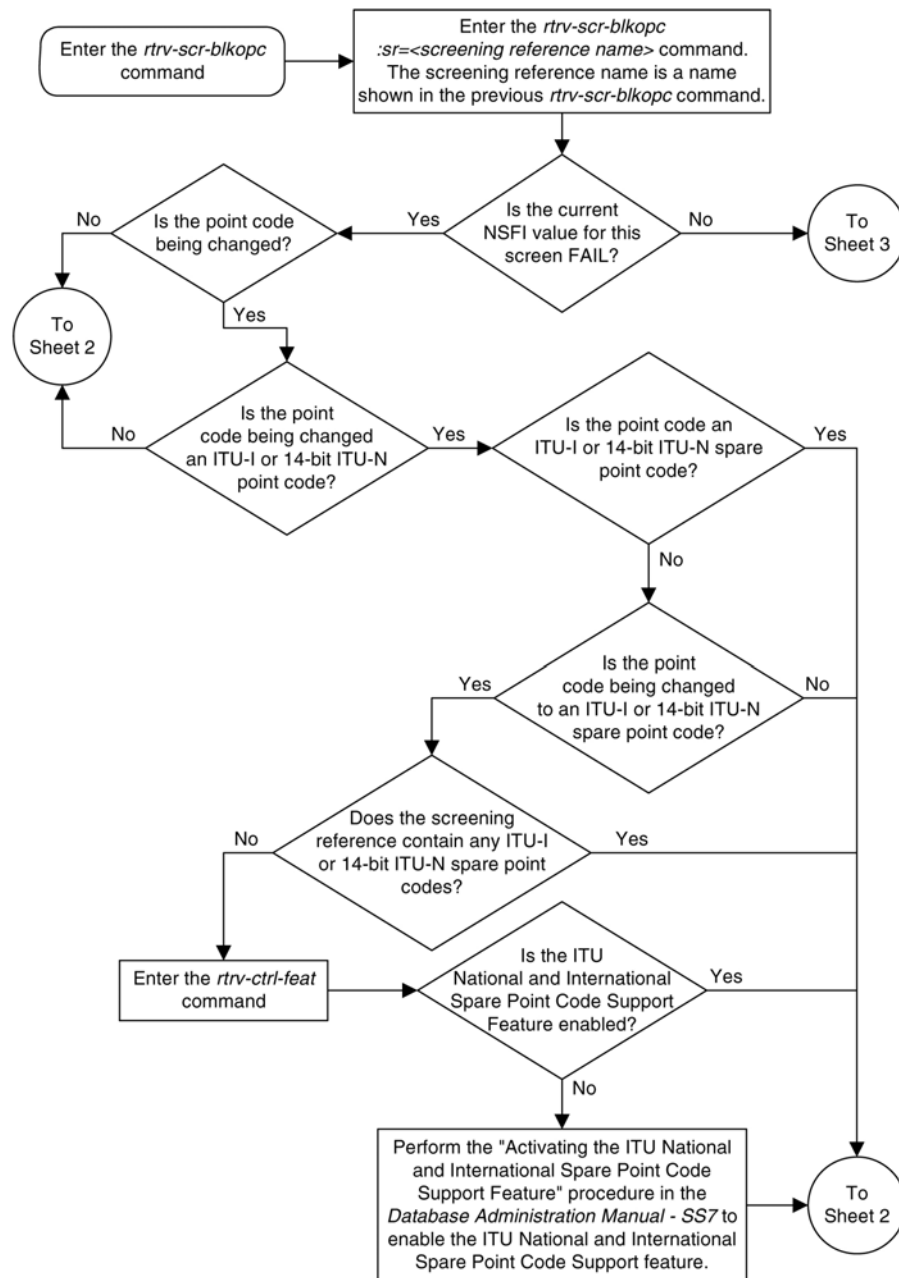
```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
SCREEN = BLOCKED OPC
SR   NI      NC      NCM      NSF1      NSR/ACT
GWS7 230      230      230      FAIL      -----
GWS7 C        C        C        DPC      GWS9
```

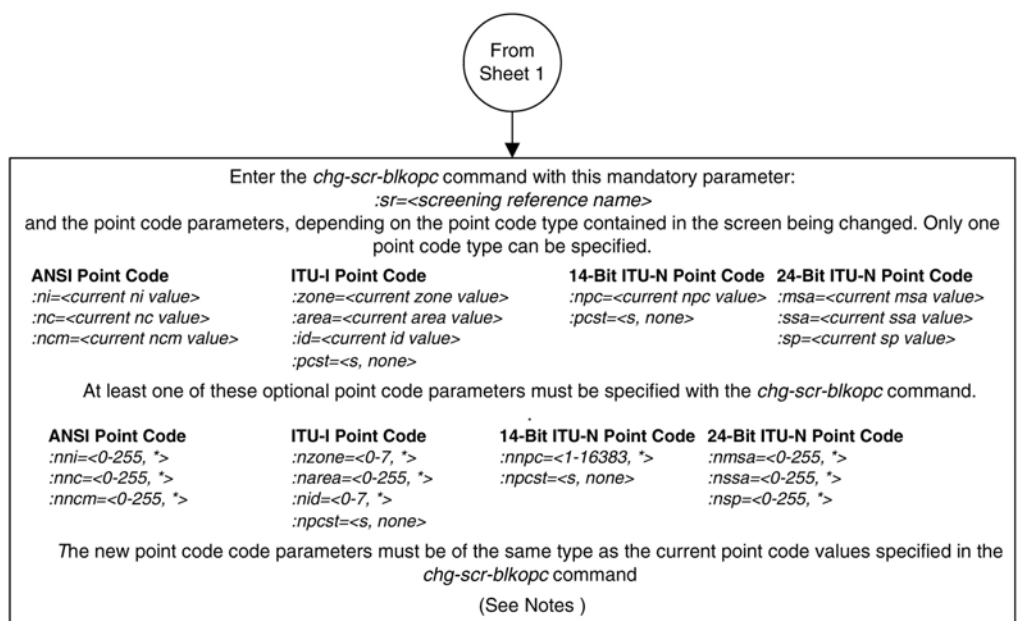
6. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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.
```

Figure 62: Changing a Blocked OPC Screen



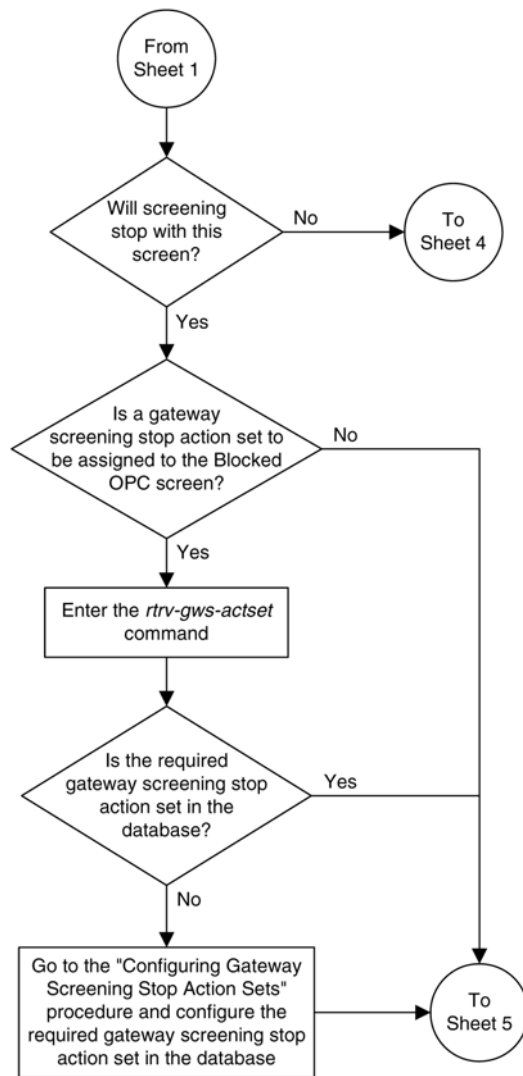


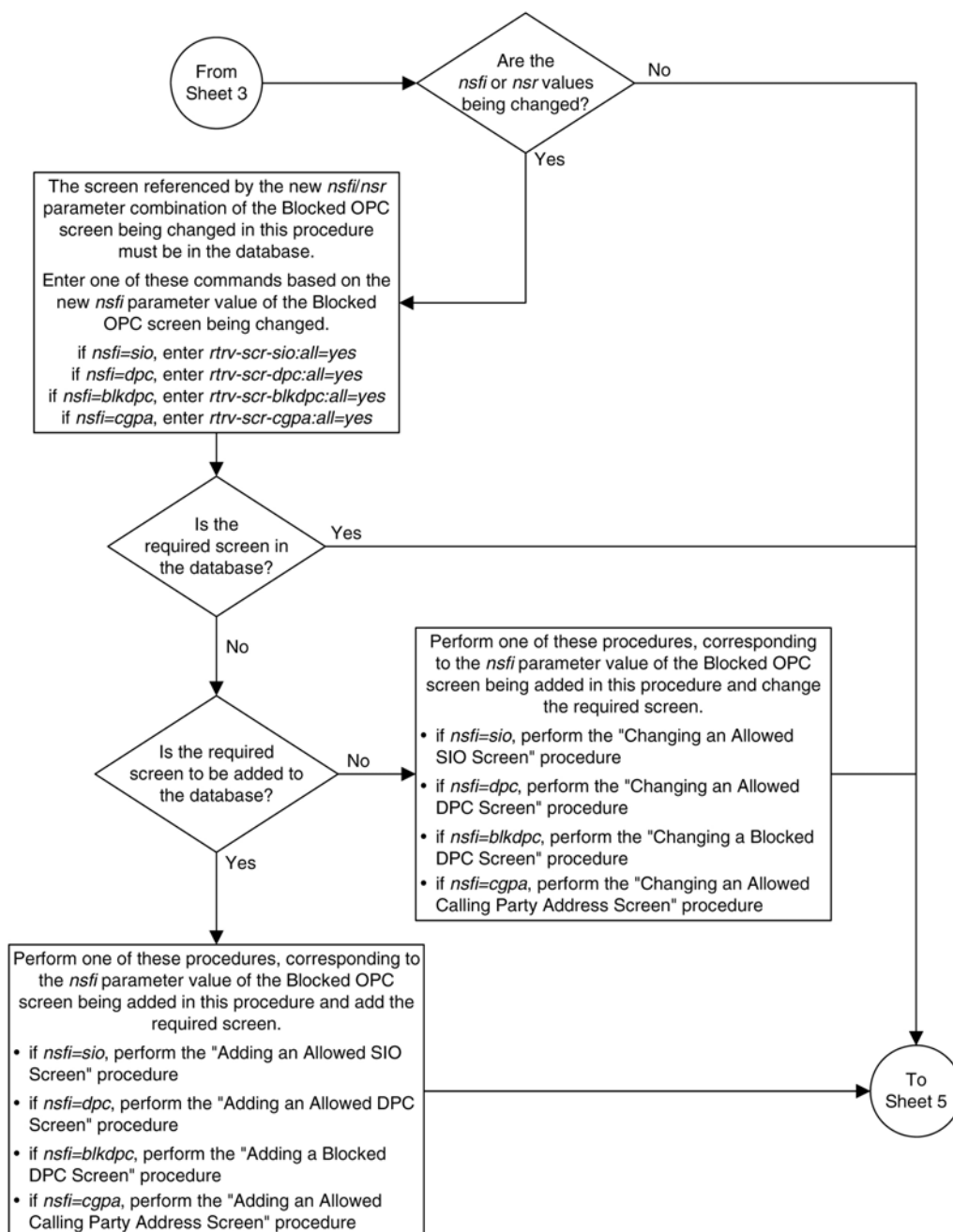
Enter the *rtv-scr-blkopc*
:sr=<screening reference
name> command

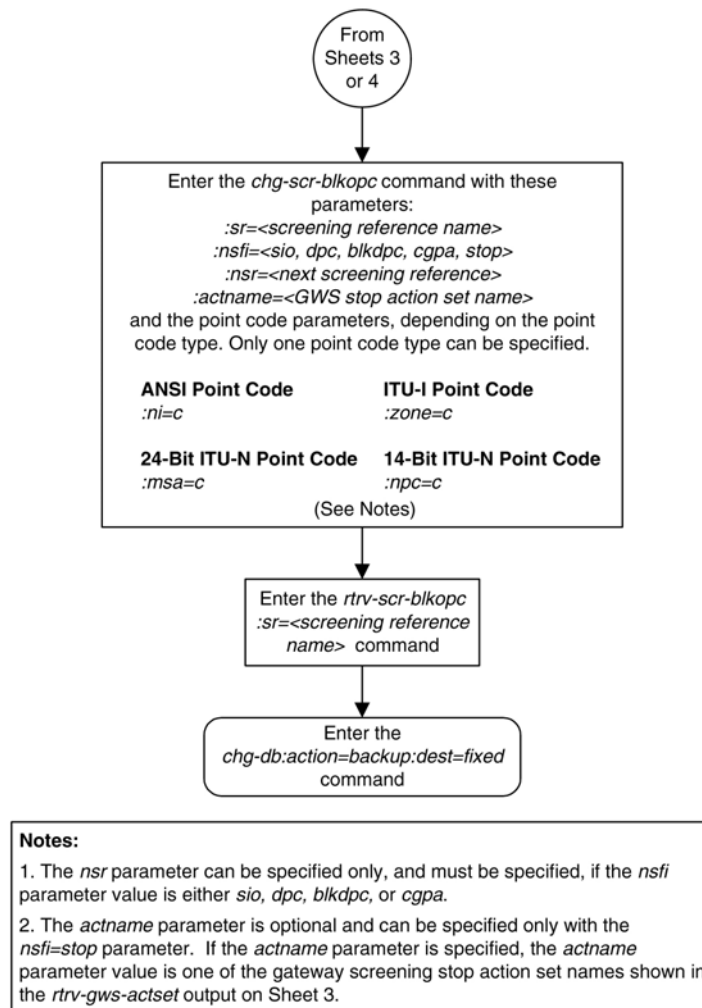
Enter the
chg-db:action=backup:dest=fixed
command

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 *rtv-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 in Chapter 2 and the "Specifying a Range of Values" section in this procedure.
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*.







Chapter 12

Allowed Originating Point Code (OPC) Screen Configuration

Topics:

- [*Introduction Page 364*](#)
- [*Adding an Allowed OPC Screen Page 368*](#)
- [*Removing an Allowed OPC Screen Page 381*](#)
- [*Changing an Allowed OPC Screen Page 384*](#)

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 64: Allowed OPC Screening Functions](#) on page 367 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.

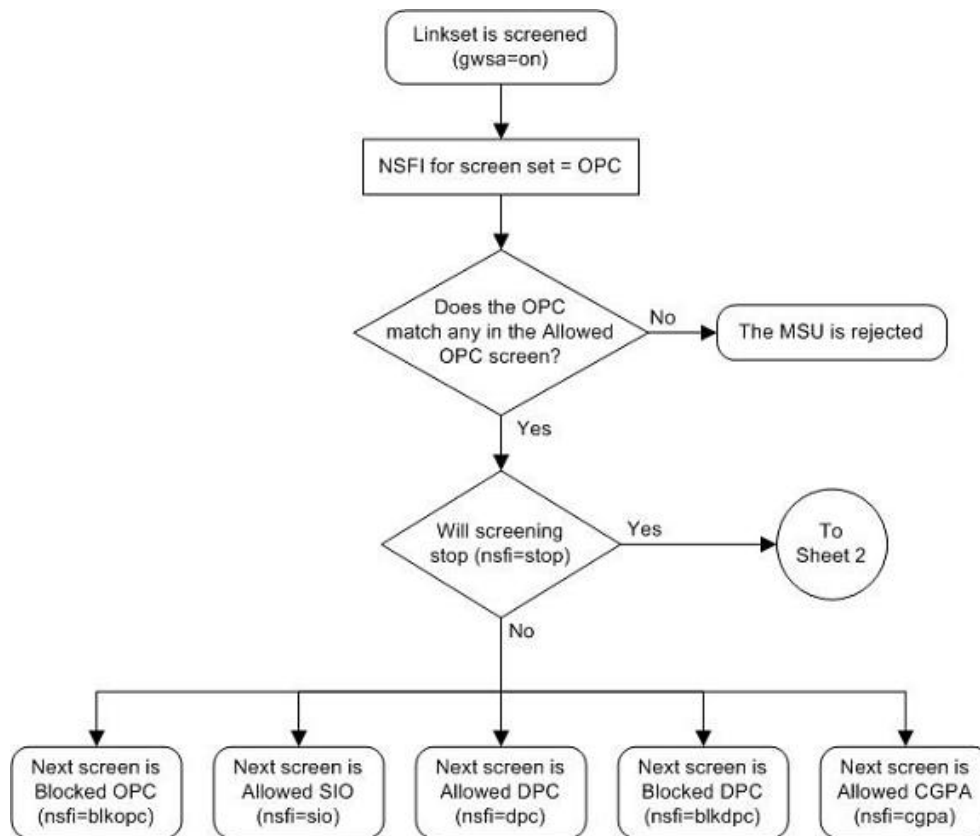
If the `nsfi` is equal to `stop`, the screening process stops and the message is processed. If a gateway screening stop action set is specified with the screen, shown by the `actname` parameter value, the message is processed according to the gateway screening stop actions that are assigned to the gateway screening stop action set.

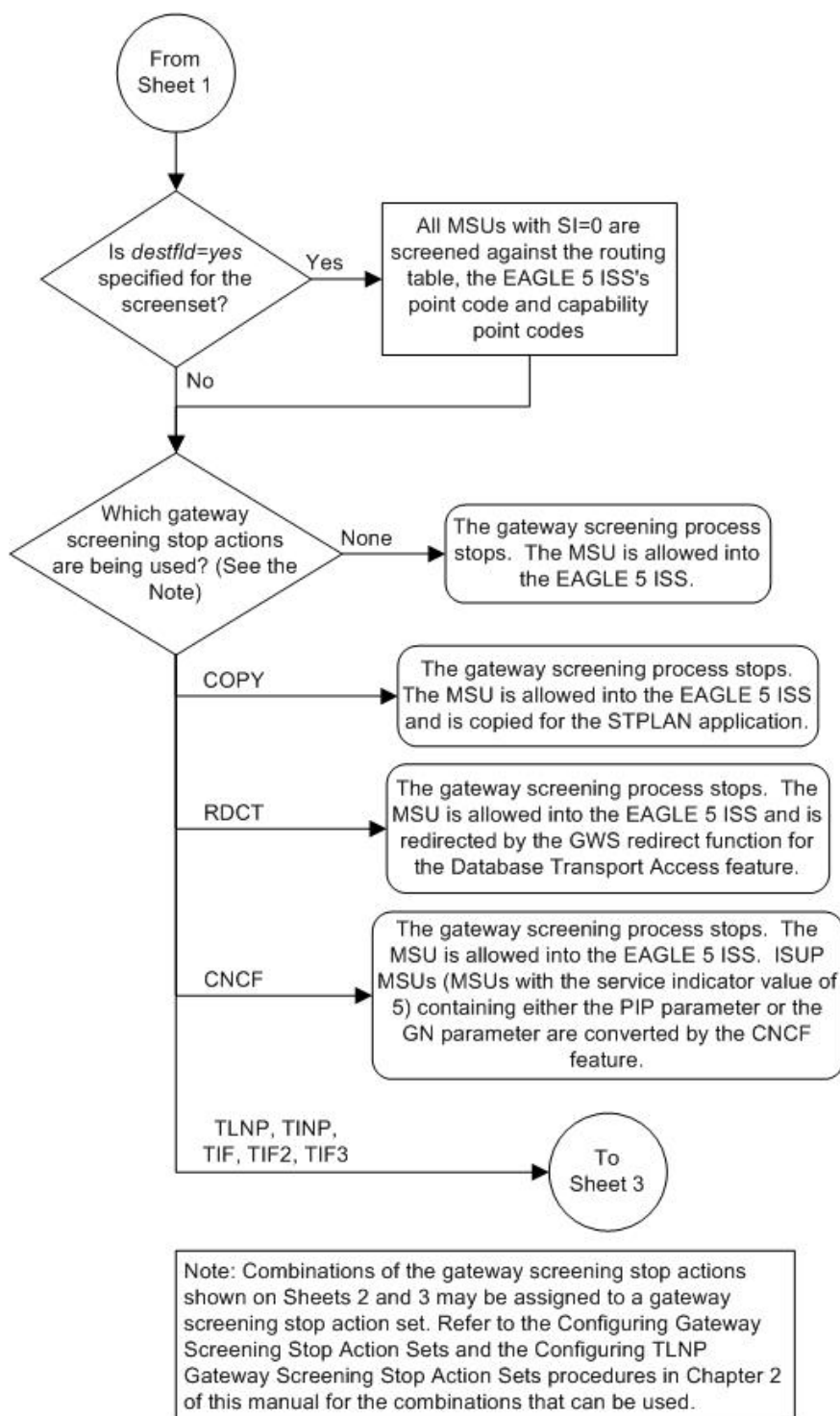
- If the `copy` gateway screening stop action is specified, the message is processed and a copy of the message is sent by the STPLAN feature to an external application.
- If the `rdct` (redirect) gateway screening stop action is specified, the message is diverted from the original destination and sent 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](#) on page 415.
- 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 *LNP Feature Activation Guide*.
- If the `tinp` gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in the *Feature Manual - G-Port*.
- If the `tif`, `tif2`, or `tif3` gateway screening stop actions are specified, TIF processing is applied to the message.

Allowed OPC Screening Actions

Figure 63: Allowed OPC Screening Actions on page 365 shows the screening actions of the allowed OPC screen.

Figure 63: Allowed OPC Screening Actions





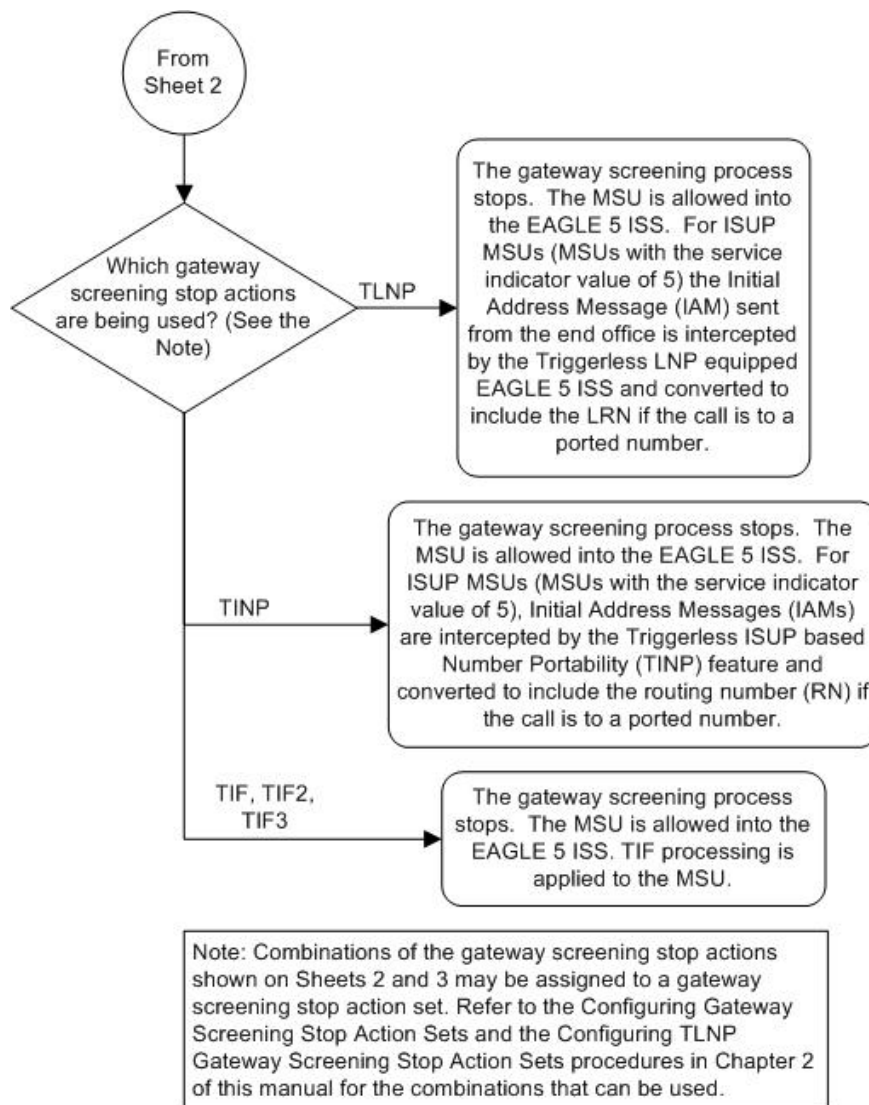


Figure 64: Allowed OPC Screening Functions

ANSI MSU (ANSI Message Signal Unit)

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		DPC NCM NC NI	Routing Label OPC NCM NC NI	SLS xx	

ITU-I MSU (ITU International Message Signal Unit)

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		DPC ID AREA ZONE	Routing Label OPC ID AREA ZONE	SLS xx	

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

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		DPC NPC	Routing Label OPC NPC	SLS xx	

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

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF			
		DPC SP SSA MSA	Routing Label OPC SP SSA MSA	SLS xx	

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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 section.

The examples in this procedure are used to add the allowed OPC screen data shown in [Table 72: Example Gateway Screening Allowed OPC Configuration Table](#) on page 369 and based on the example configurations shown in [Figure 4: Gateway Screening Configuration - Example 1](#) on page 40, [Figure 8: Gateway Screening Configuration - Example 5](#) on page 46, and [Figure 10: Gateway Screening Configuration - Example 7](#) on page 49.

Table 72: 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](#) on page 32 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](#) on page 334
- [Adding an Allowed SIO Screen](#) on page 309
- [Adding an Allowed DPC Screen](#) on page 274
- [Adding a Blocked DPC Screen](#) on page 240
- [Adding an Allowed Calling Party Address Screen](#) on page 182
- [Changing a Blocked OPC Screen](#) on page 351
- [Changing an Allowed SIO Screen](#) on page 321
- [Changing an Allowed DPC Screen](#) on page 290
- [Changing a Blocked DPC Screen](#) on page 256
- [Changing an Allowed Calling Party Address Screen](#) on page 196

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 73: Valid Value Combinations for ANSI Point Code Parameters](#) on page 370 shows the valid combinations of these parameter values.

Table 73: 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 74: Valid Value Combinations for ITU-I Point Code Parameters](#) on page 371 shows the valid combinations of the ITU-I parameter values. [Table 75: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters](#) on page 371 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 74: 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 75: 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
IEC     00235
IEC     00240

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    cnf      cnf
5    cpcnf    copy  cnf
6    cnf      cnf   rdct
7    cpcnf    copy  cnf   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](#) on page 61 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
LSN      APCA  (SS7)  SCRNL3T SLT  BEI  LST  LNKS  ACT  MES  DIS  SLSCI  NIS
ele2     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
elm1s1   001-001-001  none  1    1    no   A    7    off  off  off  no   off
elm1s2   001-001-002  none  1    1    no   A    7    off  off  off  no   off

                                L3T SLT
LSN      APCI  (SS7)  SCRNL3T SLT  BEI  LST  LNKS  ACT  MES  DIS  SLSCI  NIS
ele2i    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
elm2s1   1-011-1     none  1    1    no   A    7    off  off  off  ---  off
elm2s2   1-011-2     none  1    1    no   A    7    off  off  off  ---  off
```

