Critical Release Notice

Publication number: 297-8021-350
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The content of this customer NTP supports the SN09 (DMS) software release.

Bookmarks used in this NTP highlight the changes between the NA015 baseline and the current release. The bookmarks provided are color-coded to identify release-specific content changes. NTP volumes that do not contain bookmarks indicate that the NA015 baseline remains unchanged and is valid for the current release.

Bookmark Color Legend

Black: Applies to content for the NA015 baseline that is valid through the current release.

Red: Applies to new or modified content for NA017 that is valid through the current release.

Blue: Applies to new or modified content for NA018 (SN05 DMS) that is valid through the current release.

Green: Applies to new or modified content for SN06 (DMS) that is valid through the current release.

Purple: Applies to new or modified content for SN07 (DMS) that is valid through the current release.

Pink: Applies to new or modified content for SN08 (DMS) that is valid through the current release.

Orange: Applies to new or modified content for SN09 (DMS) that is valid through the current release.

Attention!
Adobe® Acrobat® Reader™ 5.0 or higher is required to view bookmarks in color.

Publication History

Note: *Refer to the NA015 baseline document for Publication History prior to the NA017 software release.*

January 2006

Standard release 19.05 for software release SN09 (DMS). Updates made for this release are shown below:

Volume 1-3

No changes

Volume 4

Section Channelized access on LPP/LIS, Datafilling table TRKMEM (Sheet 6 of 6), removed (TBD) from remote unit as required by CR Q01256730.

Volume 5-16

No changes

Volume 17

Section Universal Access to CLASS Features, RESOFC field, note added as required by CR Q01218960.

Section Call Forwarding Remote Activation, Limitations and Restrictions, bullet added as required by CR Q01168869.

Volume 18-25

No changes

September 2005

Standard release 19.04 for software release SN08 (DMS). Updates made for this release are shown below:

Volume 1

Section PRI trunk groups, Datafilling table TRKSGRP, L1Flags description corrected for Q01112597.

Volume 10

Section DMS-100 and Meridian 1 Options 11-81 datafill correlation, Table 15-2, L1Flags description corrected for Q01112597.

Volume 17

Call Forwarding Remote Activation, Speed Calling description corrected for Q01095576.

August 2005

Standard release 19.03 for software release SN08 (DMS). Updates made for this release are shown below:

Volume 9

Documentation correction in Call Forward/Interface Busy. CR Q01038988 was incorrectly referred to as CR Q01038999 in the March 2005 documentation release. This has been corrected in the History section for Call Forward/Interface Busy, and in this Critical Release Notice.

Volume 14

Changes made to Residential Call Hold. "Table flow for Residential Call Hold (RCHD)" amended. (Q01038649)

June 2005

Standard release 19.02 for software release SN08 (DMS). Updates made for this release are shown below:

Volume 14

Changes made to Group Intercom All Call (Q00100917)

Volume 16

Changes made to Automatic Call Distribution (Q01091391)

March 2005

Preliminary release 19.01 for software release SN08 (DMS). Updates made for this release are shown below:

Volume 1-8

No changes

Volume 9

Modified – Call Forward/Interface Busy by CR Q01038988

Volume 10-25

No change

December 2004

Standard release 18.02 for software release SN07 (DMS). Updates made for this release are shown below:

Volume 1-12

No changes

Volume 13
Added Virtual Office Worker (VOW) by A00002011

Volume 14-16
No changes

Volume 17
Universal Access to Call Forwarding (UCFW) changes to AMA billing by CR Q00982215

Volume 18-23
No changes

Volume 24
Added OSSAIN XA-Core Data Messaging Capacity Enhancements by A00005160

Volume 25
No changes

September 2004

Preliminary release 18.01 for software release SN07 (DMS). Updates made for this release are shown below:

Volume 1
Modified – Introduction to trunk tables (ES trunk groups) by CR Q00838215-1

Volume 2-3
No changes

Volume 4
Modified – Datafilling Trunk Signaling (ISUP Hop Counter) by CR Q00760514-10

Volume 5-10
No changes

Volume 11
Modified – Datafilling MDC Minimum (Call Pickup) by CR Q00879738

Volume 12
Modified – Datafilling MDC MSAC (Do Not Disturb) by A00002196

Volume 13-15
No changes

Volume 16
Modified – Datafilling ACD Base (Base automatic call distribution) by CR Q00812364

Volume 17
Modified – Datafilling RES Advanced Custom Calling (900 FP) by CR Q00834222
Modified – Datafilling RES Advanced Custom Calling (CSMI) by CR Q00683891
Modified – Datafilling RES Advanced Custom Calling (CWAS) by CR Q00891675-01
Modified – Datafilling RES Advanced Custom Calling (Enhanced CSMI) by CR Q00683891

Volume 18
No changes

Volume 19
Modified – Datafilling RES Service Enablers (SLE) by CR Q00760256

Volume 20
Modified – Datafilling Emergency Number Services (E911 Wireless ALI Interface) by CR Q00856825

Volume 21-24
No changes

Volume 25
Modified – Datafilling Unbundling (UNBN OPTRANS and EA) by A00002765

March 2004

Standard release 17.03 for software release SN06 (DMS). Updates made for this release are shown below:

Volume 1- 9
No changes

Volume 10
Changes due to CR Q00757372 that clarify the applicability of the AUDTRMT option. The changes are in sections:

- 7 Datafilling NI0 NI-2 PRI, PRI Call Screening
- 8 Datafilling NI0 ISDN PRI Base, Flexible Digit Analysis
- 8 Datafilling NI0 ISDN PRI Base, PRI ISDN Treatments
- 9 Datafilling NI0 ISDN PRI CNAM, PRI SUSP for CNAME

Volume 11-16
No changes

Volume 17
Modified - Call Screening, Monitoring, and Intercept (CSMI) for Q00659151
Modified - RES Simultaneous Ringing for Q00715967
Modified - Usage Sensitive Three-way Calling (U3WC) for Q00703423-03

Volume 18
Changes to Chapter 1 - Datafilling RES Display Functionality and Privacy, Anonymous Caller Rejection (ACRJ) as follows:

- change to description of interaction with Call Forwarding Don't Answer (CFDA) for CR Q00773476
- change to description of interaction with SOC RES00011 for CR Q00735537.

Volume 19
Changes due to CR Q00735537, which shows the interaction of various services with SOC RES00011. The changes are in Chapter 1 – Datafilling RES non-display services, and the affected services are:

- Distinctive Ringing/Call Waiting (DRCW)
- Selective Call Acceptance (SCA)
- Selective Call Forwarding (SCF)
- Selective Call Rejection (SCJ)

Volume 20
Changes due to CR Q00757372, which clarifies the applicability of the AUDTRMT option. The changes are in section:

- 2 Datafilling Emergency Number Services, E911 PRI PSAP Delivery

Volume 21-25
No changes

September 2003

Standard release 17.02 for software release SN06 (DMS). Updates made for this release are shown below:

Volume 1
New - Panther support for third-party RMs
Modified - E911 trunk groups

Volume 2-11
No changes

Volume 12
Modified - Query Functional Station Grouping

Volume 13-14
No changes

Volume 15
Modified - VMX Interface

Volume 16
No changes

Volume 17
Modified - Call Screening, Monitoring, and Intercept (CSMI)
Modified - Enhanced CSMI
Modified - Long Distance Alerting
Modified - Long Distance Alerting Enhancement (LDAE)
Modified - Service Order Simplification for MADN Extension Bridging

Volume 18
Modified - Call Logging (CALLOG) Modified - Universal Voice Messaging
Modified - Voice Mail Easy Access (VMEA)

Volume 19
Modified - CMS AR Screening of Private Calls (CASOP)
Modified - In-Session Activation (ISA)

Volume 20
Modified - DMS Integrated E911 PSAP Functionality
Modified - E911 Incoming Wireless Calls
Modified - E911 Incoming Wireless Calls (MF)
Modified - E911 ISUP Parameter Enhancements
Modified - E911 ISUP Trunking
Modified - E911 Tandem
Modified - E911 Translations Robustness
Modified - VFG Support for E911 (LOC and/or ISUP/ANI Call)

Volume 21-25
No changes

June 2003

Preliminary release 17.01 for software release SN06 (DMS). Updates made for this release are shown below.

Volume 1-25
New Critical Release Notice added. Otherwise, no changes

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297-8021-350

DMS-100 Family

North American DMS-100

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LET0015 and up Standard 14.02 May 2001

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1 Datafilling MDC Minimum (continued)

The following chapter is a continuation of the description of the MDC Minimum, MDC00001, functionality.

Last Number Redial

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS15 and later versions

Requirements

Last Number Redial (LNR) requires BAS Generic, BAS00003, to operate.

Description

With Last Number Redial (LNR), an end user can press one key to redial the last number dialed. The end user does not need to dial the complete number again.

Operation

If the end user has a business set or a 2500 set, the end user can activate Last Number Redial (LNR). The end user can press the octothorpe (#) key to activate this feature. If the end user has a 500 set, the end user dials a digit that the customer defines to activate the feature. This digit produces the same result as the octothorpe key. The customer defines the digit through datafill.

When the end user presses the specified key, the system automatically dials the digits of the last called number.

The end user also can dial a feature activation code to activate Last Number Redial (LNR).

Translations table flow

Last Number Redial (LNR) does not affect translations table flow.

Limits

The following limits apply to Last Number Redial (LNR):

- Last Number Redial (LNR) cannot operate in the plain old telephone service (POTS) environment.
- Last Number Redial (LNR) stores a maximum of 24 digits. If the end user dials more than 24 digits, only the first 24 digits are stored. An example of a digit of more than 24 digits appears in cut-through dialing.

Last Number Redial (continued)

- Last Number Redial (LNR) does not store feature codes, authorization codes, account codes, or partially-dialed numbers. The previous stored number remains active.
- The end user can dial a feature activation code to activate Last Number Redial (LNR).
- When the end user dials an octothorpe (#) or the equivalent digit, the system automatically dials the last called number.
- Overlap outpulsing is not compatible with the Last Number Redial (LNR) feature.
- When business sets have multiple directory numbers (DNs) on a set, Last Number Redial (LNR) is available to each DN.

Interactions

Last Number Redial (LNR) does not interact with any other features.

Activation/deactivation by the end user

Last Number Redial (LNR) does not require activation or deactivation by the end user.

Billing

Last Number Redial (LNR) does not affect billing.

Station Message Detail Recording

Last Number Redial (LNR) does not affect Station Message Detail Recording.

Datafilling office parameters

Last Number Redial (LNR) does not affect office parameters.

Last Number Redial (continued)

Datafill sequence

The tables that require datafill to implement Last Number Redial (LNR) appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Last Number Redial (LNR)

Table	Purpose of table
IBNLINES (Note)	IBN Line Assignments. This table contains the line assignments for data channel links for the Bulk Calling Line Identification (BCLI) feature under the format name of BL.
KSETLINE (Note)	Keyset Line. This table associates call appearances, like ISDN LT call activators and indicators, to DNs and different feature options. This table is a current MDC table.
IBNXLA	IBN Translation. This table stores data for the digit translation of specified calls. These calls are from an Integrated Business Network (IBN) station, attendant console, incoming IBN trunk group, or incoming side of a two-way IBN trunk group.
Note: Enter data for this table through SERVORD. A datafill procedure is not provided.	

Datafilling table IBNXLA

Datafill for Last Number Redial (LNR) for table IBNXLA appears in the following table. The fields that apply to Last Number Redial (LNR) appear in this table. See the data schema of this document for a description of the other fields.

Datafilling table IBNXLA

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	Key. This field contains subfields XLANAME and DGLIDX.
RESULT			Result. This field contains subfield TRSEL. ***Note:*** If subfield TRSEL contains entry FEAT, subfields ACR, SMDR, and FEATURE require datafill.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

```
 TABLE: IBNXLA
   KEY                                  RESULT
_____________________________________________________________
NTIXLA     123                          FEAT N N N LNR
```

Tools for verifying translations

Last Number Redial (LNR) does not use tools for verifying translations.

SERVORD

With option LNR, an end user can press a single key to redial the last number dialed. The user does not need to dial the complete number again.

SERVORD limits

Last Number Redial (LNR) does not have any SERVORD limits.

SERVORD prompts

The SERVORD prompts used to assign Last Number Redial (LNR) appear in the following table.

SERVORD prompts for Last Number Redial (LNR)

Prompt	Correct input	Explanation
OPTION	LNR	This field specifies the option you want to assign. Enter LNR.

Note: The system automatically enters data for table KSETLINE or table IBNLINES when you use SERVORD to assign Last Number Redial (LNR).

SERVORD example for how to add Last Number Redial (LNR)

You can use the ADO command to add Last Number Redial (LNR). The procedure appears in the following example.

Last Number Redial (end)

SERVORD example for Last Number Redial (LNR) in prompt mode

```
>ADO
SONUMBER: NOW 92 4 13 PM
>
DN_OR_LEN:
> 0 1 18 9
OPTION:
> LNR
OPTION:
> $
```

SERVORD example for Last Number Redial (LNR) in no-prompt mode

```
>ADO $ 0 1 18 9 LNR $
```

Line Music on Hold

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: MDC00065

Release applicability

NA011 and up

NA011 introduces Line Music on Hold (LMOH).

Prerequisites

Line Music on Hold has no prerequisites.

To operate Line Music on Hold requires the MDC Minimum, MDC00001.

Description

Line Music on Hold adds the capability for a line or group of lines to have multiple music sources. Option LMOH allows an audio source distinctive from the customer group. Large customer groups can divide into smaller business units with a separate music on hold source for each business unit.

Option LMOH allows multiple music sources for a customer group. The assignment of LMOH is through the Service Order System (SERVORD). The line audio source provides the audio source for the line option hold services instead of the customer group audio source.

Option LMOH is compatible with IBN lines, business sets, and basic rate access functional set (BRAFS), and Meridian feature transparency (MFT) integrated services digital network (ISDN) sets. Option LMOH is made to key 1 for Meridian business set (MBS), BRAFS, and MFT ISDN sets and applies to all directory numbers on the set.

Operation

Option LMOH provides a music source for a line different from the customer group audio source. Table CUSTSTN (Customer Group Station Options) list the audio source for the customer group options. Option LMOH operates with the line options that follow:

- Permanent Hold (PHD)
- Call Hold (CHD)
- Call Park (PRK)
- Keyset Music on Hold (KSMOH)

Line Music on Hold (continued)

- Meridian Business Set Camp-On (MBSCAMP)
- Flex Call (FLEXCALL)

The example that follows is for an option without assignment of option LMOH.

- Option CHD is on set A.
- Set A's customer group identifies audio group AUDIO1 for option CHD in table CUSTSTN.
- Set A activates CHD. The far end of the call receives AUDIO1 audio source.

The example that follows is for an option with assignment of option LMOH.

- Option CHD and option LMOH is on set A.
- Set A's customer group identifies audio group AUDIO1 for option CHD in table CUSTSTN. Option LMOH identifies AUDIO2 for set A.
- Set A activates CHD. The far end of the call receives AUDIO2 audio source.

The audio source default setting applies for the customer group in table CUSTSTN for the occurrences that follow:

- Option LMOH is on a line but no tuple exists for the LMOH audio group in table AUDIO.
- The assignment of option LMOH is not on the line.

Translations table flow

The list that follows describes the Line Music on Hold translations tables:

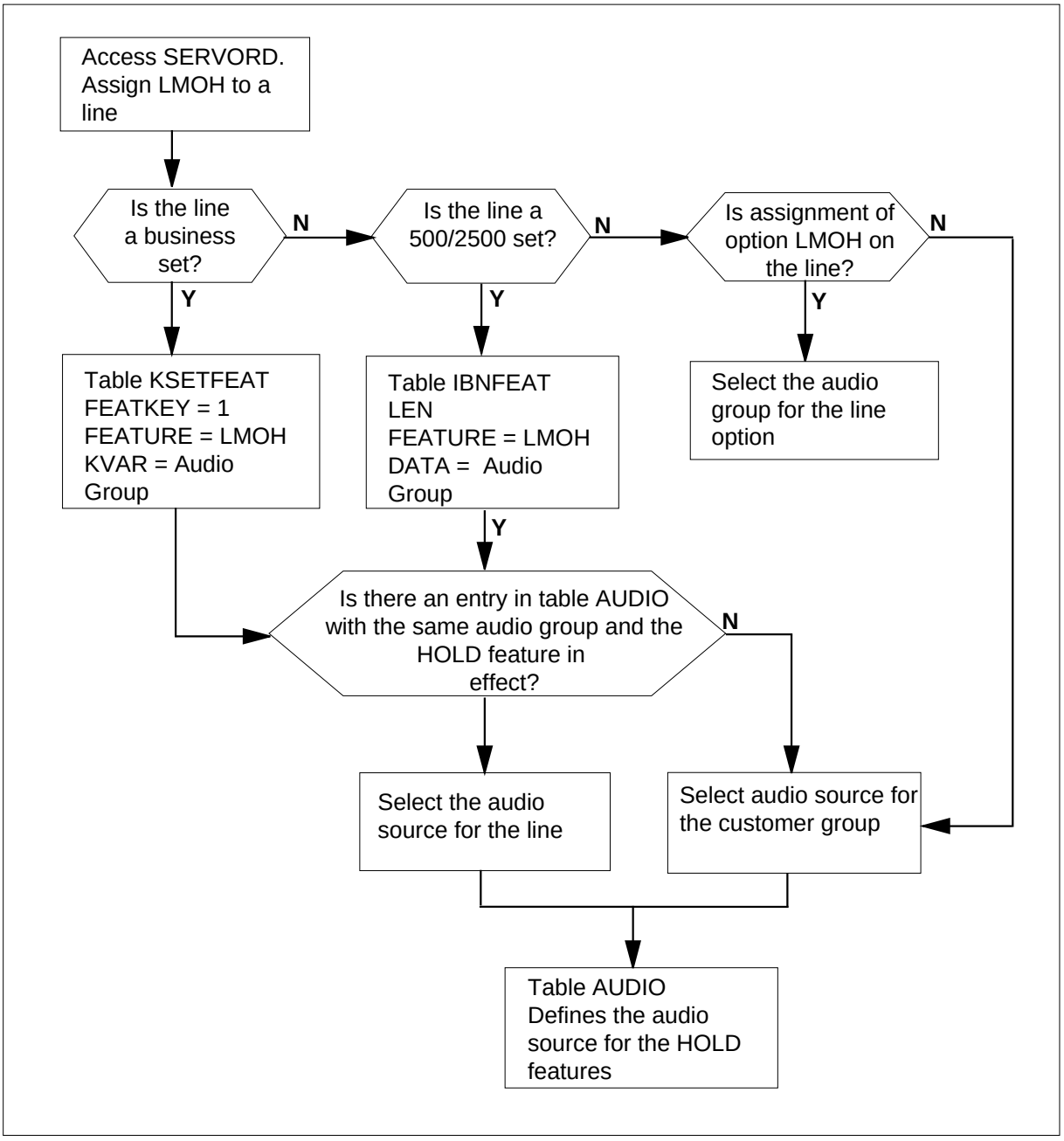
- Table AUDIO (Audio Interlude)
- Table IBNFEAT (Integrated Business Network Features)
- Table KSETFEAT (Business Set and Data Unit Features)

The update for table LCCOPT (Line Class Code Option) shows option LMOH is compatible with IBN, PSET, (proprietory set) and ISDNKSET line class codes. The datafill for table LCCOPT is an internal procedure. There is no datafill procedure or example for table LCCOPT.

The following flowchart shows the Line Music on Hold translation process.

Line Music on Hold (continued)

Table flow for Line Music on Hold



Line Music on Hold (continued)

The following table lists the datafill content used in the flowchart.

Datafill example for Line Music on Hold

Datafill table	Example data
AUDIO	AUDIO1 CHD MUSIC CWMUSICCLLI1 0 $
	AUDIO2 CHD MUSIC RRMUSICCLLI2 0 $
IBNFEAT	HOST 00 0 00 01 0 LMOH LMOH AUDIO1
KSETFEAT	HOST 00 1 00 12 1 LMOH LMOH AUDIO2

Limitations and restrictions

The following limitations and restrictions apply Line Music on Hold:

- The audio group for LMOH is not a requirement in table AUDIO.
- LMOH does not operate without the assignment of one of the features that support music on hold.

Interactions

Line Music on Hold has no functionality interactions.

Activation/deactivation by the end user

Line Music on Hold requires no activation or deactivation by the end user.

