CHAPTER 4

Command Line Interface Routing

Revised: December 9, 2008, OL-8001-10

Introduction

This chapter provides a basic understanding of how the Cisco BTS 10200 Softswitch Command Line Interface (CLI) functions with of the routing types and call types. This chapter is divided into the following sections:

- Routing Types
- Call Types
- Command Line Interface Routing Examples

Routing Types

This section provides the Cisco BTS 10200 Softswitch CLI routing type information. The following topics are covered in this section:

- Basic Subscriber Routingthe following
- Basic Trunk Routing
- Carrier Based Routing
- Basic Dial Plan Routing

Basic Subscriber Routingthe following

This section provides a detailed description of the Cisco BTS 10200 Softswitch basic subscriber routing and provides CLI example references. Refer to Figure 4-1 for visual representation of basic subscriber routing flow while reviewing the following detailed step-by-step basic subscriber routing flow.

Step 1 Subscriber incoming received or placed.

Example:

Subscriber Test1

Step 2 Get the subscriber table (sub-profile identification (ID)).

Step 3 Get the subscriber-profile table (dial-plan-identification (DP-ID)).

Example:

Subsciber and Sub-Profile

Step 4 Go to the dial-plan (based on DP-ID).

Step 5 Go to destination table and get the call type and destination.

Example:

Destination

Step 6 Determine the call type. If the call type is toll free, 900, or 500, proceed to Step 7. If the call type is casual, proceed to Step 8. If the call type is via a presubscribed interexchange carrier (PIC), proceed to Step 9.

Examples:

Destination

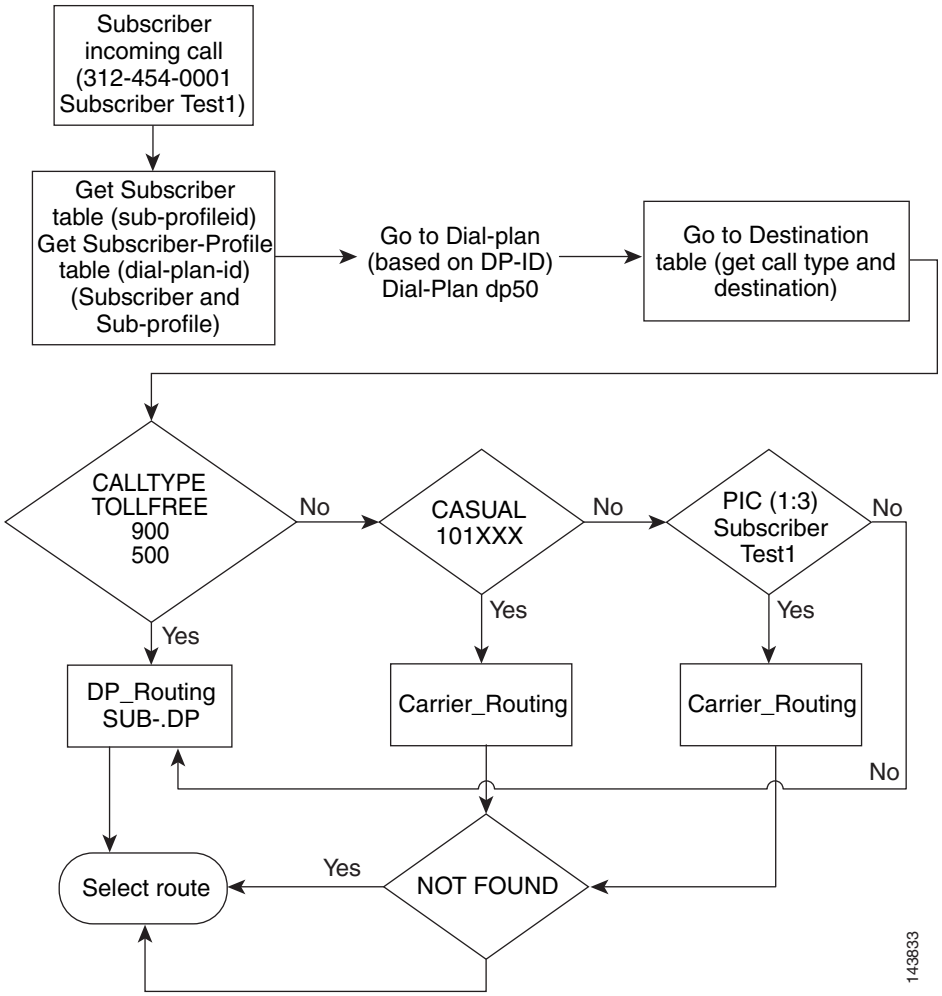
Subscriber Test1

Step 7 If the call type is toll free, 900, or 500, the Cisco BTS 10200 Softswitch will use the dial plan to select the call route and to route the call.

Step 8 If the call type is casual, the Cisco BTS 10200 Softswitch will use the carrier routing information to select the call route and to route the call.

Step 9 If the call type is via a PIC, the Cisco BTS 10200 Softswitch will user the PIC carrier routing information to select the call route and to route the call.

Figure 4-1 Basic Subscriber Routing



Basic Trunk Routing

This section provides a detailed description of the Cisco BTS 10200 Softswitch basic trunk routing and provides CLI example references. Refer to Figure 4-2 for visual representation of basic trunk routing flow while reviewing the following detailed step-by-step basic trunk routing flow.

Step 1 Trunk group (TG) call received or placed.

Example:

Trunk-grp 6969

Step 2 Get the DP-ID from the TG.

Example:

Trunk-grp 6969

Step 3 Go to the dial-plan and get the destination based on the digits and DP-ID.

Example:

Dial-Plan

Step 4 Go to the destination table and get the call type and the route.

Example:

Destination

Step 5 Determine the call type. If the call type is toll free, 900, or 500, proceed to Step 6. If the call type is local traffic, proceed to the Step 7. If the call type is casual service provider (SP), proceed to Step 8. If the call type is transit network selection (TNS), proceed to Step 9. If the call type is TG carrier, proceed to Step 10. If the call type is TG SP, proceed to Step 11.

Example:

Destination

Step 6 If the call type is toll free, 900, or 500, the Cisco BTS 10200 Softswitch will use the dial plan to select the call route and to route the call.

Examples:

Dial-Plan

DN2sub

Step 7 If the call type is local traffic, the Cisco BTS 10200 Softswitch will use the dial plan to select the call route and to route the call.

Examples:

Trunk-grp 6969

Dial-Plan

DN2sub

Step 8 If the call type is casual SP, the Cisco BTS 10200 Softswitch will use the SP routing to select the call route and to route the call. If the SP routing is not found, the Cisco BTS 10200 Softswitch will user the dial plan to select the call route and to route the call.

Examples:

Dial-Plan

DN2sub

Step 9 If the call type is TNS, the Cisco BTS 10200 Softswitch will use the carrier routing to select the call route and to select the call route and to route the call. If the carrier routing is not found, the Cisco BTS 10200 Softswitch will user the dial plan to select the call route and to route the call.

Examples:

Dial-Plan

DN2sub

Step 10 If the call type is TG carrier, the Cisco BTS 10200 Softswitch will use the carrier routing to select the call route and to route the call. If the carrier routing is not found, the Cisco BTS 10200 Softswitch will user the dial plan to select the call route and to route the call.

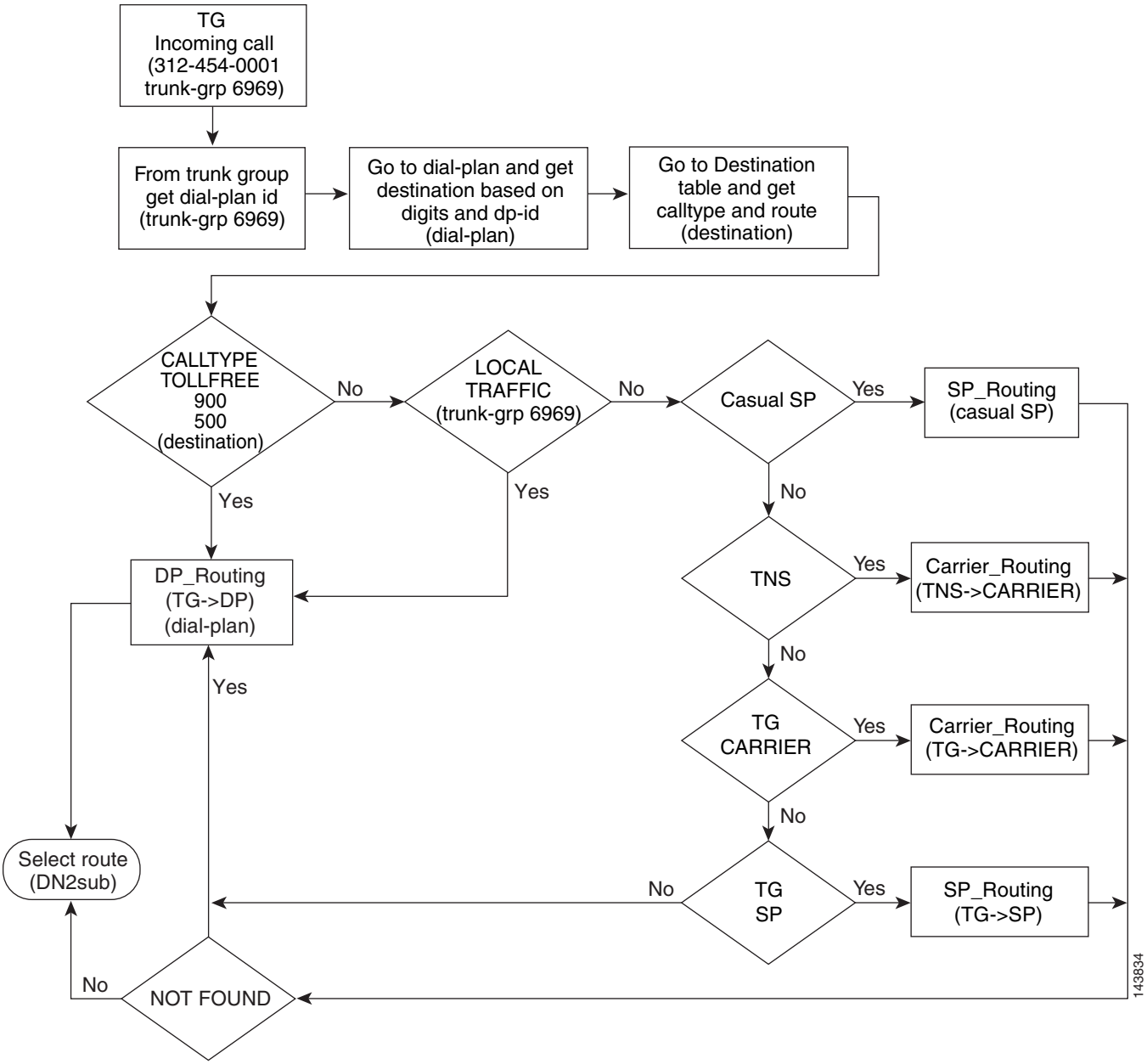
Step 11 If the call type is TG SP, the Cisco BTS 10200 Softswitch will the SP routing to select the call route and to route the call. If the SP routing is not found, the Cisco BTS 10200 Softswitch will user the dial plan to select the call route and to route the call.