Link set table is (10 of 1024) 1% full.



CAUTION

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](#) on page 369 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](#) on page 369 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

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”](#) on page 369 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.

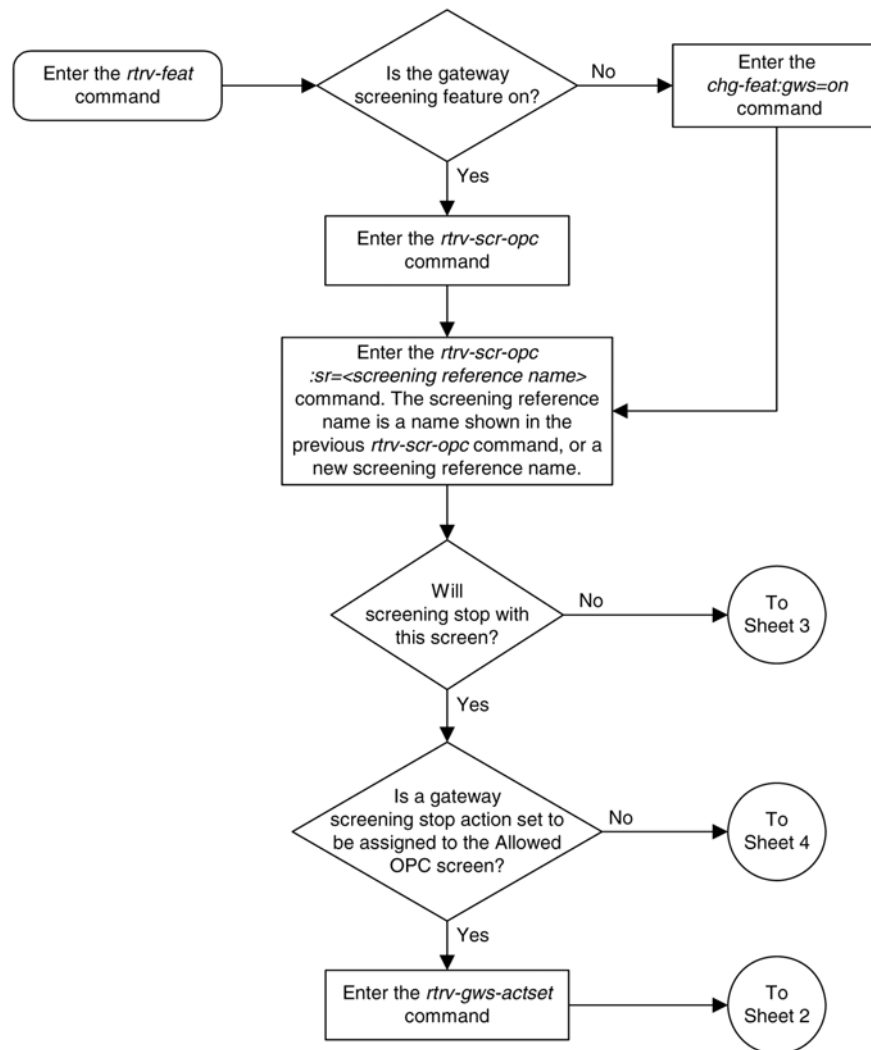
```
rlghncxa03w 06-10-25 15:31:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED OPC
SR      NI      NC      NCM      NSFI      NSR/ACT
TUP1    017      017      017      SIO       TUP1
```

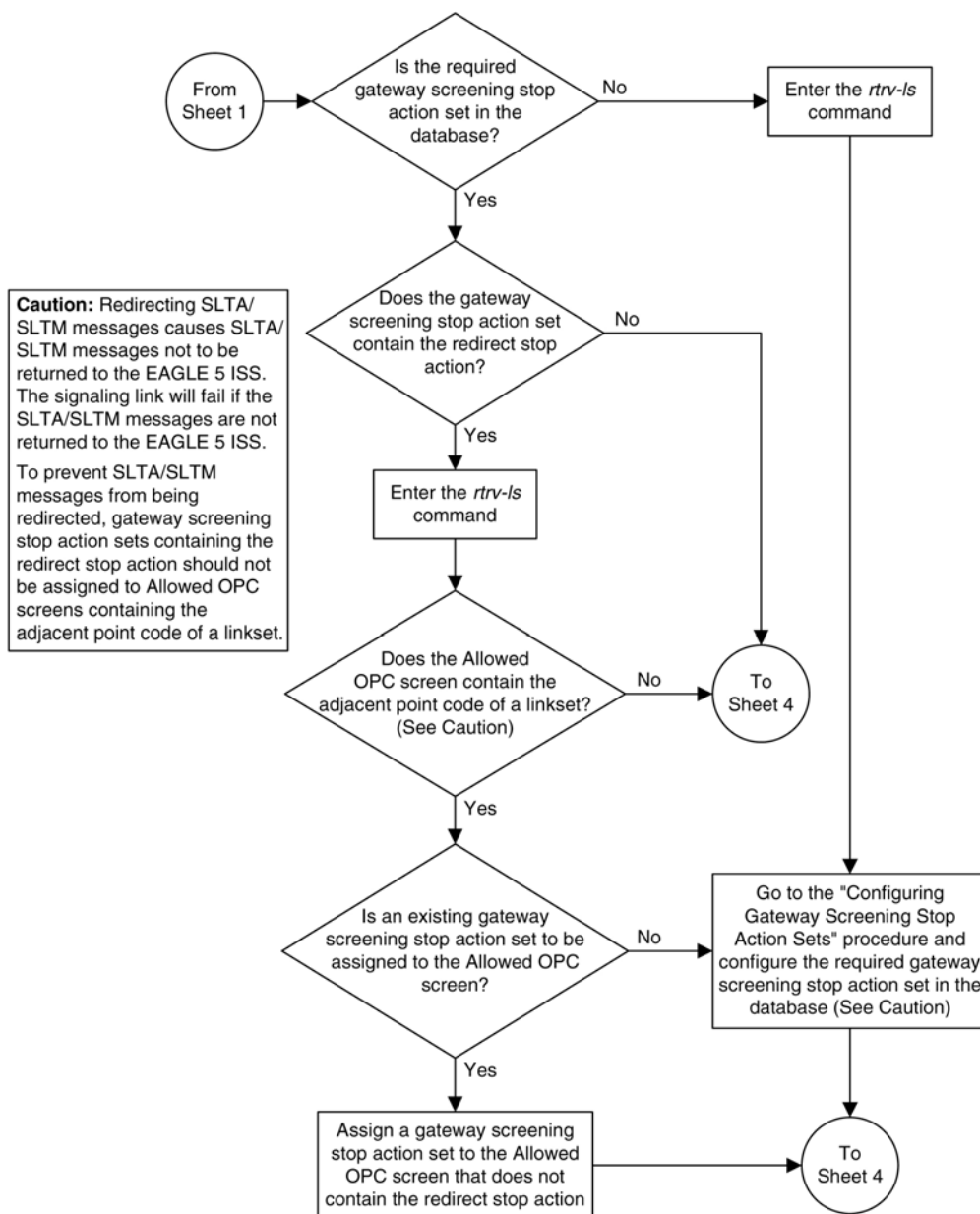
10. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

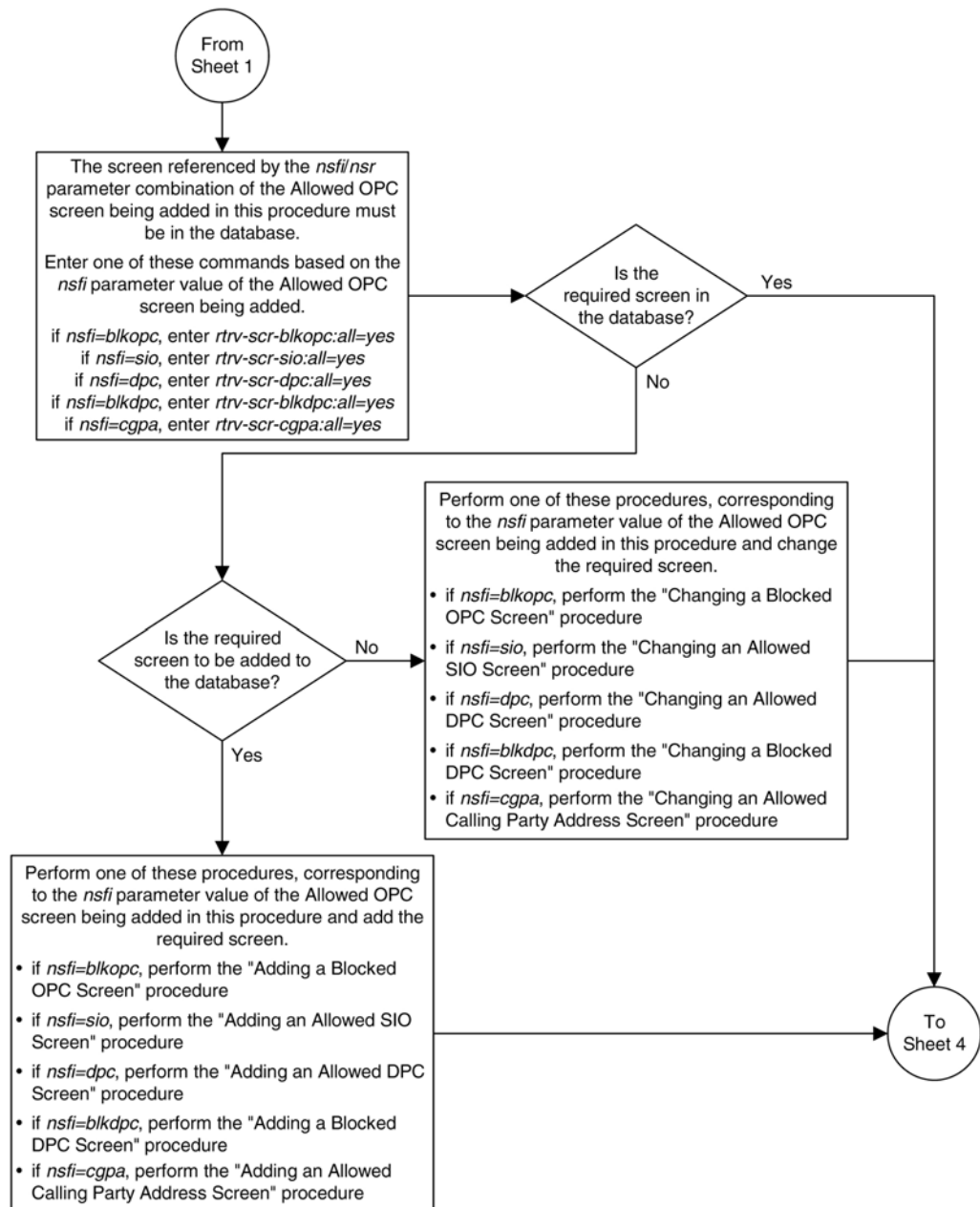
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

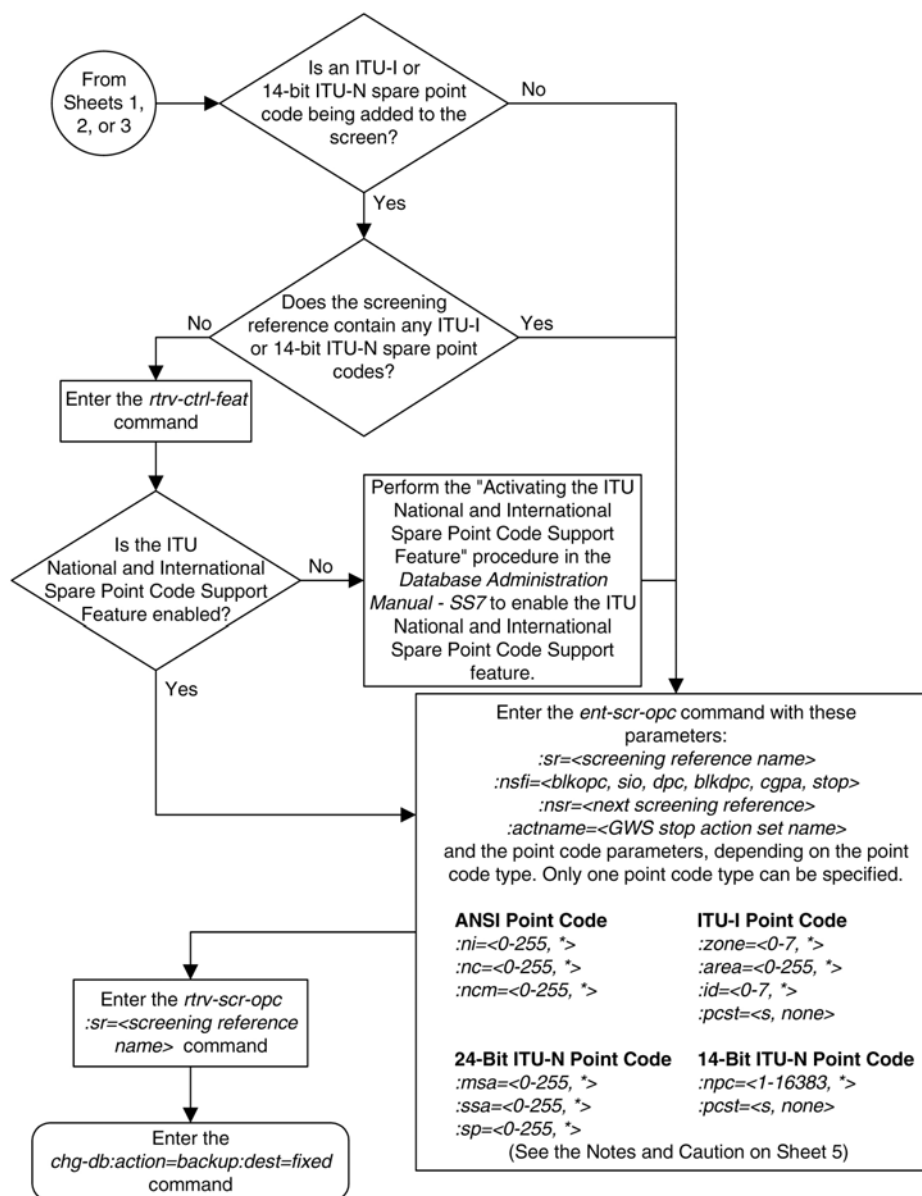
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```

Figure 65: Adding an Allowed OPC Screen









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 in Chapter 2 and the "Specifying a Range of Values" section in this procedure.