Billing

Line Music on Hold does not affect billing.

Station Message Detail Recording

Line Music on Hold does not affect Station Message Detail Recording.

Datafilling office parameters

Line Music on Hold does not affect office parameters.

Datafill sequence

The following table lists the tables that require datafill to implement Line Music on Hold. The tables are listed in the order in which they are to be datafilled.

Datafill tables required for Line Music on Hold

Table	Purpose of table
AUDIO	Audio Interlude. This table defines the audio interlude broadcasts for Integrated Business Network (IBN) audio groups and features. The broadcasts include announcement, music, silence, or ringing.
IBNFEAT (Note)	IBN Line Feature. This table lists the line features assigned to the IBN lines listed in table IBNLINES.
KSETFEAT (Note)	Business Set and Data Unit Feature. This table lists the line features assigned to the business sets and data units (DU) listed in table KSETLINE. The table also lists Meridian digital telephone sets and DUs in table IVDINV (Integrated Voice and Data Services Inventory) .
Note: This table is datafilled through SERVORD; therefore, no datafill procedure or example is provided. Refer to “SERVORD" for an example of using SERVORD to datafill this table.	

Datafill related to Line Music on Hold for table AUDIO

Table AUDIO (Audio Interlude) defines the audio interlude broadcasts for features.

The customer group can have three units and each unit can have its audio source with the assignment of LMOH. The separate audio sources require additional tuples to table AUDIO.

Datafill for Line Music on Hold for table AUDIO appears in the table that follows. This table includes only those fields that apply to Line Music on Hold. See the data schema section of this document for a description of the other fields.

Datafill related to table AUDIO (Sheet 1 of 2)

Field	Subfield	Entry	Description and action
AUDIOKEY		see subfield	Audio Key. This field contains subfields GROUP and FTRINDEX. This feature relates to subfield FTRINDEX.
	FTRINDEX		Feature Index. This subfield identifies the feature that requires a broadcast.

Line Music on Hold (continued)

Datafill related to table AUDIO (Sheet 2 of 2)

Field	Subfield	Entry	Description and action
	CHOICE	MUSIC	Audio Choice. This subfield identifies the audio choice. Enter MUSIC for music. ***Note:*** If you enter MUSIC for CHOICE, subfields MUSICLLI and TIME require datafill.
	MUSICLLI	see subfield	Music CLLI. This subfield identifies the CLLI of the audio trunk. This CLLI must appear in table ANN and table ANNMEMS.
	TIME	0 to 1800	Time. This subfield identifies the delay threshold time. The correct range is from 0 to 1800. The value 0 provides continuous music. This value is only correct as the last entry.

Datafill example for table AUDIO

The following example shows sample datafill for table AUDIO.

MAP display example for table AUDIO

```
AUDIOKEY                                    CHOICE
_____________________________________________________________
AUDIO1   KSMOH          (MUSIC CWMUSICCLLI1 0)  $
AUDIO2   KSMOH         (MUSIC RRMUSICCLLI2 0)   $
```

Translation verification tools

Line Music on Hold does not use translation verification tools.

SERVORD

Line Music on Hold uses the Service Order System.

SERVORD limitations and restrictions

The following SERVORD limitations and restrictions apply to Line Music on Hold:

- LMOH is compatible with the line class codes (LCC) that follow:
  - IBN 500/2500 set
  - PSET (Proprietary Business Set) with or without display (all of the M5000 series)
  - M5008 - Meridian business set (MBS) with 8 keys and no display
  - M5009 - MBS with 9 keys and no display
  - M5112 - MBS with 12 keys and display
  - M5208 - MBS with 8 keys and display
  - M5209 - MBS with 9 keys and display
  - M5212 - MBS with 12 keys and display
  - M5216 - MBS with 16 keys and display
  - M5316 - MBS with 16 keys, display, and hands free
  - ISDNKSET (function NI-1 and NI-2)
- The LCCs that follow do not permit assignment of option LMOH:
  - RES (Residential Enhanced Services)
  - RES/one-party flat rate (1FR) POTS line converts to RES
  - RES/coin first (CCF) POTS coin line converts to RES
  - RES/coin dial-tone first (CDF) POTS coin line converts to RES
  - RES/coin semipostpay (CSP) POTS line converts to RES
  - RES/ one-party message rate (1MR) line converts to RES
- The SERVORD commands that follow support the line option LMOH:
  - ADO (add option)
  - CHF (change feature)
  - DEO (delete option)
  - NEW (new directory number)
  - EST (establish a hunt group)
  - ADD (add a member to a hunt group)

Line Music on Hold (continued)

SERVORD prompts

The following table shows the SERVORD prompts to assign Line Music on Hold to a line.

SERVORD prompts for Line Music on Hold

Prompt	Valid input	Explanation
OPTION	LMOH	Defines the option assignment for the line.
AUDIOGRP	AUDIO1 to AUDIO512	Defines the audio group name.

Note: The system enters data in table KSETFEAT when assignment of LMOH occurs to a business set through SERVORD. The system enters data in table IBNFEAT with the assignment of LMOH to an IBN line through SERVORD.

SERVORD example for adding Line Music on Hold

The following SERVORD example adds Line Music on Hold to a business set with the ADO SERVORD command.

SERVORD example for Line Music on Hold in prompt mode

```
>ADO
SONUMBER:  NOW 98 11 09  AM
>
DN_OR_LEN:
> 0 0 01 15
OPTKEY:
> 1
OPTION:
> LMOH
AUDIOGRP:
> AUDIO2
OPTION:
> $
```

SERVORD example for Line Music on Hold in no-prompt mode

```
> ADO $  00 0 01 15  1  LMOH  AUDIO2 $
```

The following SERVORD example adds Line Music on Hold to an IBN line with the ADO SERVORD command.

Line Music on Hold (end)

SERVORD example for Line Music on Hold in prompt mode

```
>ADO
SONUMBER:  NOW 98 11 09  AM
>
DN_OR_LEN:
> 0 0 0 03
OPTION:
> LMOH
AUDIOGRP:
> AUDIO2
OPTION:
> $
```

SERVORD example for Line Music on Hold in no-prompt mode

```
> ADO $  00 0 00 03   LMOH  AUDIO2 $
```

Lockout

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

To operate, Lockout requires BAS Generic, BAS00003.

Description

With Lockout, the attendant cannot enter a call on a held loop again unless a station user recalls the call or automatic recall occurs. The station must flash the switchhook to recall the attendant. The attendant can press the Loop key to enter the call held on loop again.

Operation

The system automatically activates Lockout after the customer group defines the secrecy option in table CUSTCONS. Field LOCKOUT must contain entry Y.

Translations table flow

Lockout does not affect translations table flow.

Limits

Lockout applies to all attendant consoles (AC) in the customer group. You cannot set Lockout based on separate consoles.

Interactions

The following features interact with Lockout:

- Secrecy. The customer group must set the secrecy option to activate Lockout.
- Six-port Conference Calls. Lockout does not apply to six-port conference calls.

Activation/deactivation by the end user

Lockout does not require activation or deactivation by the end user.

Billing

Lockout does not affect billing.

Station Message Detail Recording

Lockout does not affect Station Message Detail Recording.

Datafilling office parameters

Lockout does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Lockout appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Lockout

Table	Name and purpose of table
CUSTCONS	Customer Group Attendant Console Option. Switches with North American translations and the Integrated Business Network (IBN) feature require this table. This table lists the AC options of each customer group with ACs.

Datafilling table CUSTCONS

Table CUSTCONS (Customer Group Attendant Console Option) contains fields that define Lockout for the customer group.

Datafill for Lockout for table CUSTCONS appears in the following table. The fields that apply to Lockout appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTCONS

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS			Options. This field specifies the option assigned to the customer group. Enter SEC for secrecy.
If subfield OPTIONS contains entry SEC, subfield LOCKOUT requires datafill.			
	LOCKOUT		Lockout. This subfield specifies if attendant lockout is a requirement. Enter Y.

Datafill example for table CUSTCONS

Sample datafill for table CUSTCONS appears in the following example.

Lockout (end)

MAP example for table CUSTCONS

```
TABLE: CUSTCONS

   CUSTNAME                          OPTIONS
_____________________________________________________________
   MDCGRP1                       ( SEC  Y ) $
```

Tools for verifying translations

Lockout does not use tools for verifying translations.

SERVORD

Lockout does not use SERVORD.

Loudspeaker and Radio Paging Access

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS09 and later versions

Requirements

Loudspeaker & Radio Paging access requires BAS Generic, BAS00003, to operate.

Description

Loudspeaker & Radio Paging access allows attendants to access loudspeaker paging equipment. The attendants can page a person over loudspeakers in customer premises. The operating company provides the loudspeaker paging equipment.

The configuration of loudspeaker paging can occur in three methods:

- single paging system/single zone
- single paging system/multiple zones
- multiple paging systems/single zone per system

Operation

Loudspeaker & Radio Paging access works as follows:

- The end user goes off-hook and receives a dial tone. The end user dials the paging access code. This code normally contains the digit 1 followed by two additional digits.
- Seizure of the paging access trunk occurs. The system establishes a network connection between the originating station and the paging access trunk. The system does not return a confirmation tone.

The attendant accesses an idle loop. The attendant accesses an idle loop and dials an access code to gain access to the paging equipment. Seizure of the paging access trunk occurs. The originating station and the paging access trunk connect. The system does not return a confirmation tone for connection. The loudspeaker amplifier cut-through and noise provide indication that a broadcast path is present.

Loudspeaker and Radio Paging Access (continued)

The basic operation outlined in the previous paragraphs applies to the single paging system/single zone configuration. Some differences in the basic operation, outlined above, apply to this configuration. The differences include the following:

- Single paging system/multiple zones. After the end user dials the paging access code, the system returns a dial tone. The station dials the code associated with the specified zone.
- Multiple paging system/single zone per system. Operation is the same as the basic process outlined above. The difference is that each paging system requires a different access code.

The method of radio paging operation is like the method of loudspeaker paging. The user dials the station number of the radio page operator to page another user. The user leaves a message. After the user leaves a message, the user goes on-hook. The radio page operator initiates a call to the radio paging equipment. The operator goes off-hook to complete this action. After the operator receives the dial tone, the operator dials the radio page access code. This action initiates the reversal of the radio paging access trunk. The system returns the dial tone to the the page operator. The operator dials the page code assigned to the paged party. A network connection occurs between the page operator and the radio paging trunk. At this point, the page operator can send a message. Seizure of the radio paging access trunk occurs. The system outpulses the page code to the radio page terminal. When the page operator abandons the call, the release of the radio page equipment occurs. The paged party dials the station number of the page operator station to answer the page. The paged party requests the message. The page operator does not receive a confirmation tone after the operator dials the page code.

Translations table flow

Loudspeaker & Radio Paging access does not affect translations table flow.

Limits

The following limits and restrictions apply to Loudspeaker & Radio Paging access:

- The DMS switch for DP outpulsing does not support the single paging system/multiple zone.
- Only intragroup stations, attendants, and trunks have paging access.
- Only intragroup stations, attendants, and trunks have feature access.
- Line screening code (LSC) restrictions apply to loudspeaker & Radio Paging access.

Loudspeaker and Radio Paging Access (continued)

- Loudspeaker paging access does not have queuing capability. The station end user can receive a busy tone. This condition occurs if the end user dials the paging access code and the equipment is in use already. At the busy tone, the end user must go on-hook and redial the paging access code.
- Interface to loudspeaker paging versions earlier than BCS11 use a trunk card.
- Access to radio paging equipment is subject to station class of service restrictions.
- All page codes in a customer group must have the same number of digits.

Interactions

The following paragraphs describe the interactions between Loudspeaker & Radio Paging access and other functionalities.

The interactions between the Loudspeaker & Radio Paging access feature and other IBN features follow:

- If a customer group has the on-hook queuing ring again feature, that feature can apply to loudspeaker paging access.
- A hardware application adds an option that allows background music to broadcast over the loudspeaker paging system. This option is available when the system is not in use for paging purposes.

Activation/deactivation by the end user

Loudspeaker & Radio Paging access does not require activation or deactivation by the end user.

Billing

Loudspeaker & Radio Paging access does not affect billing.

Station Message Detail Recording

Loudspeaker & Radio Paging access does not affect Station Message Detail Recording.

Datafilling office parameters

Loudspeaker & Radio Paging access does not affect office parameters.

Loudspeaker and Radio Paging Access (continued)

Datafill sequence

The table that requires datafill to implement Loudspeaker & Radio Paging access appears in the following table. The tables appear in the correct entry order.

Datafill requirements for Loudspeaker & Radio Paging access

Table	Purpose of table
IBNXLA	IBN Translation. This table stores data for the digit translation of calls. These calls can be from one of the following: • an IBN station • an attendant console (AC) • incoming side of a two-way IBN trunk group

Datafilling table IBNXLA

Table IBNXLA (IBN Translation) stores data for the digit translation of calls. These calls can be from an IBN station, attendant console, or incoming side of a two-way IBN trunk group. The datafill of table IBNXLA must include the access codes for loudspeaker and radio paging.

Datafill for Loudspeaker & Radio Paging access for table IBNXLA appears in the following table. The fields that apply to Loudspeaker & Radio Paging access appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	Key. This field contains subfields XLANAME and DGLIDX.
	XLANAME	one to eight character name	Translator Name. This subfield specifies the name of the translator. Enter the one to eight character name.
	DGLIDX	1-digit to 18-digit number	Digilator Index. This subfield specifies the access code. Enter the 1-digit to 18-digit number assigned as the access code.

Datafilling table IBNXLA (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfields	Result. This field contains the following subfields: • TRSEL • ACR • SMDR • NO_ACCODE_DIGITS • SECOND_DIAL_TONE • MINDIGS • MAXDIGS • DGCOLNM • INTRAGRP • T_C_L_AREA See the data schema section of this document for a description of all the subfields.
	TRSEL	see subfields	Translation Selector. This subfield specifies the translation selector ROUTE. Enter ROUTE.
	T_C_L_AREA	S	Table, CLLI or Location. This subfield specifies table or CLLI selector. Enter the CLLI selector S. ***Note:*** If you enter S for subfield T_C_L_AREA, subfield CLLI requires datafill.
	CLLI	CLLI code	Common Language Location Identifier. This subfield specifies the CLLI code to which the system must route translations. Enter the CLLI code.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

Loudspeaker and Radio Paging Access (end)

MAP example for table IBNXLA

```
KEY                                                          RESULT
_____________________________________________________________________
CXN2    105
                ROUTE N Y N 0 N  3  3    POTS N S   TSPTO
```

Tools for verifying translations

Loudspeaker & Radio Paging access does not use tools for verifying translations.

SERVORD

Loudspeaker & Radio Paging access does not use SERVORD.

Loudspeaker Paging - Line Termination

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS10 and later versions

Requirements

Loudspeaker Paging - Line Termination requires BAS Generic, BAS00003, to operate.

Description

Loudspeaker Paging - Line Termination allows stations and attendants to access loudspeaker paging equipment to summon a specified person. The configuration of loudspeaker paging can occur in three methods:

- single paging system/single zone
- single paging system/multiple zones
- multiple paging systems/single zone per system

Operation

Loudspeaker Paging - Line Termination operates with the following method:

- The end user goes off-hook, receives dial tone, and dials the paging access code. This code is normally the digit 1 and two additional digits (1XX).
- Seizure of the paging access trunk occurs. The system establishes a network connection between the originating station and the paging access trunk. The system does not return a confirmation tone.

The basic operation outlined above applies to the single paging system/single zone configuration. Some differences in the basic operation outlined above also can occur. These differences include the following:

- In the single paging system/multiple zones, the station user must dial the code associated with the zone. After the user dials the paging access code, the system returns a dial tone. At the dial tone, the station dials the code associated with the zone.
- In the multiple paging system/single zone per system, operation is the same as the basic process outlined above. The difference is that each paging system requires a different access code.

Loudspeaker Paging - Line Termination (continued)

A station not assigned loudspeaker paging access receives intercept treatment when the station user dials the access code.

In a single paging system, multiple zone operation can receive permanent signal/partial dial treatment. Signal/partial dial treatment occurs under the following conditions:

- an assigned station fails to dial a zone code
- an assigned station dials less than the expected number of zone code digits after the station receives special dial tone

The attendant preempt option can initiate the return of a busy tone to an attendant. The busy tone occurs under the following conditions:

- The attendant preempt option is in use.
- One attendant connects to the loudspeaker paging system.
- A second attendant attempts to access the paging system.

Translations table flow

Loudspeaker Paging - Line Termination does not affect translations table flow.

Limits

The following limits and restrictions apply to Loudspeaker Paging - Line Termination:

- The DMS switch for DP outpulsing does not support single paging system/multiple zone configuration.
- This feature requires DTMF sender circuits.
- Only intragroup stations, attendants, and trunks have paging access.
- Loudspeaker paging access does not have queuing ability. The end user can receive a busy tone. This condition occurs if the station end user dials the paging access code and the equipment already is in use. At the busy tone, the end user must go on-hook. The end user must redial the paging access code.
- All page codes in a customer group must have the same number of digits.
- Interface to loudspeaker paging is through a line card. Direct access to loudspeaker paging from a remote line module can apply.

Loudspeaker Paging - Line Termination (continued)

Interactions

The following paragraphs describe the interactions between Loudspeaker Paging - Line Termination and other functionalities.

- If a customer group has the on-hook queuing ring again feature, that feature can apply to loudspeaker paging access.
- A hardware application can add an option that allows background music to broadcast over the loudspeaker paging system. The background music can broadcast when the loudspeaker paging system is not in use for paging purposes.
- Datafill in specified tables can cause the loudspeaker equipment to send continuous off-hook signals back to the DMS switch. If this condition applies, the loudspeaker interfacing line must have option FRS assigned in table IBNFEAT. The loudspeaker interfacing line must have option COD assigned in table IBNLINES.
- The system denies access to the loudspeaker line if another station dials the extension number of the loudspeaker line directly. The other station performs this action to make a ring again request against the line.
- The system denies access to the loudspeaker line if option SUS, DTM, or PLP is present in Table IBNLINES. The system denies access if option RSUS is present in Table IBNFEAT.
- The system denies access to the loudspeaker line if do not disturb is active for the line.
- The system denies access to the loudspeaker line under the following conditions:
  - — the denied incoming option is active on the line
  - — the terminating restriction code and the line screening class are set to block access

Activation/deactivation by the end user

Loudspeaker Paging - Line Termination does not require activation or deactivation by the end user.

Billing

Loudspeaker Paging - Line Termination does not affect billing.

Station Message Detail Recording

Loudspeaker Paging - Line Termination does not affect Station Message Detail Recording.

Loudspeaker Paging - Line Termination (continued)

Datafilling office parameters

Loudspeaker Paging - Line Termination does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Loudspeaker Paging - Line Termination appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Loudspeaker Paging - Line Termination

Table	Purpose of table
CLLI	Common Language Location Identifier. This table contains the fixed CLLI for DTMF sender circuits.
SVRCKT	Service Circuit. This table contains information about digitone outpulsing circuits, R2 inter-register signaling circuits, and service observing circuits. Make sure that Table SVRCKT contains datafill for each DTMF sender circuit.
IBNXLA	IBN Translation. This table stores data. This data is for the digit translation of calls from the following: • an Integrated Business Network (IBN) station • an attendant console (AC) • an incoming side of a two-way IBN trunk group

Datafilling table CLLI

Table CLLI (Common Language Location Identifier) contains the fixed CLLI for DTMF sender circuits.

Datafill for Loudspeaker Paging - Line Termination for table CLLI appears in the following table. The fields that apply to Loudspeaker Paging - Line Termination appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CLLI

Field	Subfield or refinement	Entry	Explanation and action
CLLI		1 to 16	Common Language Location Identifier. This field specifies 1 to 16 characters that identify the far end of each announcement, tone or trunk group. Enter SVDTMF for DTMF transmitter.

Datafill example for table CLLI

Sample datafill for table CLLI appears in the following example.

MAP example for table CLLI

```
    CLLI  ADNUM  TRKGRSIZ                        ADMININF
 _________________________________________________________
 SVDTMF    239        10          DTMFSERVICE_CIRCUIT
```

Datafilling table SVRCKT

Table SVRCKT (Service Circuit) contains information about digitone outpulsing circuits, R2 inter-register signaling circuits, and service observing circuits. Make sure that table SVRCKT contains datafill for each DTMF sender circuit.