Examples:

Dial-Plan

DN2sub

Figure 4-2 Basic Trunk Routing



Carrier Based Routing

This section provides a detailed description of the Cisco BTS 10200 Softswitch carrier based routing and provides CLI example references. Refer to Figure 4-3 for visual representation of carrier based routing flow while reviewing the following detailed step-by-step carrier based routing flow. Additionally, LNP-QUERY has been added to the call flow. LNP-QUERY specifies whether to perform an local number portability (LNP) query on the call type. Applies only if the ALL-CALL-QUERY flag in the LNP-PROFILE table is set to Y and the ACQ-LNP-QUERY token in the Destination table is set to ACQ-BASED-ON-CALL-TYPE.

Step 1 Carrier based routing call is received.

Step 2 Determine if the carrier is being screened. If the carrier is being screened, proceed to Step 3. If the carrier is not being screened, proceed to Step 4.

Example:

Carrier 9999 Use Dial-Plan “N”

Step 3 If the carrier is being screened, the Cisco BTS 10200 Softswitch will determine if the carrier call processing is being remotely blocked (RTM_CP_BLOCK). If the carrier call processing is being remotely blocked, the call can not be completed and will be dropped.

Step 4 If the carrier is not being screened, the Cisco BTS 10200 Softswitch will determine if the carrier is a recognized service provider. If the carrier is a recognized service provider, proceed to Step 5. If the carrier is not a recognized service provider, proceed to Step 6.

Example:

Carrier – Service-Provider

Step 5 If the carrier is a recognized service provider, the Cisco BTS 10200 Softswitch will use the service provider routing to select the call route and to route the call.

Example:

Service Provider

Step 6 If the carrier is not a recognized service provider, the Cisco BTS 10200 Softswitch will determine if a carrier dial plan is configured. If a carrier dial plan is configured, proceed to Step 7. If a carrier dial plan, is not configured proceed to Step 8.

Example:

Carrier Use Dial-Plan “Y”

Carrier 9999 Use Dial-Plan “N”

Step 7 If a carrier dial plan is configured, the Cisco BTS 10200 Softswitch will use the carrier dial plan to select the call route and to route the call.

Step 8 If a carrier dial plan is not configured, the Cisco BTS 10200 Softswitch will determine if a carrier remote call processing to local exchange carrier operations support system is available (RTM_CP_CARRIER_2_LECOSS). If the RTM_CP_CARRIER_2_LECOSS is available, proceed to Step 9. If the RTM_CP_CARRIER_2_LECOSS is not available, proceed to Step 10.

Note Step 8 is skipped for toll traffic. If the traffic is toll traffic, proceed to Step 10.

Step 9 If the RTM_CP_CARRIER_2_LECOSS is available and if the traffic is not toll traffic, the Cisco BTS 10200 Softswitch will use the RTM_CP_CARRIER_2_LECOSS to select the call route and to route the call.

Example:

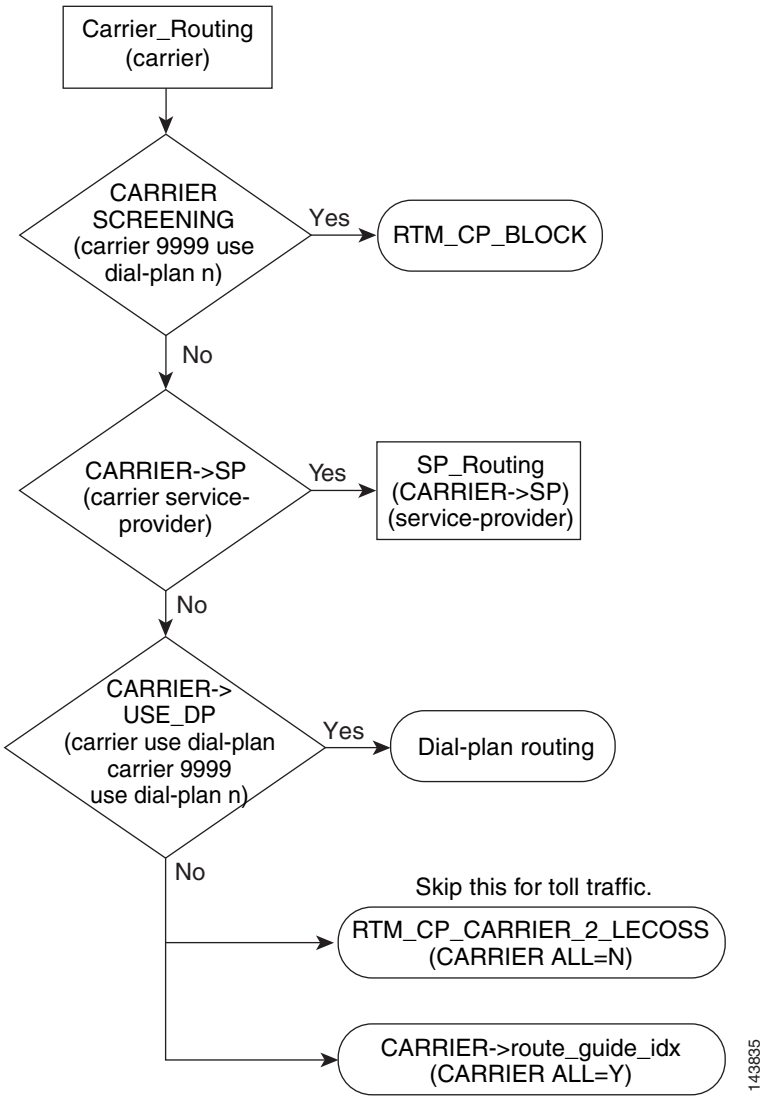
Carrier All = N

Step 10 If the RTM_CP_CARRIER_2_LECOSS is not available, the Cisco BTS 10200 Softswitch will use the carrier guide index to select the call route and to route the call.

Example:

Carrier All = Y

Figure 4-3 Carrier Based Routing



Basic Dial Plan Routing

This section provides a detailed description of the Cisco BTS 10200 Softswitch basic dial plan routing and provides CLI example references. Refer to Figure 4-4 for visual representation of basic dial plan routing flow while reviewing the following detailed step-by-step basic dial plan routing flow.

Step 1 Basic dial plan routing call received.

Step 2 Determine if the nature of address (NOA) for the received call is an international call. If the call is an international call, the Cisco BTS 10200 Softswitch will use the the international dial plan to select the call route and to route the call. If the call is not an international call, proceed to Step 3.

Example:

Dial-Plan Ca-Config

Step 3 Determine if the call destination is found. If the call destination is not found, the Cisco BTS 10200 Softswitch will return a destination not found response (NOT FOUND) and will drop the call. If the call destination is found, proceed to the Step 4.

Step 4 Determine if a call destination subscriber is found. If a call destination subscriber is found, the Cisco BTS 10200 Softswitch will return a subscriber (SUB) response and will use the subscriber information to select the call route and to route the call. If a call destination subscriber is not found, proceed to Step 5.

Example:

Destination SUB

Step 5 Determine if a call destination route is found. If a call destination route is found, the Cisco BTS 10200 Softswitch will return a destination (DEST) response and will use the route guide index to select the call route and to route the call. If a call destination route is not found, proceed to Step 6.

Example:

Destination ROUTE

Step 6 Determine if a call destination route identification (RID) is found. If a call destination RID is found, the Cisco BTS 10200 Softswitch will return a DEST response and will user the route index to select the call route and to route the call. If a call destination RID is not found, proceed to Step 7.