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 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.

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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 32 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](#) on page 407 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      NSF1      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 NSF1 of any of the screen sets, perform the [Changing a Screen Set](#) on page 407 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

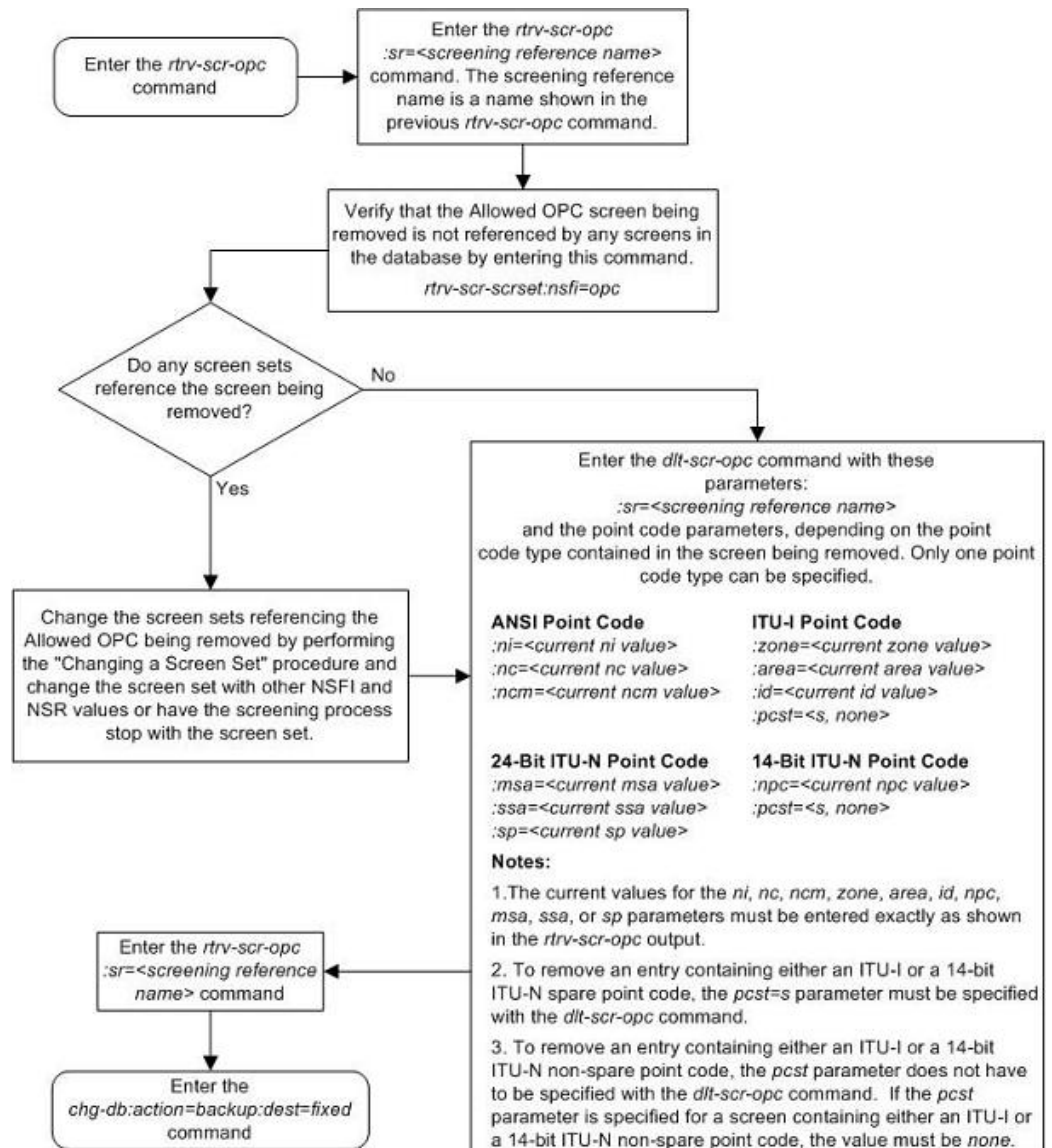
in step 3, the `rtrv-scr-opc:sr=` command output would show the remaining entries in the screening reference instead of error message E2573.

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 66: 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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 32 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](#) on page 334
- [Adding an Allowed SIO Screen](#) on page 309
- [Adding an Allowed DPC Screen](#) on page 274
- [Adding a Blocked DPC Screen](#) on page 240
- [Adding an Allowed Calling Party Address Screen](#) on page 182
- [Changing a Blocked OPC Screen](#) on page 351
- [Changing an Allowed SIO Screen](#) on page 321
- [Changing an Allowed DPC Screen](#) on page 290
- [Changing a Blocked DPC Screen](#) on page 256
- [Changing an Allowed Calling Party Address Screen](#) on page 196

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 76: Valid Value Combinations for ANSI Point Code Parameters](#) on page 385 shows the valid combinations of these parameter values.

Table 76: 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 77: Valid Value Combinations for ITU-I Point Code Parameters](#) on page 385 shows the valid combinations of the ITU-I parameter values. [Table 78: Valid Value Combinations for 24-Bit ITU-N Point Code Parameters](#) on page 386 shows the valid combinations of the 24-bit ITU-N parameter values.

Table 77: Valid Value Combinations for ITU-I Point Code Parameters

ZONE	AREA	ID
Single Value	Single Value	Single Value

ZONE	AREA	ID
Single Value	Single Value	Asterisk
Single Value	Asterisk	Asterisk
Asterisk	Asterisk	Asterisk

Table 78: 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=wr2
```

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    cnf    cnf
5    cpcnf  copy cnf
6    cnf    rdct
7    cpcnf  copy cnf 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](#) on page 61 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
LSN      APCA  (SS7)  SCRNL3T SLT  BEI LST LNKS  GWS GWS GWS
ele2     001-207-000 none 1 1 no B 6 off off off SLSCI NIS
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
elm1s1   001-001-001 none 1 1 no A 7 off off off no off
elm1s2   001-001-002 none 1 1 no A 7 off off off no off
```

```
                                L3T SLT
LSN      APCI  (SS7)  SCRNL3T SLT  BEI LST LNKS  GWS GWS GWS
ele2i    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
elm2s1   1-011-1 none 1 1 no A 7 off off off --- off
elm2s2   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](#) on page 384 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](#) on page 384 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”](#) on page 384 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=wr2:ni=243:nc=015:ncm=001:nni=230:nc=230
:ncm=230:nsfi=blkopc:nsr=wr2
```

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 - WR2 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=wrld2
```

The following is an example of the possible output.

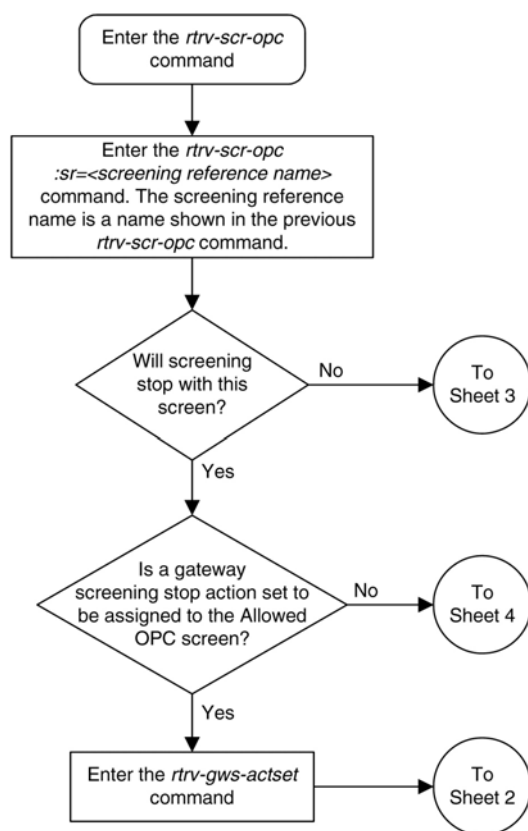
```
rlghncxa03w 06-10-25 15:28:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED OPC
SR      NI      NC      NCM      NSF1      NSR/ACT
WRD2    230     230     230     BLKOPC    WRD6
```

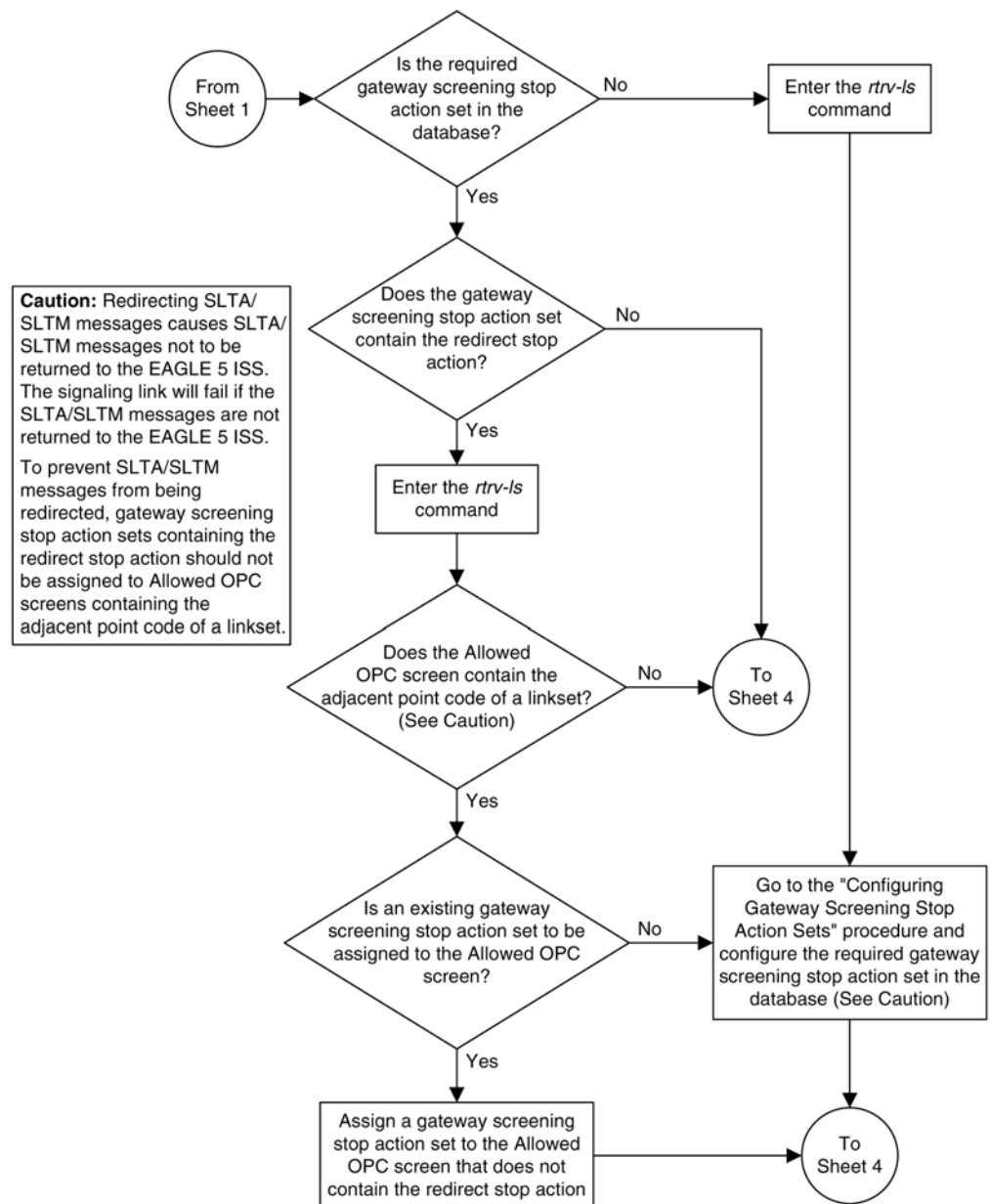
8. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

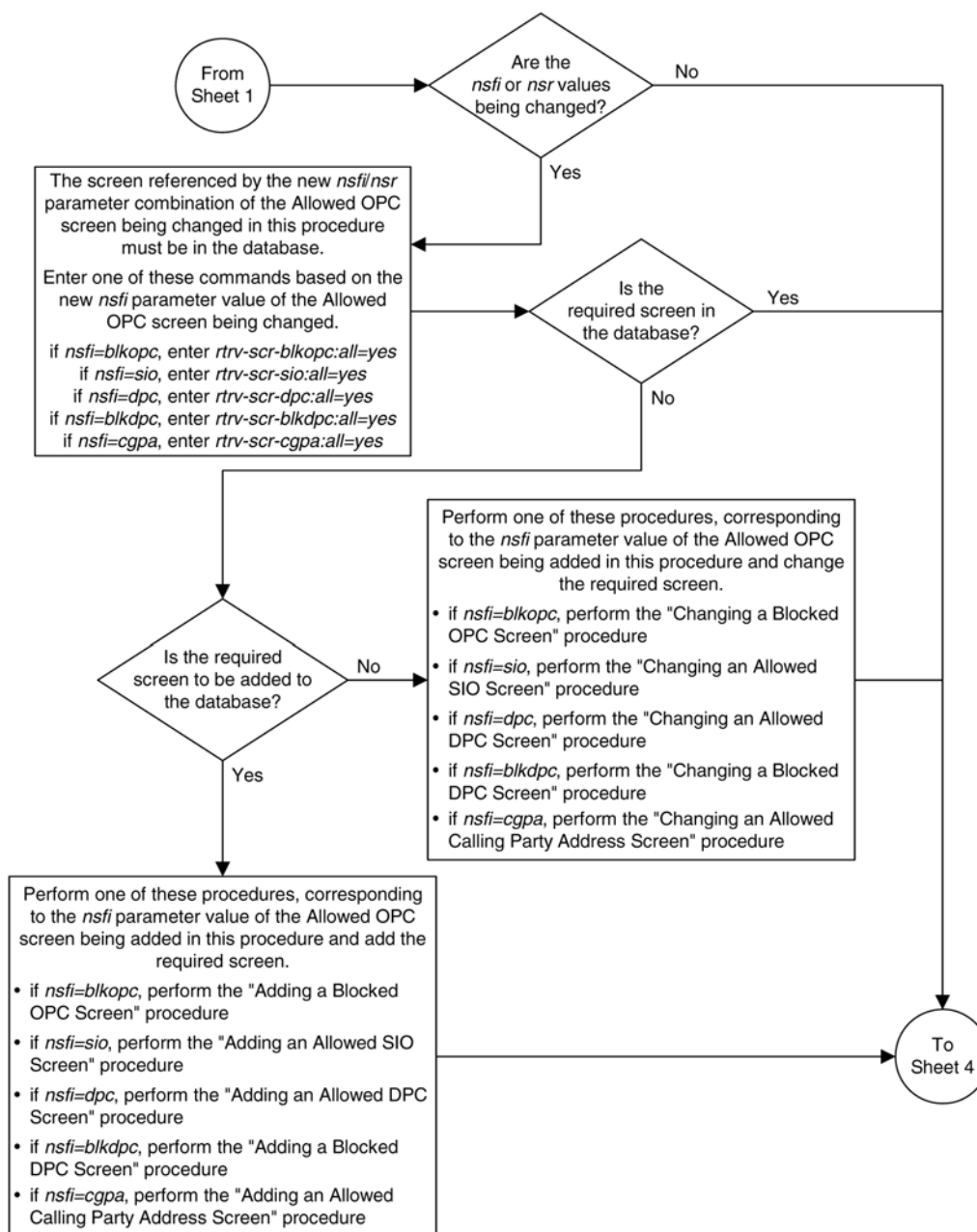
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

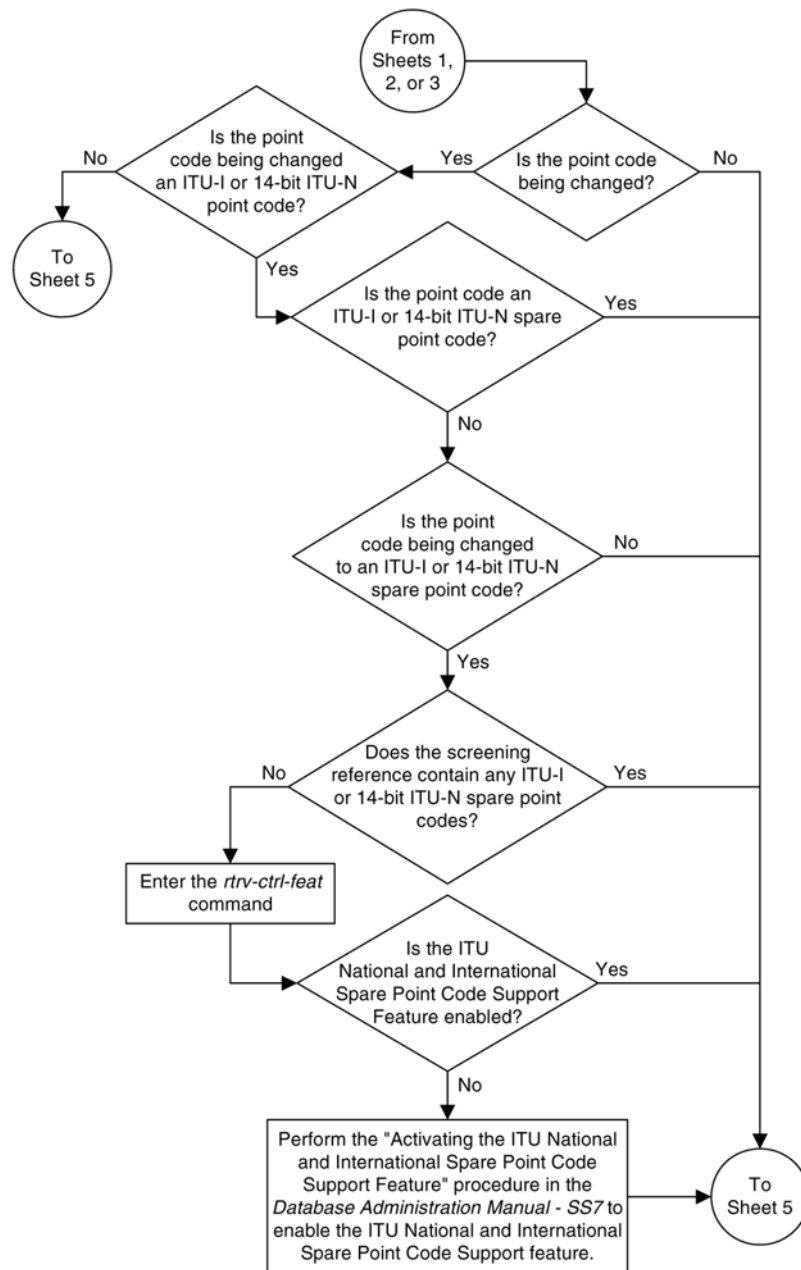
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.
```