Datafill for Loudspeaker Paging - Line Termination for table SVRCKT appears in the following table. The fields that apply to Loudspeaker Paging - Line Termination appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table SVRCKT (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SVCTKEY		see subfields	Service Circuit Key. This field contains subfields CLLI and NUM.
	CLLI	SVDTMF, SVMFC, or SVOBSV	Common Language Location Identifier. Enter SVDTMF for a digitone outpulsing circuit. Enter SVMFC for an R2 inter-register signaling circuit. Enter SVOBSV service observing circuit.
	NUM	0 to 1023	Service Circuit Number. Enter the number assigned to the circuit. Acceptable entries are between 0 and 1023.
TMTYPE		MTM	Trunk Module Type. Enter MTM.
TMNO		0 to 255	Trunk Module Number. This field specifies the number of a trunk module. The Digitone outpulsing circuit, R2 interregister signaling circuit, or service observing circuit is on this trunk module. Enter a value from 0 to 255.

Loudspeaker Paging - Line Termination (continued)

Datafilling table SVRCKT (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
TMCKTNO		0 to 29	Trunk Module Circuit Number. This field specifies the trunk module circuit number of the Digitone outpulsing circuit, R2 interregister signaling circuit, or service observing circuit. Enter a value from 0 to 29.
CARDCODE		3X68AB or 3X68BB for SVDTMF or 5X29AB for SVOBSV	Enter the product engineering code for the tone card. Enter 3X68AB or 3X68BB for SVDTMF. Enter 5X29AB for SVOBSV.

Datafill example for table SVRCKT

Sample datafill for table SVRCKT appears in the following example.

MAP example for table SVRCKT

```
     SVCTKEY    TMTYPE  TMNO   TMCKTNO          CARDCODE
_________________________________________________________
SVDTMF     1            MTM     29           18
3X68AB
SVDTMF     2            MTM     29           19
3X68AB
SVDTMF     2            MTM     29           20
3X68AB
SVDTMF     2            MTM     29           21
3X68AB
```

Datafilling table IBNXLA

Table IBNXLA (IBN Translation) stores data for the digit translation of calls. These calls can be from an IBN station, attendant console, or incoming side of a two-way IBN trunk group.

The datafill of table IBNXLA must include the access codes for the Loudspeaker Paging - Line Termination feature.

Datafill for Loudspeaker Paging - Line Termination for table IBNXLA appears in the following table. The fields that apply to Loudspeaker Paging - Line

Loudspeaker Paging - Line Termination (end)

Termination appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA

Field	Subfield or refinement	Entry	Explanation and action
	TRSEL	see subfields	Translation Selector. This subfield specifies the translation selector FTR. Enter FTR.
	FTRTYPE	see subfields	Feature Result Translation Type. This subfield specifies the feature result translation type. Enter LSPKP for loudspeaker.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

```
KEY                                          RESULT
________________________________________________________
CXN  147                 FTR 3 LSPKP HOST 00 0 00 07 1 Y
```

Tools for verifying translations

Loudspeaker Paging - Line Termination does not use tools for verifying translations.

SERVORD

Loudspeaker Paging - Line Termination does not use SERVORD.

MADN and Conference Interaction

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply.

Release applicability

BCS20 and later versions

Requirements

The MADN and Conference Interaction requires BAS Generic, BAS00003

Description

The MADN and Conference Interaction allows activation of the Multiple Appearance Directory Number (MADN) Hold feature. Activation can occur from the following five conference calls:

- three-way call
- station control conference call
- attendant conference call
- preset conference call
- meet-me conference call

Operation

A description of the MADN and Conference Interaction operation appears in this section. The descriptions for all five conference calls apply to offices that use caller, assistant, and supervisor roles.

Three-way call

The MADN Hold can occur as the controller, first, or second leg party of a three-way call.

Controller leg

For MADN to control a three-way call, the assistant establishes a three-way call and places the call on hold. To gain control of the three-way call, the supervisor picks up the call.

Activation of the MADN Hold can occur during three-way calling when the call is conferenced before this three-way calling. The system places the two legs of the three-way call on local hold. This event occurs when the assistant puts the call on hold before the call that is conferenced. The MADN directory

MADN and Conference Interaction (continued)

number (DN) lamp of the assistant flashes. The MADN DN lamp of the supervisor remains lit, which does not allow the supervisor to pick up the call.

Second leg

The MADN Hold that acts as the second leg of a three-way call operates as follows:

- The caller establishes a two-party call to the assistant.
- The assistant places the call on hold.
- When the set is a Meridian business set (MBS), the supervisor presses the MADN DN key.
- When the set is a 500/2500 set, the supervisor flashes the hookswitch.
- In this condition, the caller can change the call configuration before the assistant activates MADN Hold.
- In this condition, the caller can change the call configuration after the assistant activates MADN Hold.

First leg

The MADN Hold that acts as the first leg of a three-way call operates like the MADN Hold as the second leg. The assistant can be the originating caller or the called party.

Station control conference call

The MADN Hold can perform as the consultant, conferee, or controller leg party of a station control conference call.

Consultant leg

For MADN Hold to act as the consultant leg of a station control conference call, the caller establishes a multiparty conference call. The caller then telephones the assistant. When the assistant activates MADN Hold *before* the supervisor picks up the call, the originating caller can conference in the assistant.

Conferee leg

For MADN Hold to act as the conferee leg of a station control conference call, the caller establishes a multiparty conference call. The caller telephones the assistant. The assistant can activate MADN Hold after being conferenced in the call. When this event occurs, MADN Hold becomes the conferee leg of a station control conference call.

MADN and Conference Interaction (continued)

Controller leg

For MADN Hold to act as the controller leg of a station control conference call, the assistant establishes a conference call. The assistant puts the call on hold. The supervisor presses the MADN Hold key to pick up the conference call. The assistant can activate MADN Hold when the conference call stabilizes and a consultant call is not in progress.

The conference call does not disconnect when a minimum of one of the remaining conferees is on an MDC line. The conference call does not disconnect when this conferee did not access the conference from a trunk line. These events occur when the controller of a station control conference call hangs up. The complete conference disconnects when the last conferee hangs up.

A member that remains can gain control of the conference. This member can flash the hookswitch or press the Conference (CONF) key. The new controller hears a special dial tone and can add members to the conference.

When the controller transfers control of the conference call to another MADN member, the new controller can add more conferees.

Attendant conference call

Activation of the MADN Hold cannot occur when the call involves an attendant.

The assistant activates MADN Hold after being conferenced in a call that an attendant establishes before. The supervisor presses the MADN Hold key to pick up the call. In this example, the assistant is the first party added to the conference call. The assistant requests the attendant to establish the conference call.

Preset conference call

The assistant can initiate of the call with preset conferencing. When the assistant enters the conference, the assistant activates MADN Hold. The supervisor picks up the call.

Meet-me conference call

Meet-me conferencing allows the secretary to place an incoming call on hold after the conference call connects the parties. Meet-me conferencing operates like preset conferencing in this method. In addition, meet-me conferencing can be unlocked. The unlock feature allows additional conferees to dial in the conference. The customer groups without consoles can use the unlock feature. Contact of an attendant is not required to add more conferees.

MADN and Conference Interaction (continued)

To lock a meet me-conference call, a conferee flashes the hookswitch one time. This flash produces a locking confirmation tone on the telephone sets of the conferees. A station that attempts to dial in the conference receives busy treatment.

A flash unlocks the conference for those customer groups without consoles. The conferees hear an unlocking confirmation tone. When a conferee flashes a third time, the conference relocks. The conferees hear a locking confirmation tone again.

To unlock a customer group with consoles, a conferee flashes the hookswitch that calls the attendant. The attendant can add conferees. A caller which dials in the conference receives a busy treatment. The call handles as when the attendant establishes the first conference. The system ignores the flash when attendants are not available.

Translations table flow

The MADN and Conference Interaction does not affect user interface.

Limits

The MADN and Conference Interaction does not have limits.

The following limits apply to MADN and Conference Interaction:

- The telephone set from which MADN Hold activates must be an MBS. The receiving set can be an MBS or a 500/2500 set.
- The MADN applies to single call arrangement (SCA) groups.

Interactions

When a call between two MADN parties on the same DMS switch occurs, MADN and Privacy Release can interact as follows. This call is a local call that does not involve trunks.

- The two parties in the call can activate MADN.
- One party can activate MADN while the other party can activate Privacy Release.
- The two parties cannot activate Privacy Release at the same time.

Activation/deactivation by the end user

The MADN and Conference Interaction does not require activation or deactivation by the end user.

MADN and Conference Interaction (end)

Billing

The MADN and Conference Interaction does not affect billing.

Station Message Detail Recording

The MADN and Conference Interaction does not affect Station Message Detail Recording.

Datafilling office parameters

The MADN and Conference Interaction does not affect office parameters.

Datafill sequence

The tables that require datafill to implement MADN and Conference Interaction appear in the following table. The tables appear in the correct entry order.

Tools for verifying translations

The MADN and Conference Interaction does not use tools to verify translations.

SERVORD

The MADN and Conference Interaction does not use SERVORD.

MAP Display for Attendant OM

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS10 and later versions

Requirements

MAP Display for Attendant OM requires BAS Generic, BAS00003.

Description

The MAP Display for Attendant OM allows an attendant console (AC) to display the operational measurements (OM) of a subgroup in a customer group.

Operation

The MAP Display for Attendant OM creates a MAP subsystem. This subsystem is the attendant console operational measurements (ACOM). The ACOM displays the console OMs of a subgroup in a customer group. The OMs appear on the MAP display. The system refreshes the display every 4 s.

Translations table flow

The MAP Display for Attendant OM does not affect translations table flow.

Limits

The MAP Display for Attendant OM does not have limits.

Interactions

The MAP Display for Attendant OM does not have functionality interactions.

Activation/deactivation by the end user

To activate MAP display for console OMs, the end user enters:
>MAPCI; IBNMEAS; ACOM <CR>.(need correct component)

This feature creates a level in the MAP to display console OMs of a subgroup in a customer group. The command ACOM is at the MAPCI level. The command ACOM allows entry in the ACOM level and display of the console OMs.

MAP Display for Attendant OM (continued)

The ACOM MAP display appears in the following figure. The ACOM MAP display menu commands appear in this figure:

- Quit—This commands quits from the ACOM MAP display and cancels the display of the current OMs.
- Select_ customer group (subgroup)—This command displays the console OMs for a particular customer group and subgroup. You must specify the customer group parameter. The subgroup parameter is optional. If you do not specify a subgroup, the console OMs of subgroup 0 of the specified customer group appear. The OMs initially appear in the zero state.
- Nextsg—This command displays the next subgroup of the customer group when a subgroup of a customer group appears. The issue of this command causes a loss of the console OMs of the subgroup that the system displays. The OMs of the next subgroup appear in the zero state. The last subgroup of the customer group can appear when the command is issued. When this condition occurs, the system returns NO MORE SUBGROUPS - USE SELECT COMMAND.
- StartOM—This command starts the OM scan process after the selection of a customer group and subgroup. The MAP display refreshes at 4 s intervals after the issue of this command.
- StopOM—This command stops the OM scan process. The OMs remain in the state of the last refresh.

MAP Display for Attendant OM (end)

ACOM MAP example

```
                Start Time:
ACOM             WRKTMU   : XXXXX   LPU      : XXXXX    CWINQU    : XXXXX
 0  Quit         ACTVTU   : XXXXX   LPOVFL   : XXXXX    ATQDFL    : XXXXX
 2               ABNDN    : XXXXX   NSCALLS  : XXXXX    ANSLDN    : XXXXX
 3  Select_      ANSINTRP : XXXXX   ANSDIALO : XXXXX    ANSXFRAT  : XXXXX
 4               CWRECALL : XXXXX   CORECALL : XXXXX    DARECALL  : XXXXX
 5               RECALLS  : XXXXX   SPCLCCT  : XXXXX    ANSCFW    : XXXXX
 6  Nextsg       LPHLDREC : XXXXX   ANSDELAY : XXXXX    QTOTAL    : XXXXX
 7               ORIGCALL : XXXXX   EXTDCALL : XXXXX    HLDCALL   : XXXXX
 8               AUTHCALL : XXXXX   SERIALRC : XXXXX
 9
10
11  StartOM
12  StopOM
13
14
15
16
17
18
  C
Time: 15:04
```

Billing

The MAP Display for Attendant OM does not affect billing.

Station Message Detail Recording

The MAP Display for Attendant OM does not affect Station Message Detail Recording.

Datafilling office parameters

MAP Display for Attendant OM does not affect office parameters.

Datafill sequence

The MAP Display for Attendant OM does not affect datafill.

Tools for verifying translations

The MAP Display for Attendant OM does not use tools for verifying translations.

SERVORD

The MAP Display for Attendant OM does not use SERVORD.

MBS 30-Port Conference

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS14 and later versions. Modified for NA018 (LET0018).

Requirements

The MBS 30-Port Conference requires the BAS Generic, BAS00003, functional group.

Description

The MBS 30-Port Conference feature allows a Meridian business set (MBS) to establish a conference call for a maximum of 30 parties. The MBS dials and transfers potential conferees to the conference call. The MBS that initiates the conference call is a part of the maximum number of conferees the feature allows. The MBS has direct control over the development of the call. The MBS does not require operator or attendant help.

The 30-port conference can have maximum numbers of 6, 10, 14, 18, 22, 26, or 30 parties.

Each potential conferee can be a station in or outside the customer group, a line, or a trunk.

A conference (CONF) key is a requirement on the P-phone for the MBS 30-Port Conference feature. For NA007 and later versions, an E911 Public Safety Answering Point (PSAP) with MBS phones can assign this feature to a key.

Operation

The following functions are important for E911 operation and compatibility of conferencing features.

- Selective Call Transfer - Selective Call Transfer allows the PSAP attendant to transfer the call to an agency that serves the type of emergency the caller has. Emergencies include fire, police, or ambulance. The controller PSAP can add secondary PSAPs. The controller PSAP dials the CONF code for the secondary PSAPs.
- Speed Dialing - The controller PSAP can use a speed dialing code to add another party. If the keys of an MBS telephone are programmed to the

speed dial code, you cannot add conferees with these keys. The system disables the use of a key other than the conference key during a conference.

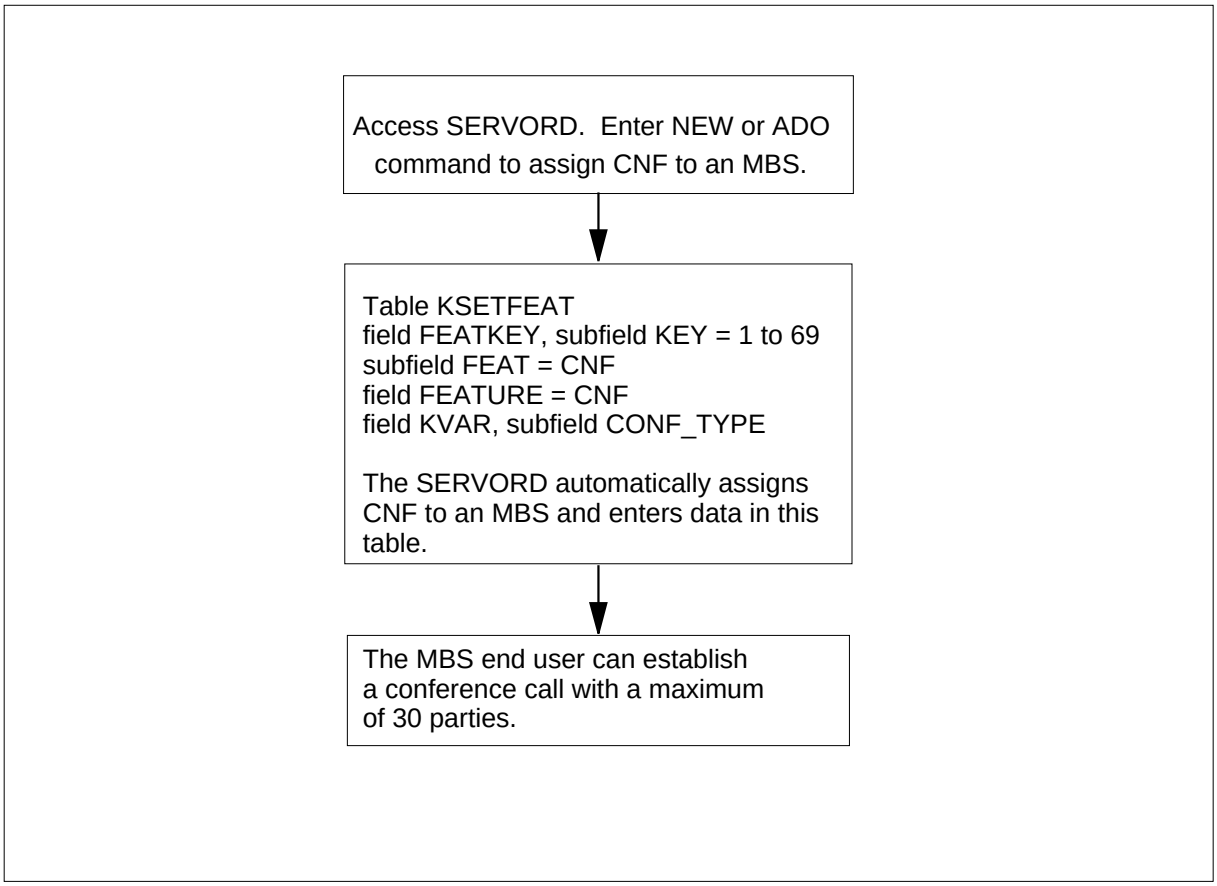
- E911 212 log - The system generates this log at disconnect for each call answered at an E911 Automatic Call Distribution (ACD) line. The system generates this log at disconnect for each call answered at a line appearance on a digital trunk PSAP (LDTPSAP). The system generates this log for the conferencing features when the controller or the caller disconnects.
- Automatic Number Identifier (ANI) Display in EBS telephones - The ANI information of the calling party during a conference appears using PSAPs that use EBS sets with display ability. In an MBS 30-port conference, the ANI appears on the EBS display of PSAPs or add-on controllers at all times.
- Automatic Line Identification (ALI) - This feature operates like Three-way Calling (3WC) during a conference.
- Remote Call Event Records (RCER) - The system generates these records for every PSAP entered with data to receive RCER. The generation occurs when the add-on, controller, or caller disconnects from the conference.
- Alternate Routing - The system routes the call to the alternate route or DN. This event occurs when the PSAP that answers the emergency call attempts to activate the conferencing feature and cannot reach the add-on. Reasons that the PSAP cannot reach the add-on include LOD, LOR, or Night Service being active. The LOR or LOD determines the alternate route or DN.

Translations table flow

The MBS 30-Port Conference translations process appears in the following flowchart. The flowchart and data describe the MBS 30-Port Conference feature assignment through SERVORD and specified datafill in table KSETFEAT.

MBS 30-Port Conference (continued)

Table flow for MBS 30-Port Conference



Example data for MBS 30-Port Conference follows:

- LEN and key for CNF - HOST 00 0 06 15 4
- Number of conferees - 6

The datafill content that the flowchart uses appears in the following table.

Datafill example for MBS 30-Port Conference

Datafill table	Example data
KSETFEAT	HOST 00 0 06 15 4 CNF CNF C06 $

Limits

The following limits apply to MBS 30-Port Conference:

- The MBS 30-Port Conference is not compatible with the authorization code first option. The MBS 30-Port Conference is compatible with the authorization code last option.
- The MBS 30-Port Conference can be assigned to an MBS that has a minimum of one DN that can originate calls.
- If the consult call reaches the attendant, the controller does not have control over the conference. The controller cannot conference the attendant. Control returns to the controller when the attendant releases the consult call or extends the call to another party.
- If the consult call reaches an operating company, the system connects the operator through a trunk. The controller does not lose conferring capabilities.
- If the MBS with conference capabilities has more than one DN, more than one conference can be active at a time. Each conference is different and separate from any other conference on the MBS.
- An LDTPSAP cannot originate a conference.

Interactions

The description of the interactions between MBS 30-Port Conference and other functionalities appears in the following paragraphs.

Call Waiting

If the conference originator has the call waiting (CWT) feature, the system applies call waiting to incoming calls.

Call Waiting/Call Waiting Intragroup

The system can apply call waiting to an incoming call to a conferee. This process occurs if this conferee is on an MBS with the call waiting/call waiting intragroup (CWT/CWI) feature assigned. Call waiting does not apply to the consult call to a busy line with the CWT/CWI feature.