Example:

Destination RID

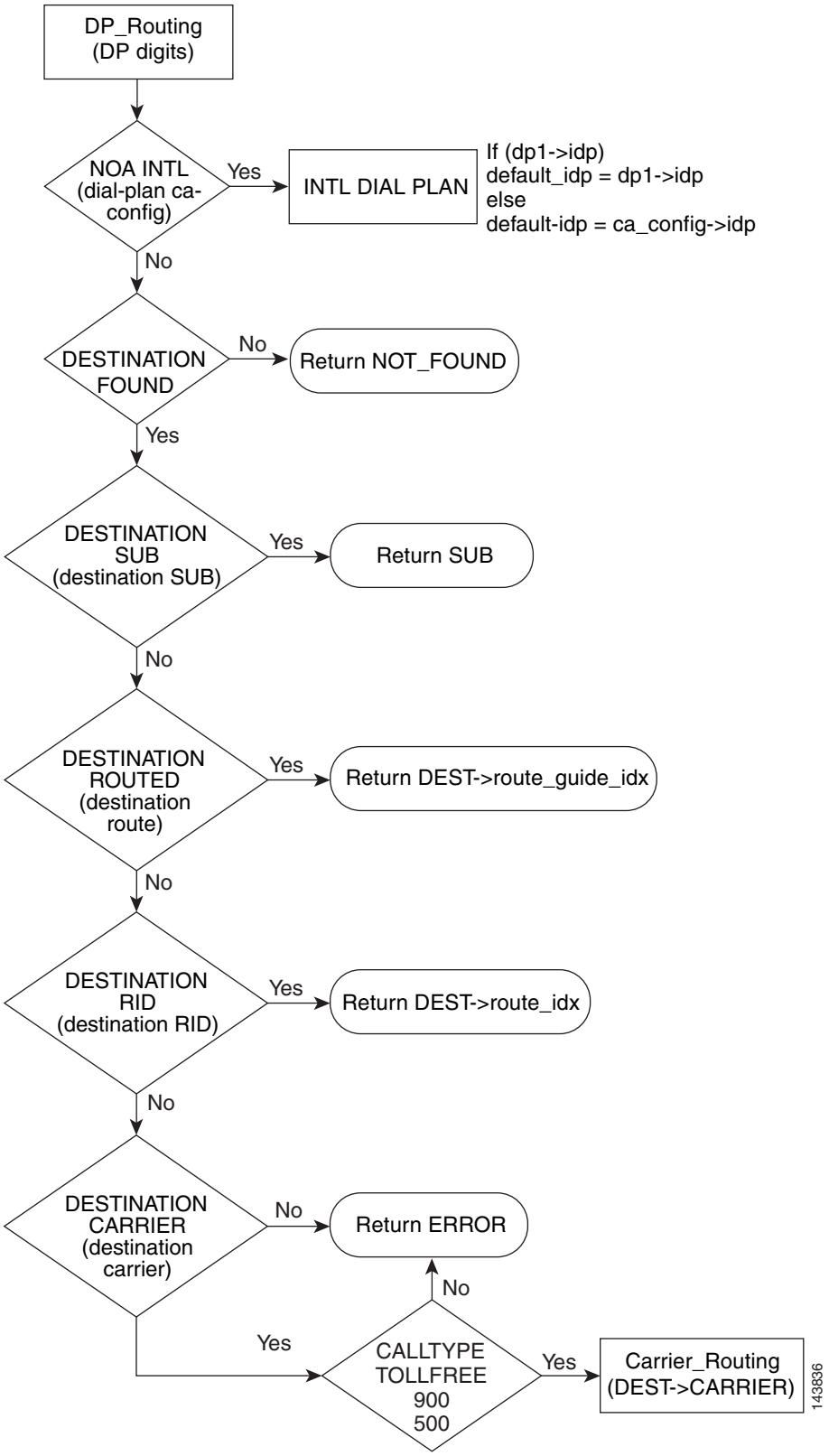
Step 7 Determine if a destination carrier is found. If a destination carrier is found, proceed to the Step 8. If a destination carrier is not found, the Cisco BTS 10200 Softswitch will return an error and will drop the call.

Example:

Destination Carrier

Step 8 Determine the call type. If the call type is toll free, 900, or 500, the Cisco BTS 10200 Softswitch will select the call route and to route the call using the destination carrier routing. If the call type is not toll free, 900, or 500, the Cisco BTS 10200 Softswitch will return an error and will drop the call.

Figure 4-4 Basic Dial Plan Routing



Call Types

This section provides detailed information on the CLI usage for the Cisco BTS 10200 Softswitch call types. CLI information on the following call types is provided:

- 1+ Interlata Call
- 1+ Intralata Call
- 0+ Interlata Call
- 0+ Intralata Call
- Ported-In Call Processing

1+ Interlata Call

This section provides a detailed description of the Cisco BTS 10200 Softswitch routing and call flow for 1+ interlata calls and provides CLI example references. Refer to Figure 4-5 for visual representation of the 1+ interlata call routing flow while reviewing the following detailed step-by-step 1+ interlata call routing flow.

Step 1 A 1+ interlata call is received.

Examples:

Subscriber Test1

Dp50 Digit-String = 202

Step 2 Determine if a 101XXXX number has been dialed. If a 101XXXX number has been dialed, the Cisco BTS 10200 Softswitch will select the call route and route the call based on the carrier access code (CAC). If a 101XXXX number has not been dialed, proceed to Step 3.

Step 3 Check the subscriber table to determine if a PIC is defined. If a PIC is defined, the Cisco BTS 10200 Softswitch will select the call route and route the call based on the PIC information. If a PIC is not defined, proceed to Step 4.

Example:

Subsciber and Sub-Profile

Step 4 Check the point of presence (POP) table and verify if a block-eawopic is configured. If the a block-eawopic is configured, the Cisco BTS 10200 Softswitch will block the call. If a block-eawopic is not configured, proceed to Step 5.

Examples:

POP 50 No Block

POP 50 Block

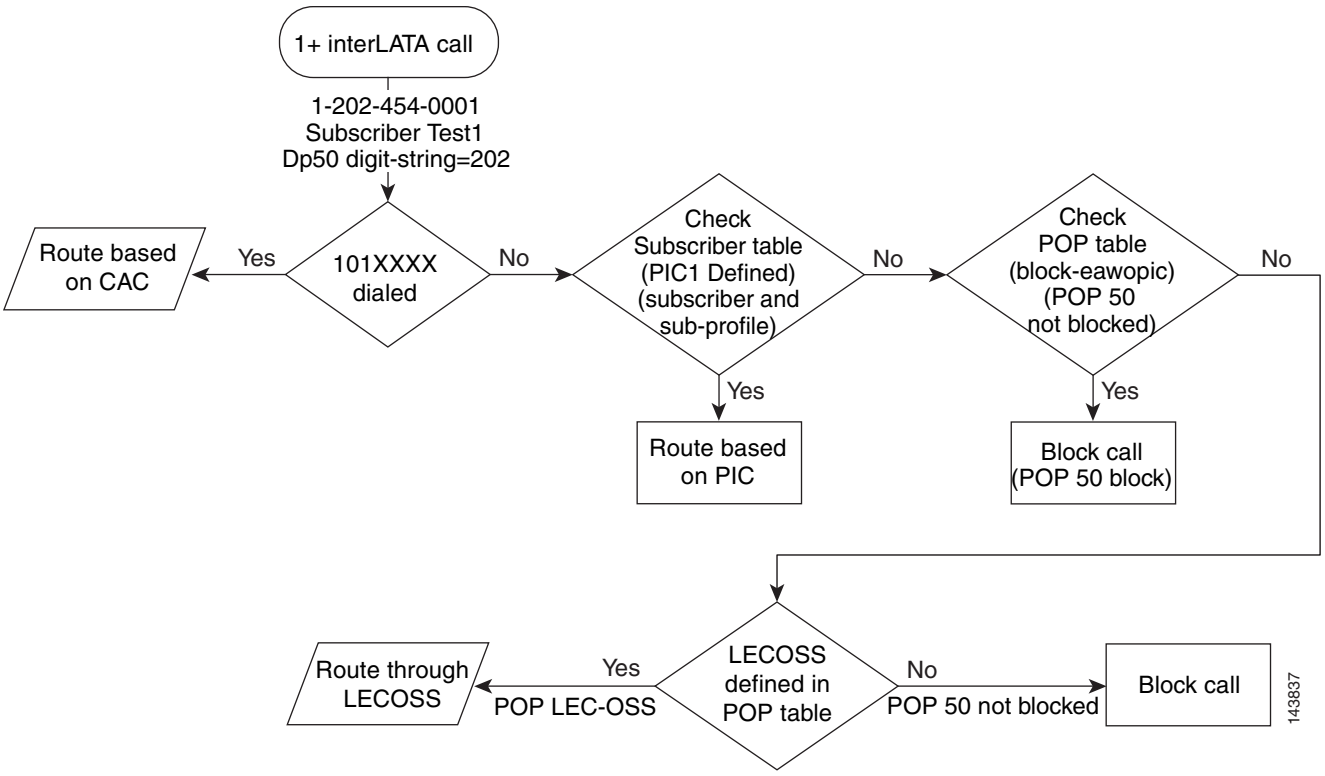
Step 5 Determine if a local exchange carrier operations support system (LECOSS) is defined in the POP table. If a LECOSS is defined in the POP table, the Cisco BTS 10200 Softswitch will select route the call via the LECOSS. If a LECOSS is not defined in the POP table, the Cisco BTS 10200 Softswitch will block the call.

Examples:

POP LEC-OSS

POP 50 No Block

Figure 4-5 1+ Interlata Call



1+ Intralata Call

This section provides a detailed description of the Cisco BTS 10200 Softswitch routing and call flow for 1+ intralata calls and provides CLI example references. Refer to Figure 4-6 for visual representation of the 1+ intralata call routing flow while reviewing the following detailed step-by-step 1+ intralata call routing flow.

Step 1 An 1+ intralata call is received.

Examples:

Subscriber Test1

Sub DP Dest Intralata

Step 2 Determine if 101XXXX number has been dialed. If a 101XXXX number has been dialed proceed to Step 3. If a 101XXXX number has not been dialed, proceed to Step 4.

Step 3 Check the carrier table for a CAC. If a CAC is available, the Cisco BTS 10200 Softswitch will select the call route and route the call based on the CAC. If a CAC is not available, proceed to Step 3a.

Example:

Carrier Intra = Y

a. Determine if a LECOSS is defined in the POP table. If a LECOSS is defined in the POP table, the Cisco BTS 10200 Softswitch will select the call route and route the call via the LECOSS. If a LECOSS is not defined in the POP table, the Cisco BTS 10200 Softswitch will block the call.

Step 4 Check the POP table for a configured IP transfer point (ITP). If an ITP is configured, proceed to Step 4a. If an ITP is not configured, the Cisco BTS 10200 Softswitch will route the call via dial plan routing.