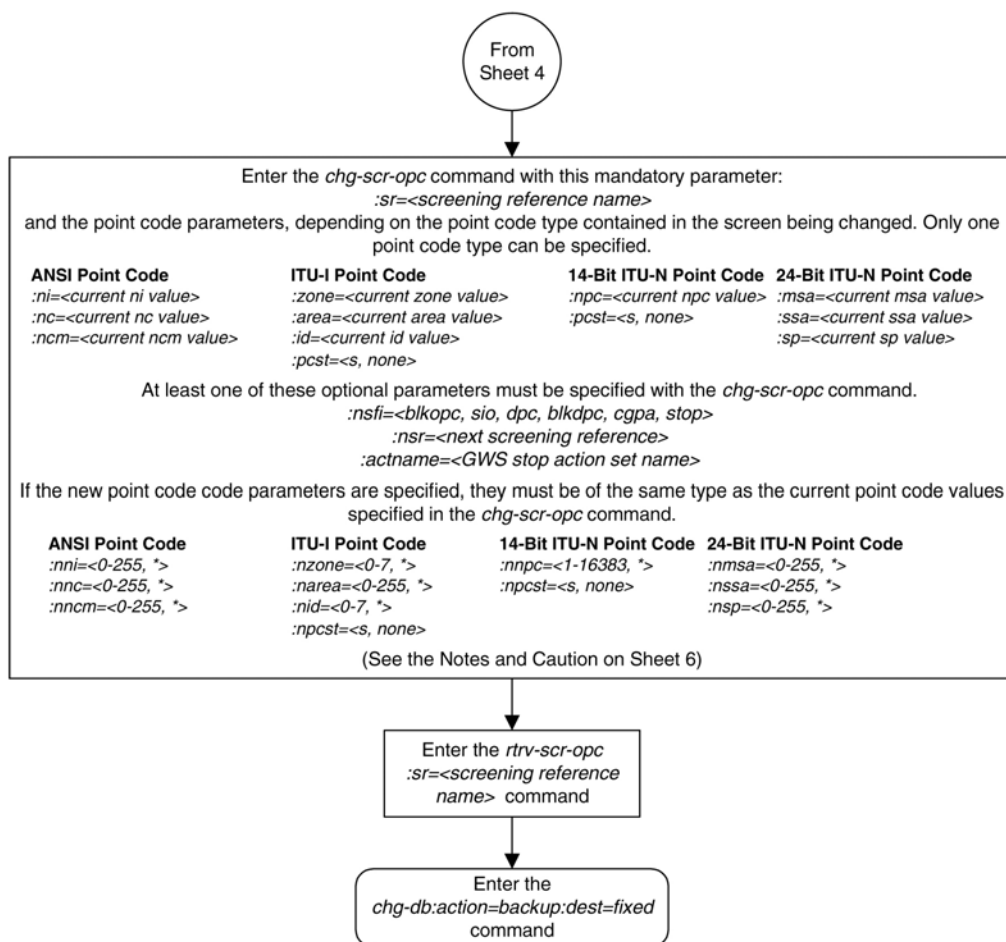
Figure 67: Changing an Allowed OPC Screen











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 in Chapter 2 and the "Specifying a Range of Values" section in this procedure.

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/SLTM 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.

Chapter 13

Screen Set Configuration

Topics:

- [*Introduction Page 398*](#)
- [*Automatic Destination Field Screening Page 398*](#)
- [*Adding a Screen Set Page 398*](#)
- [*Removing a Screen Set Page 405*](#)
- [*Changing a Screen Set Page 407*](#)

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](#) on page 95 through [Allowed Originating Point Code \(OPC\) Screen Configuration](#) on page 363. 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](#) on page 17 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 39: Allowed Affected Destination Field Screening Function](#) on page 213) 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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 405 procedure. To change an existing screen set, perform the [Changing a Screen Set](#) on page 407 procedure.

The examples in this procedure are used to add the screen set data shown in [Table 79: Example Gateway Screening Screen Set Configuration Table](#) on page 399 and based on the example configurations shown in [Figure 4: Gateway Screening Configuration - Example 1](#) on page 40 through [Figure 10: Gateway Screening Configuration - Example 7](#) on page 49.

Table 79: 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](#) on page 368
- [Adding a Blocked OPC Screen](#) on page 334
- [Adding an Allowed SIO Screen](#) on page 309
- [Adding an Allowed DPC Screen](#) on page 274
- [Adding a Blocked DPC Screen](#) on page 240
- [Changing an Allowed OPC Screen](#) on page 384
- [Changing a Blocked OPC Screen](#) on page 351
- [Changing an Allowed SIO Screen](#) on page 321

- [Changing an Allowed DPC Screen](#) on page 290
- [Changing a Blocked DPC Screen](#) on page 256

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
-----
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    cnf       cnf
5    cpcnf     copy cnf
6    cnf       cnf rdct
7    cpcnf     copy cnf 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](#) on page 61 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](#) on page 399 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](#) on page 399 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=wrld: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=ispl:nsfi=opc:nsr=ispl: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
ispl  OPC       ispl      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
```

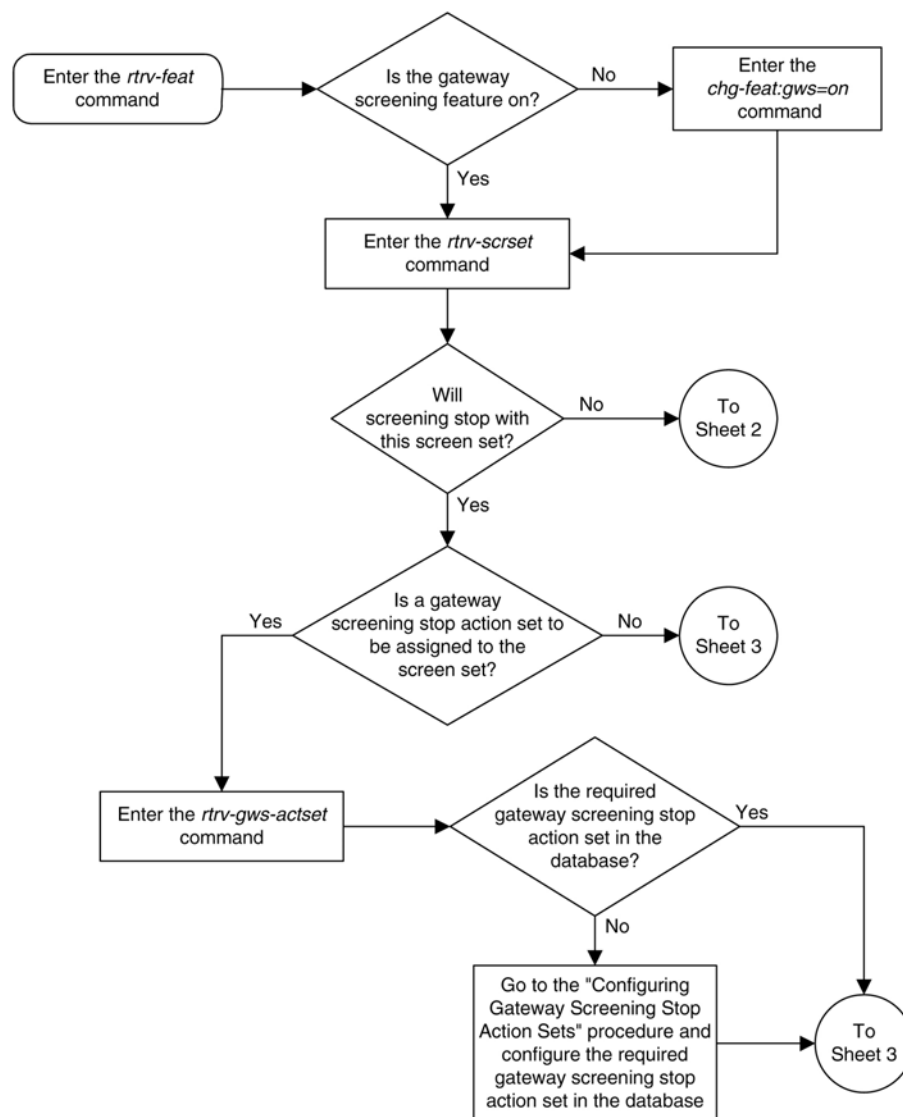
ss28	OPC	opc1	51%	2075	22	YES
tup1	OPC	tup1	1%	8	5	NO
wrd1	DPC	iec	1%	6	5	YES

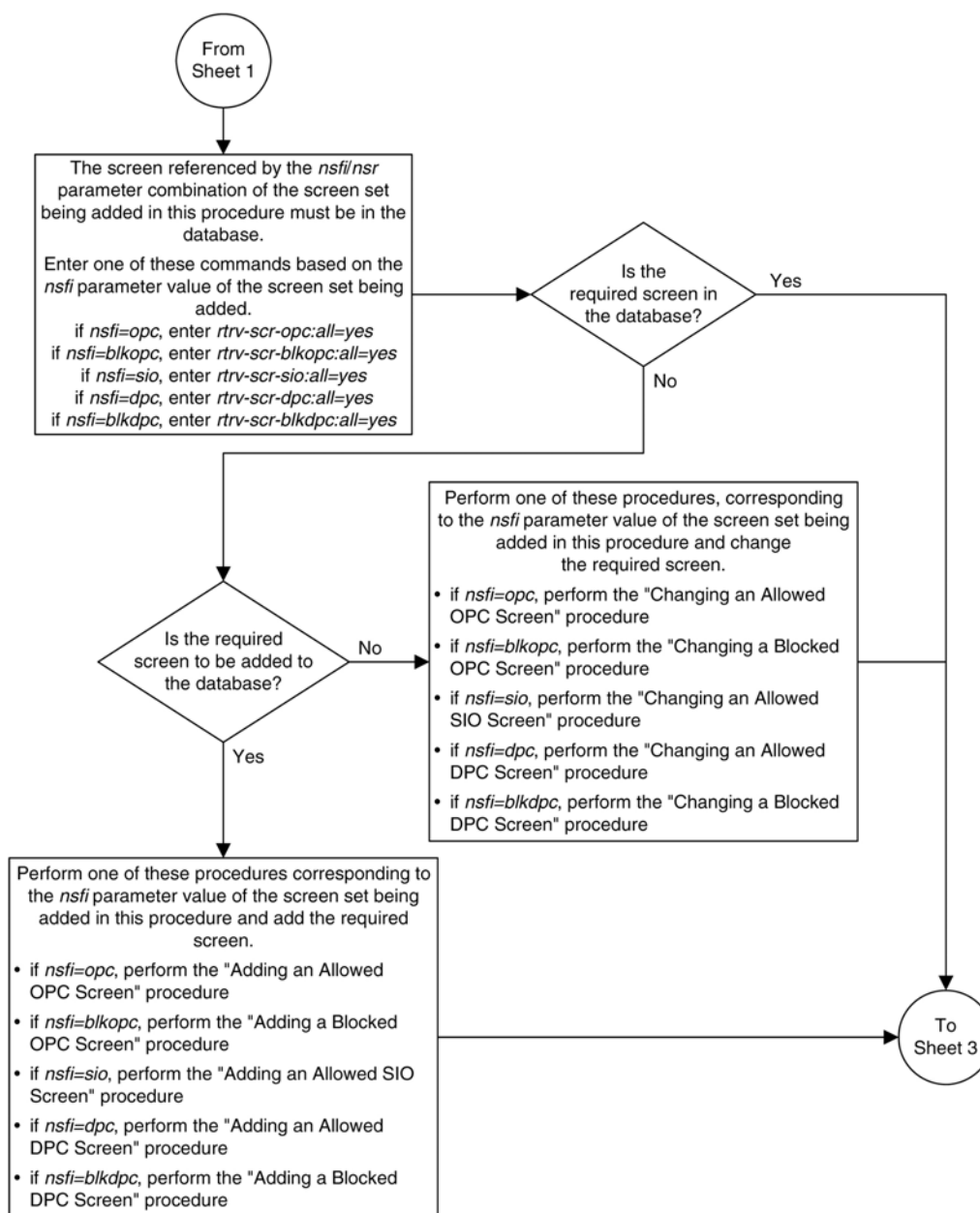
- Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

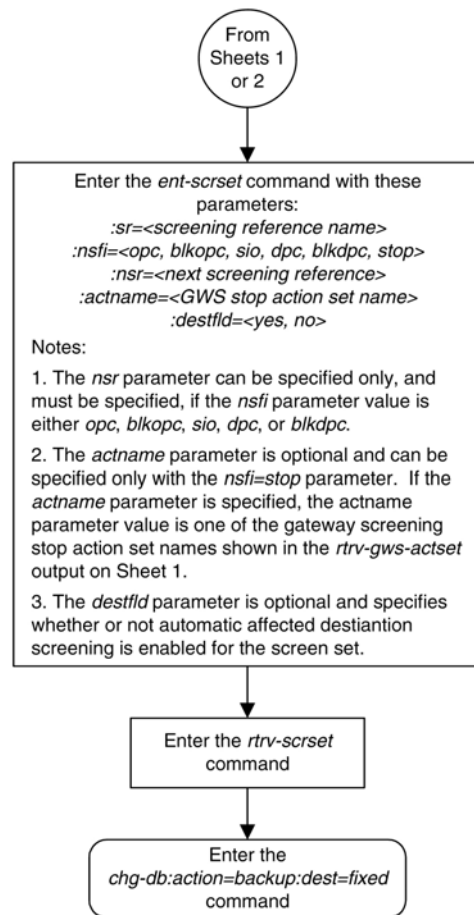
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
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: 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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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
wrld1	DPC	iec	1%	6	5	YES

- 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* or the “Changing an X.25 Linkset” procedure in the *Database Administration Manual – Features* and change the `scrn` parameter to reference another screen set, or to none to remove the reference to the screen set.

- 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
```

- 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
```

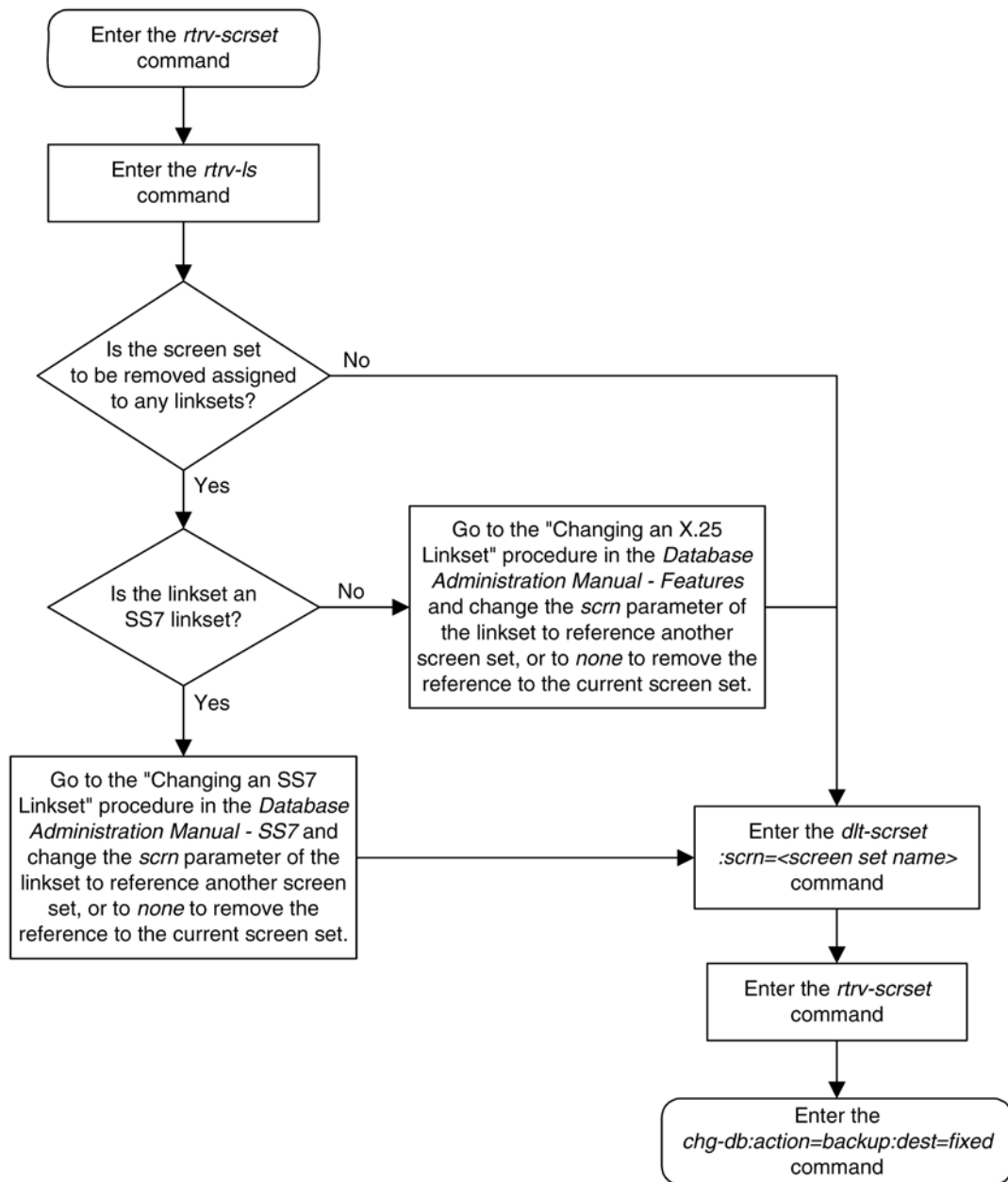
This message shows that the specified screen set name is not in the database and the action of the `dlt-scrset` command in step 3 was successful.

- 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 69: 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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 368
- [Adding a Blocked OPC Screen](#) on page 334
- [Adding an Allowed SIO Screen](#) on page 309
- [Adding an Allowed DPC Screen](#) on page 274
- [Adding a Blocked DPC Screen](#) on page 240
- [Changing an Allowed OPC Screen](#) on page 384
- [Changing a Blocked OPC Screen](#) on page 351
- [Changing an Allowed SIO Screen](#) on page 321
- [Changing an Allowed DPC Screen](#) on page 290
- [Changing a Blocked DPC Screen](#) on page 256

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
-----
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

- 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* or the “Changing an X.25 Linkset” procedure in the *Database Administration Manual – Features* 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.

- 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](#) on page 61 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.

- Enter the commands in the [Verifying the Gateway Screening Configuration](#) on page 408 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](#) on page 408 section to add the desired screen to the database or change an existing screen in the database.

- 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

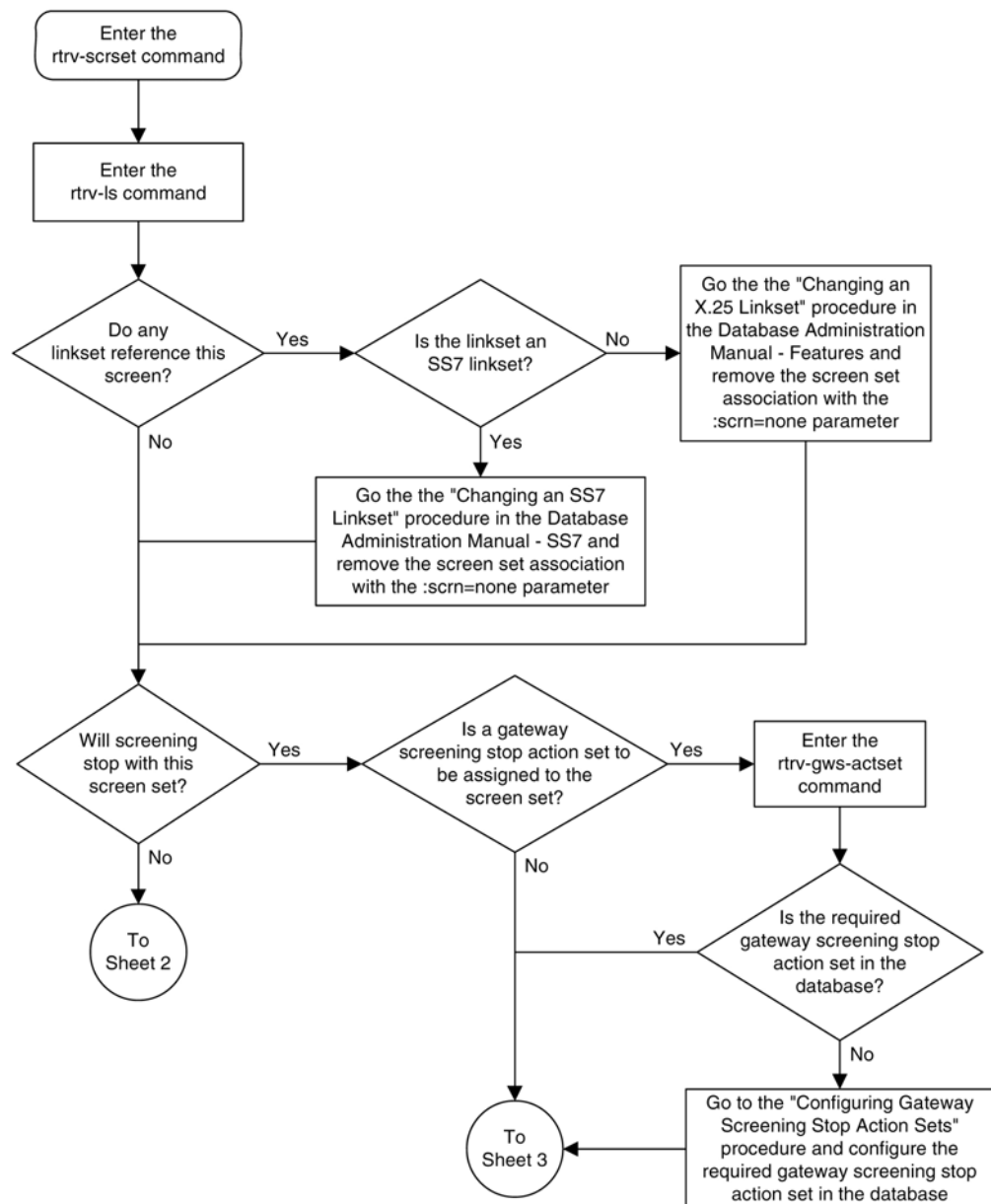
THE FOLLOWING ARE OVER 80% FULL:
SCRN  NSFI      NSR/ACT  FULL  RULES  TABLES  DESTFLD
-----
fld1  OPC       fld2      1%     5      4        NO
gws1  OPC       gws4      1%     9      7        NO
gws2  BLKOPC    gws5      1%     5      4        NO
isp1  OPC       isp1      1%     6      4        NO
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
wrld1 DPC       iec       1%     6      5        YES
```