Conference Join

The Conference Join option allows an MBS/IVD user to add a held call onto the second leg of a conference. If desired, the user can conference all parties.

Multiple Appearance Directory Number

A consult call to a multiple appearance directory number (MADN) can be transferred to the conference. The transfer occurs if the called party answers. A MADN line can originate a conference call.

MBS 30-Port Conference (continued)

Originator Hold (ORIGHOLD)

If the 911 caller goes on-hook during a conference, the system holds the connection. The system does not provide the ORIGHOLD tone to the remaining PSAP when the 911 caller goes on-hook. This event occurs if only two conferees are left in the conference. This process is different from the 3WC process. The conference features do not go to a two-party call through a release of the conference bridge. This condition also applies if two parties remain in the call.

Private Business Lines

The MBS 30-Port Conference does not apply to private business lines.

Ringback to 911 Callers

This feature does not work with the conferencing features. This feature differs from three-way Calling when only two parties remain in the call and the 911 call is on-hook.

Activation/deactivation by the end user

Activation/deactivation of MBS 30-Port Conference by the end user

The two ways to start a conference follow:

- The controller is not on an active call. The controller goes off-hook. The controller caller presses the CONF key.
- The controller is on a two-port call. The controller does a hookswitch flash. The controller presses the CONF key.

Note: The system removes the controller from the conference during a limited time to start the consult call. The removal occurs if the controller dials the DN of a potential conferee. The controller can press CONF key to access this call. The controller presses the DN key of the conferee to reenter the conference.

In the following example, the controller performs the actions. The controller is not on an active call.

At your telephone:

1. To go off-hook, press the DN key. The DN key lamp comes on.

   Response:

   You hear dial tone.

2. Press the CONF key.

   Response:

If a 6-port conference bridge is available, you hear special dial tone. The bridge is reserved. The CONF key lamp comes on. The DN key lamp flashes.

If a 6-port bridge is not available, you hear reorder tone. All lamps do not change.

3. Dial the directory number (DN) of the first potential conferee. Wait for the conferee to answer.

   Response:

   The conferee answers.

4. Press the CONF key.

   Response:

   The two parties are placed on two ports of a six-port bridge. The two parties are in a conference.

5. To add additional conferees, press the CONF key.

   Response:

   You hear special dial tone. The DN lamp of the active conference changes from on to flash. The flashing shows that the first conferee is on hold. The CONF key lamp goes on. This on state shows that you are dialing a consult call.

6. Dial the DN of the next potential conferee.

   Response:

   The potential conferee answers.

7. Press the CONF key to transfer conferee to the conference.

   Response:

   The conferee connects to the conference call.

   You are active in the conference. The CONF key lamp goes off because the consult call is down. The DN key lamp changes back to on from flash state.

   If you cannot transfer the conferee to the conference, a lamp change does not occur.

   Note: You cannot transfer a potential conferee in the conference in the ringing state.

8. To release a conferee, press the RLS key. Press the DN key.

   Response:

MBS 30-Port Conference (continued)

The CONF key lamp goes off. The DN key lamp comes on.

9. To return to the conference, press the CONF key.

   Response:

   If you or the conferee go on-hook during the consult, the consult call releases. The system holds the conference. Go off-hook. Press the DN key where the system holds the conference.

   You return to the conference.

   Note: If E911 callers go on-hook during a conference with ORIGHOLD active, the callers can return to the conference. Callers can go off-hook again to return to the conference.

10. To alternate between the consult call and the conference call, the consult call must be in the talking state. To return to the consult call, press the HOLD key. Press the CONF key. You also can press the CONF key to return to the consult call.

    Response:

    The system removes you from the conference. You can talk to the consult call.

    Note: You can repeat this process as many times as necessary.

Use the same procedure to add additional conferees to the conference. If you do not have a larger conference group option assigned, the system ignores the CONF key hit. If the next six-port conference bridge is not available, the system ignores the CONF key hit. You remain in the consult call and can explain the condition to the consulting party. If you have a larger conference option, you can try for the next six-port bridge later.

The conference continues as long as two or more parties remain in the conference. If the controller goes on-hook, the software assigns a new controller if two or more conferees remain in the conference. When two conferees remain, and one conferee goes on-hook, the system releases the conference.

Note: The conference remains active until the PSAP goes on-hook if ORIGHOLD is active. This conference remains active if the remaining parties are the 911 caller and the original PSAP that answered the call. The system releases the conference. This event occurs if the controller goes on-hook when a consult call is on hold and one other conferee remains. Release of the consult call occurs.

In the following example, the controller performs the actions. The controller is in a two-port call with a party on a DN key. This caller can be an E911 caller or an anonymous caller.

At your telephone:

1. Press the CONF key.

   Response:

   If a six-port conference bridge is available, the system places the conferee in the conference. The system removes you from the call and places you in a new consult call in the dialing state.

   If a six-port conference bridge is not available, the system ignores the CONF key hit. You can try again later. A change in lamp state does not occur.

2. Dial the DN of the next potential conferee.

   Response:

   The DN lamp state changes from on to flash. The CONF key goes from off to on. You hear a special dial tone.

3. Continue from this point as directed in the example in which the controller is not on an active call.

Billing

The MBS 30-Port Conference does not affect billing.

Station Message Detail Recording

The MBS 30-Port Conference does not affect Station Message Detail Recording.

MBS 30-Port Conference (continued)

Datafilling office parameters

The office parameters that MBS 30-Port Conference uses appear in the following table. Refer to *Office Parameters Reference Manual* for additional information about office parameters.

Office parameters that are used by MBS 30-Port Conference

Table name	Parameter name	Explanation and action
CPSTACKSIZE		Specifies the number of words of stack space to allocate to each call process. Before you specify a value, refer to CPSTACKSIZE in the *Office Parameters Reference Manual.* Enter a value from 784 to 16000. The default value is 784 for an NT40, 1504 for a SuperNode 68K, and 2000 for a SuperNode 88K.

Datafill sequence

The tables that require datafill to implement MBS 30-Port Conference appear in the following table. The tables appear in the correct entry order.

Datafill requirements for MBS 30-Port Conference

Table	Purpose of table
CPSTACKSIZE	Specifies the number of words of stack space to allocate to each call process. Before you specify a value, refer to CPSTACKSIZE in the *Office Parameters Reference Manual*. Enter a value from 784 to 16000. The default value is 784 for an NT40, 1504 for a SuperNode 68K, and 2000 for a SuperNode 88K.
KSETFEAT	Business Set and Data Unit Feature. The line features assigned to the business sets and data units (DU) in table KSETLINE appear in table KSETFEAT. The Meridian digital telephone sets and DUs that appear in table IVDINV appear in table KSETFEAT. ***Note:*** This table is entered with data through SERVORD. Datafill procedures or examples are not available. See “SERVORD" for an example of the use of SERVORD to enter data in this table.

Tools for verifying translations

The MBS 30-Port Conference does not use tools for verifying translations.

SERVORD

The assignment of option CNF occurs through the Service Order System (SERVORD) add option command (ADO). The delete option (DEO)

command removes option CNF. Option CNF allows a station to set up a conference call of a maximum of 30 parties. Option CNF allows this event to occur without the help of an attendant. The members of the conference can belong to one of the following:

- the same customer group
- another customer group
- a station reached through a trunk

Table KSETFEAT

Table KSETFEAT lists the line features assigned to business sets and data units. Subfield KEY of field FEATKEY identifies the specified key for the -Port Conference feature. Subfield FEAT and field FEATURE identify the MBS 30-Port Conference feature. Subfield CONF_TYPE of field KVAR identifies the number of parties in a conference call with a maximum of 30. This feature assignment occurs through SERVORD.

SERVORD limits

The MBS 30-Port Conference does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts used to assign MBS 30-Port Conference to a current line appear in the following table.

SERVORD prompts for MBS 30-Port Conference

Prompt	Valid input	Explanation
DN_OR_LEN	7-digit DN or LEN	Specifies the 7-digit DN or LEN of the line to change.
OPTKEY	1 to 69	Indicates the key on an MBS to which an option is assigned.
OPTION	CNF	Indicates the name of the option.
CONF_TYPE	C30, C26, C22, C18, C14, C10, C06	Specifies the maximum number of stations that can connect to a station-controlled conference.

Note: The system automatically enters data in table KSETFEAT when the assignment of MBS 30-Port Conference occurs using SERVORD.

MBS 30-Port Conference (end)

SERVORD example for adding MBS 30-Port Conference

The addition of MBS 30-Port Conference to a current line with the ADO command can occur. An example of this procedure appears in the following SERVORD example.

SERVORD example for MBS 30-Port Conference in prompt mode

```
SO
> ADO
SONUMBER:     NOW 87 10 10 PM
>
DN_OR_LEN:
> 2 1 2 11
OPTKEY:
> 7
OPTION:
> CNF
CONF_TYPE:
> C30
OPTKEY:
> $
```

SERVORD example for MBS 30-Port Conference in no-prompt mode

```
>ADO  $  2 1 2 11  7  CNF  C30  $
```

MDC CUSTENG Robustness

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

NA003 and later versions

Requirements

The MDC CUSTENG Robustness does not have requirements.

Description

The table Customer Engineering (CUSTENG) Enhancement for Station Message Detail Recording (SMDR) Billing feature creates a steady mapping. This mapping occurs between a customer group name and a customer group number in table CUSTENG. This feature modifies SMDR so that SMDR uses this map to provide a steady customer number in billing records.

Operation

The customer group number in the SMDR call record reflects an internal number as a link to a specified customer group. After the definition of a new customer group, table CUSTENG must contain a definition for an administration number (ADNUM). The SMDR looks at the value in the ADNUM field to represent a particular customer group.

The first one night process (ONP) that adds this feature to an office initializes the datafill for the ADNUM field. For each table CUSTENG tuple, ONP software enters the ADNUM field of the tuple with the old sequence number. The end users do not see the customer group number change.

Translations table flow

The MDC CUSTENG Robustness does not affect translations table flow.

Limits

The following limits apply to MDC CUSTENG Robustness:

- The dump side requires a patch before the ONP if the office has SMDR billing. If the office does not apply this patch the ONP sets ONP values of

MDC CUSTENG Robustness (continued)

the ADNUM field. If the office does not apply the patch, the ONP changes the customer numbers in SMDR billing.

- The operating company cannot enter values above 4080 for the ADNUM field in table CUSTENG. These values are for system-defined customer groups only.

Interactions

The MDC CUSTENG Robustness does not have functionality interactions.

Activation/deactivation by the end user

The MDC CUSTENG Robustness does not require activation or deactivation by the end user.

Billing

The MDC CUSTENG Robustness does not affect billing.

Station Message Detail Recording

The MDC CUSTENG Robustness does not affect Station Message Detail Recording.

Datafilling office parameters

The MDC CUSTENG Robustness does not affect office parameters.

Datafill sequence

The tables that require datafill to implement MDC CUSTENG Robustness appear in the following table. The tables appear in the correct entry order.

Datafill requirements for MDC CUSTENG Robustness

Table	Purpose of table
CUSTENG	Customer group engineering. The values for the engineering parameters and options for each of the customer groups appear in this table.

Datafilling table CUSTENG

Datafill for MDC CUSTENG Robustness for table CUSTENG appears in the following table. The fields that apply to MDC CUSTENG Robustness appear

in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTENG

Field	Subfield or refinement	Entry	Explanation and action
CUSTNAME		1- to 16-character alphanumeric name	Customer group name. Specifies the name assigned to the customer group.
ADNUM		0 to 4095	Administration number. Specifies a number assigned to the customer group.

Datafill example for table CUSTENG

Datafill for table CUSTENG appears in the following example.

MAP example for table CUSTENG

```
        CUSTNAME    ADNUM    NONCOS    NOIBNTMT    CONSOLES     DOMAIN
GROUPID                                                                  OPTIONS
_____________________________________________________________________________
         POTS827       5         10          63          Y       PRIVATE
                                                                          $
```

MDC CUSTENG Robustness (continued)

Error messages for table CUSTENG

The following error messages apply to table CUSTENG.

Error messages for table CUSTENG

Error message	Explanation and action
`ADNUM must be unique. ADNUM value of # is already in use by another customer group. You can use the next available ADNUM value: #.` where # is a number.	The value you entered in the ADNUM field is already in use by another customer group. Enter the next available ADNUM value.
`ADNUM value of 0 is being replaced with #, the next available ADNUM value.`	You attempted to add a tuple to table CUSTENG with an ADNUM value of 0. Table control automatically replaces 0 with the lowest ADNUM value currently not in use. ***Note:*** This automatic replacement does not allow the addition of a tuple with a 0 value. The value 0 can be a correct ADNUM value. Customer groups with a customer number of 0 before installation of this feature preserve the customer group customer number. Table control does not perform the automatic replacement when the ADNUM of a tuple changes. Table control does not perform the automatic replacement when the ONP adds a tuple.
`WARNING! You are changing the customer group number for SMDR billing. This change will impact downstream processes that use SMDR billing records.`	You changed a current customer group ADNUM value.
`ADNUM values 4080 and above are reserved for system-defined customer groups. You can use the next available ADNUM value: #.`	You entered an ADNUM value greater than or equal to 4080. Enter the next available ADNUM value. ***Note:*** Table control only prints this error message when the end user requests the transaction.

Tools for verifying translations

The MDC CUSTENG Robustness does not use tools for verifying translations.

MDC CUSTENG Robustness (end)

SERVORD

The MDC CUSTENG Robustness does not use SERVORD.

Meet-Me Conference

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions. Modified for NA017 (LET0017).

Requirements

All the datafill information for this functionality appears in this document. The software or hardware requirements can be requirements for complete installation.

Description

The meet-meconference provides a preassigned six-port conference bridge. The Meet-Me Conference provides a directory number (DN) that conference members dial at a specified time to hold a conference. An end user of a station that originates a Meet-Me Conference for a maximum of six parties. The end user must call the attendant. The end user calls the attendant to receive a DN for a conference bridge. The originator of the conference must inform all potential conference members of the DN before the time of the conference.

Note: A DMS station or a trunk with disconnect supervision must be the first station to access the bridge.

Operating companies assign the Meet-Me Conference feature to customer groups through table control. A predetermined order or limit to the number of customer groups that the company can assign Meet-Me Conference is not present. The operating company can assign all 4096 customer groups the Meet-Me Conference functionality. Stations from different customer groups can call a meet-me directory number and hold a conference with all other stations.

An attendant at an Attendant Console can call into a meet-me conference or transfer calls to a meet-me conference. The attendant can join a meet-me conference and also transfer calls to a meet-me conference.

For example, a person needs to join a meet-me conference through an attendant. The person would call the attendant and would therefore be connected to the SRC side of the console. From the DEST of the console dial, the attendant would then dial the meet-me number and release the call. The line connects to the meet-me conference.

The person joining the meet-me conference joins either as a conferee or as a controller. The person joining the meet-me conference has all the privileges and restrictions as a party joining the meet-me conference directly.

Conference types

This feature description applies to a standard (STD) conference type. The entry of data in field CONFTYPE in table MMCONF determines the type of meet-me conference. The number of participants for a standard conference is six or 30. The number depends on the feature packages present in the switch and datafill. An expanded meet-me conference of a maximum of 30 participants is available. This conference is available when a data entry occurs the SUPERCNF option in table CUSTHEAD. See “Meet-Me Conference Feature Expansion" in the MDC translations section of this document. Information on meet-me conference with a maximum of 30 participants appears in this section.

The possible conference types appear as follows:

- STD
- FLASHONLY
- CODEONLY
- CNF6ADDON
- CODEADDON

The Executive Conference feature use all conference types except STD. This feature allows a maximum of 150 participants. See the “Executive Conference" feature description in the MDC translations section of this document for information on non-standard conference types.

Standard conference

In a standard conference, any conferee can lock and unlock the conference. Disconnection of a POTS line normally occurs because a flash is a requirement. An MDC line from a different group receives 5 s reorder tone. When the conferee flashes, the bridge is locked to all additional entrants. If a conferee flashes again, the following can occur:

- If you do not enter data in the customer group that contains the meet-me number to have attendant consoles, the conference unlocks. The conferees can continue to toggle between locked and unlocked.
- The call changes to an attendant console conference and the party that flashed is put on the attendant console queue. These actions occur if you enter the customer group that contains the meet-me number to have attendant consoles.

Meet-Me Conference (continued)

You can decide if an agent outside the customer group of the conference can initiate the conference. You can decide if all the agents in the conference must be in the customer group.

Operation

At the specified time, potential conference members dial the conference bridge DN. The conference begins after the first two callers reach the conference bridge. When you add a new conference member, all conferees receive a confirmation tone. The new conferee does not receive a confirmation tone. This tone indicates that the addition of a new conference member occurred. This tone allows a conferee to make sure that only the desired parties are part of the conference call. This tone allows a conferee to maintain a list of participants.

A conference member can block other calling parties from interrupting the conference call. The block occurs when one of the conference members flashes the hookswitch for the first time. A party that dials in the locked conference receives busy tone. All conference members receive a locking confirmation tone.

A confirmation tone alerts all conferees of the change in the number of participants as conference members disconnect.

Note: Eclude trunks that cannot return disconnect supervision.

If all bridge ports for the conference are busy, a calling party dialing the conference DN receives busy treatment. A calling party does not qualify to join the conference receives busy treatment. If a bridge is not available, the calling party receives reorder treatment.

For each MDC customer group, you can assign a maximum of 16 DNs for meet-me conferences. Each DN can have a conference active at the same time. This event assumes that enough six-port conference circuits have been provisioned for the office.

Translations table flow

The Meet-Me Conference translations tables appear in the following list:

- Table Customer Group Engineering (CUSTENG) allows customer groups to access the six-port conference circuits. You must enter data in table CUSTENG to establish the customer group options for Meet-Me

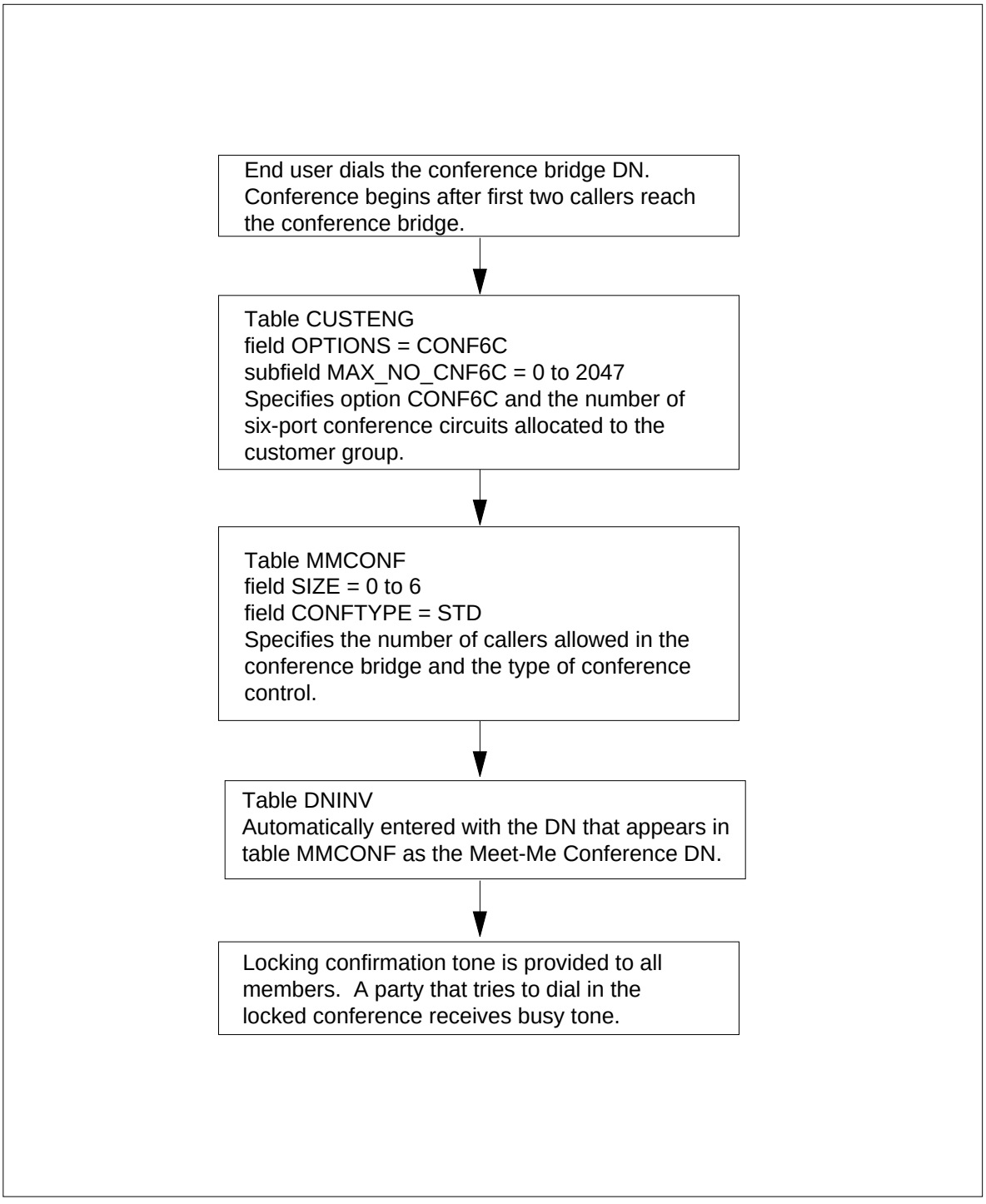
Conference. Data entry of all customer group names intended to have the Meet-Me Conference functionality assigned must occur in this table.