Example:

POP ITP = Y

a. Check the subscriber table for a specified PIC. If a PIC is specified, proceed to Step 4b. If a PIC is not specified, the Cisco BTS 10200 Softswitch will route the call to the announcement server and will check the POP table for a specified PIC. If a PIC is not specified, the Cisco BTS 10200 Softswitch will block the call or if a dial plan is available, the Cisco BTS 10200 Softswitch will select the call route and route the call according to the dial plan routing information.

Examples:

Subscriber Test1

Sub DP Dest Intralata

b. Check the intra carrier table for a specified PIC. If a PIC is specified in the intra carrier table, the Cisco BTS 10200 Softswitch will select the call route and route the call based on the PIC information. If a PIC is not specified in the intra carrier table, proceed to Step 4c.

Example:

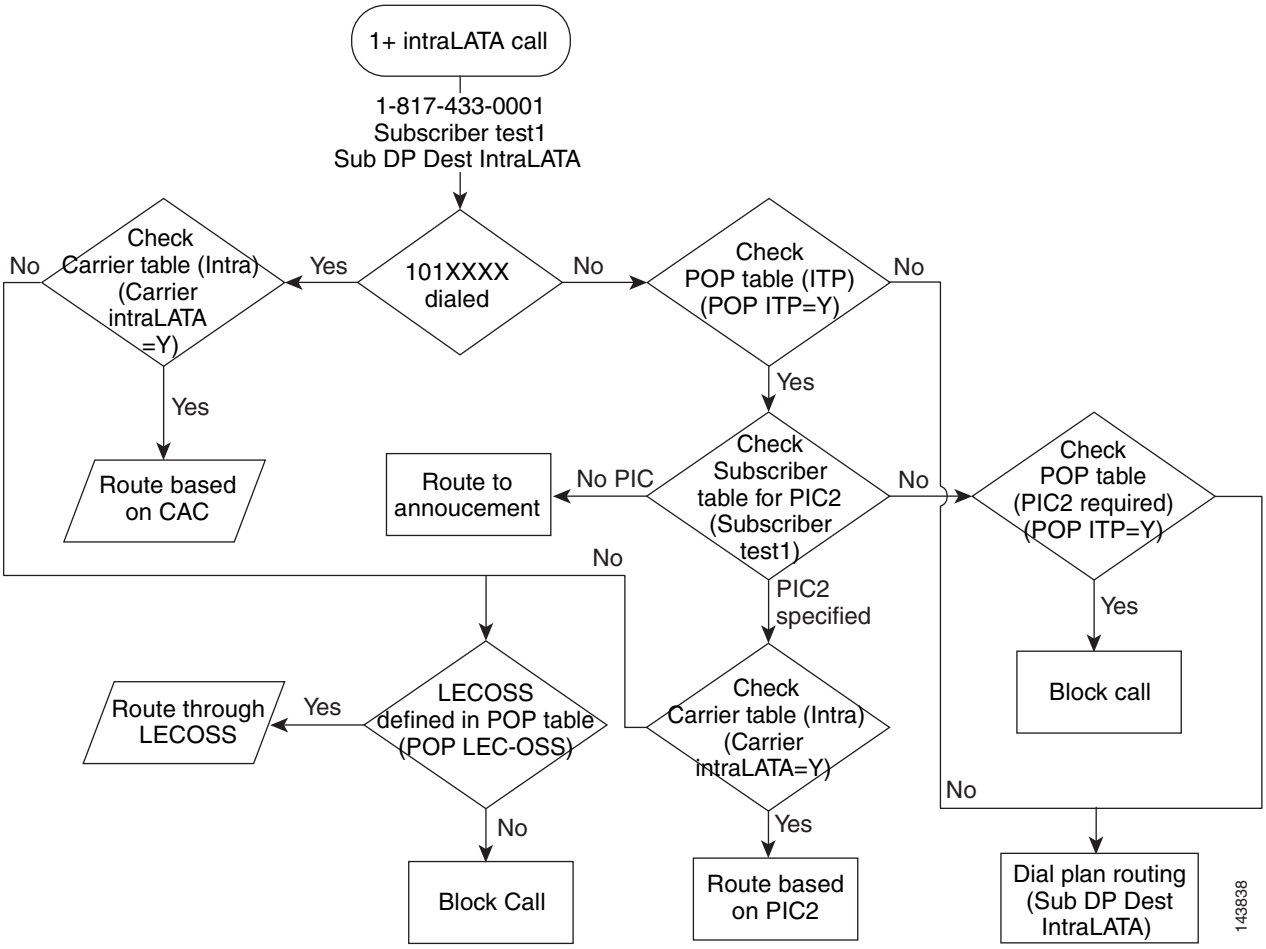
Carrier Intra = Y

c. Determine if a LECOSS is defined in the POP table. If a LECOSS is defined in the POP table, the Cisco BTS 10200 Softswitch will select the call route and route the call via the LECOSS. If a LECOSS is not defined in the POP table, the Cisco BTS 10200 Softswitch will block the call.

Example:

POP LEC-OSS

Figure 4-6 1+ Intralata Call



0+ Interlata Call

This section provides a detailed description of the Cisco BTS 10200 Softswitch routing and call flow for 0+ interlata calls and provides CLI example references. Refer to Figure 4-7 for visual representation of the 0+ interlata call routing flow while reviewing the following detailed step-by-step 0+ interlata call routing flow.

Step 1 A 0+ interlata call is received.

Examples:

Subscriber Test1

Sub DP Dest Interlata

Step 2 Determine if a 101XXXX number has been dialed. If a 101XXXX number has been dialed proceed to Step 3. If a 101XXXX number has not been dialed proceed to Step 5.

Step 3 Check the carrier table for a CAC. If a CAC is available, the Cisco BTS 10200 Softswitch will select the call route and route the call based on the CAC. If a CAC is not available, proceed to Step 4.

Example:

Carrier Op-Serv = Y

Step 4 Check the POP table for a defined LECOSS. If a LECOSS is defined in the POP table, the Cisco BTS 10200 Softswitch will route the call via the LECOSS. If a LECOSS is not defined in the POP table, the Cisco BTS 10200 Softswitch will block the call.

Example:

POP LEC-OSS

Step 5 Check the subscriber table for a defined PIC. If a PIC is defined in the subscriber table, proceed to Step 6. If a PIC is not defined in the subscriber table, proceed to Step 7.

Example:

Subscriber Test1

Step 6 Check the subscriber profile for ea-use-pic entry. If the subscriber profile contains an ea-use-pic entry, the Cisco BTS 10200 Softswitch will select the call route and route the call based on the PIC information. If the subscriber profile does not contained an ea-use-pic entry, return to Step 4.

Examples:

Ea-Use = Y

POP Ea-use = N

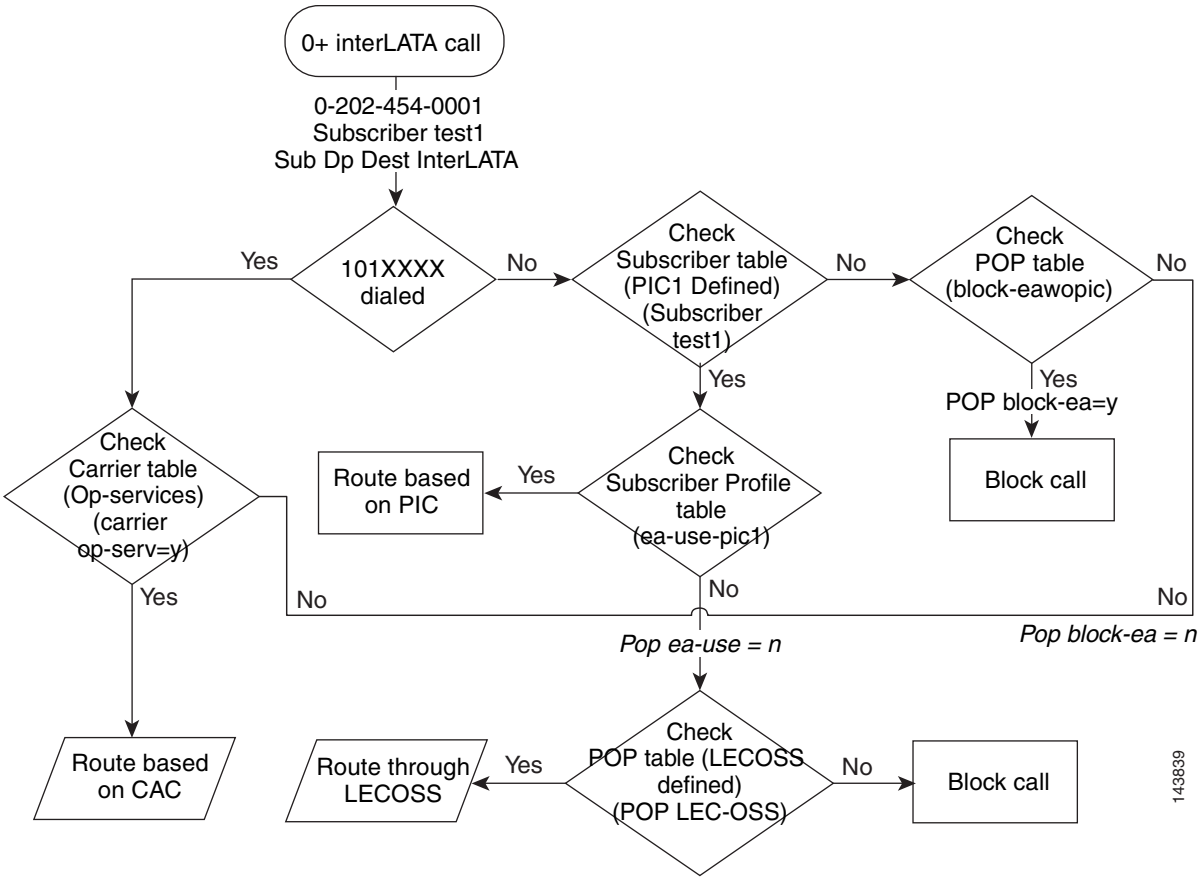
Step 7 Check the POP table for a block-eawopic entry. If the POP table contains a block-eawopic entry, the Cisco BTS 10200 Softswitch will block the call. If the POP table does not contain a block-eawopic entry, return to Step 4.