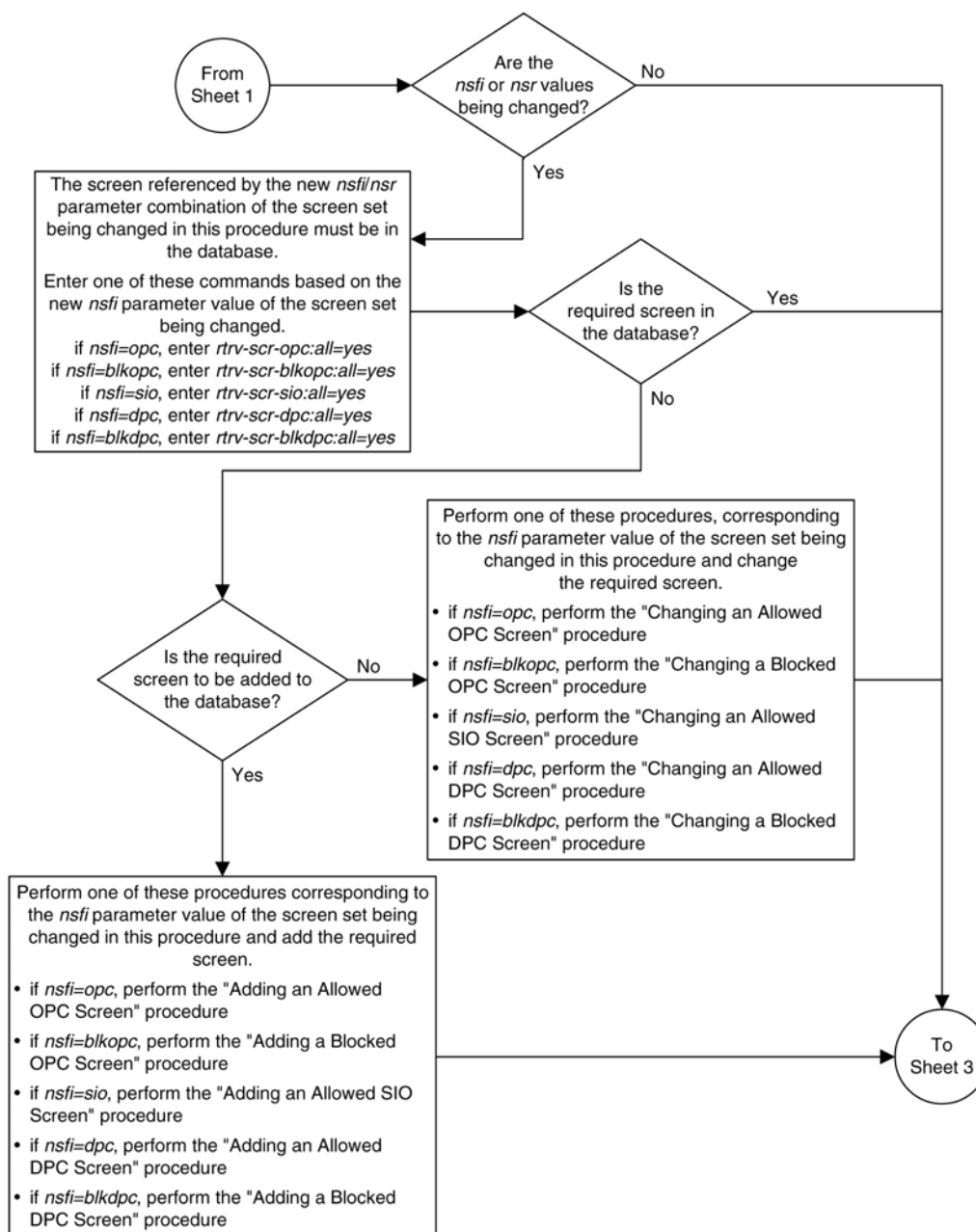
7. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

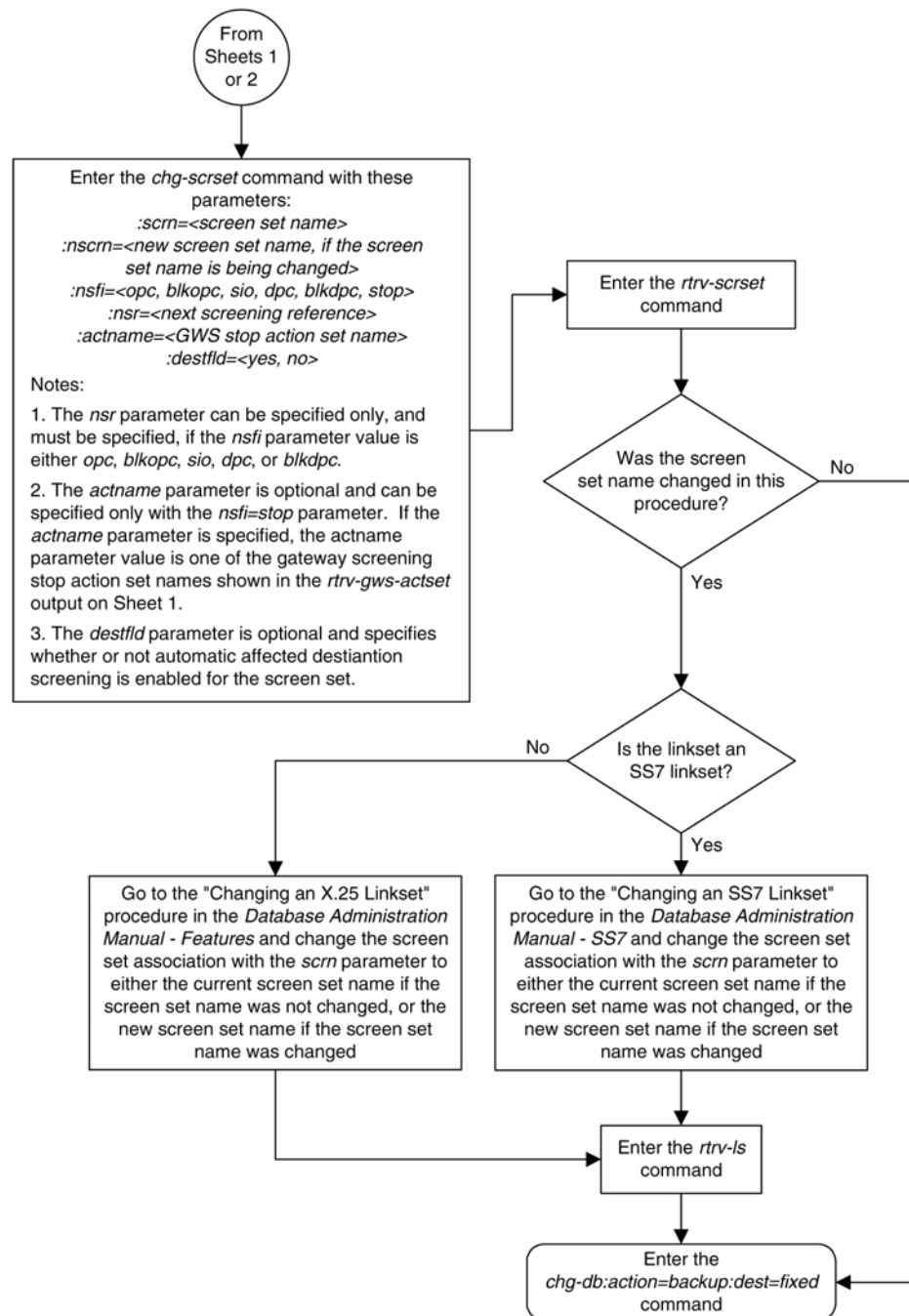
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
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.
```

Figure 70: Changing a Screen Set







Chapter 14

Calling Name Conversion Facility (CNCF) Configuration

Topics:

- [Introduction Page 416](#)
- [Configuring the EAGLE 5 ISS for the CNCF Feature Page 418](#)

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 71: PIP/GN Parameter Conversion](#) on page 416 shows an example network which contains these two separate ISUP versions. Based on this example, [Table 80: ISUP IAM Message Conversion Examples](#) on page 417 shows when the ISUP IAM message conversion by the CNCF feature occurs.

Figure 71: PIP/GN Parameter Conversion

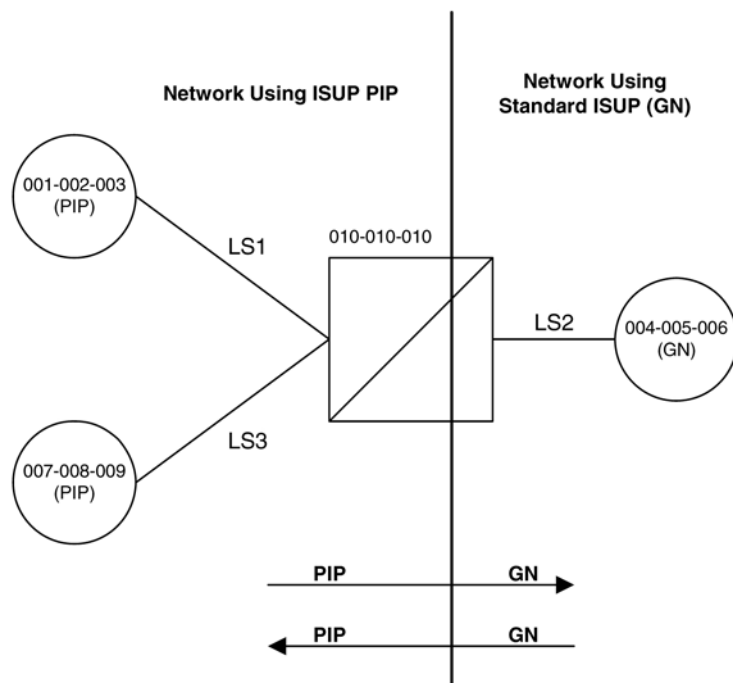


Table 80: ISUP IAM Message Conversion Examples

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 71: PIP/GN Parameter Conversion](#) on page 416, 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.

Messages on X.25 linksets cannot be converted with the CNCF feature.

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 (1st=c parameter of the ent-1s and chg-1s 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 [Figure 72: CNCF Gateway Screening Configuration - Example 1](#) on page 418, [Figure 73: CNCF Gateway Screening Configuration - Example 2](#) on page 419, [Figure 74: CNCF Gateway Screening Configuration - Example 3](#) on page 420, [Figure 75: CNCF Gateway Screening Configuration - Example 4](#) on page 421, [Table 80: ISUP IAM Message Conversion Examples](#) on page 417, [Table 81: Example Gateway Screening Allowed DPC Configuration Table for the CNCF Feature](#) on page 424, [Table 82: Example Gateway Screening Allowed SIO Configuration Table for the CNCF Feature](#) on page 425, [Table 83: Example Gateway Screening Allowed OPC Configuration Table for the CNCF Feature](#) on page 426, [Table 84: Example Gateway Screening Screen Set Configuration Table for the CNCF Feature](#) on page 427, and [Table 85: Linkset Configuration Table for the CNCF Feature](#) on page 428.

Figure 72: CNCF Gateway Screening Configuration - Example 1

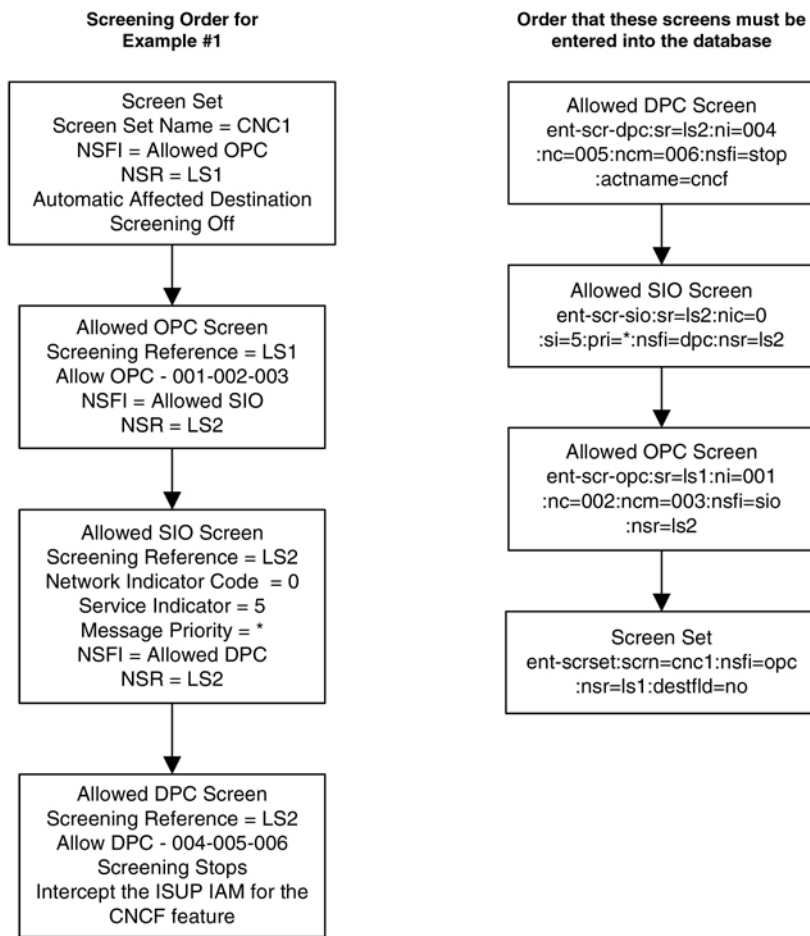


Figure 73: CNCF Gateway Screening Configuration - Example 2

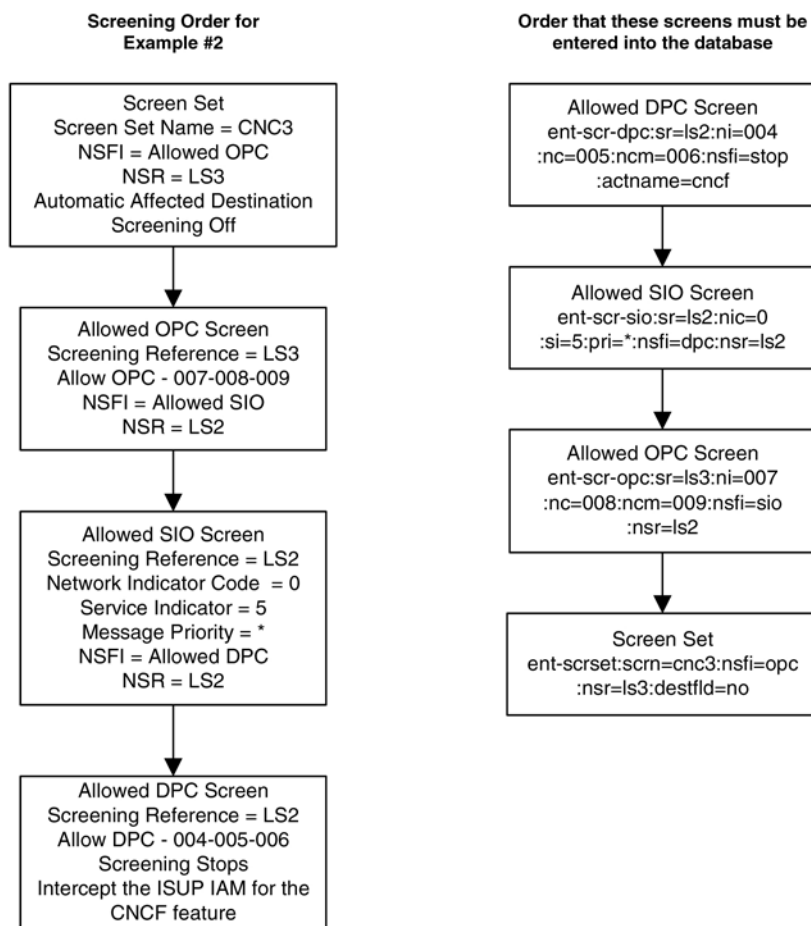


Figure 74: CNCF Gateway Screening Configuration - Example 3

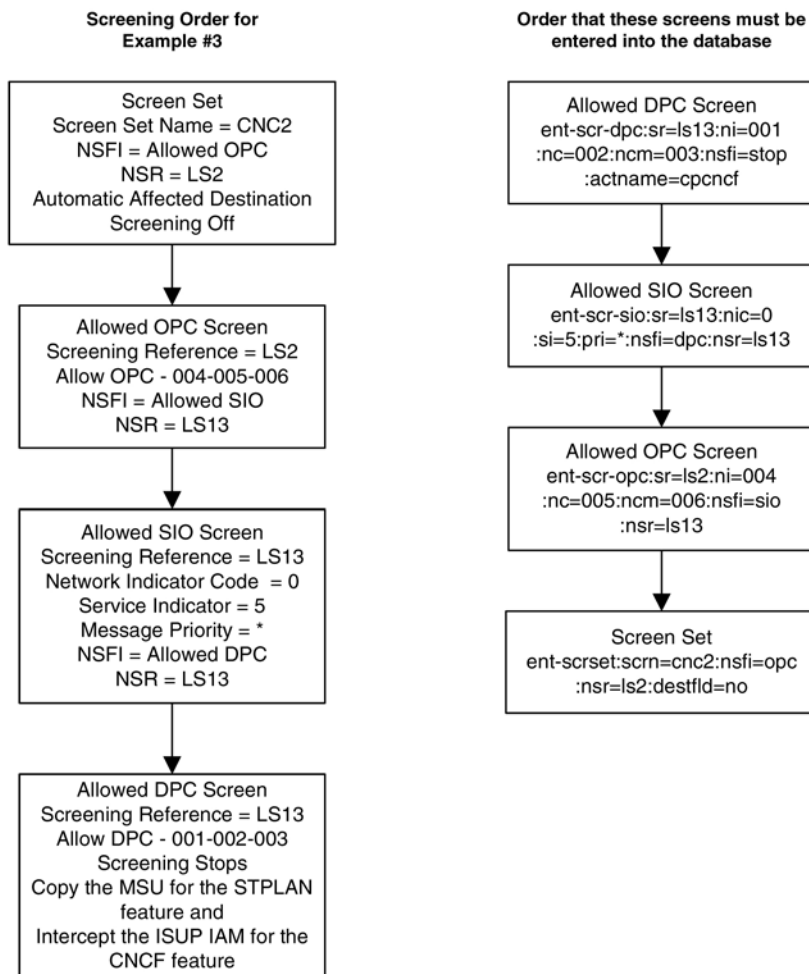
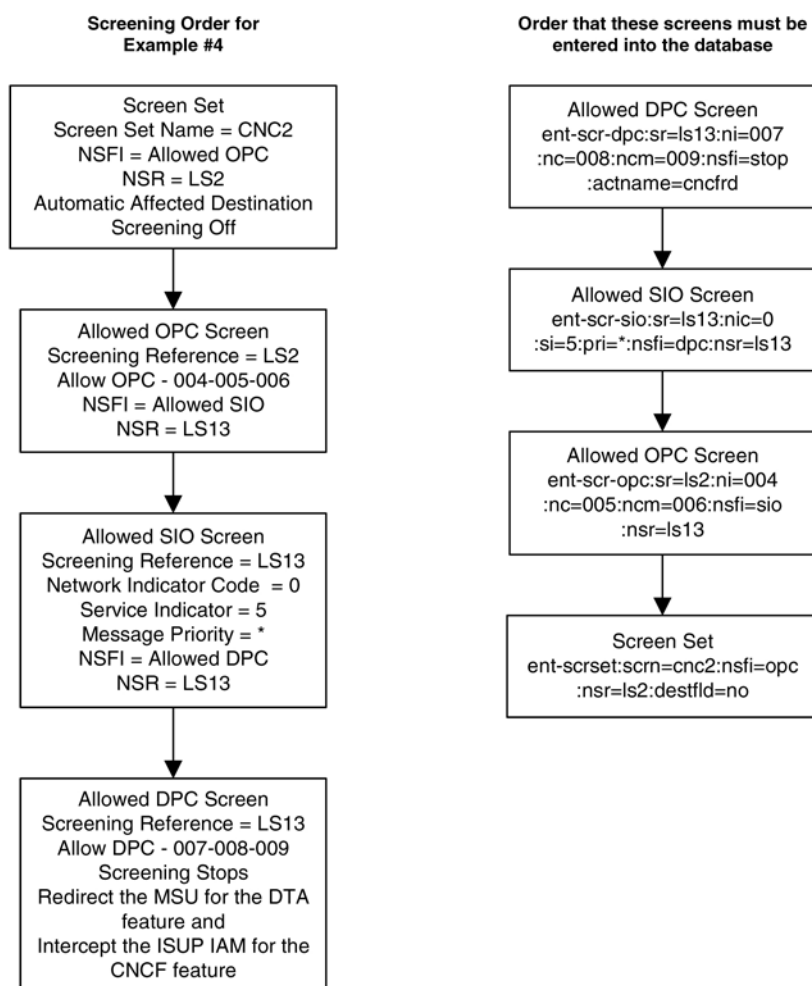


Figure 75: CNCF Gateway Screening Configuration - Example 4



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 than 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    cpcnfc copy cnfc
6    cn CFRD cn CFRD rdct
7    cpcFRD copy cn CFRD 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](#) on page 61 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      NSF1      NSR/ACT
IEC   240      001      010      STOP      -----
IEC   241      010      *        CGPA      cg04
SR    NPC
IEC   00235
IEC   00240
SR    ZONE    AREA    ID      NSF1      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](#) on page 274 procedure to add the required allowed DPC screen.

For this example, enter the screening information in [Table 81: Example Gateway Screening Allowed DPC Configuration Table for the CNCF Feature](#) on page 424.

Table 81: 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 <code>rtrv-gws-actset</code> 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](#) on page 290 procedure to change an existing allowed DPC screen. For this example, change the screens with the screening information in [Table 81: Example Gateway Screening Allowed DPC Configuration Table for the CNCF Feature](#) on page 424.

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](#) on page 309 procedure to add the required allowed SIO screen.

For this example, enter the screening information in [Table 82: Example Gateway Screening Allowed SIO Configuration Table for the CNCF Feature](#) on page 425.

Table 82: 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](#) on page 321 procedure to change an existing allowed SIO screen. For this example, change the screens with the screening information in [Table 82: Example Gateway Screening Allowed SIO Configuration Table for the CNCF Feature](#) on page 425.

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
IEC   00235
IEC   00240
IEC   00240
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](#) on page 368 procedure to add the required allowed OPC screen.

For this example, enter the screening information in [Table 83: Example Gateway Screening Allowed OPC Configuration Table for the CNCF Feature](#) on page 426.

Table 83: 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](#) on page 384 procedure to change an existing allowed OPC screen. For this example, change the screens with the screening information in [Table 83: Example Gateway Screening Allowed OPC Configuration Table for the CNCF Feature](#) on page 426.

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](#) on page 398 procedure to add the required screen set.

For this example, enter the screening information in [Table 84: Example Gateway Screening Screen Set Configuration Table for the CNCF Feature](#) on page 427.

Table 84: 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](#) on page 407 procedure to change an existing screen set. For this example, change the screen sets with the screening information in [Table 84: Example Gateway Screening Screen Set Configuration Table for the CNCF Feature](#) on page 427.

13. Display the current linkset configuration using the `rtrv-ls` command.

This is an example of the possible output.