- Data entry in table IBN Meet-Me Conference (MMCONF) must occur to define a meet-me conference DN. Data entry in this table specifies the types of stations the system allows to dial the meet-me conference DN.
- Table DNINV (Directory Number Inventory) stores the DN that appears in table MMCONF as the meet me conference DN. The datafill table MMCONF table control automatically produces this data when you add the DN to table MMCONF.

The Meet-Me Conference translations process appears in the following flowchart. The flowchart and data describe how the assignment of Meet-Me Conference to the customer group occurs.

Meet-Me Conference (continued)

Table flow for Meet-Me Conference



The datafill content in the flowchart appears in the following table.

Datafill example for Meet-Me Conference

Datafill table	Example data
CUSTENG	MDCGRP1 255 32 10 Y N PUBLIC BNR 2227 (CONF6C 4) $
MMCONF	MDCGRP1 1 919 556 1212 1 Y Y 30 STD
DNINV	919 556 1212 FEAT MEETME IBNTST 0

Limits

The following limits apply to Meet-Me Conference:

- When a conference is in a locked state, a hookswitch flash by a conferee represents an attendant recall. The event is like other conference calls. If an attendant attempts to dial in the meet-me conference, the attendant receives reorder treatment.
- For each MDC customer group, you can assign a maximum of 16 directory numbers for meet-me conferences. Each DN can have a conference active at the same time. This event assumes that enough six-port conference circuits have been provisioned for the office.
- If the first conferee is from a trunk, the trunk type must be a trunk that returns disconnect supervision. If a trunk type does not return disconnect supervision, like a 5X25 loop, the caller receives reorder treatment.
- When the first call of a METT ME STD type conference is originated through a trunk hitting a TAT trigger responding with an FC, the first caller does not hear a ringback while waiting for others to join the conference.
- For CNF6ADDON Meet-Me conferences, attempts to add conferees by way of the CNF feature, are only valid for CNF subscribers in the same customer group as the meet-me directory number.

Interactions

The description of the actions between Meet-Me Conference and other functionalities appears in the following paragraphs.

Attendant Camp-On

Activation of the Meet-Me Conference results in the disabling of the Attendant Camp-On.

Meet-Me Conference (continued)

Busy Verification

Busy Verification is disabled when activation of the Meet-Me Conference occurs. The Busy Verification is for the lines and trunks that connect to the conference bridge.

Call Transfer

Call Transfer (CXR) disables when you activate Meet-Me Conference.

Call Waiting

Activation of the Meet-Me Conference results in the disabling of Call Waiting (CWT). The MBS Call Waiting is not disabled if the conferee is a member of the Meet-Me Conference.

Three-Way Conference/Transfer

Activation of the Meet-Me Conference results in the disabling of the Three-Way Conference/Transfer.

Activation/deactivation by the end user

The following events occur during the start of Meet-Me Conference:

Activation/deactivation of Meet-Me Conference by the end user

At your telephone:

1. The first party dials the meet-me conference DN.
2. If a bridge is available, the first party hears audible ring tone until a second party dials in the conference.
3. More parties, a maximum of the entered data limit, can join the conference. Conferees receive a confirmation tone when you add a new conferee.
4. One of the conference members flashes the hookswitch to lock the conference call.
5. Conferees disconnect to end the conference. The order in which conferees disconnect does not apply.

Billing

Meet-Me Conference does not affect billing.

Station Message Detail Recording

Meet-Me Conference does not affect Station Message Detail Recording.

Datafilling office parameters

Meet-Me Conference does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Meet-Me Conference appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Meet-Me Conference

Table	Purpose of table
CUSTENG	Customer Group Engineering. This table allows customer groups to access six-port conference circuits. You must enter data in table CUSTENG to establish the customer group options for the meet-me conference. Data entry of all customer group names intended to have the feature assigned must occur here.
MMCONF	IBN Meet-Me Conference. You must enter data in this table to define a meet-me conference DN. You must enter data in this table to specify the types of stations allowed to dial the meet-me conference DN.
DNINV	Directory Number Inventory. This table contains the data for all assigned and unassigned directory numbers. ***Note:*** Table DNINV is a read-only table. A datafill procedure is not available.

Datafilling table CUSTENG

Table Customer Group Engineering (CUSTENG) allows customer groups to access six-port conference circuits. Data entry of table CUSTENG must occur to establish the customer group options required for Meet-Me Conference. Data entry of all customer group names intended to have the functionality assigned must occur here.

Datafill for Meet-Me Conference for table CUSTENG appears in the following table. The fields that apply to Meet-Me Conference appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTENG (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		see subfield	Options. This field contains subfield OPTION.
	OPTION	CONF6C	Option. This field specifies the assignment of the options to the customer group. To specify the number of six-port conference circuits, enter CONF6C and enter data in refinement MAX_NO_CNF6C.

Meet-Me Conference (continued)

Datafilling table CUSTENG (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	MAX_NO_ CNF6C	0 to 2047	Maximum six-port conference circuits. This refinement specifies the maximum number of six-port conference circuits allocated to the customer group. Enter a value from 0 to 2047.

Datafill example for table CUSTENG

Datafill for table CUSTENG appears in the following example.

MAP example for table CUSTENG

```
CUSTNAME ADNUM NONCOS NONIBNTMT CONSOLES DOMAIN GROUPID
                                              OPTIONS
_____________________________________________________
MDCGRP1  10     255     32        Y      PUBLIC BNR 2227
                                         ( CONF6C  4 ) $
```

Datafilling table MMCONF

You must enter data in table IBN Meet-Me Conference (MMCONF) to define a meet-me conference DN. You must enter data in this table to specify the types of stations allowed to dial the Meet-Me Conference DN.

Datafill for Meet-Me Conference for table MMCONF appears in the following table. The fields that apply to Meet-Me Conference appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table MMCONF (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
LKEY		see subfields	Line key. This field contains subfields CUSTNAME and CONF.
	CUSTNAME	alphanumeric	Customer name. This subfield specifies the name you assign to the customer group. Enter a customer group name that contains 1- to 16-alphanumeric characters.

Datafilling table MMCONF (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	CONF	0 to 15	Conference number. This subfield specifies the number you assign to the meet-me conference DN. Enter a value from 0 to 15.
SNPA		3-digit number 0 to 9	Serving numbering plan area. This field specifies the serving numbering plan area code of the meet-me conference DN. Enter a 3-digit number from 0 to 9.
NNX		3-digit number 0 to 9	NNX code. This field specifies the NNX code of the meet-me conference DN. Enter a 3-digit number from 0 to 9.
DEFGDIGS		4-digit number 0 to 9	DEFG digits. This field specifies the last four digits of the meet-me conference DN. Enter a 4-digit number from 0 to 9.
LSCOMB		0 to 255	Line screening code flag number. This field specifies the line screening code flag number. Enter a value from 0 to 255.
DID		Y or N	Direct inward dial. This field specifies if all lines and incoming trunks that pass the line screening code check can dial the meet-me conference DN. Enter Y if all lines and incoming trunks that pass the line screening code check can dial the meet-me conference DN. Enter N if only the lines and incoming trunks in the same customer group family as the meet-me conference DN can dial the meet-me conference DN.
DIDORIG		Y or N	Direct inward dial origination. This field specifies if extragroup lines can initiate a meet-me conference. Enter Y if extragroup lines can initiate a meet-me conference. Enter N if initiation limited to intragroup lines.
			Note: If fields DID and DIDORIG are set to Y, all conferees can be extragroup. If field DID is set to Y and field DIDORIG is set to N, at least one conferee must belong to the same customer group family as the meet-me conference DN. When any conferee is released from the conference, a check makes sure that at least one of the remaining conferees is intragroup.

Meet-Me Conference (continued)

Datafilling table MMCONF (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
ACALLOW		Y or N	Enter ACALLOW (a call allowed) to allow an attendant be to join/transfer calls to a meet-me conference.
SIZE		0 to 150	Size. This field specifies the number of callers allowed into the conference calls. For an STD conference, enter a value from 0 to 6.
CONFTYPE		CODEADDON, CODEONLY, CNF6ADDON, FLASHONLY, or STD	Conference type. This field specifies the type of conference control. Enter STD for standard conference.
OPTIONS			Options. This field contains subfield MMOPTNS.
	MMOPTNS	NARS	Meet-Me Conference option. An attendant enters option NARS (network access registers) to allow NAR access for calls terminating to a meet-me conference, and datafill refinement NARNAME.
	NARNAME		Network access registers name. Enter the name of the NAR through which a call must have access to continue. Data entry of the NAR name must occur in table NARDATA (Network Access Registers Data).

Datafill example for table MMCONF

Datafill for table MMCONF appears in the following example.

MAP example for table MMCONF

```
   LKEY      SNPA     NNX DEFGDIGS    LSCOMB  DID DIDORIG
SIZE     CONFTYPE     OPTIONS
_____________________________________________________________
MDCGRP1 1    919      556 1212        1       Y   Y
 6        STD         ( NARS NARGRP1) $
```

Tools for verifying translations

Meet-Me Conference does not use translation verification tools.

SERVORD

Meet-Me Conference does not use SERVORD.

MVP Dial Plan

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS15 and later versions

Requirements

To operate, the multiline variety package (MVP) requires BAS Generic, BAS00003.

Description

The MVP Dial Plan allows MVP customers to integrate multiple telephone lines into a single, flexible communications system. This integration does not require the use of special key telephone equipment. The MVP Dial Plan requires the assignment of multiple POTS lines to a shared MDC customer group. The MVP Dial Plan uses the MDC features like Call Hold, Call Pickup, Call Transfer, Conference, Call Waiting, and Call Forwarding that are present. These MDC features provide equivalent key telephone capabilities from the central office (CO).

Operation

The station user goes off-hook and receives dial tone. The user presses the octothorpe (#) key and the member number of the called party. The member number of the called party can be one, two, three, or four digits. The size of the member number depends on the size of the intercom group.

The MVP Dial Plan feature contains two parts:

- a POTS-type dial plan. This plan allows the small business and multiline residence customer to dial calls without an access code to the direct outward dialing (DOD) network. This capability is 9 dialing.
- the group intercom (GIC) capability that allows for abbreviated (station-to-station) dialing in the customer group.

Translations table flow

MVP Dial Plan does not affect translations table flow.

Limits

The MVP Dial Plan (assumed dial 9 dialing) does not have limits. The following limits apply to MVP Dial Plan for GIC:

- the calling party and the called party must be members of the same intercom group
- a station can be a member of only one intercom group
- a GIC occurs on DMS-100 MDC lines only. The following are not supported:
  - — receipt of intercom member numbers on a POTS or IBN trunk
  - — outpulsing of intercom member numbers on a POTS or IBN trunk
  - — dialing of GIC member numbers by a POTS or MDC line. A DMS-100 switch serves the POTS or MDC line during direct inward system access (DISA) feature digit collection.
- a station user cannot change the members of a GIC group
- there can be a maximum of 4095 GIC groups for each DMS-100 switch
- a GIC group can belong to only one customer group
- an attendant console cannot be a member of a GIC group

Interactions

The MVP Dial Plan with assumed dial 9 dialing does not affect feature interactions. The following features interact with MVP Dial Plan for GIC.

Call Forward Intragroup

An end user cannot activate call forward intragroup to a station by dialing that intercom member number of the station. This condition is present because the system does not store the octothorpe.

Call Forward Universal

An end user cannot activate call forward universal on another station by dialing the intercom member number of the station. This condition is present because the the system does not store the octothorpe.

Call Hold

You can use GIC to call another party after you access Call Hold.

Call Park

You cannot use GIC to unpark a parked call.

MVP Dial Plan (continued)

Denied Incoming

A line assigned option denied incoming or denied termination can use GIC to call other GIC members.

Hunt groups

Members of a hunt group can be members of a GIC group. If hunt group members are terminated as a GIC member, the following occurs. Hunting does not take place.

Multiple Appearance Directory Number

A 500/2500 set user cannot be a member of a GIC group and belong to a Multiple Appearance Directory Number (MADN).

When any of the listed options are assigned, the following interactions occur. The interactions occur when A is the calling party using GIC and B is the called party.

- Call Forwarding Busy. If B is busy and has option call forward busy assigned, the system forwards A to the specified number.
- Call Waiting Intragroup. If B is busy and has option call waiting intragroup, A is call waited. Call Waiting - Originating or Dial - Call Waiting can apply.
- Call Forwarding No Answer. If B is ringing and has option call forwarding no answer, the system forwards A to the specified number.
- Ring Again. If B is busy and already has a call waiting, A can activate Ring Again for B.
- Directed Call Pickup. If B is idle and ringing, another party can use option directed call pickup with GIC to answer the call.

  Note: After the system answers the call to B, B can access the options B can access.

Series Completion

A station can have the GIC and series completion (SCMP) options assigned. If the busy station is terminated on as a GIC member, the SCMP route is not followed. If the busy station is terminated on as a DN, the SCMP route is followed.

Speed Calling

A speed call list cannot store an intercom member number.

Station Controlled Conference

You can use GIC to call another conferee when involvement in a Station Controlled Conference occurs.

Three-Way Calling

You can use GIC to call another party for Three-way Calling and for transferring the call.

Activation/deactivation by the end user

The MVP Dial Plan does not require activation or deactivation by the end user.

Billing

The MVP Dial Plan does not affect billing.

Station Message Detail Recording

The MVP Dial Plan does not affect Station Message Detail Recording.

Datafilling office parameters

The MVP Dial Plan does not affect office parameters.

Datafill sequence

The datafill sequence for MVP Dial Plan with assumed dial 9 dialing capability appears in the following sections. The MVP Dial Plan for GIC appears in the following sections.

Assumed dial 9 dialing

The following table requires datafill to implement MVP Dial Plan. The MVP Dial Plan assumes dial 9 dialing.

Datafill requirements for MVP Dial Plan (assumed dial 9 dialing)

Table	Purpose of table
XLANAME	Table XLANAME (List of Translator Names) stores the default data for each translator.

MVP Dial Plan (continued)

MVP Dial Plan for GIC

The following tables require datafill to implement MVP Dial Plan for GIC. The tables appear in the correct entry order.

Datafill requirements for MVP Dial Plan (group intercom for MVP dial plan)

Table	Purpose of table
XLANAME	Table XLANAME (List of Translator Names) stores the default data for each translator.
CUSTHEAD	You must enter table CUSTHEAD (Customer Group Head) to specify the octothorpe translator name used in translations.
IBNFEAT	Table IBNFEAT (IBN Line Features) defines the functionalities assigned to each MDC or RES lines. ***Note:*** Enter table IBNFEAT through SERVORD. A procedure to enter data is not available.

Datafilling table XLANAME

Table XLANAME (List of Translator Names) stores the default data for each translator. When an access code is not found in table IBNXLA (IBN Translation) for a particular translator, the following condition occurs. Use the default data from table XLANAME. If default data is not available for the operating company client group translator, the following condition applies. Use the treatment that field VACTRMT of table CUSTHEAD specifies.

You must enter table XLANAME to define the translations for assumed dial 9 dialing and GIC capabilities of MVP Dial Plan.

Datafill for MVP Dial Plan for table XLANAME appears in the following table. The fields that apply to MVP Dial Plan appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table XLANAME (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DEFAULT		See subfields	Default. This field contains many subfields. Subfields TRSEL, NO_ACCODE_DIGITS, SECOND_DIAL_TONE, and NET_TYPE are for the MVP Dial Plan.
	TRSEL	NET	Translation Selector. This field specifies the translation selector. Enter NET.

Datafilling table XLANAME (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	NO_ACCODE_ DIGITS	0 to 7	Number of Access Code Digits. This field specifies the number of digits in the direct outward dial access code. Enter a value from 0 to 7.
	SECOND_ DIAL_TONE	Y or N	Second Dial Tone. This field specifies if you require the second dial tone. Enter Y or N.
	NET_TYPE	DOD	Network Type. This field specifies the network type. Enter DOD.

Datafill example for table XLANAME

Sample datafill for table XLANAME appears in the following example.

MAP example for table XLANAME

```
XLANAME
                                                        DEFAULT
   MAXDIG
_____________________________________________________________________
DPX1
                ( NET Y N Y 0 N  POTS Y Y DOD Y  2 NONE) $
   9
```

Datafilling table CUSTHEAD

You must enter data in table CUSTHEAD (Customer Group Head) to specify the octothorpe translator name you use in translations.

MVP Dial Plan (continued)

Datafill for MVP Dial Plan for table CUSTHEAD appears in the following table. The fields that apply to MVP Dial Plan appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTHEAD

Field	Subfield or refinement	Entry	Explanation and action
CUSTNAME		1 to 16	Customer Group Key. This field specifies the name assigned to the customer group. Enter the 1- to 16-character alphanumeric name.
CUSTXLA		1 to 18	Customer Translator. This field specifies the name assigned to the block of data or customer translator in the IBNXLA table. This name specifies the data for the translation of digits that originate from an IBN station or attendant. This name specifies the data for the translation of digits. The digits originate from an incoming or incoming side of a two-way trunk group. Enter the 1- to 8-character alphanumeric name.
DGCOLM		1 to 18	Digit Collection Name. This field specifies the name assigned to the block of data in table DIGCOL (IBN Digit Collection). This block of data specifies the IBN digit collection of the IBN lines. Enter the 1- to 8-character alphanumeric name.
IDIGCOL		NIL	International Digit Collection Name. This field specifies the name assigned to the block of data in table DGHEAD (Digit Analysis Head). Enter NIL.
OPTIONS		see subfields	Options. This field specifies the list of options and associated subfields assigned to the customer group.

Datafill example for table CUSTHEAD

Sample datafill for table CUSTHEAD appears in the following example.

MAP example for table CUSTHEAD

```
   CUSTNAME  CUSTXLA DGCOLNM IDIGCOL
                                                    OPTIONS
_____________________________________________________________________
   PRADEFAULT PRAXLA NDGT NIL
                              ( VACTRMT 0) ( EXTNCOS 0) $
```

Tools for verifying translations

The MVP Dial Plan does not use tools for verifying translations.

SERVORD

The Service Order system (SERVORD) commands ADO (add option) or DEO (delete option) can add or delete GIC members.

The SERVORD prompts that you use to assign MVP Dial Plan to a line appear in the following table.

SERVORD limits

MVP Dial Plan does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts that you use to assign MVP Dial Plan to a line appear in the following table.

SERVORD prompts for MVP Dial Plan (Sheet 1 of 2)

Prompt	Correct input	Explanation
OPTION	GIC	Specifies the option. Enter GIC.
GICNAME	a maximum of eight characters	Specifies the name of the GIC line. Enter a name a maximum of eight characters long.
GICMEMNO	0-9	Specifies the digits dialed to reach the line. Enter a number a maximum of four digits long, from 0 to 9.
Note: The system enters data in table IBNFEAT when you use SERVORD to assign MVP Dial Plan.		

MVP Dial Plan (continued)

SERVORD prompts for MVP Dial Plan (Sheet 2 of 2)

Prompt	Correct input	Explanation
GICSMDR	Y, N	Specifies if you require MDR records. Enter Y or N.
GICNOMSB	Y, N	Specifies if GIC calls do not require MSB. Enter Y or N.
Note: The system enters data in table IBNFEAT when you use SERVORD to assign MVP Dial Plan.		