Examples:

POP Block-ea = N

POP Block-ea = Y

Figure 4-7 0+ Interlata Call



0+ Intralata Call

This section provides a detailed description of the Cisco BTS 10200 Softswitch routing and call flow for 0+ intralata calls and provides CLI example references. Refer to Figure 4-8 for visual representation of the 0+ intralata call routing flow while reviewing the following detailed step-by-step 0+ intralata call routing flow.

Step 1 A 0+ intralata call is received.

Examples:

Subscriber Test1

Sub DP Dest Intralata

Step 2 Determine if a 101XXXX number was dialed. If a 101XXXX number was dialed, proceed to Step 3. If a 101XXXX number was not dialed, proceed to Step 5.

Step 3 Check the carrier table for a CAC. If a CAC is available, the Cisco BTS 10200 Softswitch will select the call route and route the call based on the CAC. If a CAC is not available, proceed to Step 4.

Example:

Carrier Op-Serv = Y

Step 4 Check the POP table for a defined LECOSS. If a LECOSS is defined in the POP table, the Cisco BTS 10200 Softswitch will route the call via the LECOSS. If a LECOSS is not defined in the POP table, the Cisco BTS 10200 Softswitch will block the call.

Example:

POP LEC-OSS

Step 5 Check the POP table for a configured ITP. If an ITP is configured, proceed to Step 6. If an ITP is not configured return to Step 4.

Example:

POP ITP = Y

Step 6 Check the subscriber table for a specified PIC. If a PIC is specified, proceed to Step 7. If a PIC is not specified, the Cisco BTS 10200 Softswitch will route the call to the announcement server. Additionally, if a PIC is not specified in the subscriber table, the Cisco BTS 10200 Softswitch will check the POP table for a specified PIC. If a PIC is specified in the POP table, the Cisco BTS 10200 Softswitch will block the call. If a PIC is not specified in the POP table, return to Step 4.

Examples:

Subscriber Test1

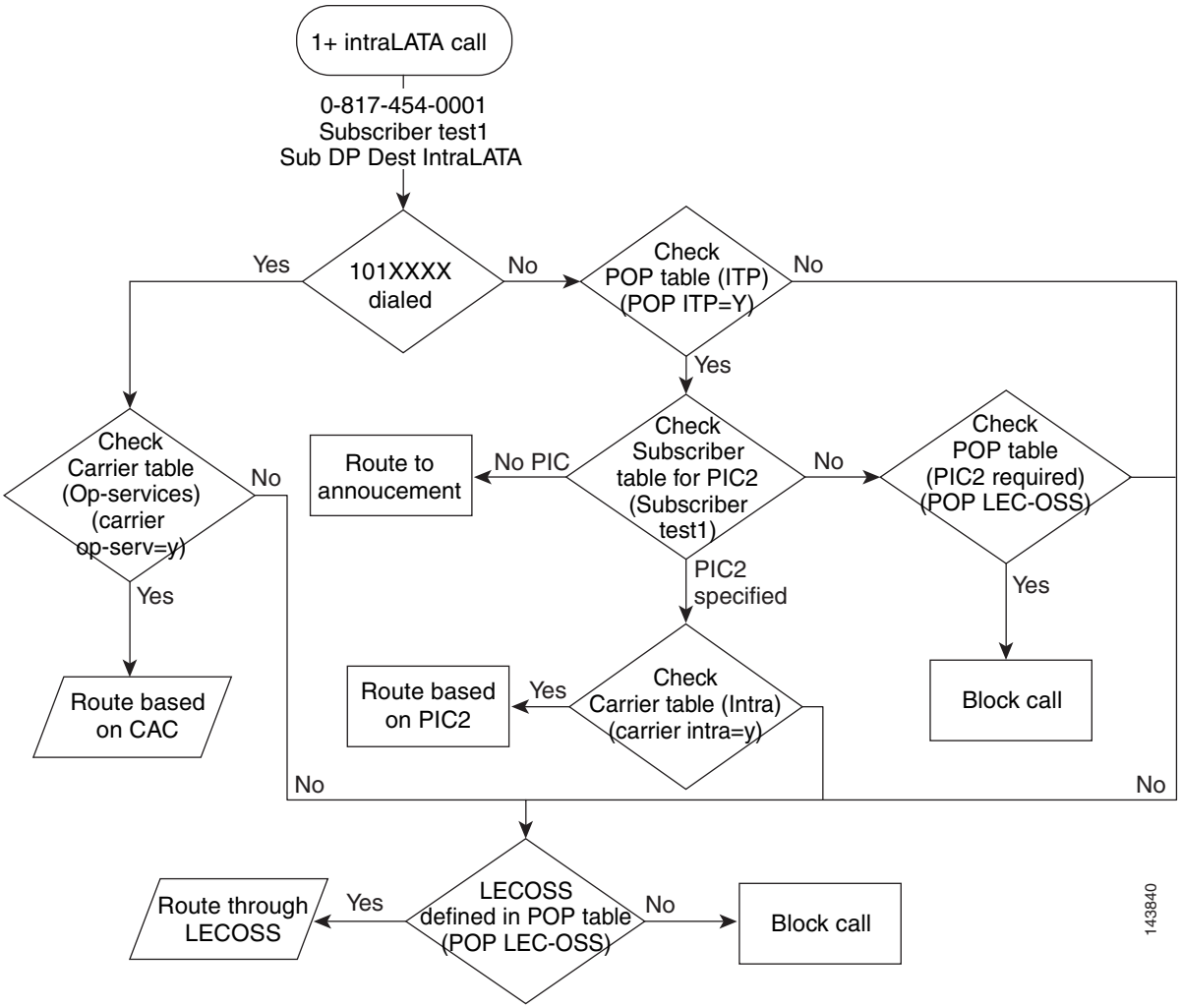
POP LEC-OSS

Step 7 Check the intra carrier table for the specified PIC. If the specified PIC is included in the intra carrier table, the Cisco BTS 10200 Softswitch will select the call route and route the call based on the PIC information. If the specified PIC is not included in the intra carrier table, return to Step 4.

Example:

Carrier Intra = Y

Figure 4-8 0+ Intralata Call



Ported-In Call Processing

This section provides a detailed description of the Cisco BTS 10200 Softswitch routing and call flow for ported-in call processing calls and provides CLI example references. Refer to Figure 4-9 for visual representation of the ported-in call processing call routing flow while reviewing the following detailed step-by-step ported-in call processing call routing flow.

Step 1 A ported-in call is received.

Step 2 The office code is not assigned to the Cisco BTS 10200 Softswitch.

Step 3 Determine if the office code is in the ported-in office code table. If the office code is in the ported-in office code table, proceed to Step 4. if the office code is not in the ported-in office code table, perform normal call processing.

Example:

Ported-Office-Code in CA

Step 4 Determine if the in-call agent flag is set. If the in-call agent flag is set, proceed to Step 5. If the in-call agent flag is not set, the Cisco BTS 10200 Softswitch will perform an local number portability (LNP) query.

Examples:

Ported-Office-Code in CA = N

Ported-Office-Code in CA

Step 5 Determine if the subscriber is included the dn2subscriber table. If the subscriber is included in the dn2sunscriber table, proceed to Step 6. If the subscriber is not included in dn2subscriber table, proceed to Step 7.

Examples:

In DN2Sub

Not in DN2Sub

Step 6 Determine if the LNP trigger flag is set. If the LNP trigger flag is set, the Cisco BTS 10200 Softswitch will perform an LNP query and port out the call. If the LNP trigger flag is not set, the Cisco BTS 10200 Softswitch will check the status field to determine if a LNP trigger has been assigned and will port out the call or terminate the call to the subscriber.

Examples:

LNP Trigger = Y

In DN2Sub

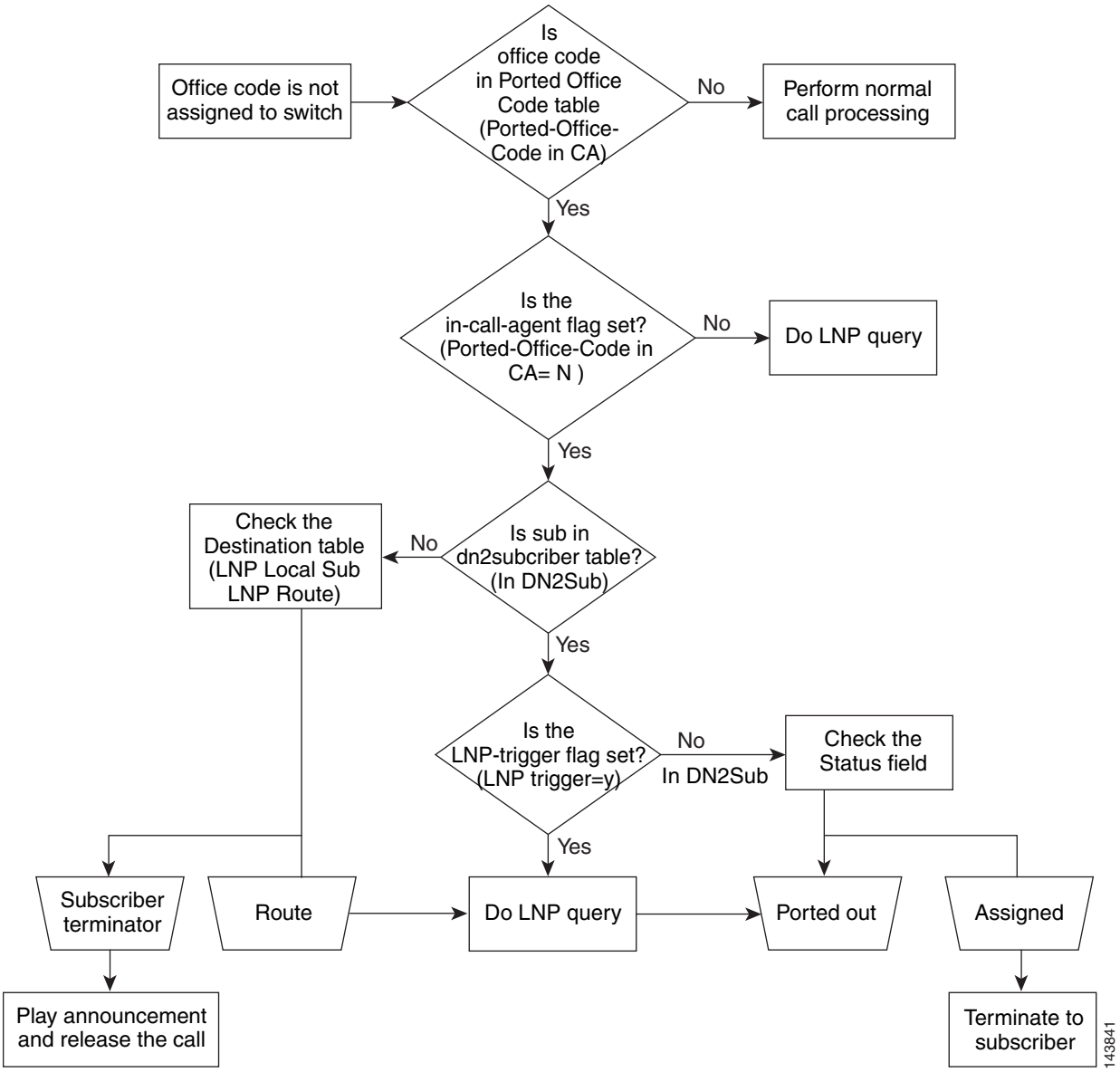
Step 7 Check the destination table for the subscriber information. Based on the destination table information, the Cisco BTS 10200 Softswitch will route the call or issue a subscriber terminator, release the call, and play the released call announcement. As part of routing the call, the Cisco BTS 10200 Softswitch will perform an LNP query and , if necessary, port out the call.