```
rlghncxa03w 06-10-25 15:36:30 GMT EAGLE5 36.0.0
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
LSN	APCA (X25)	SCRN	L3T	SLT				GWS	GWS	GWS		
ls6	244-010-004	scr4	SET	SET	BEI	LST	LNKS	ACT	MES	DIS	SLSCI	NIS
ls7	244-012-005	scr5	1	4	no	A	6	off	off	off	---	off
ls8	244-012-006	scr6	1	5	no	C	3	on	on	on	---	off
			1	6	no	C	8	off	off	off	---	off
LSN	APCI (SS7)	SCRN	L3T	SLT				GWS	GWS	GWS		
lsi1	1-111-1	scr1	SET	SET	BEI	LST	LNKS	ACT	MES	DIS	SLSCI	NIS
lsi2	1-111-2	scr2	1	1	yes	A	1	off	off	off	---	---
lsi3	1-111-3	scr3	1	2	no	C	3	on	on	on	---	---
			1	3	yes	C	5	off	off	off	---	---
LSN	APCN (SS7)	SCRN	L3T	SLT				GWS	GWS	GWS		
lsn1	11111	scr1	SET	SET	BEI	LST	LNKS	ACT	MES	DIS	SLSCI	NIS
lsn2	11112	scr2	1	1	yes	A	1	off	off	off	---	off
lsn3	11113	scr3	1	2	no	C	3	on	on	on	---	off
			1	3	yes	C	5	off	off	off	---	off

Link set table is (12 of 1024) 1% full

- 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 85: Linkset Configuration Table for the CNCF Feature](#) on page 428.

Table 85: 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 85: Linkset Configuration Table for the CNCF Feature](#) on page 428.

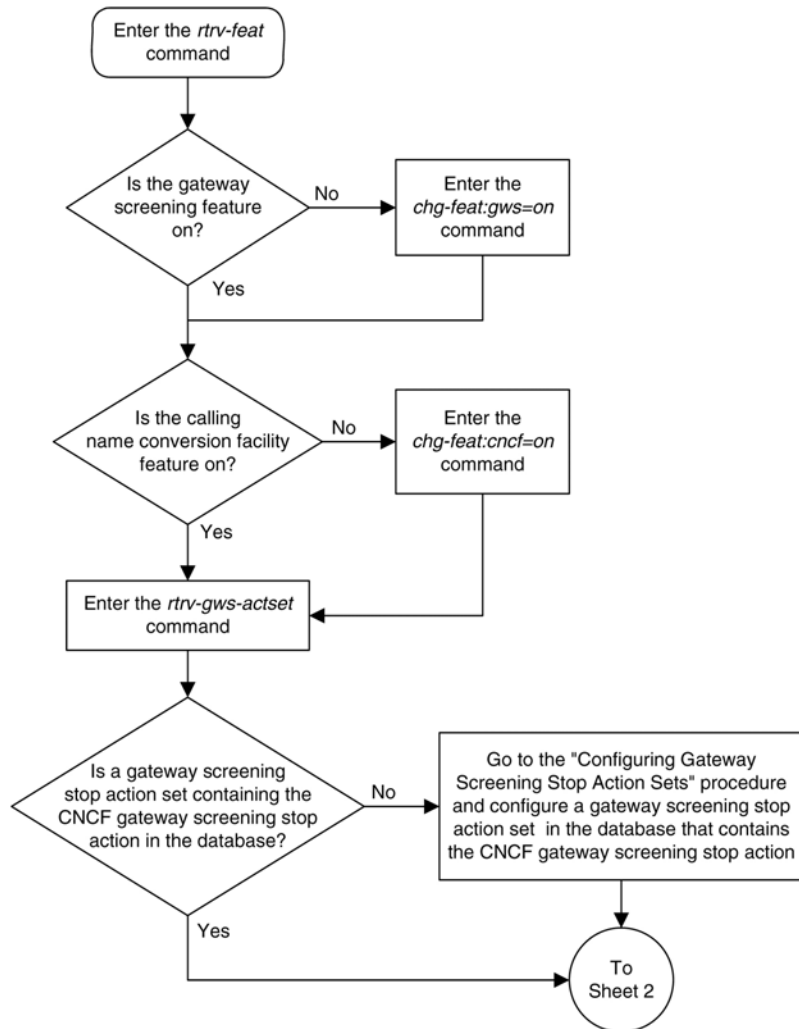
- Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

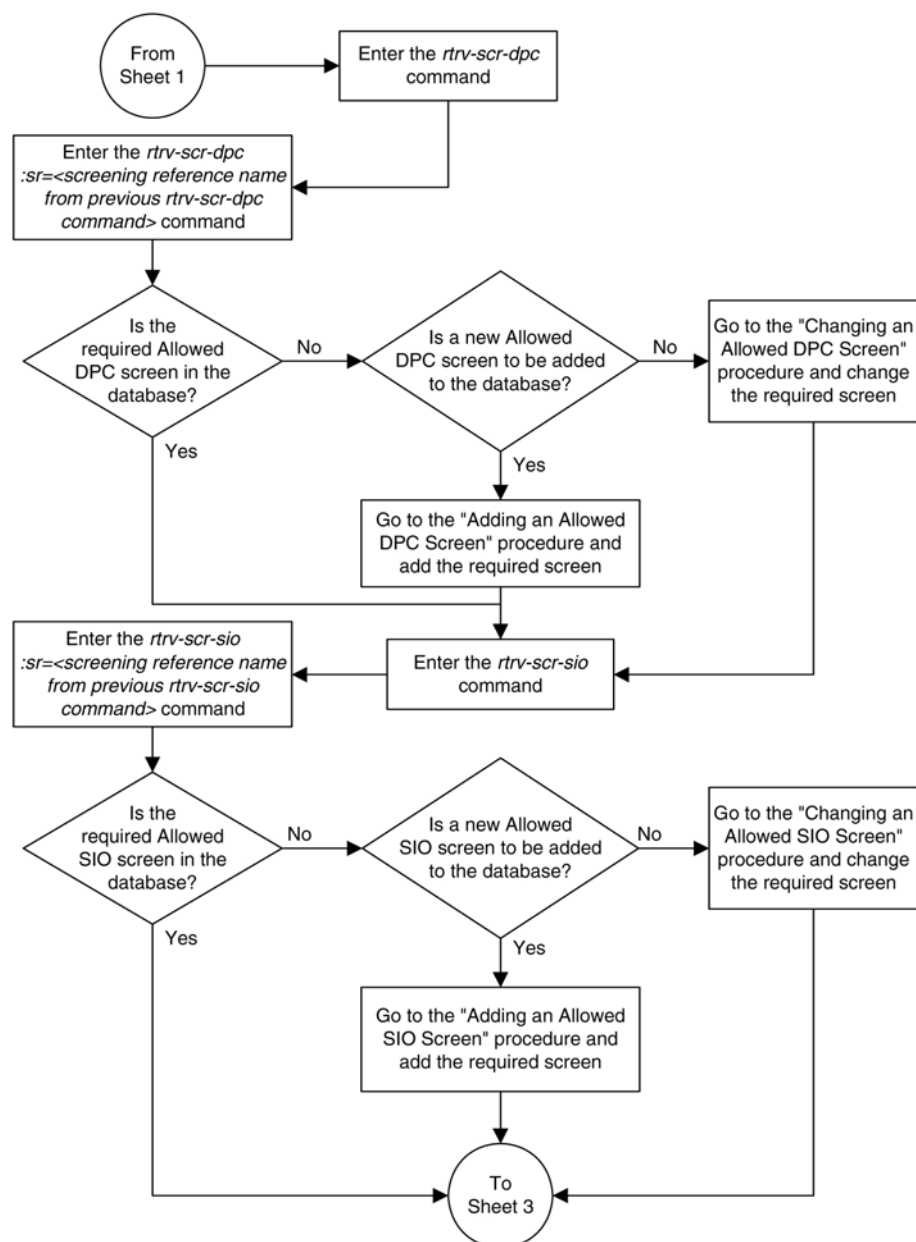
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

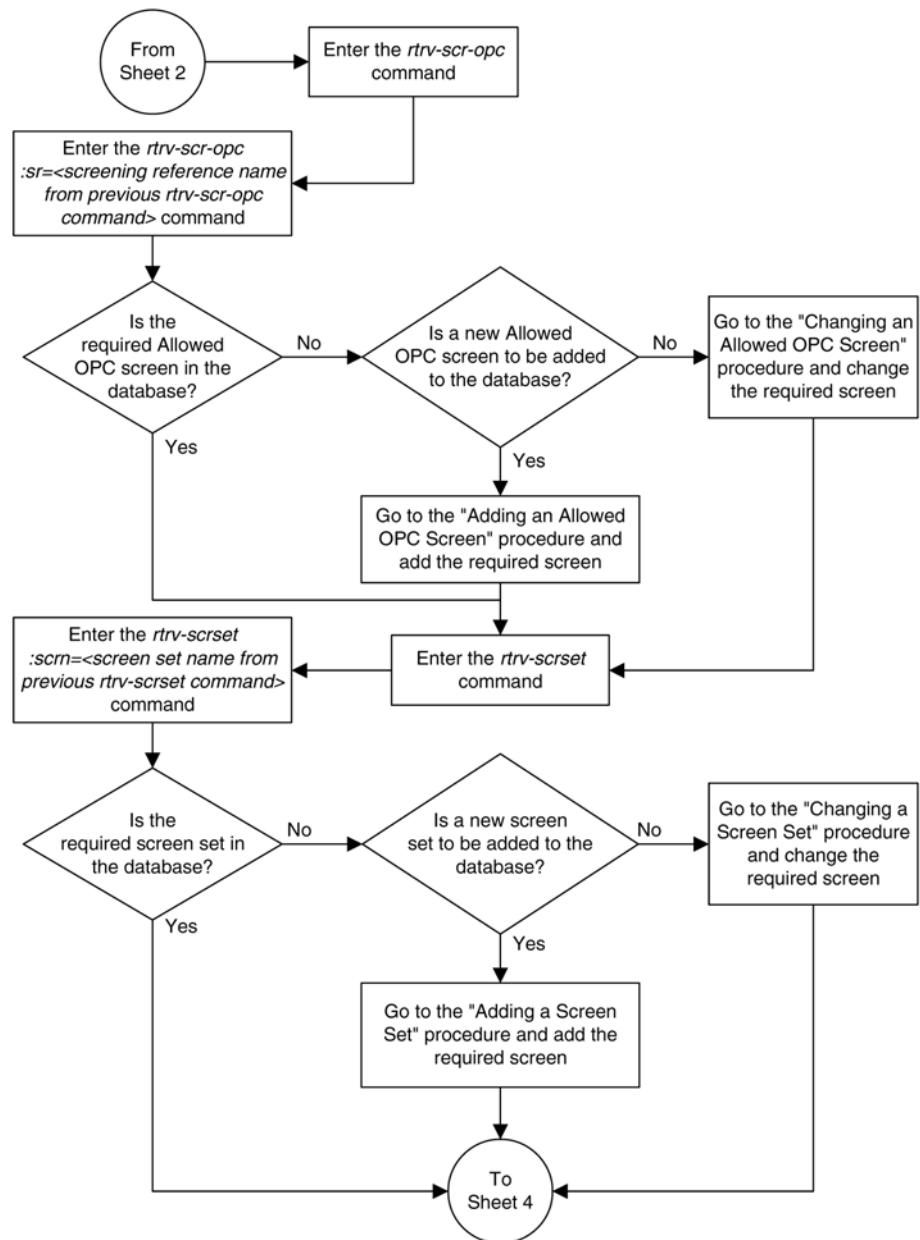
```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.
```

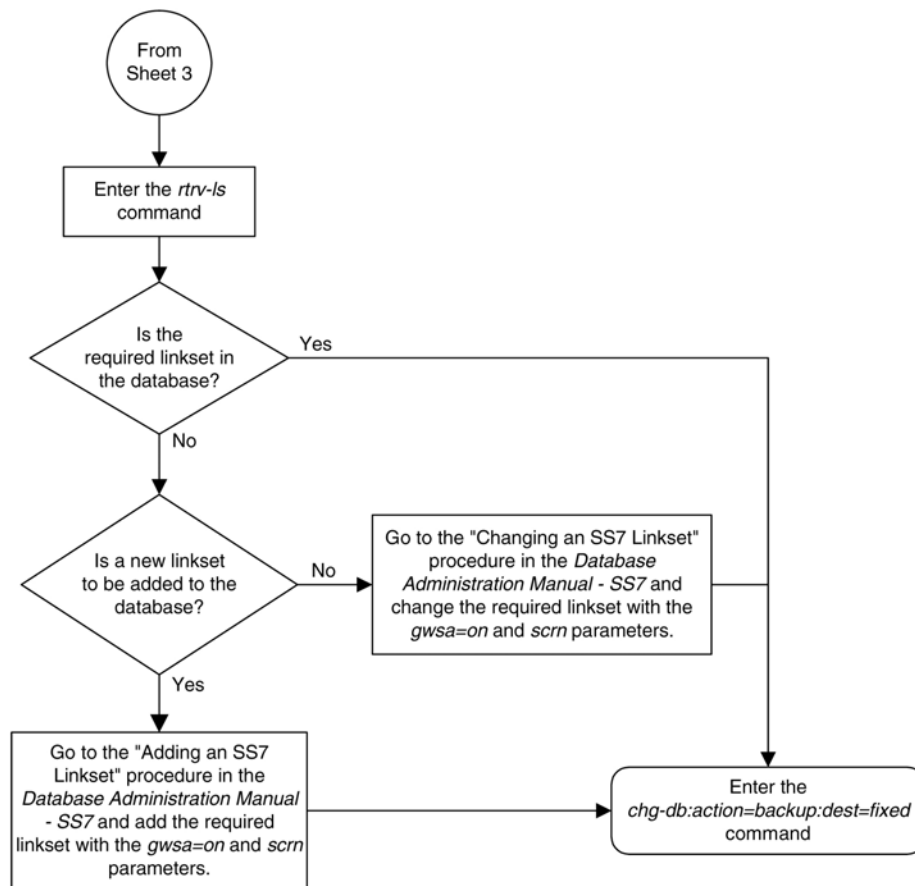
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.