SERVORD example for adding MVP Dial Plan

How you use the ADO command to add MVP Dial Plan to a line appears in the following SERVORD example.

SERVORD example for adding MVP Dial Plan to an existing line in prompt mode

```
>ADO
SONUMBER: NOW 92 1 3 PM
>
DN_OR_LEN:
> 2018
OPTKEY:
> 5
OPTION:
> GIC
GICNAME:
> SMITH
GICMEMNO:
> 24
GICSMDR:
> Y
GICNOMSB: N
> Y
OPTKEY:
> $
```

SERVORD example for adding MVP Dial Plan to a current line in no-prompt mode

```
> ADO $ 2 0 2 8 5 GIC SMITH 24 24 Y Y $
```

MVP Dial Plan (end)

How you use the DEO command to delete MVP Dial Plan from a line appears in the following service order example.

SERVORD example for deleting MVP Dial Plan from a current line in prompt mode

```
SO:
> DEO
SONUMBER:     NOW  90  1  2 AM
>
DN_OR_LEN:
> 2 0 1 8
OPTKEY:
> 5
OPTION:
> GIC
OPTKEY:
> $
```

SERVORD example for deleting MVP Dial Plan from a current line in no-prompt mode

```
> DEO $ 2 0 1 8 5 GIC $
```

Night Service - Flexible

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS10 and later versions

Requirements

Night Service - Flexible requires BAS Generic, BAS00003.

Description

Night Service is a feature that contains the following:

- Night Service Trunk Answer from Any Station - Fixed - BV0445
- Night Service - Flexible - BV0688
- Night Service Trunk Answer From Any Station - TAFAS - BV0505

Night Service handles calls normally directed to the attendant. Night Service directs those calls when the attendant is not available. This service is active after business hours and on weekends.

Night Service is the basic feature. This feature always provides Night Service - Flexible and Night Service Trunk Answer from any Station - Fixed. The Night Service Trunk Answer From Any Station (TAFAS) feature is optional.

The Night Service - Flexible feature allows the attendant to program the number to which calls route when night service is active.

Operation

The attendant can access the Night Service - Flexible feature through a key and lamp. The key and lamp are dedicated to table FNMAP (Attendant Console Functional Key). The attendant can also access this feature through the wild card key.

If the console has a dedicated key and lamp for Night Service - Flexible programming, the attendant performs the following steps. The following steps

program a night service route for a specified incoming identification data (ICI):

- Press the night service programming key on the attendant console. The key lamp flashes. If the release lamp is on, the lamp turns off.
- Dial the three-digit ICI code. Table ICIDATA (Incoming Call Identification Data) contains the three digit code. Dial the directory number (DN) to which the attendant forwards the ICI.
- Press the night service programming key. The programming key turns off.

To change the night service route for an ICI, or to program the route for another ICI, repeat the previous procedure.

To deactivate the Night Service - Flexible feature, press the release key.

If you enter an incorrect programming sequence, you hear 2 s of reorder tone. The night service lamp illuminates for 3 s and turns off.

The attendant console can have a wild card key code assigned for the Night Service - Flexible feature. If the console has a wild card key code and not a dedicated night service programming key, perform the following steps:

- Press the wild card key on the console.
- Dial the wild card access code for night service programming. Table WCKCODES (Wild Card Key Codes) provides the wild card access code.
- Dial the three-digit ICI code and the DN to which the attendant forwards the ICI.
- Press the wild card key.

Translations table flow

Night Service - Flexible does not affect translations table flow.

Night Service - Flexible (continued)

Limits

The following limits apply to Night Service - Flexible:

- All attendants can program night service routes if the consoles have programming keys. The subgroup of the attendant does not affect the ability to program night service routes.
- The system does not redirect incoming calls with low-order ICI codes under night service. The low-order ICI codes receive busy line treatment. The low-order ICI codes and associated call types follow:
  - code 2, attendant recall don't answer
  - code 3, attendant recall camp-on
  - code 4, attendant recall waiting
  - code 5, call forwarding
  - code 6, call forward don't answer
  - code 7, call forward busy
  - code 8, intercept calls
  - code 9, serial calls
  - code 12, conference calls
  - code 25, direct calls
- When night service is active, the system does not check station restrictions. The system does not check limits before the system presents a call to a night station. The attendant must determine the station restrictions before programming an ICI to a station night route.
- To program night service routes, a headset or handset must be plugged in.

Interactions

Night Service - Flexible does not have functionality interactions.

Activation/deactivation by the end user

Night Service - Flexible does not require activation or deactivation by the end user.

Billing

Night Service - Flexible does not affect billing.

Station Message Detail Recording

Night Service - Flexible does not affect Station Message Detail Recording.

Datafilling office parameters

Night Service - Flexible does not affect office parameters.

Datafill sequence

The tables that require datafill to provide Night Service - Flexible appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Night Service - Flexible

Table	Purpose of table
FNMAP	Attendant Console Functional Key. This table assigns features to keys 2 through 43 on specified consoles.
WCKCODES	Wild Card Key Codes. This table contains feature access codes for features not directly programmed on an attendant console.
ICIDATA	Incoming Call Identification Data. This table contains all the ICI codes for a customer group. This table contains a field that contains a maximum of seven alphanumeric characters for key and lamp display purposes. This table contains options for emergency and night service purposes.

Datafilling table FNMAP (dedicated key and lamp)

Table FNMAP (Attendant Console Functional Key) assigns features to keys 2 through 43 on specified consoles.

Enter data in table FNMAP to assign a dedicated key and lamp for the Night Service - Flexible feature. To use the wild card key to access the Night Service - Flexible feature, see “Datafill procedure for Table FNMAP (wild card key)."

Datafill for Night Service - Flexible for table FNMAP appears in the following table. The fields that apply to Night Service - Flexible appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table FNMAP (dedicated key and lamp) (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfields	Result. This field includes subfields KEYSEL and SPFN.

Night Service - Flexible (continued)

Datafilling table FNMAP (dedicated key and lamp) (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	KEYSEL	SPECL	Key Selector. This subfield specifies the special key selector. Enter SPECL.
	SPFN	NSPRG	Special Function. This subfield specifies the special function code for the Night Service - Flexible programming feature. Enter NSPRG.

Datafill example for table FNMAP (dedicated key and lamp)

Sample datafill for table FNMAP appears in the following example. In this example, the user assigns the Night Service - Flexible programming feature (NSPRG) to key number 3 on CONS2. Key number 3 is a dedicated key with a lamp.

MAP example for table FNMAP

```
KEY                                                  RESULT
___________________________________________________________
CONS2   3                                    SPECL     NSPRG
```

Datafilling table FNMAP (wild card key)

Table FNMAP (Attendant Console Functional Key) assigns features to keys 2 through 43 on specified consoles.

If the attendant console does not always have a dedicated key in table FNMAP for Night Service - Flexible programming. When this event occurs, table FNMAP must assign a wild card key. Enter data in table WCKCODES to assign a wild card key access code for Night Service - Flexible programming.

Datafill for Night Service - Flexible for table FNMAP appears in the following table. The fields that apply directly to Night Service - Flexible appear in this

table. See the data schema section of this document for a description of the other fields.

Datafilling table FNMAP (wild card key)

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfields	Result. This field contains subfields KEYSEL and SPFN.
	KEYSEL	SPECL	Key Selector. This subfield specifies the special key selector. Enter SPECL.
	SPFN	WC	Special Function. This subfield specifies the special function code for the wild card key special function. Enter WC.

Datafill example for table FNMAP (wild card key)

Sample datafill for table FNMAP appears in the following example. In this example, table FNMAP assigns the Wild Card feature to key number 4 on console CONS2.

MAP example for table FNMAP

```
KEY                                          RESULT
____________________________________________________
CONS2  4                                SPECL      WC
```

Datafilling table WCKCODES

Table WCKCODES (Wild Card Key Codes) contains feature access codes for features not directly programmed on an attendant console. Enter a maximum of 100 access codes for each wild card key. Enter data in table WCKCODES to assign a wild card key access code for night service programming.

Datafill for Night Service - Flexible for table WCKCODES appears in the following table. The fields that apply to Night Service - Flexible appear in this

Night Service - Flexible (continued)

table. See the data schema section of this document for a description of the other fields.

Datafilling table WCKCODES

Field	Subfield or refinement	Entry	Explanation and action
VALUE		see subfields	Value. This field contains subfield WC_SP_FN.
	WC_SP_FN	NSPRG	Wild Card Key Special Function. This subfield specifies the wild card key special function for the Night Service - Flexible programming feature. Enter NSPRG.

Datafill example for table WCKCODES

Sample datafill for table WCKCODES appears in the following example.

MAP example for table WCKCODES

```
WCKEY                                                    VALUE
_____________________________________________________________
NETIN 21                                                  NSPRG
```

Datafilling table ICIDATA

Table ICIDATA (Incoming Call Identification Data) contains the following:

- the ICI codes for a customer group
- a field that contains a maximum of seven alphanumeric characters for key and lamp display purposes
- options for emergency and night service purposes

A night service option (ATTPRG) indicates if the system allows attendant console programming. An ATTPRG indicates if the other night service option (NSDIGS) has the night service forwarded DN.

Enter data in table ICIDATA for each ICICODE for which the attendant can program a night service route.

Datafill for Night Service - Flexible for table ICIDATA appears in the following table. The fields that apply to Night Service - Flexible appear in this

Night Service - Flexible (end)

table. See the data schema section of this document for a description of the other fields.

Datafilling table ICIDATA

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		ATTPRG or NSDIGS	Options. This field specifies the list of options and associated subfields table ICIDATA assigns to ICICODE. Enter ATTPRG or NSDIGS. If you set OPTIONS to ATTPRG, subfield OPTION requires datafill.
	OPTION	ATTPRG	Option. This field specifies the attendant programming option. Enter ATTPRG. If you set OPTIONS to NSDIGS, subfields OPTION and DIGITS require datafill.
	OPTION	NSDIGS	Option. This field specifies the night service digits option. Enter NSDIGS.
	DIGITS	night service number	Digits. This field specifies the 1-digit to 18-digit night service number assigned to the ICICODE. Enter the night service number.

Datafill example for table ICIDATA

Sample datafill for table ICIDATA appears in the following example.

MAP example for table ICIDATA

```
KEY            NAME

                                                 OPTIONS
________________________________________________________
COREREGA  35    TAFAS
                         (ATTPRG )  (NSDIGS       1234)$
```

Tools for verifying translations

Night Service - Flexible does not use tools for verifying translations.

SERVORD

Night Service - Flexible does not use SERVORD.

Night Service Trunk Answer from Any Station - Fixed

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later version

Requirements

To operate, Night Service Trunk Answer from Any Station - Fixed requires BAS Generic, BAS00003.

Description

Feature Night Service contains the following:

- Night Service Trunk Answer From Any Station - Fixed - BV0445
- Night Service - Flexible - BV0688
- Night Service Trunk Answer From Any Station - TAFAS - BV0505

Night Service is the basic feature. Night Service Trunk Answer From Any Station - Fixed and Night Service - Flexible are always available. The Night Service Trunk Answer From Any Station - TAFAS feature is additional.

The Night Service Trunk Answer From Any Station - Fixed feature changes call routing. The feature allows calls that normally route to the attendant during normal business hours to route to designated locations at night. The desginated route, to reroute station calls that are not attended, is individual directory numbers or a hunt group. Enter night service routes in table ICIDATA (Incoming Call Identification Data).

Operation

To manually activate the Night Service Trunk Answer from Any Station - Fixed feature, press the Night Service key on the attendant console. Unplugged attendant headsets automatically activate this feature.

Translations table flow

Night Service Trunk Answer from Any Station - Fixed does not affect translations table flow.

Night Service Trunk Answer from Any Station - Fixed (continued)

Limits

The following limits apply to Night Service Trunk Answer from Any Station - Fixed:

- The feature routes calls intercepted to a reorder tone or announcement during night service. These intercepted calls normally route to the attendant during the day.
- The feature routes dial zero-type calls to the designated night station. The feature routes dial zero-type calls if the calls are incoming on tie trunks or DMS-100 lines originate the calls.

Interactions

The interactions between Night Service Trunk Answer from Any Station - Fixed and other functionalities appear in the following paragraphs.

The Night Service Trunk Answer from Any Station - Fixed feature interacts with other MDC (Meridian Digital Centrex) features. The interactions appear in the following list:

- This feature does not always forward incoming calls to the night station. This feature does not forward the calls if a DMS-10 office, that serves the line, has activated call forward. The DMS-100 office activates call forwarding to the attendant through the call forward intragroup feature.
- If a DMS-100 station is a designated night number, this feature can forward night service calls to the night service station. This feature forwards all night service calls when the station user activates the call forward feature.
- Night service does not affect direct inward dialing calls.
- Restrictions can prevent stations from answering specified types of calls. These stations cannot be night stations. The call pickup feature can answer night service calls. The ringing station and the station that dials the pickup code must belong to the same pickup group.

Activation/deactivation by the end user

Night Service Trunk Answer from Any Station - Fixed does not require activation or deactivation by the end user.

Billing

Night Service Trunk Answer from Any Station - Fixed does not affect billing.

Station Message Detail Recording

Night Service Trunk Answer from Any Station - Fixed does not affect Station Message Detail Recording.

Night Service Trunk Answer from Any Station - Fixed (continued)

Datafilling office parameters

Night Service Trunk Answer from Any Station - Fixed does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Night Service Trunk Answer from Any Station - Fixed appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Night Service Trunk Answer from Any Station - Fixed

Table	Purpose of table
ICIDATA	Incoming Call Identification Data Table

Datafilling table ICIDATA

Table ICIDATA (Incoming Call Identification Data) contains information for key and lamp displays for each incoming call identification (ICI) number. You must enter table ICIDATA to assign a night service route for each ICI code that requires fixed night service routing. Subfield DIGITS defines the number where the system routes the calls. The system routes the calls to this number when night service in effect.

Datafill for Night Service Trunk Answer from Any Station - Fixed appears in the following table. The fields that apply to Night Service Trunk Answer from Any Station - Fixed appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table ICIDATA

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		NSDIGS	Options. This field specifies the option assigned to an ICI code. Enter NSDIGS.
	DIGITS	digital	Digits. This subfield specifies the number where the system routes a call when an attendant console enters night service mode. Enter a 1-to 18-digit night service number.

Datafill example for table ICIDATA

Sample datafill for table ICIDATA appears in the following example.

Night Service Trunk Answer from Any Station - Fixed (continued)

MAP example for table ICIDATA

```
KEY            NAME
                                                          OPTIONS
_____________________________________________________________________
NETWORK  29  NSDIGS
                                (NSDIGS                    234) $
```

Tools for verifying translations

Night Service Trunk Answer from Any Station - Fixed does not use tools for verifying translations.

SERVORD

Use the Service Order System (SERVORD) command ADO (add option) or the EST (establish a hunt or call pickup group) command to assign option NSDN. Use the DEO (delete option) command to remove option NSDN. Option NSDN allows the system to reroute calls to a predetermined DN or to a busy signal. The system reroutes the calls when a scan point indicates that attended consoles are not present. Option NSDN associates with a console group. Set option NSDN manually from a console.

SERVORD limits

Night Service Trunk Answer from Any Station - Fixed does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts used to assign Night Service Trunk Answer from Any Station - Fixed to a current line appear in the following table.

SERVORD prompts for Night Service Trunk Answer from Any Station - Fixed

Prompt	Correct input	Explanation
PILOT_DN	7-digit DN	Specifies the 7-digit directory number (DN) associated with a multiline hunt (MLH) group. Enter the DN.
PILOT_LEN	line equipment number	Indicates the line equipment number (LEN) of a hunt group pilot. Enter the LEN.
OPTION	NSDN	Indicates the name of the option. Enter NSDN.

Night Service Trunk Answer from Any Station - Fixed (continued)

SERVORD example for assigning Night Service Trunk Answer from Any Station - Fixed

Use of the ADO or EST command to assign Night Service Trunk Answer from Any Station - Fixed appears in the following SERVORD example. Use the DEO command to delete Night Service Trunk Answer from Any Station - Fixed from the line.

Night Service Trunk Answer from Any Station - Fixed (continued)

SERVORD example for adding Night Service Trunk Answer from Any Station - Fixed option NSDN in prompt mode

```
SO:
> EST
SONUMBER:    NOW 87 10 10 PM
>
GROUPTYPE:
> MPH
PILOT_DN:
> 6212000
LCC:
> IBN
GROUP:
> 50B_CON
SUBGRP:
> 0
NCOS:
>0
SNPA:
> 919
LTG:
> 0
PILOT_LEN:
>0 1 5 4
MPHGRP:
>0
CALLTYPE:
>0
MPHCON:
>0
CONLINE:
>1
MPH_MEM_LEN:
>0 0  0 1
MPHCON:
>1
CONLINE:
>2
MPH_MEM_LEN:
>$
OPTION:
>NSDN
NSDN:
>5886
OPTION:
>$
GROUPSIZE:
>10
```

Night Service Trunk Answer from Any Station - Fixed (end)

SERVORD example for adding Night Service Trunk Answer from Any Station - Fixed option NSDN in no-prompt mode

```
> EST $ MPH 6212000 IBN 50B_CON 0 0 919 0 0 1 5 4 0 0 0 1
0001 1 2 $ NSDN 5886 $ 10
```

Night Service Trunk Answer from Any Station - TAFAS

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS09 and later versions

Requirements

To operate, Night Service Trunk Answer from Any Station - TAFAS requires BAS Generic, BAS00003.

Description

Feature Night Service Trunk Answer from Any Station - TAFAS contains the following:

- Night Service Trunk Answer from Any Station - Fixed - BV0445
- Night Service - Flexible - BV0688
- Night Service Trunk Answer from Any Station - TAFAS - BV0505.

When the attendant is not available, Night Service can redirect calls that the attendant normally directs. This service is normally active on weekends and after normal business hours.

Night Service is the basic feature. Night Service - Flexible and Night Service Trunk Answer from Any Station - Fixed are always provided. The Night Service Trunk Answer from Any Station (TAFAS) feature is additional.

Night Service Trunk Answer from Any Station - TAFAS allows any station in a customer group to answer an incoming call type. Answer an incoming call type by dialing an access code when the TAFAS answering device alarm sounds. More than one TAFAS devices can be present. Each incoming call type can have a different TAFAS.

Night Service Trunk Answer from Any Station - TAFAS (continued)

Operation

To answer a call from any station with an active TAFAS feature, the end user must perform the following steps:

1. Go off-hook and receive dial tone.
2. Dial the TAFAS feature access code.
3. When the end user dials the access code, this action silences the audible signals. The answering station connects to the calling party. The calling party can use call transfer to complete the call.

Translations table flow

Night Service Trunk Answer from Any Station - TAFAS does not affect translations table flow.

Limits

The following limits apply to Night Service Trunk Answer from Any Station - TAFAS:

- If a station end user times out before or during dialing, the station receives permanent signal treatment. If the answering station cannot receive incoming calls, the station receives overflow tone. The audible tone continues to sound.
- If another station answers the call, and other calls do not wait for answer, the answering station receives overflow tone. The answering station connects to a waiting call.
- The TAFAS line can be a member of directory number hunt (DNH) hunt group. With the dialed TAFAS access code, the system does not search the complete hunt group.
- If more than one TAFAS device is active, the system answers calls in the order the calls appear in the tables.
- A TAFAS device can have a normal telephone set attached in parallel. When the TAFAS device sounds, the call goes off hook and the station can answer.
- Call forwarding is not supported on lines assigned in table NSTAFAS.

Night Service Trunk Answer from Any Station - TAFAS (continued)

Interactions

The following paragraphs describe the interactions between Night Service Trunk Answer from Any Station - TAFAS and other functionalities.

- The three-way calling feature cannot answer the TAFAS device. Reorder tone returns to these stations. The TAFAS device remains active.
- To dial the TAFAS code when Night Service - Flexible or Night Service Trunk Answer from Any Station - Fixed is not active causes the system to apply vacant treatment.
- The TAFAS device can be a member of a call pickup group. If another station is ringing and the station answers, the following condition is present. Dialing the call pickup feature access code does not always answer the TAFAS device.
- A limited number of stations can be members of the pickup group. As TAFAS does not have this limit, do not assign the TAFAS device to this group.
- Stations with denied termination or origination services cannot answer the TAFAS calls.