Examples:

LNP Local Sub

LNP Route

Figure 4-9 Ported-In Call Processing



Command Line Interface Routing Examples

This section provides CLI routing examples. The following CLI examples are provided:

- Carrier – Service-Provider
- Carrier 9999 Use Dial-Plan “N”
- Carrier All = N
- Carrier All = Y
- Carrier Intra = Y
- Carrier Op-Serv = Y
- Carrier Use Dial-Plan “Y”
- Destination
- Destination Carrier
- Destination Interlata
- Destination RID
- Destination ROUTE
- Destination SUB
- Dial-Plan
- Dial-Plan Ca-Config
- Dial-Plan “dp50”
- DN2sub
- Dp50 Digit-String = 202
- Ea-Use = Y
- In DN2Sub
- LNP Local Sub
- LNP Route
- LNP Trigger = Y
- Not in DN2Sub
- POP 50 Block
- POP 50 No Block
- POP Block-ea = N
- POP Block-ea = Y
- POP Ea-use = N
- POP ITP = Y
- POP LEC-OSS
- Ported-Office-Code in CA
- Ported-Office-Code in CA = N
- Service Provider
- Sub DP Dest Interlata

- Sub DP Dest Intralata
- Subscriber Test1
- Subscriber Test2
- Subsciber and Sub-Profile
- Trunk-grp 6969

Carrier – Service-Provider

The Carrier – Service-Provider CLI example is used in the Carrier Based Routing routing example.

Carrier – Service-Provider Example:

```
CLI>show carrier id=7777
Reply : Success: Entry 1 of 1 returned.

ID=7777
STATUS=INS
INTER=Y
INTRA=N
INTL=N
CASUAL=Y
CUT_THRU=Y
OP_SERVICES=Y
SEND_CN=N
SEND_CSP=N
USE_DIAL_PLAN=N
ROUTE_GUIDE_ID=test
SP_ID=test
NETWORK_TYPE=NOTUSED
NATIONAL_NETWORK_PLAN=NOTUSED
```

Carrier 9999 Use Dial-Plan “N”

The Carrier 9999 Use Dial-Plan “N” CLI example is used in the Carrier Based Routing routing example.

Carrier 9999 Use Dial-Plan “N” Example:

```
CLI>show carrier id=9999
Reply : Success: Entry 1 of 1 returned.

ID=9999
STATUS=INS
INTER=Y
INTRA=N
INTL=N
CASUAL=Y
CUT_THRU=Y
OP_SERVICES=Y
SEND_CN=N
SEND_CSP=N
USE_DIAL_PLAN=N
NETWORK_TYPE=NOTUSED
NATIONAL_NETWORK_PLAN=NOTUSED
```

Carrier All = N

The Carrier All = N CLI example is used in the Carrier Based Routing routing examples.

Carrier All = N Example:

```
CLI>show carrier id=7777
Reply : Success: Entry 1 of 1 returned.

ID=7777
STATUS=INS
INTER=N
INTRA=N
INTL=N
CASUAL=N
CUT_THRU=N
OP_SERVICES=N
SEND_CN=N
SEND_CSP=N
USE_DIAL_PLAN=N
ROUTE_GUIDE_ID=test
NETWORK_TYPE=NOTUSED
NATIONAL_NETWORK_PLAN=NOTUSED
```

Carrier All = Y

The Carrier All = Y CLI example is used in the Carrier Based Routing routing examples.

Carrier All = Y Example:

```
CLI>show carrier id=7777
Reply : Success: Entry 1 of 1 returned.

ID=7777
STATUS=INS
INTER=Y
INTRA=Y
INTL=Y
CASUAL=Y
CUT_THRU=Y
OP_SERVICES=Y
SEND_CN=N
SEND_CSP=N
USE_DIAL_PLAN=N
ROUTE_GUIDE_ID=test
NETWORK_TYPE=NOTUSED
NATIONAL_NETWORK_PLAN=NOTUSED
```

Carrier Intra = Y

The Carrier Intra = Y CLI example is used in the 1+ Intralata Call and 0+ Intralata Call routing examples.

Carrier Intra = Y Example:

```
CLI>show carrier id=9999
Reply : Success: Entry 1 of 1 returned.

ID=9999
STATUS=INS
INTER=Y
INTRA=Y
INTL=N
CASUAL=Y
CUT_THRU=Y
OP_SERVICES=Y
SEND_CN=N
SEND_CSP=N
USE_DIAL_PLAN=Y
NETWORK_TYPE=NOTUSED
NATIONAL_NETWORK_PLAN=NOTUSED
```

Carrier Op-Serv = Y

The Carrier Op-Serv = Y CLI example is used in the 0+ Interlata Call and 0+ Intralata Call routing examples.

Carrier Op-Serv = Y Example:

```
CLI>show carrier id=7777
Reply : Success: Entry 1 of 1 returned.

ID=7777
STATUS=INS
INTER=Y
INTRA=N
INTL=N
CASUAL=Y
CUT_THRU=Y
OP_SERVICES=Y
SEND_CN=N
SEND_CSP=N
USE_DIAL_PLAN=N
ROUTE_GUIDE_ID=test
SP_ID=test
NETWORK_TYPE=NOTUSED
NATIONAL_NETWORK_PLAN=NOTUSED
```

Carrier Use Dial-Plan "Y"

The Carrier Use Dial-Plan "Y" CLI example is used in the Carrier Based Routing routing example.

Carrier Use Dial-Plan "Y" Example:

```
CLI>show carrier id=8888
Reply : Success: Entry 1 of 1 returned.

ID=8888
STATUS=INS
INTER=Y
INTRA=N
INTL=N
CASUAL=Y
CUT_THRU=Y
OP_SERVICES=Y
SEND_CN=N
SEND_CSP=N
USE_DIAL_PLAN=Y
DESCRIPTION=TEST
NETWORK_TYPE=NOTUSED
NATIONAL_NETWORK_PLAN=NOTUSED
```

Destination

The Destination CLI example is used in the Basic Subscriber Routingthe following and Basic Trunk Routing routing examples.

Destination Example:

```
CLI>show destination

DEST_ID=local-sub
CALL_TYPE=LOCAL
ROUTE_TYPE=SUB
ZERO_PLUS=N
INTRA_STATE=Y
GAP_ROUTING=N
```

Destination Carrier

The Destination Carrier CLI example is used in the Basic Dial Plan Routing routing example.

Destination Carrier Example:

```
CLI>show destination dest-id=800;
Reply : Success: Entry 1 of 1 returned.

DEST_ID=800
CALL_TYPE=TOLL_FREE
ROUTE_TYPE=CARRIER
CARRIER_ID=7777
ZERO_PLUS=N
INTRA_STATE=Y
GAP_ROUTING=N
```

Destination Interlata

The Destination Interlata CLI example is used in the 1+ Interlata Call routing example.

Destination Interlata Example:

```
CLI>show destination dest-id=interlata
Reply : Success: Entry 1 of 1 returned.

DEST_ID=interlata
CALL_TYPE=INTERLATA
ROUTE_TYPE=ROUTE
ROUTE_GUIDE_ID=test
ZERO_PLUS=N
INTRA_STATE=Y
GAP_ROUTING=N
```

Destination RID

The Destination RID CLI example is used in the Basic Dial Plan Routing routing example.

Destination RID Example:

```
CLI>show destination dest-id=65019
Reply : Success: Entry 1 of 1 returned.

DEST_ID=65019
CALL_TYPE=LOCAL
ROUTE_TYPE=RID
ZERO_PLUS=N
INTRA_STATE=Y
ROUTE_ID=65019
GAP_ROUTING=N
```

Destination ROUTE

The Destination ROUTE CLI example is used in the Basic Dial Plan Routing routing example.

Destination ROUTE Example:

```
CLI>show destination dest-id=65019
Reply : Success: Entry 1 of 1 returned.

DEST_ID=65019
CALL_TYPE=LOCAL
ROUTE_TYPE=ROUTE
ROUTE_GUIDE_ID=local6561200
ZERO_PLUS=N
INTRA_STATE=Y
GAP_ROUTING=N
```

Destination SUB

The Destination SUB CLI example is used in the Basic Dial Plan Routing routing example.