Figure 76: Calling Name Conversion Facility Configuration









Chapter 15

Allowed ISUP Message Type Screen Configuration

Topics:

- [*Introduction Page 434*](#)
- [*Adding an Allowed ISUP Message Type Screen Page 439*](#)
- [*Removing an Allowed ISUP Message Type Screen Page 445*](#)
- [*Changing an Allowed ISUP Message Type Screen Page 448*](#)

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 78: Allowed ISUP Message Type Screening Function](#) on page 438 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](#) on page 415.
- 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 *LNP Feature Activation Guide*.
- If the `tinp` gateway screening stop action is specified, ISUP IAMs that pass gateway screening are intercepted by the Triggerless ISUP based Number Portability (TINP) feature and converted to include the routing number (RN) if the call is to a ported number. The TINP feature is discussed in more detail in the *Feature Manual - G-Port*.
- If the `tif`, `tif2`, or `tif3` gateway screening stop actions are specified, TIF processing is applied to the message.

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
```

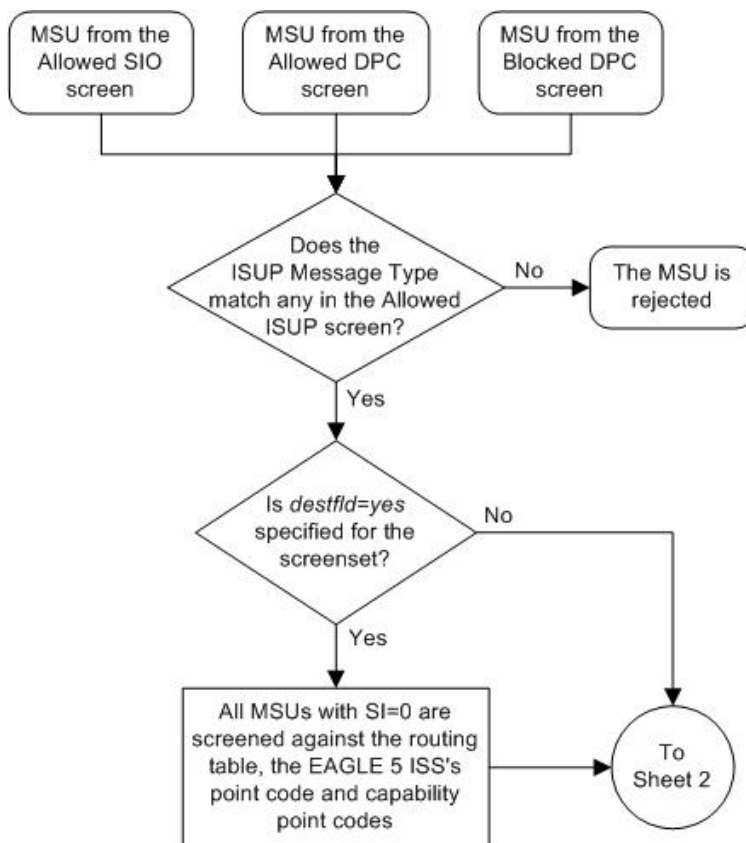
In this example screen set configuration, messages are screened by the allowed SIO screen `si02` for either ISUP or TUP messages. ISUP messages are further screened by the allowed DPC screen `dpc5` and TUP messages are screened by the allowed DPC screen `dpc4`. The ISUP messages containing the ANSI point 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`.

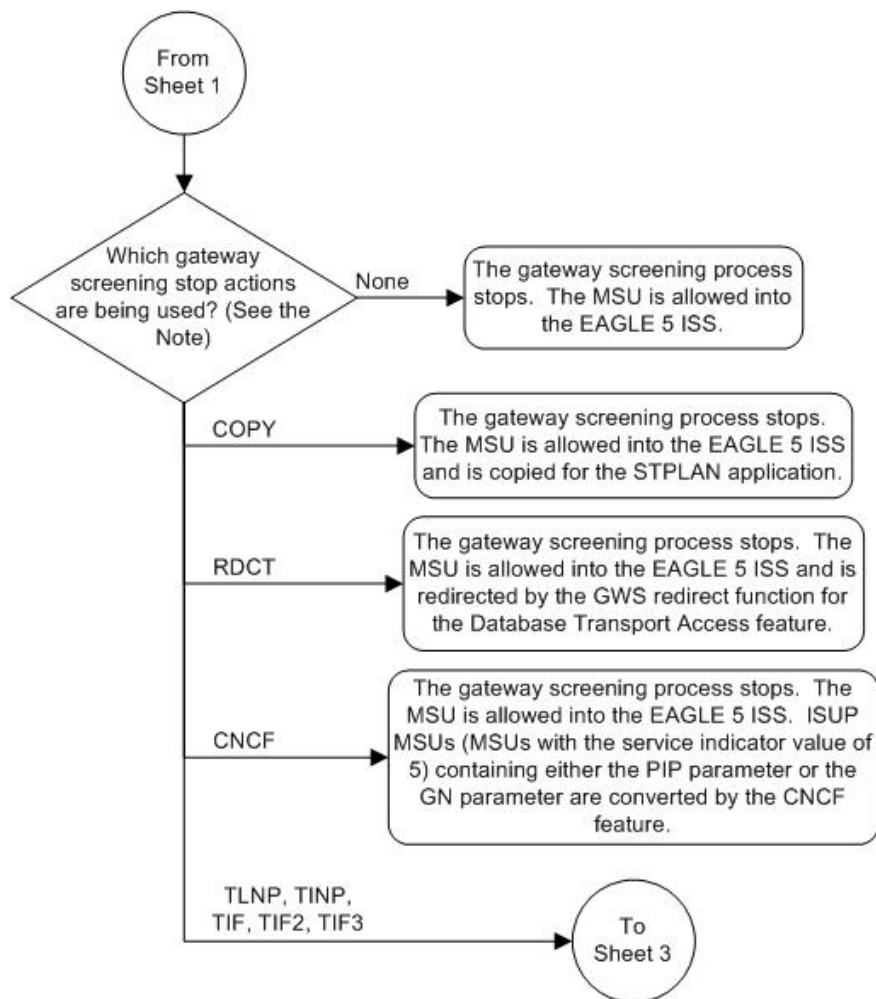
Note: The gateway screening rules are entered in reverse of the order that the screening process takes place.

Allowed ISUP Message Type Screening Actions

Figure 77: Allowed ISUP Message Type Screening Actions on page 435 shows the screening actions of the allowed ISUP message type screen.

Figure 77: Allowed ISUP Message Type Screening Actions





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

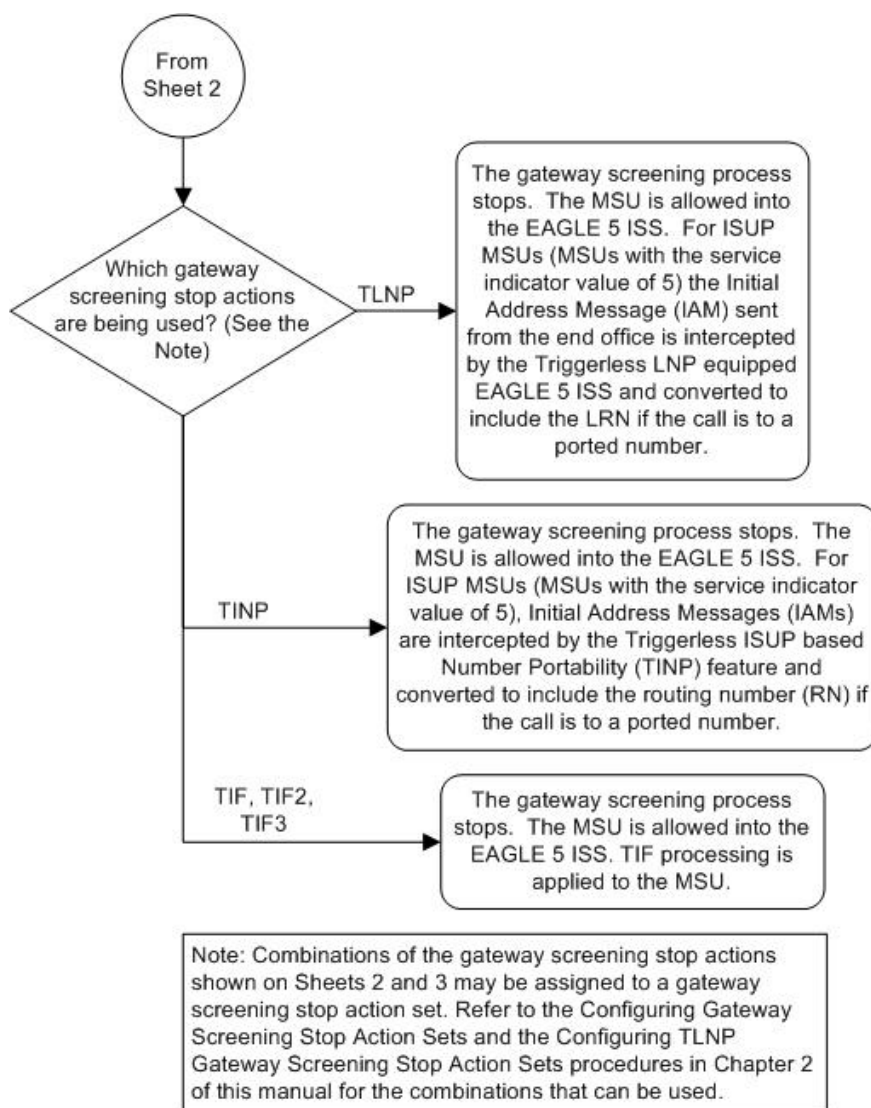


Figure 78: Allowed ISUP Message Type Screening Function

ANSI MSU (ANSI Message Signal Unit)

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF					
		Routing Label		SLS xx	CIC Code	ISUP Message Type	ISUP Data
		DPC NCM NC NI	OPC NCM NC NI				

ITU-I MSU (ITU International Message Signal Unit)

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF					
		Routing Label		SLS xx	CIC Code	ISUP Message Type	ISUP Data
		DPC ID AREA ZONE	OPC ID AREA ZONE				

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

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF					
		Routing Label		SLS xx	CIC Code	ISUP Message Type	ISUP Data
		DPC NPC	OPC NPC				

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

BSN FSN LI	SIO xx xx xxxx NIC PRI SI	SIF					
		Routing Label		SLS xx	CIC Code	ISUP Message Type	ISUP Data
		DPC SP SSA MSA	OPC SP SSA MSA				

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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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 86: Example Gateway Screening Allowed ISUP Configuration Table](#) on page 440 and based on the example

configuration shown in [Figure 9: Gateway Screening Configuration - Example 6](#) on page 48 and [Figure 10: Gateway Screening Configuration - Example 7](#) on page 49.

Table 86: 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    cnf   cnf
5    cpcnf copy cnf
6    cnf   rdct
7    cpcnf copy cnf 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](#) on page 61 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/ TUPMT	NSFI	NSR/ACT
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.

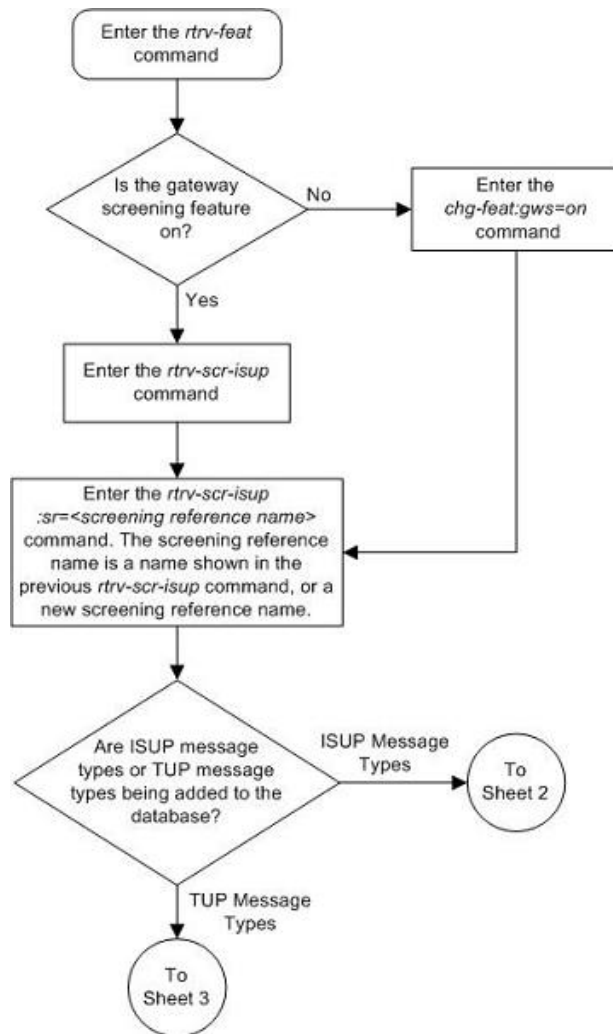
```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED ISUP
SR  ISUPMT/  NSFI  NSR/ACT
    TUPMT
tup1 100      STOP  cr
```

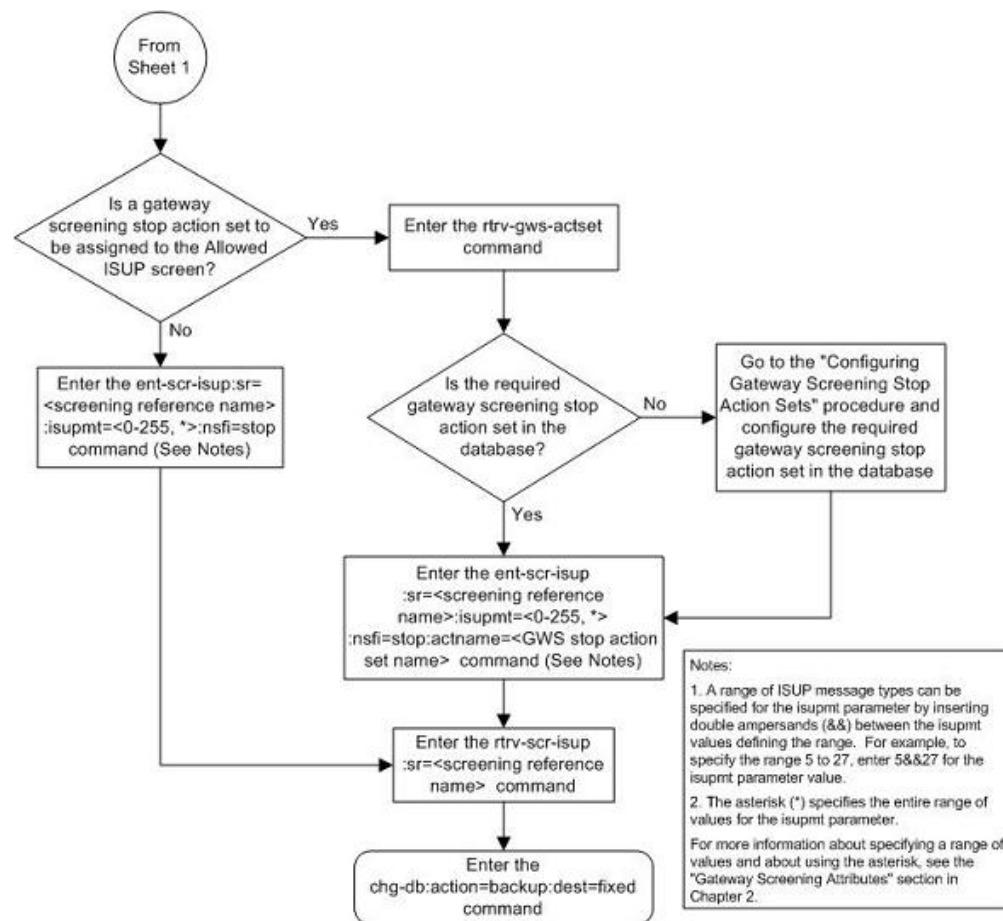
- Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

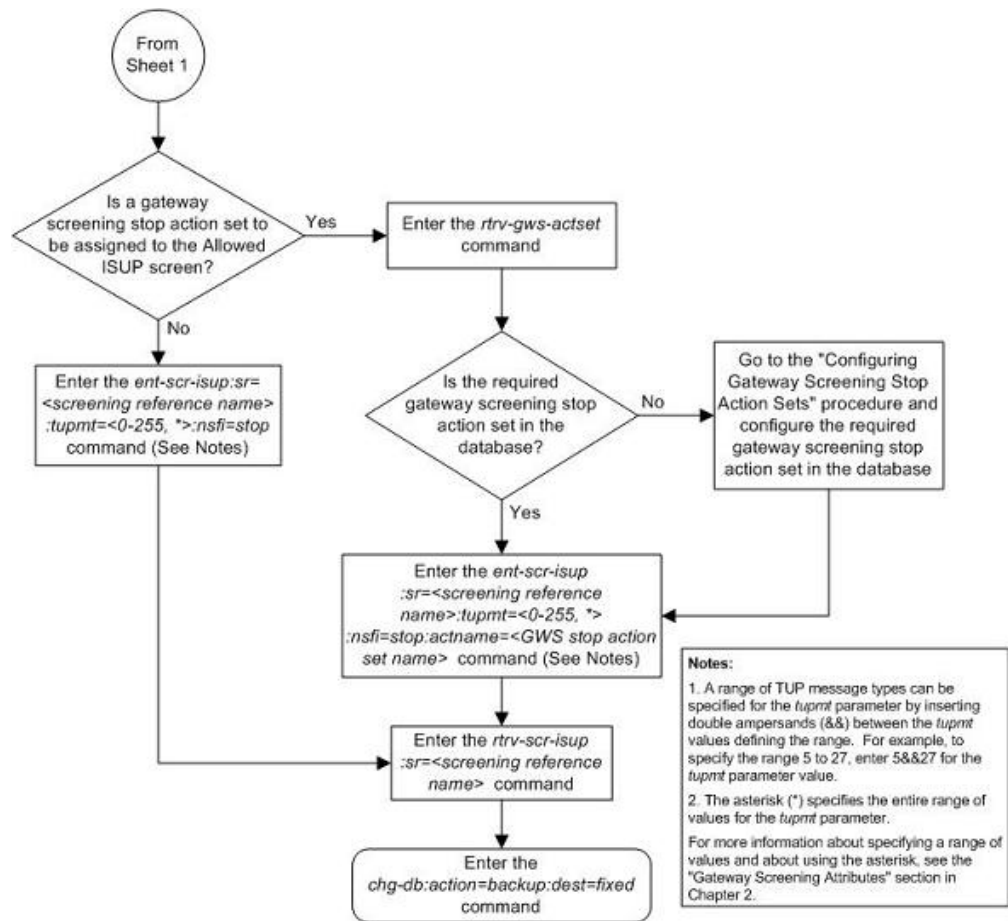
The following messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

```
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 79: 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](#) on page 18 section. The general rules that apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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](#) on page 321
- [Changing an Allowed DPC Screen](#) on page 290
- [Changing a Blocked DPC Screen](#) on page 256