Activation/deactivation by the end user

Night Service Trunk Answer from Any Station - TAFAS does not require activation or deactivation by the end user.

Billing

Night Service Trunk Answer from Any Station - TAFAS does not affect billing.

Station Message Detail Recording

Night Service Trunk Answer from Any Station - TAFAS does not affect Station Message Detail Recording.

Datafilling office parameters

Night Service Trunk Answer fAny Station - TAFAS does not affect office parameters.

Night Service Trunk Answer from Any Station - TAFAS (continued)

Datafill sequence

The tables that require datafill to implement Night Service Trunk Answer from Any Station - TAFAS appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Night Service Trunk Answer from Any Station - TAFAS

Table	Purpose of table
CUSTSTN	Customer Group Station Option Table
FNMAP	Attendant Console Functional Key Table
IBNXLA	IBN Translation Table
ICIDATA	Incoming Call Identification Table
NSTAFAS	Night Service Trunk Answer from Any Station Table

Datafilling table CUSTSTN

Table CUSTSTN (Customer Group Station Option) contains the station options assigned to each customer group. Table CUSTSTN must contain data to assign the station option TAFAS to the stations in the customer group.

Datafill for Night Service Trunk Answer from Any Station - TAFAS for table CUSTSTN appears in the following table. The fields that apply to Night Service Trunk Answer from Any Station - TAFAS appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTSTN

Field	Subfield or refinement	Entry	Explanation and action
OPTION		TAFAS	Option. This field specifies the trunk answer from any station option. Enter TAFAS.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

MAP display example for table CUSTSTN

```
CUSTNAME      OPTNAME                                        OPTION
_____________________________________________________________________
COREREGA       TAFAS                                          TAFAS
```

Night Service Trunk Answer from Any Station - TAFAS (continued)

Datafilling table FNMAP

Table FNMAP (Attendant Console Functional Key) assigns features to keys 2 through 43 on specified consoles. Enter data in table FNMAP to assign the key and lamp required if the following condition is present. The attendant console has a dedicated key and lamp for programming of night service.

Datafill for Night Service Trunk Answer from Any Station - TAFAS for table FNMAP appears in the following table. The fields that apply directly to Night Service Trunk Answer from Any Station - TAFAS appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfields	Result. This field contains subfields KEYSEL and SPFN.
	KEYSEL	SPECL	Key Selector. This subfield specifies the special key selector. Enter SPECL.
	SPFN	NSPRG	Special Function. This subfield specifies the special function code for the Night Service Programming feature. Enter NSPRG.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

```
KEY                                                     RESULT
--------------------------------------------------------------
CONS2  3                                         SPECL   NSPRG
```

Datafilling table IBNXLA

Table IBNXLA (IBN Translation) stores the data for the digit translation of calls from an IBN station and attendant console. Table IBNXLA also stores the data for digit translation of calls from an incoming side of a two-way IBN trunk group. Enter data in table IBNXLA. Data in table IBNXLA provides digit translation for calls from the IBN stations to attendant consoles associated with the TAFAS feature. Also add the translator selector ATT for attendant access. Make sure the table contains the necessary information to define this data.

Night Service Trunk Answer from Any Station - TAFAS (continued)

Datafill for Night Service Trunk Answer from Any Station - TAFAS for table IBNXLA appears in the following table. The fields that apply directly to Night Service Trunk Answer from Any Station - TAFAS appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	Key. This field contains subfields XLANAME and DGLIDX.
	XLANAME	1-character to 8-character name	Translator Name. This subfield specifies assigned name of the translator. Enter the 1- to 8-character name.
	DGLIDX	digital	Digilator Index. This subfield specifies the access code. Enter the 1- to 18-digit number assigned as the access code.
RESULT		see subfield	Result. This field contains subfield TRSEL.
	TRSEL	FEAT	Translations Selector. This field specifies the translation selector FEAT. Enter FEAT.
SubfieldTRSEL set to FEAT, causes subfields ACR, SMDR, and FEATURE to require datafill.			
	ACR	Y or N	Account Code Entry. This subfield specifies if an account code is a requirement. Enter Y or N.
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if SMDR is a requirement. Enter Y or N.
	FEATURE	TAFAS	Feature. This field specifies the Trunk Answer from Any Station feature. Enter TAFAS.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

```
KEY                                                          RESULT
_____________________________________________________________________
NTIXLA     123                                  FEAT N Y N TAFAS
```

Night Service Trunk Answer from Any Station - TAFAS (continued)

Datafilling table ICIDATA

Table ICIDATA (Incoming Call Identification Data) contains information for key and lamp displays for each incoming call identification (ICI) number. The entry of data in table ICIDATA must occur to assign the ICI codes for the Night Service, TAFAS feature.

Datafill for Night Service Trunk Answer from Any Station - TAFAS for table ICIDATA appears in the following table. The fields that apply to Night Service Trunk Answer from Any Station - TAFAS appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table ICIDATA

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		ATTPRG	Options. This field specifies the list of options and associated subfields assigned to the ICI code. Enter ATTPRG for attendant programming.
Subfield OPTIONS set to ATTPRG causes subfield OPTION to requires datafill.			
	OPTION	ATTPRG	Option. This subfield specifies the attendant programming option. Enter ATTPRG.

Datafill example for table ICIDATA

Sample datafill for table ICIDATA appears in the following example.

MAP example for table ICIDATA

```
KEY          NAME                                        OPTIONS
_____________________________________________________________
COREREGA  35  TAFAS     (ATTPRG ) (NSDIGS          1234)$
```

Datafilling table NSTAFAS

Table NSTAFAS (Night Service Trunk Answer from Any Station) contains datafill for customer groups. The datafill allows any station in the customer group to answer an incoming call. To answer incoming calls, the station dials a code when a TAFAS alerting device sounds. The entry of data in table NSTAFAS must occur to assign the designated directory numbers and customer groups for the Night Service Trunk Answer from Any Station - TAFAS feature.

Night Service Trunk Answer from Any Station - TAFAS (end)

Datafill for Night Service Trunk Answer from Any Station - TAFAS for table NSTAFAS appears in the following table. The fields that apply to Night Service Trunk Answer from Any Station - TAFAS appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table NSTAFAS

Field	Subfield or refinement	Entry	Explanation and action
NSNOKEY		see subfields	Night Service Number Key. This field contains subfields CUSTGRP and NSTABIDX.
	CUSTGRP	alphanumeric	Customer Group Name. This subfield specifies the 1-character to 16-character alphanumeric name assigned to the customer group. Enter the customer group name.
	NSTABIDX	0 to 7	Night Service Table Index. This subfield specifies the number assigned to the TAFAS device. Enter a value from 0 to 7.
DN		see explanation	Directory Number. This field specifies the 7-digit directory number assigned to the TAFAS device. Enter the directory number.

Datafill example for table NSTAFAS

Sample datafill for table NSTAFAS appears in the following example.

MAP example for table NSTAFAS

```
NSNOKEY              DN
_____________________________________________________________________
COREREGA 1         7322815
COREREGB 0         7322901
AREGMDCA 0         7322700
```

Tools for verifying translations

Night Service Trunk Answer from Any Station - TAFAS does not use tools for verifying translations.

SERVORD

Night Service Trunk Answer from Any Station - TAFAS does not use SERVORD.

Optional Answer Supervision from Attendant Queue

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS23 and later versions

Requirements

To operate, the Optional Answer Supervision from Attendant Queue feature requires BAS Generic, BAS00003.

Description

The Optional Answer Supervision from Attendant Queue feature modifies the answer condition of Audio Input on Incoming Calls in Queue (BV0602). Before this feature, the answer condition did not occur until the attendant answered the call. Currently, the system records a call that an MDC attendant console (AC) queues as answered. The system records the call as answered when Audio Input on Incoming Calls in Queue routes the caller to a recorded announcement. The call routes to a recorded announcement after the first audible ringing period.

Note: Field MOHTIME specifies the duration of the audible ringing period. This field specifies this time period when you assign option MHOLD to a customer group in Table CUSTHEAD (Customer Group Head).

Operation

The Optional Answer Supervision from Attendant Queue feature does not apply after the attendant answers the call. For example, if the attendant places an active call on hold, with announcement and music, this feature does not have an effect. This feature does not apply when the announcement occurs after the system routes the caller to treatment. The feature applies to each call type in the AC queue.

Billing starts for a call in queue after the first audible ringing period. Billing starts when the recorded announcement that the Audio Input on Incoming Calls in Queue feature provides begins. If the calling user goes on-hook before the attendant answers, the operating company bills the calling user for a specified period. The operating company bills the calling user for the time between the start of the announcement to when the calling user abandons the call.

Optional Answer Supervision from Attendant Queue (continued)

If the calling user goes on-hook after the attendant answers, the operating company bills the calling user. The operating company bills the calling user for the duration of the connection between the calling user and the attendant. The two time intervals appear in the same billing record.

Translations table flow

How the Optional Answer Supervision from Attendant Queue is assigned to a customer group appears in the following flowchart.

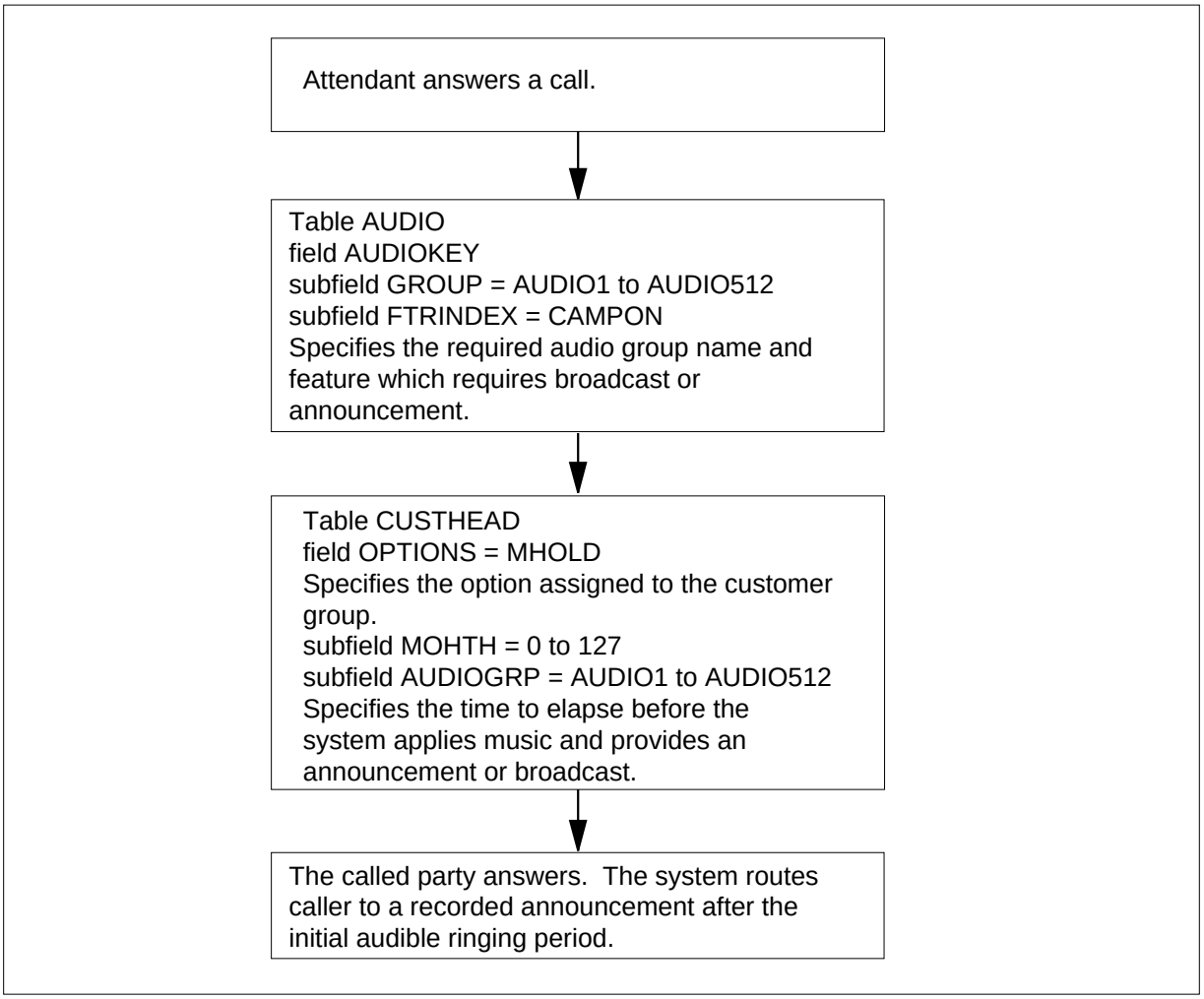
Descriptions of the Optional Answer Supervision from Attendant Queue translations tables appear in the following list:

- Table AUDIO (Audio Interlude) contains fields to define the audio that the called party hears during activation.
- Table CUSTHEAD defines the public and private transaction capability application part (TCAP) translator names for each customer group.

The Optional Answer Supervision from Attendant Queue translation process appears in the flowchart.

Optional Answer Supervision from Attendant Queue (continued)

Table flow for Optional Answer Supervision from Attendant Queue



The datafill content that the flowchart used appears in the following table.

Datafill example for Optional Answer Supervision from Attendant Queue

Datafill table	Example data
AUDIO	PRADER PRAXLA NDGT NIL (MHOLD 5 AUDIO1) $
CUSTHEAD	AUDIO1 CAMPON (MUSIC CWMUSIC1 4) $

Limits

The following limits apply to the Optional Answer Supervision from Attendant Queue feature:

Optional Answer Supervision from Attendant Queue (continued)

The Optional Answer Supervision from Attendant Queue feature applies to the MDC AC features. This feature applies to MDC AC features that can interact with the Audio Input on Incoming Calls in Queue feature.

Interactions

The Optional Answer Supervision from Attendant Queue feature modifies the answer condition of the Audio Input on Incoming Calls in Queue feature.

Activation/deactivation by the end user

The system activates the Optional Answer Supervision from Attendant Queue feature through datafill. Activation is transparent to the user.

Billing

The Optional Answer Supervision from Attendant Queue feature does not affect billing.

Station Message Detail Recording

The Optional Answer Supervision from Attendant Queue feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Optional Answer Supervision from Attendant Queue feature does not affect office parameters.

Datafill sequence

The tables that require datafill to implement the Optional Answer Supervision from Attendant Queue feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Optional Answer Supervision from Attendant Queue

Table	Purpose of table
AUDIO	Audio Interlude. This table contains fields to define the audio that the called party hears. The called party hears this audio when the Optional Answer Supervision from Attendant Queue feature is activated.
CUSTHEAD	Customer Group Head. This table defines the public and private TCAP translator names for each customer group.

Datafilling table AUDIO

Table AUDIO contains fields to define the audio that the called party hears. The called party hears this audio when the Optional Answer Supervision from Attendant Queue feature is activated.

Optional Answer Supervision from Attendant Queue (continued)

Datafill for the Optional Answer Supervision from Attendant Queue feature for table AUDIO appears in the following table. Fields that apply to the Optional Answer Supervision from Attendant Queue feature appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table AUDIO

Field	Subfield or refinement	Entry	Description
AUDIOKEY		see subfields	Audio Key. This field contains subfields GROUP and FTRINDEX.
	GROUP	AUDIO1 to AUDIO512	Audio Group Name. This subfield specifies the audio group name required. Enter AUDIO1 to AUDIO512.
	FTRINDEX	CAMPON	Feature Index. This subfield specifies the feature that requires broadcast or announcement. Enter CAMPON.

Datafill example for table AUDIO

Sample datafill for table AUDIO appear in the following example.

MAP example for table AUDIO

```
TABLE: AUDIO

AUDIOKEY                                ROUTES
_____________________________________________________________
AUDIO1  CAMPON                    (MUSIC  CWMUSIC1  4)  $
```

Datafilling table CUSTHEAD

Table CUSTHEAD defines the public and private TCAP translator names for each customer group.

Datafill for the Optional Answer Supervision from Attendant Queue feature for table CUSTHEAD appear in the following table. The fields that apply to the Optional Answer Supervision from Attendant Queue feature appear in this

Optional Answer Supervision from Attendant Queue (end)

table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTHEAD

Field	Subfield or refinement	Entry	Description
OPTIONS		MHOLD	Options. This field specifies the option assigned to the customer group. Enter MHOLD.
If OPTIONS contains MHOLD, subfields MOHTH and AUDIOGRP require datafill.			
	MOHTH	0 to 127	Music on Hold Threshold. This subfield specifies the time, in 1 s increases, which elapses before the system applies music. Enter a value from 0 to 127.
	AUDIOGRP	AUDIO1 to AUDIO512	Audio Group. This subfield specifies option ATTQ in the audio group in Table AUDIO. Option ATTQ defines the announcement music that the system must provide. Enter AUDIO1 to AUDIO512.

Datafill example for table CUSTHEAD

Sample datafill for table CUSTHEAD appear in the following example.

MAP example for table CUSTHEAD

```
TABLE: CUSTHEAD
CUSTNAME  CUSTXLA DGCOLNM  IDIGCOL          OPTIONS
_____________________________________________________
PRADER  PRAXLA  NDGT    NIL         (MHOLD5 AUDIO1) $
```

Tools for verifying translations

The Optional Answer Supervision from Attendant Queue feature does not use tools for verifying translations.

SERVORD

The Optional Answer Supervision from Attendant Queue feature does not use SERVORD.

Override ACR for CFU

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS30 and later versions

Requirements

To operate, the Override ACR for CFU feature requires BAS Generic, BAS00003.

Description

The Override ACR for CFU feature allows telephone the operating company to override the Authorization Code Required (ACR) feature. The operating company overrides this feature during the entry of data in Call Forwarding (CFW). Override ACR for CFU supports lines with option CFU.

Operation

Before the Override ACR for CFU feature, two important restrictions were present on CFW during the use of authorization codes:

- The network class of service (NCOS) of a user required an authorization code. For this condition, the end user did not have the ability to program the telephone to a directory number (DN). The directory number required the entry of an authorization code.
- An end user can forward the telephone to a DN that accessed translations that required an authorization code. In this occurrence, the switch prompted callers for an authorization code.

You can assign the CFU feature to a line through the Service Order System (SERVORD). In this occurrence, the switch prompts the end user to decide to override or not override the authorization code restrictions (OVRDACR). To override the authorization code restrictions, set the OVRDACR to Y. If you set the OVRDACR to Y, the end user can program CFW to a number that normally requires an authorization code. This setting allows call processing to ignore a requirement. The requirement is that a caller must enter an authorization code when the system forwards a call from the line.

User interface

The Override ACR for CFU feature does not affect user interface.

Override ACR for CFU (continued)

Query commands QDN (query directory number) and query line equipment number (QLEN) display the attributes of a specified line. For lines with option CFU, the value of OVRDACR appears in the OPTIONS list.

The QDN command, that queries the DN of a 500/2500 set, appears in the following figure. This DN set has option CFU assigned and OVRDACR set to N.

MAP example of QDN command for Override ACR for CFU of a 500/2500 set with OVRDACR set to N

```
CI:
>QDN 7227610
_____________________________________________________________________
DN:  7227610
TYPE: SINGLE PARTY LINE
SNPA: 613   SIG: DT   LNATTIDX: N/A
LINE EQUIPMENT NUMBER:   HOST 02 1 00 15
LINE CLASS CODE: IBN
IBN TYPE: STATION
CUSTGRP: MYCUST   SUBGRP: 0   NCOS: 0
CARDCODE: 6X17AB GND:N PADGRP: STDLN BNV: NL MNO: N
PM NODE NUMBER:       94
PM TERMINAL NUMBER:   16
OPTIONS:
DGT CFU N 62006 $ I
```

The QLEN command that queries the DN of a Meridian business set (MBS) appears in the following figure. This DN has option CFU assigned and OVRDACR set to Y.