Destination SUB Example:

```
CLI>show destination dest-id=65019
Reply : Success: Entry 1 of 1 returned.

DEST_ID=65019
CALL_TYPE=LOCAL
ROUTE_TYPE=SUB
ZERO_PLUS=N
INTRA_STATE=Y
GAP_ROUTING=N
```

Dial-Plan

The Dial-Plan CLI example is used in the Basic Trunk Routing routing example.

Dial-Plan Example:

```
CLI>show dial-plan id=dp50;digit-string=312-454;
Reply : Success: Entry 1 of 1 returned.

ID=dp50
DIGIT_STRING=312454
REQD_DIGITS=10
DEST_ID=local-sub
SPLIT_NPA=NONE
MIN_DIGITS=10
MAX_DIGITS=10
NOA=NATIONAL
```

Dial-Plan Ca-Config

The Dial-Plan Ca-Config CLI example is used in the Basic Dial Plan Routing routing example.

Dial-Plan Ca-Config Example:

```
CLI>show dial-plan-profile id=dp51
Reply : Success: Entry 1 of 1 returned.

ID=dp51
INTL_DIAL_PLAN_ID=dp50
NANP_DIAL_PLAN=Y

CLI>show dial-plan-profile id=dp50
Reply : Success: Entry 1 of 1 returned.

ID=dp50
DESCRIPTION=dialing plan 1
NANP_DIAL_PLAN=Y

CLI>show ca-config TYPE=DEFAULT-INTL-DIAL-PLAN-ID;
Reply : Success: Entry 1 of 1 returned.

TYPE=DEFAULT-INTL-DIAL-PLAN-ID
DATATYPE=STRING
VALUE=DEFAULT
```

Dial-Plan “dp50”

The Dial-Plan “dp50” CLI example is used in the Basic Subscriber Routingthe following routing example.

Dial-Plan “dp50” Example:

```
CLI>show dial-plan id=dp50
Reply : Success:  Entries 1-3 of 3 returned.

ID=dp50
DIGIT_STRING=212454
REQD_DIGITS=10
DEST_ID=local-sub
SPLIT_NPA=NONE
MIN_DIGITS=10
MAX_DIGITS=10
NOA=NATIONAL

ID=dp50
DIGIT_STRING=312454
REQD_DIGITS=10
DEST_ID=local-sub
SPLIT_NPA=NONE
MIN_DIGITS=10
MAX_DIGITS=10
NOA=NATIONAL

ID=dp50
DIGIT_STRING=412454
REQD_DIGITS=10
DEST_ID=local-sub
SPLIT_NPA=NONE
MIN_DIGITS=10
MAX_DIGITS=10
NOA=NATIONAL
```

DN2sub

The DN2sub CLI example is used in the Basic Subscriber Routingthe following and Ported-In Call Processing routing examples.

DN2sub Example:

```
CLI>show ndc digit-string=312
Reply : Success: Entry 1 of 1 returned.

DIGIT_STRING=312

CLI>show exchange-code ndc=312
Reply : Success: Entry 1 of 1 returned.

NDC=312
EC=454
OFFICE_CODE_INDEX=1188
MIN_DN_LENGTH=10
MAX_DN_LENGTH=10

CLI>show office-code ndc=312; ec=454
Reply : Success: Entry 1 of 1 returned.

DIGIT_STRING=312454
OFFICE_CODE_INDEX=1188
DID=N
CALL_AGENT_ID=CA552
DIALABLE=Y
NDC=312
EC=454
DN_GROUP=xxxx

CLI>show dn2subscriber office-code-index=1188
Reply : Success: Entry 1 of 1 returned.

OFFICE_CODE_INDEX=1188
DN=0001
STATUS=ASSIGNED
RING_TYPE=1
LNP_TRIGGER=N
NP_RESERVED=N
SUB_ID=test2
```

Dp50 Digit-String = 202

The Dp50 Digit-String = 202 CLI example is used in the 1+ Interlata Call routing example.

Dp50 Digit-String = 202 Example:

```
CLI>show dial-plan id=dp50; digit-string=202;
Reply : Success: Entry 1 of 1 returned.

ID=dp50
DIGIT_STRING=202
REQD_DIGITS=10
DEST_ID=interlata
SPLIT_NPA=NONE
MIN_DIGITS=10
MAX_DIGITS=10
NOA=NATIONAL

CLI>show destination dest-id=interlata
Reply : Success: Entry 1 of 1 returned.

DEST_ID=interlata
CALL_TYPE=INTERLATA
ROUTE_TYPE=ROUTE
ROUTE_GUIDE_ID=test
ZERO_PLUS=N
INTRA_STATE=Y
GAP_ROUTING=N
```

Ea-Use = Y

The Ea-Use = Y CLI example is used in the 0+ Interlata Call routing example.

Ea-Use = Y Example:

```
CLI>show sub-profile id=sp50
Reply : Success: Entry 1 of 1 returned.

ID=sp50
DIAL_PLAN_ID=dp50
LOCAL_PFX1_OPT=NR
TOLL_PFX1_OPT=RQ
POP_ID=50
OLI=0
EA_USE_PIC1=Y
```

In DN2Sub

The In DN2Sub CLI example is used in the Ported-In Call Processing routing examples.

In DN2Sub Example:

```
CLI>show office-code digit-string=214-387
Reply : Success: Entry 1 of 1 returned.

DIGIT_STRING=214387
OFFICE_CODE_INDEX=657
DID=N
CALL_AGENT_ID=CA552
DIALABLE=Y
NDC=214
EC=387
DN_GROUP=xxxx

CLI>show dn2subscriber OFFICE_CODE_INDEX=657;dn=1000
Reply : Success: Entry 1 of 1 returned.

OFFICE_CODE_INDEX=657
DN=1000
STATUS=ASSIGNED
RING_TYPE=1
LNP_TRIGGER=N
NP_RESERVED=N
SUB_ID=test1
```

LNP Local Sub

The LNP Local Sub CLI example is used in the Ported-In Call Processing routing examples.

LNP Local Sub Example:

```
CLI>show dial-plan id=dp50;digit-string=214-387
Reply : Success: Entry 1 of 1 returned.

ID=dp50
DIGIT_STRING=214387
DEST_ID=local-sub
SPLIT_NPA=NONE
MIN_DIGITS=10
MAX_DIGITS=10
NOA=NATIONAL

CLI>show destination dest-id=local-sub
Reply : Success: Entry 1 of 1 returned.

DEST_ID=local-sub
CALL_TYPE=LOCAL
ROUTE_TYPE=SUB
ZERO_PLUS=N
INTRA_STATE=Y
GAP_ROUTING=N
```

LNP Route

The LNP Route CLI example is used in the Ported-In Call Processing routing examples.

LNP Route Example:

```
CLI>show dial-plan id=dp50;digit-string=214-387
Reply : Success: Entry 1 of 1 returned.

ID=dp50
DIGIT_STRING=214387
DEST_ID=out
SPLIT_NPA=NONE
MIN_DIGITS=10
MAX_DIGITS=10
NOA=NATIONAL

CLI>show destination dest-id=local-sub
Reply : Success: Entry 1 of 1 returned.

DEST_ID=out
CALL_TYPE=LOCAL
ROUTE_TYPE=ROUTE
ROUTE_GUIDE_ID=test
ZERO_PLUS=N
INTRA_STATE=Y
GAP_ROUTING=N
```

LNP Trigger = Y

The LNP Trigger = Y CLI example is used in the Ported-In Call Processing routing examples.

LNP Trigger = Y Example:

```
CLI>show dn2subscriber OFFICE_CODE_INDEX=657;dn=1000
Reply : Success: Entry 1 of 1 returned.

OFFICE_CODE_INDEX=657
DN=1000
STATUS=ASSIGNED
RING_TYPE=1
LNP_TRIGGER=Y
NP_RESERVED=N
SUB_ID=test1
```

Not in DN2Sub

The Not in DN2Sub CLI example is used in the Ported-In Call Processing routing examples.

Not in DN2Sub Example:

```
CLI>show office-code digit-string=214-387
Reply : Success: Entry 1 of 1 returned.

DIGIT_STRING=214387
OFFICE_CODE_INDEX=657
DID=N
CALL_AGENT_ID=CA552
DIALABLE=Y
NDC=214
EC=387
DN_GROUP=xxxx

CLI>show dn2subscriber OFFICE_CODE_INDEX=657;dn=1000
Reply : Success: Database is void of entries.
```

POP 50 Block

The POP 50 Block CLI example is used in the 1+ Interlata Call routing example.

POP 50 Block Example:

```
CLI>show pop id=50
Reply : Success: Entry 1 of 1 returned.

ID=50
STATE=tx
COUNTRY=usa
TIMEZONE=CST
LOCAL_7D_DIALING=Y
ITP=N
ZERO_MINUS=LEC
BLOCK_EAWOPIC=Y
CNAM_OPTION=NONE
PIC2_REQD=N
TREAT_IMS_ANONYMOUS=N
```

POP 50 No Block

The POP 50 No Block CLI example is used in the 1+ Interlata Call routing example.

POP 50 No Block Example:

```
CLI>show pop id=50
Reply : Success: Entry 1 of 1 returned.

ID=50
STATE=tx
COUNTRY=usa
TIMEZONE=CST
LOCAL_7D_DIALING=Y
ITP=N
ZERO_MINUS=LEC
BLOCK_EAWOPIC=N
CNAM_OPTION=NONE
PIC2_REQD=N
TREAT_IMS_ANONYMOUS=N
```

POP Block-ea = N

The POP Block-ea = N CLI example is used in the 0+ Interlata Call routing example.