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](#) on page 446 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](#) on page 446 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
```

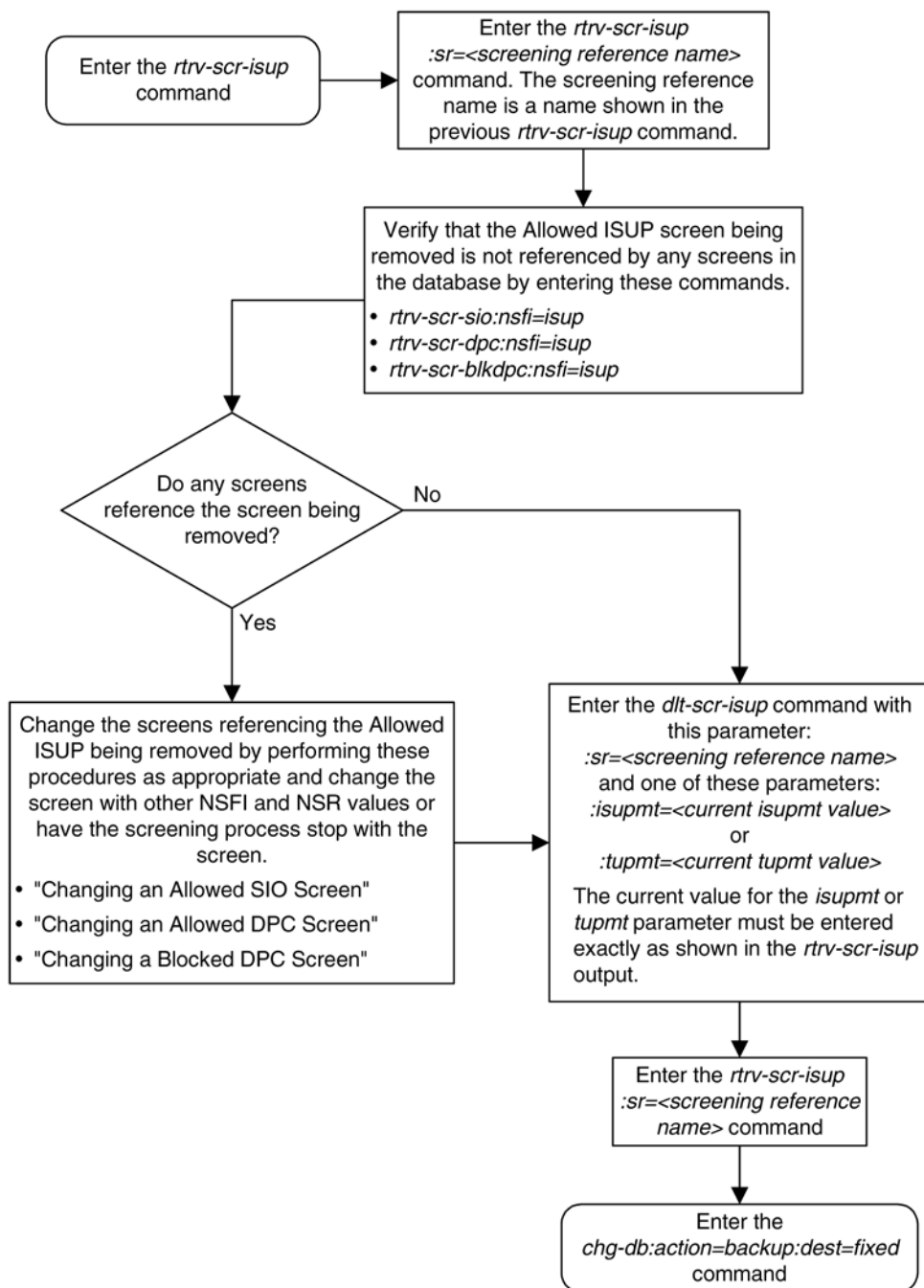
This message shows that the specified screening reference name is not in the database and the action of the `dlt-scr-isup` command in step 3 was successful. If the specified screening reference name contained more than one entry when the `dlt-scr-isup` command was executed in step 3, the `rtrv-scr-isup:sr=` 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 80: 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](#) on page 18 section. The general rules that

apply to configuring gateway screening entities are shown in the [Gateway Screening Configuration](#) on page 35 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    cnf       cnf
5    cpcnf     copy cnf
6    cnf       cnf rdct
7    cpcnf     copy cnf 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](#) on page 61 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/ TUPMT	NSFI	NSR/ACT
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.

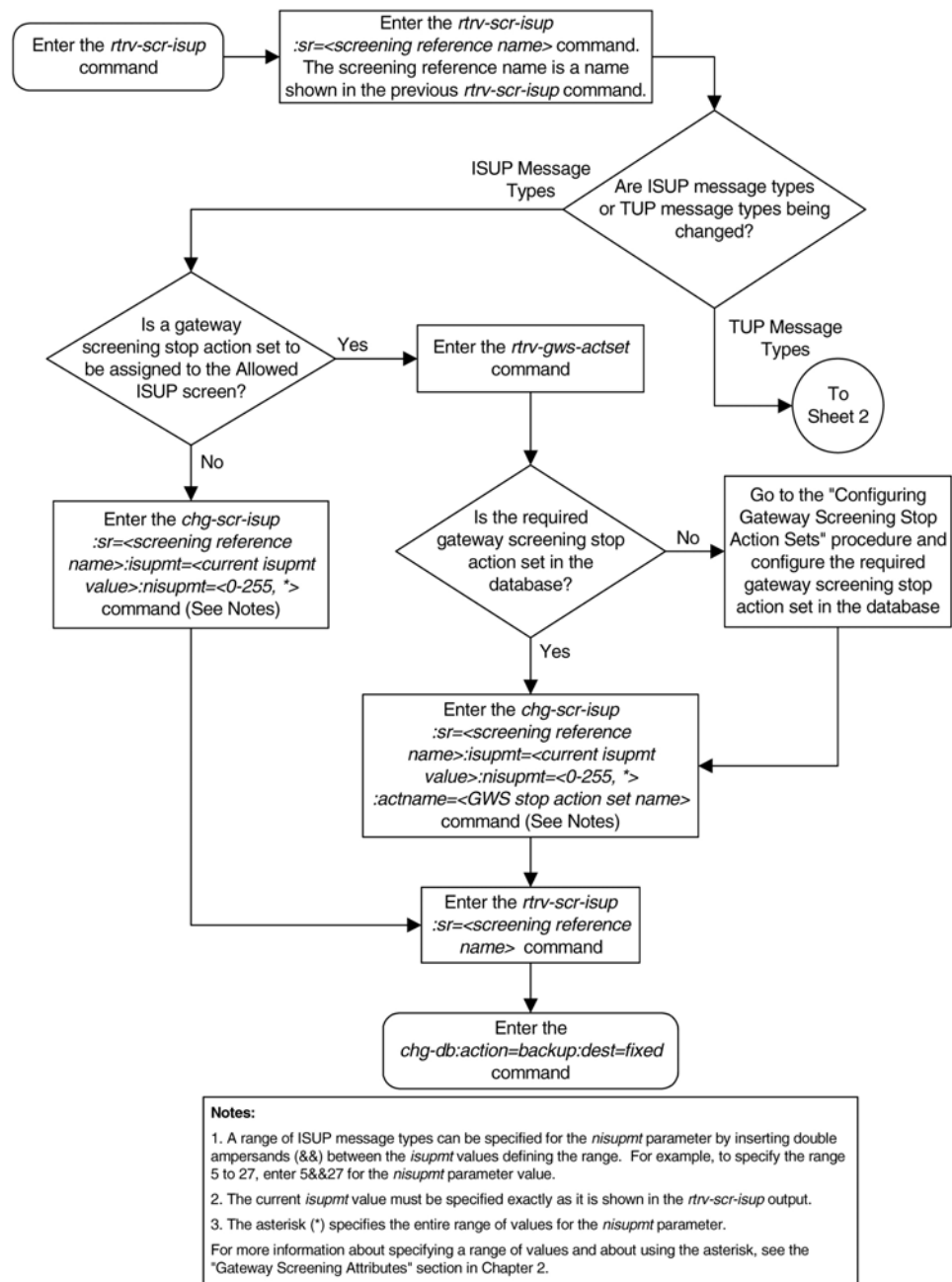
```
rlghncxa03w 06-10-25 15:30:30 GMT EAGLE5 36.0.0
SCREEN = ALLOWED ISUP
SR  ISUPMT/  NSFI  NSR/ACT
    TUPMT
isp1 002      STOP   copy
isp1 075      STOP   rdct
isp1 089      STOP   -----
```

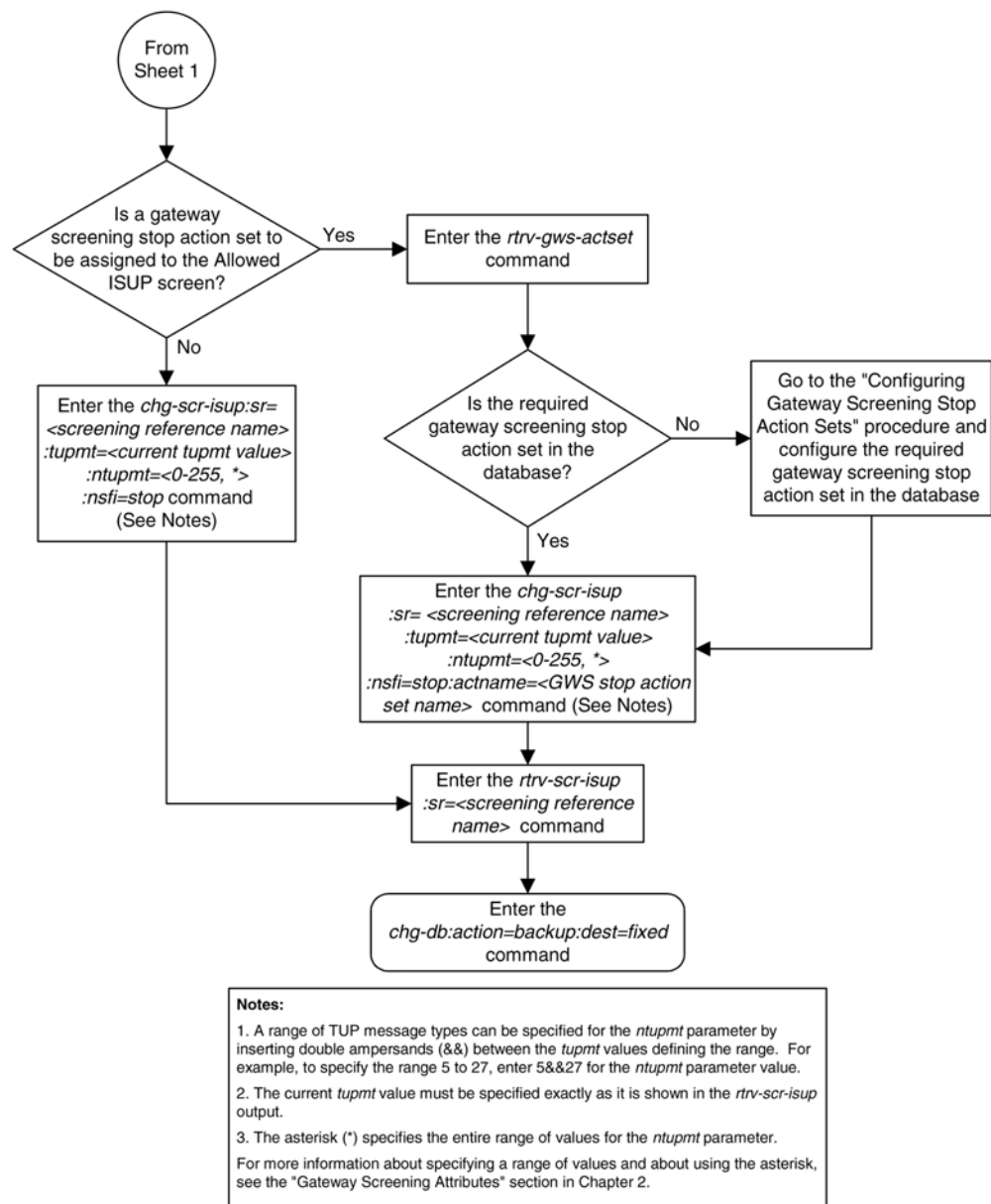
5. Backup the new changes using the `chg-db:action=backup:dest=fixed` command.

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.
```

Figure 81: Changing an Allowed ISUP Message Type Screen





Glossary

A

ACT

Activate

AFTPC

Affected Point Code

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 5 ISS. 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 SS7 messages from the EAGLE 5 ISS. Messages containing the specified destination point codes

A

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.

Allowed TT

The gateway screening entity that identifies the SCCP messages that have a specified translation type

A

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 5 ISS. This term is used in link sets and routes.

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 5 ISS 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 allowed into the network if the

B

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 5 ISS 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

CLLI

Common Language Location Identifier

The CLLI uniquely identifies the STP in terms of its physical location. It is usually comprised of a combination of identifiers for the STP's city (or locality), state (or province), building, and traffic unit identity. The format of the CLLI is:

The first four characters identify the city, town, or locality.

The first character of the CLLI must be an alphabetical character.

The fifth and sixth characters identify state or province.

The seventh and eighth characters identify the building.

The last three characters identify the traffic unit.

CNCF

Calling Name Conversion Facility

C

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

CR

Cluster Routing
Connection Request

CSR

Customer Service 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 5 ISS.

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 5 ISS, but does not have to be.

DTA

Database Transport Access

A feature in the EAGLE 5 ISS 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 5 ISS uses gateway screening to determine which MSUs are used by the DTA feature.

E

EPAP

EAGLE Provisioning Application Processor

F

FR

Family of Requirement

G

GLS

Generic Loading Services

An application that is used by the TSM cards for downloading gateway screening to LIM cards.

GN

Generic Name

GPL

Generic Program Load

Software that allows the various features in the system to work. GPLs and applications are not the same software.

G

G-Port	<p>GSM Mobile Number Portability</p> <p>A feature that provides mobile subscribers the ability to change the GSM subscription network within a portability cluster, while retaining their original MSISDN(s).</p>
GPSPM-II	<p>General Purpose Service Module</p> <p>Contains the communications processor and applications processor and provides connections to the Interprocessor Message Transport (IMT) bus. The GPSPM-II card can run on the OAM, IPS, or MCP applications.</p>
GT	<p>Global Title Routing Indicator</p>
GWS	<p>Gateway Screening</p> <p>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 5 ISS's database is allowed to enter the EAGLE 5 ISS.</p>
GWSA	<p>Gateway Screening Action</p> <p>Gateway Screening Application</p>
GWSD	<p>Gateway Screening Message Discard</p>
GWSM	<p>Gateway Screening Messages</p> <p>Gateway Screening Mode</p>

H

H

HC-MIM

High Capacity Multi-Channel
Interface Module

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

HIPR

High-Speed IMT Packet Router

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

I

IAM

Initial Address Message

ID

Identity, identifier

IEC

International Escape Code

IMT

Inter-Module-Transport

The communication software that operates the inter-module-transport bus on all

I

cards except the LIMATM, DCM, DSM, and HMUX.

ISS Integrated Signaling System

ISUP ISDN User Part

ITU International Telecommunications Union

L

LIM Link Interface Module

Provides access to remote SS7, X.25, IP and other network elements, such as a Signaling Control Point (SCP) through a variety of signaling interfaces (V.35, OCU, DS0, MPL, E1/T1 MIM, LIM-ATM, E1-ATM, IPLIMx, IPGWx). The LIMs consist of a main assembly and possibly, an interface appliqué board. These appliqués provide level one and some level two functionality on SS7 signaling links.

Link Signaling Link

LNP Local Number Portability

LST Link Set Type

M

MASP Maintenance and Administration Subsystem Processor

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.

MDAL

Maintenance Disk and Alarm Card

Provides Alarming and cartridge-based loading of software. It contains a 2.3 Gbyte removable cartridge drive and alarm logic. There is only one MDAL card in the maintenance and administration subsystem and it is shared between the two MASPs.

MSA

Metropolitan Statistical Areas
Main Signaling Area

MSU

Message Signaling 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.

M

- 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 code), the identification of the node receiving the message (destination point code), and the signaling link selector which the EAGLE 5 ISS uses to pick which link set and signaling link to use to route the message.

MTP

The levels 1, 2, and 3 of the SS7 protocol that control all the functions necessary to route an SS7 MSU through the network.

N

NC

Network Cluster
Network Code

NCM

Network Cluster Member

NI

Network Indicator

NIC

Network Identifier Code
Network Information Center

NP

Number Plan

N

NPC National Point Code

NSR Next Screening Reference

O

OPC Originating Point Code

P

PIP Party Information Parameter

PRI Primary Rate Interface
Primary Rate ISDN
Priority

R

RI Routing Indicator

RN Routing Number

RSP Routeset Prohibited Test (Msg)

RSR Reset Request

S

SCCP Signaling Connection Control Part

SCP Service Control Point

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.

S

Screening Reference	<p>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.</p>
SCRN	<p>Screen Set Name</p>
SEAS	<p>Signaling Engineering and Administration System</p> <p>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 signaling points in their network from a central location.</p>
SIF	<p>Service Information Field</p> <p>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.</p>
SI	<p>Service Indicator</p>
SIO	<p>Service Information Octet.</p> <p>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)</p>

S

that is allowed in the network
where the EAGLE 5 ISS is located.

SLTA

Signaling Link Test
Acknowledgment

SLTM

Signal Link Test Message

SP

Service Provider
Signaling Point

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

SSA

Subsystem Allowed

SSN

Subsystem Number

SSP

Subsystem Prohibited network
management message.

S

Subsystem Prohibited SCCP
(SCMG) management message.
(CER)

SST

Secondary State

The secondary state of the specified
entity.

Subsystem Status Test network
management message.

STPLAN

Signaling Transfer Point Local
Area Network

The generic program load and
application used by the ACM card
to support the STP LAN
application. This GPL does not
support 24-bit ITU-N point codes.

T

TCAP

Transaction Capabilities
Application Part

TDM

Terminal Disk Module

The MAS card that contains the
fixed disk drive (hard disk
storage), the terminal processor for
the 16 serial I/O ports, and an
interface to the MDAL
(maintenance disk and alarm) card,
which contains the removable
cartridge drive and alarm logic.

Time Division Multiplexing

TFA

TransFer Allowed (Msg)

TFC

Transfer Control

TransFer Controlled (Msg)

TFR

Transfer Restricted

T

TFP	<p>TransFer Prohibited (Msg)</p> <p>A procedure included in the signaling route management (functionality) used to inform a signaling point of the unavailability of a signaling route.</p>
TLNP	Triggerless LNP
Triggerless LNP	<p>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.</p>
TSM	<p>Translation Services Module</p> <p>Provides SCCP functionality or GLS functionality for Local Number Portability (LNP)/SCCP (GTT). The SCCP software allows the TSM to be used as a memory board for Global Title Translation (GTT).</p>
TT	<p>Translation Type.</p> <p>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.</p>
TUP	Telephone User Part

U

UAM	Unsolicited Alarm Message.
UDT	Unit Data Transfer
UDTS	Unit Data Transfer Service
UIM	Unsolicited Information Message
UPU	User Part Unavailable

X

XUDT	Extended User Data
XUDTS	Extended User Data Service

Database Administration Manual

- Gateway Screening

Index

14-bit ITU national spare point code 18, 22, 32, 103, 105, 109, 114, 115, 116, 130, 132, 138, 144, 146, 185, 187, 193, 200, 202, 217, 218, 223, 228, 241, 244, 245, 246, 254, 257, 260, 261, 279, 280, 288, 295, 296, 336, 339, 340, 349, 352, 354, 356, 373, 375, 382, 388, 389

A

admonishments, documentation 3
Allowed Affected Destination Field 14
Allowed Affected Point Code 14
Allowed Called Party Address 14
Allowed Calling Party Address 14
Allowed Destination Point Code 14
Allowed ISUP Message Type 14
Allowed Originating Point Code 14
Allowed Signaling Information Octet 14
Allowed Translation Type 14

B

Blocked Destination Point Code 14
Blocked Originating Point Code 14

D

documentation
 admonishments 3

I

ITU international spare point code 18, 22, 32, 103, 105, 109, 114, 115, 116, 130, 132, 138, 144, 146, 185, 187, 193, 200, 202, 217, 218, 223, 228, 241, 244, 245, 246, 254, 257,

260, 261, 279, 280, 288, 295, 296, 336, 339, 340, 349, 352, 354, 356, 373, 375, 382, 388, 389

M

MTP Screening 14

N

npcst parameter 22, 115, 116, 146, 202, 257, 261, 296, 352, 356, 389

P

pcst parameter 18, 22, 32, 105, 109, 115, 116, 132, 138, 146, 187, 193, 202, 218, 223, 241, 244, 245, 246, 254, 257, 260, 261, 280, 288, 296, 336, 340, 349, 352, 356, 375, 382, 389

S

SCCP Screening 14

Spare point code

14-bit ITU national 18, 22, 32, 103, 105, 109, 114, 115, 116, 130, 132, 138, 144, 146, 185, 187, 193, 200, 202, 217, 218, 223, 228, 241, 244, 245, 246, 254, 257, 260, 261, 279, 280, 288, 295, 296, 336, 339, 340, 349, 352, 354, 356, 373, 375, 382, 388, 389

ITU international 18, 22, 32, 103, 105, 109, 114, 115, 116, 130, 132, 138, 144, 146, 185, 187, 193, 200, 202, 217, 218, 223, 228, 241, 244, 245, 246, 254, 257, 260, 261, 279, 280, 288, 295, 296, 336, 339, 340, 349, 352, 354, 356, 373, 375, 382, 388, 389