POP Block-ea = N Example:

```
CLI>show pop id=50
Reply : Success: Entry 1 of 1 returned.

ID=50
STATE=tx
COUNTRY=usa
TIMEZONE=CST
LOCAL_7D_DIALING=Y
ITP=Y
ZERO_MINUS=LEC
BLOCK_EAWOPIC=N
CNAM_OPTION=NONE
PIC2_REQD=N
LECOSS_ROUTE_GUIDE_ID=test
TREAT_IMS_ANONYMOUS=N
```

POP Block-ea = Y

The POP Block-ea = Y CLI example is used in the 0+ Interlata Call routing example.

POP Block-ea = Y Example:

```
CLI>show pop id=50
Reply : Success: Entry 1 of 1 returned.

ID=50
STATE=tx
COUNTRY=usa
TIMEZONE=CST
LOCAL_7D_DIALING=Y
ITP=Y
ZERO_MINUS=LEC
BLOCK_EAWOPIC=Y
CNAM_OPTION=NONE
PIC2_REQD=N
LECOSS_ROUTE_GUIDE_ID=test
TREAT_IMS_ANONYMOUS=N
```

POP Ea-use = N

The POP Ea-use = N CLI example is used in the 0+ Interlata Call routing example.

POP Ea-use = N Example:

```
CLI>show sub-profile id=sp50
Reply : Success: Entry 1 of 1 returned.

ID=sp50
DIAL_PLAN_ID=dp50
LOCAL_PFX1_OPT=NR
TOLL_PFX1_OPT=RQ
POP_ID=50
OLI=0
EA_USE_PIC1=N
```

POP ITP = Y

The POP ITP = Y CLI example is used in the 1+ Intralata Call and 0+ Intralata Call routing examples.

POP ITP = Y Example:

```
CLI>show pop id=50
Reply : Success: Entry 1 of 1 returned.

ID=50
STATE=tx
COUNTRY=usa
TIMEZONE=CST
LOCAL_7D_DIALING=Y
ITP=Y
ZERO_MINUS=LEC
BLOCK_EAWOPIC=Y
CNAM_OPTION=NONE
PIC2_REQD=N
LECOSS_ROUTE_GUIDE_ID=test
TREAT_IMS_ANONYMOUS=N
```

POP LEC-OSS

The POP LEC-OSS CLI example is used in the 1+ Interlata Call, 1+ Intralata Call, 0+ Interlata Call, and 0+ Intralata Call routing examples.

POP LEC-OSS Example:

```
CLI>show pop id=50
Reply : Success: Entry 1 of 1 returned.

ID=50
STATE=tx
COUNTRY=usa
TIMEZONE=CST
LOCAL_7D_DIALING=Y
ITP=N
ZERO_MINUS=LEC
BLOCK_EAWOPIC=Y
CNAM_OPTION=NONE
PIC2_REQD=N
LECOSS_ROUTE_GUIDE_ID=test
TREAT_IMS_ANONYMOUS=N
```

Ported-Office-Code in CA

The Ported-Office-Code in CA CLI example is used in the Ported-In Call Processing routing examples.

Ported-Office-Code in CA Example:

```
CLI>show ported-office-code digit-string=214-387
Reply : Success: Entry 1 of 1 returned.

DIGIT_STRING=214387
IN_CALL_AGENT=Y
```

Ported-Office-Code in CA = N

The Ported-Office-Code in CA = N CLI example is used in the Ported-In Call Processing routing examples.

Ported-Office-Code CA = N Example:

```
CLI>show ported-office-code digit-string=214-387
Reply : Success: Entry 1 of 1 returned.

DIGIT_STRING=214387
IN_CALL_AGENT=N
```

Service Provider

The Service Provider CLI example is used in the Carrier Based Routing routing example.

Service Provider Example:

```
CLI>show service-provider id=test
Reply : Success: Entry 1 of 1 returned.

ID=test
SP_BASED_ROUTING=N
USE_DIAL_PLAN=Y
ANI_WB_LIST=NONE
```

Sub DP Dest Interlata

The Sub DP Dest Interlata CLI example is used in the 0+ Interlata Call routing example.

Sub DP Dest Interlata Example:

```
CLI>show sub-profile id=sp50
Reply : Success: Entry 1 of 1 returned.

ID=sp50
DIAL_PLAN_ID=dp50
LOCAL_PFX1_OPT=NR
TOLL_PFX1_OPT=RQ
POP_ID=50
OLI=0
EA_USE_PIC1=Y

CLI>show dial-plan id=dp50;digit-string=202
Reply : Success: Entry 1 of 1 returned.

ID=dp50
DIGIT_STRING=202
REQD_DIGITS=10
DEST_ID=interlata
SPLIT_NPA=NONE
MIN_DIGITS=10
MAX_DIGITS=10
NOA=NATIONAL

CLI>show destination dest-id=interlata
Reply : Success: Entry 1 of 1 returned.

DEST_ID=interlata
CALL_TYPE=INTERLATA
ROUTE_TYPE=ROUTE
ROUTE_GUIDE_ID=test
ZERO_PLUS=Y
INTRA_STATE=Y
GAP_ROUTING=N
```

Sub DP Dest Intralata

The Sub DP Dest Intralata CLI example is used in the 1+ Intralata Call and 0+ Intralata Call routing examples.

Sub DP Dest Intralata Example:

```
CLI>show sub-profile id=sp50
Reply : Success: Entry 1 of 1 returned.

ID=sp50
DIAL_PLAN_ID=dp50
LOCAL_PFX1_OPT=NR
TOLL_PFX1_OPT=RQ
POP_ID=50
OLI=0
EA_USE_PIC1=Y

CLI>show dial-plan id=dp50;digit-string=817
Reply : Success: Entry 1 of 1 returned.

ID=dp50
DIGIT_STRING=817
DEST_ID=toll
SPLIT_NPA=NONE
MIN_DIGITS=10
MAX_DIGITS=10
NOA=NATIONAL

CLI>show destination dest-id=toll
Reply : Success: Entry 1 of 1 returned.

DEST_ID=toll
CALL_TYPE=TOLL
ROUTE_TYPE=ROUTE
ROUTE_GUIDE_ID=test
ZERO_PLUS=N
INTRA_STATE=Y
GAP_ROUTING=N
```

Subscriber Test1

The Subscriber Test1 CLI example is used in the Basic Subscriber Routingthe following, 1+ Interlata Call, 1+ Intralata Call, 0+ Interlata Call, and 0+ Intralata Call routing examples.

Subscriber Test1 Example:

```
CLI>show subscriber id=test1
Reply : Success: Entry 1 of 1 returned.

ID=test1
CATEGORY=INDIVIDUAL
NAME=c2421-227-2-1
STATUS=ACTIVE
BILLING_DN=2124540001
DN1=2124540001
PRIVACY=NONE
RING_TYPE_DN1=1
TERM_ID=aaln/S1/1
MGW_ID=c2421-227-2
PIC1=NONE
PIC2=NONE
PIC3=NONE
GRP=N
USAGE_SENS=Y
SUB_PROFILE_ID=sp50
TERM_TYPE=TERM
IMMEDIATE_RELEASE=N
TERMINATING_IMMEDIATE_REL=N
SEND_BILLING_DN=N
```

Subscriber Test2

The Subscriber Test2 CLI example is used in the Basic Subscriber Routingthe following and Basic Trunk Routing routing examples.

Subscriber Test2 Example:

```
CLI>show sub id=test2
Reply : Success: Entry 1 of 1 returned.

ID=test2
CATEGORY=INDIVIDUAL
NAME=c2421-227-125-1
STATUS=ACTIVE
BILLING_DN=3124540001
DN1=3124540001
PRIVACY=NONE
RING_TYPE_DN1=1
TERM_ID=aaln/S1/1
MGW_ID=c2421-227-125
PIC1=NONE
PIC2=NONE
PIC3=NONE
GRP=N
USAGE_SENS=Y
SUB_PROFILE_ID=sp50
TERM_TYPE=TERM
IMMEDIATE_RELEASE=N
TERMINATING_IMMEDIATE_REL=N
SEND_BILLING_DN=N
```

Subsciber and Sub-Profile

The Subsciber and Sub-Profile CLI example is used in the Basic Subscriber Routingthe following and 1+ Interlata Call routing examples.

Subsciber and Sub-Profile Example:

```
CLI>show subscriber id=test1
Reply : Success: Entry 1 of 1 returned.

ID=test1
CATEGORY=INDIVIDUAL
NAME=c2421-227-2-1
STATUS=ACTIVE
BILLING_DN=2124540001
DN1=2124540001
PRIVACY=NONE
RING_TYPE_DN1=1
TERM_ID=aaln/S1/1
MGW_ID=c2421-227-2
PIC1=NONE
PIC2=NONE
PIC3=NONE
GRP=N
USAGE_SENS=Y
SUB_PROFILE_ID=sp50
TERM_TYPE=TERM
IMMEDIATE_RELEASE=N
TERMINATING_IMMEDIATE_REL=N
SEND_BILLING_DN=N

CLI>show sub-profile id=sp50
Reply : Success: Entry 1 of 1 returned.

ID=sp50
DIAL_PLAN_ID=dp50
LOCAL_PFX1_OPT=NR
TOLL_PFX1_OPT=RQ
POP_ID=50
OLI=0
EA_USE_PIC1=Y
```

Trunk-grp 6969

The Trunk-grp 6969 CLI example is used in the Basic Trunk Routing routing example.

Trunk-grp 6969 Example:

```
CLI>show trunk-grp id=6969
Reply : Success: Entry 1 of 1 returned.

ID=6969
CALL_AGENT_ID=CA552
TG_TYPE=SS7
NUM_OF_TRUNKS=96
DPC=19-1-1
TG_PROFILE_ID=3
STATUS=OOS
DIRECTION=BOTH
SEL_POLICY=ASC
GLARE=SLAVE
ALT_ROUTE_ON_CONG=N
SIGNAL_PORTED_NUMBER=N
DIAL_PLAN_ID=dp50
DEL_DIGITS=0
OPER_STATUS=NF
TRAFFIC_TYPE=LOCAL
ANI_BASED_ROUTING=N
NO_ANSWER_TMR=185
```