MAP example of QLEN command for Override ACR for CFU of an MBS with OVRDACR set to Y

```
CI:
>QLEN 7227612
_____________________________________________________________________
DN:  7227612
TYPE: SINGLE PARTY LINE
SNPA: 613   SIG: N/A   LNATTIDX: N/A
LINE EQUIPMENT NUMBER:   HOST 02 1 00 15
LINE CLASS CODE: PSET (WITH DISPLAY)
KEY: 1
CUSTGRP: MYCUST   SUBGRP: 0   NCOS: 0  RING: Y
ADDONS: NONE   EXTENSION: N
CARDCODE: 6X21AA  GND:N  PADGRP: SPPHN  BNV: NL  MNO: Y
PM NODE NUMBER:       94
PM TERMINAL NUMBER:   16
OPTIONS:
CFU  Y 6200Y A $

   KEY  DN
   --   --
   1    DN  8662100

   KEY  FEATURE
   --   -------
   2    CFU Y 62006 A $
```

Translations table flow

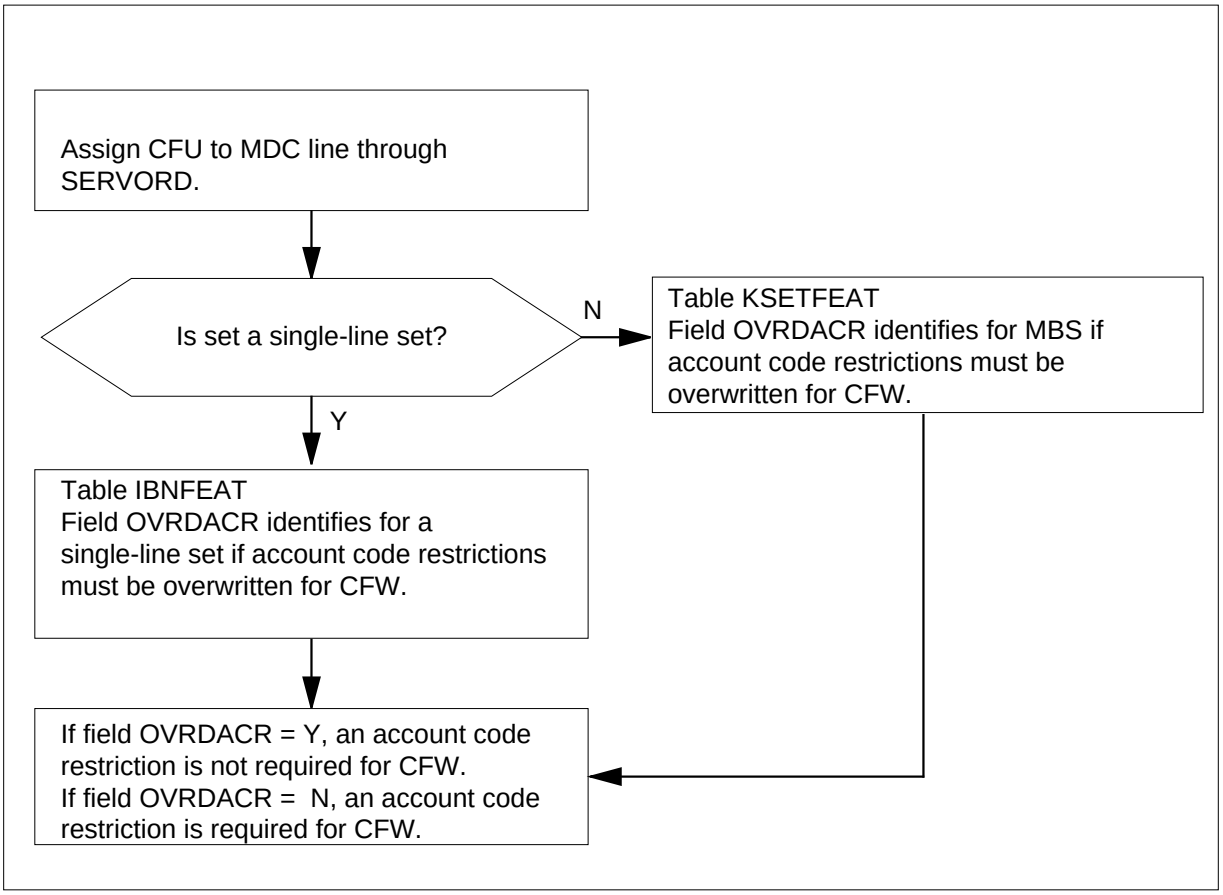
Descriptions of the Override ACR for CFU translations tables appear in the following list:

- Table KSETFEAT (Business Set and Data Unit Feature) lists the line features assigned to the MBSs that appear in table KSETLINE (Business Set and Data Unit Line Assignment). One entry is a requirement for each feature assigned to an MBS line. The entry of data in this table occurs when the assignment of features to the line through SERVORD occurs.
- Table IBNFEAT (IBN Line Feature) lists the software features assigned to each Integrated Business Network (IBN) station number, attendant console (AC), and multiple appearance directory number (MADN) that the switch supports.

The Override ACR for CFU translation process appears in the following flowchart.

Override ACR for CFU (continued)

Table flow for Override ACR for CFU



The datafill content used in the flowchart appears in the following figure.

Limits

The following limits apply to Override ACR for CFU:

- You can apply override ACR for CFU to lines with option CFU.
- Override ACR for CFU does not apply to AC.
- Busy treatment occurs if an end user attempts to forward ACR calls from a base station with OVRDACR set to N.

Interactions

The Override ACR for CFU feature does not have functionality interactions.

Activation/deactivation by the end user

The Override ACR for CFU feature does not require activation or deactivation by the end user.

Override ACR for CFU (continued)

Billing

The Override ACR for CFU feature does not affect billing.

Station Message Detail Recording

The Override ACR for CFU feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Override ACR for CFU feature does not affect office parameters.

Datafill sequence

The tables that require datafill to implement the Override ACR for CFU feature appear in the following tables. The tables appear in the correct entry order.

Datafill requirements for Override ACR for CFU

Table	Purpose of table
IBNFEAT (Note)	IBN line feature table.
KSETFEAT (Note)	Business set and data-unit feature table
Note: The entry of data in these tables occurs through SERVORD. A datafill procedure is not available.	

Tools for verifying translations

The Override ACR for CFU feature does not use tools for verifying translations.

SERVORD

The Override ACR for CFU feature changes the Service Order System (SERVORD). This change allows the system to override the ACR/CFW restrictions for a line. When you assign CFU to a line, enter data in field OVRDACR.

Field OVRDACR appears when the assignment of CFU to a line occurs and affects the following SERVORD commands:

- NEW (establish service)
- ADO (add option)
- CHF (change feature information for preexisting feature)

Override ACR for CFU (continued)

SERVORD limits

The Override ACR for CFU feature does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts used to assign the Override ACR for CFU feature to a line appear in the following table.

SERVORD prompts for Override ACR for CFU

Prompt	Valid input	Description
OPTKEY	1 to 69	This field specifies the key on an MBS to which you assign an option. Enter a value from 1 to 69.
OPTION	CFU	This field specifies the option. Enter CFU.
OVRDACR	Y, N	This field specifies if the system must override the CFW authorization code restrictions for the line. Enter Y or N.
KEYLIST	1 to 69	This field appears when you assign a subset option to a multiline set. This field specifies key numbers of the DNs to which an option applies. Enter a value from 1 to 69.
Note: The system enters data in Table IBNFEAT or table KSETFEAT when you assign the Override ACR for CFU feature through SERVORD		

SERVORD example of adding the Override ACR for CFU feature

An example of how to add the Override ACR for CFU feature to a line of an 500/2500 set appears in the following SERVORD example. Use the ADO command to add this feature to a line.

Override ACR for CFU (continued)

SERVORD example for adding Override ACR for CFU to a line of an 500/2500 set in prompt mode

```
SO:
> ADO
SONUMBER:  NOW 92 4 26 AM
>
DN_OR_LEN:
> 0 0 10 04
OPTION:
> CFU
OVRDACR:
> Y
OPTKEY:
> $
```

SERVORD example for adding Override ACR for CFU to a line of an 500/2500 set in no-prompt mode

```
> ADO $ 00 0 10 04  CFU Y $
```

An example of how to add the Override ACR for CFU feature to a line of an MBS appears in the following SERVORD example. Use the ADO command to add this feature to a line.

SERVORD example for adding Override ACR for CFU to a line of an MBS in prompt mode

```
SO:
>ADO
SONUMBER:  NOW 92 4 26 AM
>
DN_OR_LEN:
> 0 0 0 11
OPTKEY:
> 1
OPTION:
> CFU
OVRDACR:
> Y
KEYLIST:
> $
OPTKEY:
> $
```

Override ACR for CFU (end)

SERVORD example for adding Override ACR for CFU to a line of an MBS in no-prompt mode

```
> ADO $ 00 0 00 11 1 CFU Y $ $
```

Patch Source Inclusion I

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

NA008 and later versions

Requirements

This document includes the datafill information for this functionality. Requirement software or hardware can be necessary for full implementation.

Description

The Patch Source Inclusion I feature improves the speed call key functionality for Meridian Business Set (MBS) customers with the Ambiguous Speed Call (AMBISC) feature. This feature increases the range of different office parameters. This feature moves code from a module that the Meridian Digital Centrex (MDC) does not own to a module that the MDC owns.

This feature provides the following functionalities:

- increases the range of the LONG_TIMED_RELEASE_DISC_TIME office parameter
- increases the range of the EBS_TO_TRUNK_TRD_TIME office parameter
- decouples the code for the EBS_TO_TRUNK_TRD_TIME office parameter from a module that the MDC does not own. This feature moves the code to an appropriate MDC module.
- overrides the use of the feature and replaces translation selectors for an access code in the ambiguous speedcall range

Operation

Before the Patch Source Inclusion I feature, the following condition was present. The MBS customers with the AMBISC feature could not access speed call cell with the speed call key. This access problem occurred when the customer group had a feature (FEAT) or replace (REPL) translation selector with an activation code. This activation code was like a speed call cell number.

The code for the EBS_TO_TRUNK_TRD_TIME office parameter was in a module that an MDC did not own.

Patch Source Inclusion I (continued)

Current Implementation

The Patch Source Inclusion I feature performs the following functions:

- enhances the speed call key for MBS users
- expands the range of office parameters
- relocates MDC code to an MDC owned module

Improving the speed call key

Option AMBISC in table CUSTSTN can include a subfield OVERRIDE with the entry TRUE. In this occurrence, the AMBISC feature overrides FEAT or REPL translation selector in table IBNXLA. A speed call key of a customer accesses the speed call cell. If this customer dials an access code in the ambiguous speed call range, the customer completes the speed call. This range is 2 to 7 and 20 to 69.

The system sets subfield OVERRIDE in table CUSTSTN to TRUE if the patches MBR64 or SMS08 are active in the old load.

Note: This override condition does not work if the customer dials a speed call during Call Forward Remote Access.

Increasing the range of office parameters

The Patch Source Inclusion I feature increases the range of office parameter LONG_TIMED_RELEASE_DISC_TIME. This feature increases the range from the current range of {16 to 4080} to a range of {16 to 32767}. Table OFCENG defines this parameter.

The range of office parameter EBS_TO_TRUNK_TRD_TIME, increases from {50 to 250} to a range of {16 to 32767}. Table OFCENG defines this parameter.

Decoupling the code for EBS_TO_TRUNK_TRD_TIME

The system removes the code for office parameter EBS_TO_TRUNK_TRD_TIME from the module that the MDC does not own. The system places this parameter in a new module that MDC owns. This decoupling activity does not change the functionality of office parameter EBS_TO_TRUNK_TRD_TIME.

Translations table flow

Descriptions of the Patch Source Inclusion I translations tables appear in the following list:

- Table CUSTSTN (Customer Group Station Option) lists the station options assigned to each customer group. For Patch Source Inclusion I, subfield

Patch Source Inclusion I (continued)

OVERRIDE in table CUSTSTN of option AMBISC must be set to TRUE. This action allows the feature to override the FEAT and REPL translation selectors in table IBNXLA. When this feature overrides these translation selectors, a customer performs the following functions. The customer uses the speed call key, dials an access code, and completes the speed call. The access code must be in the appropriate speed call range.

- Table IBNXLA (Integrated Business Network (IBN) Translation) stores the data for the digit translation of calls from the following parts:

  — an IBN station

  — an attendant console

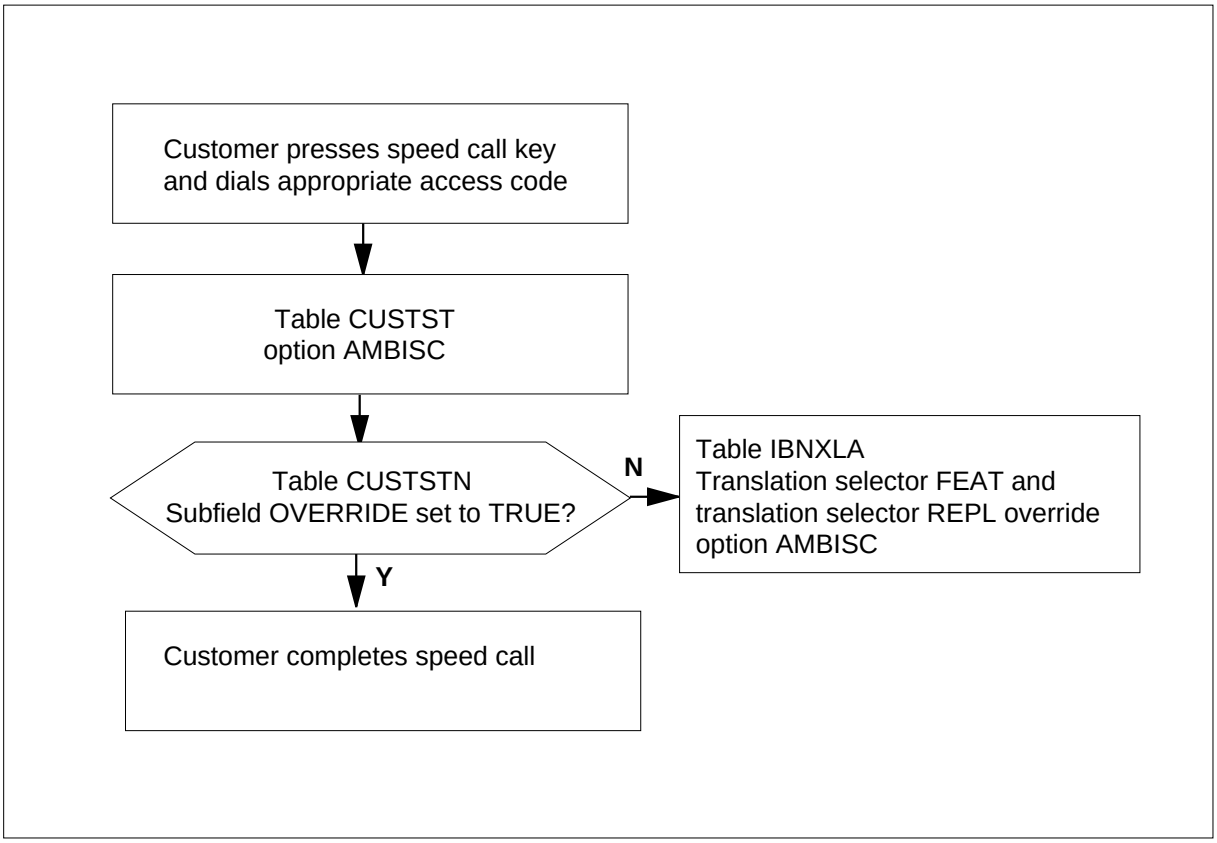
  — an incoming side of a two-way IBN trunk group

  For Patch Source Inclusion I, the feature overrides FEAT and REPL translation selectors in table IBNXLA. The feature overrides these selectors when subfield OVERRIDE of option AMBISC in table CUSTSTN is set to TRUE.

The Patch Source Inclusion I translation process appears in the following flowchart.

Patch Source Inclusion I (continued)

Table flow for Patch Source Inclusion I



The datafill content in the flowchart appears in the following example.

Datafill example for Patch Source Inclusion I

Datafill table	Example data
CUSTSTN	BRAMESN AMBISC AMBISC L6 Y
IBNXLA selector FEAT	BNFT 112 FEAT N N CPU
IBNXLA selector REPL	BNPT 113 REPL Y 58742 $

Limits

The Patch Source Inclusion I feature does not have limits.

Interactions

The Patch Source Inclusion I feature does not have functionality interactions.

Patch Source Inclusion I (continued)

Activation/deactivation by the end user

The Patch Source Inclusion I feature does not require activation or deactivation by the end user.

Billing

The Patch Source Inclusion I feature does not affect billing.

Station Message Detail Recording

The Patch Source Inclusion I feature does not affect Station Message Detail Recording.

Datafilling office parameters

The office parameters used by Patch Source Inclusion I feature appear in the following tables. Refer to *Office Parameters Reference Manual* for additional information on office parameters.

Office parameters by Patch Source Inclusion I

Table name	Parameter name	Description
OFCENG	EBS_TO_TRUNK_TRD_TIME	This office parameter allows telephone companies to set the time period of Timed Release Disconnect (TRD) timing that occurs on Electronic Business Sets (EBS) to trunk calls.
OFCENG	LONG_TIMED_RELEASE_DISC_TIME	This office parameter allows telephone companies to specify the time for which the system times a called party on-hook. The time specified must be in 10-ms intervals. The system times the called party on-hook before the system releases the connection to the calling party.

Patch Source Inclusion I (continued)

Datafill sequence

The tables that require datafill to implement the Patch Source Inclusion I feature appear in the following tables. The tables appear in the correct entry order.

Datafill requirements for Patch Source Inclusion I

Table	Purpose of table
CUSTSTN	Customer Group Station Option is a requirement for a switching unit with North American translations and the Meridian Digital Centrex (MDC) or Residential Enhanced Services (RES) features. This table lists the station options assigned to each customer group.
IBNXLA	Integrated Business Network Translation stores the data for the digit translation of calls. These calls are from an IBN station, an attendant console, or an incoming side of a two-way IBN trunk group.

Datafilling table CUSTSTN

Datafill for the Patch Source Inclusion I feature for table CUSTSTN appears in the following table. Fields that apply to the Patch Source Inclusion I feature appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTSTN (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description
CUSTNAME		alphanumeric 1 to 16 characters	*Customer group name* Enter the customer group name.
OPTNAME		AMBISC	*Option name* Enter the name of the option.
OPTION		see subfield	*Option* This field consists of subfield OPTION.
	OPTION	AMBISC	*Option* Enter the name of the option, AMBISC, and refinements LISTTYPE and OVERRIDE.

Datafilling table CUSTSTN (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Description
	LISTTYPE	L6 or L8	*List type* Enter L6 if the abbreviated codes that the customer group members dial with feature BC0273 are 2 to 7. Feature BC0273 is Speed Calling Short List, SC1. Enter L8 if the abbreviated codes that the customer group members dial with feature SC1 are 2 to 9. ***Note:*** Enter L8 if customer group uses a dialing plan that is like a plain ordinary telephone service (POTS) dialing plan. This condition applies if digits 8 and 9 are not in use as prefix digits for network access.
	OVERRIDE	Y or N	*Override* Enter Y when the AMBISC feature overrides the FEAT or REPL translation selectors in table IBNXLA. Enter N when the FEAT or REPL selectors override the AMBISC feature.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appear in the following example.

MAP example for table CUSTSTN

```
>CUSTSTN

     CUSTSTN    OPTNAME                                    OPTION

-------------------------------------------------------------
     BRAMESN    AMBISC                                AMBISC L6 Y
```

Datafilling table IBNXLA selector FEAT

Datafill for the Patch Source Inclusion I feature for table IBNXLA selector FEAT appears in the following table. Fields that apply directly to the Patch

Patch Source Inclusion I (continued)

Source Inclusion I feature appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA selector FEAT

Field	Subfield or refinement	Entry	Description
RESULT		see subfields	Result. This field consists of subfields TRSEL, ACR, SMDR, and FEATURE.
	TRSEL	FEAT	Translation selector. Enter the translation selector FEAT.
	ACR	Y or N	Account code entry. Enter Y (yes) if an account code entry must occur for calls to the special feature access code. In other occurrences, enter N (no). Enter N when the feature is equal to SCPL or SCPS.
	SMDR	Y or N	Station message detail recording. Enter Y if the system records the following calls. These calls are from a customer group station or attendant console to a station in the block of station numbers. Enter N if recording is not a requirement.

Datafill example for table IBNXLA selector FEAT

Sample datafill for table IBNXLA selector FEAT appears in the following example.

MAP example for table IBNXLA selector FEAT

```
>IBNXLA

                 KEY
                                                          RESULT
------------------------------------------------------------------
   BNFT          112
                                                 FEAT N N     CPU
```

Datafilling table IBNXLA selector REPL

Datafill for the Patch Source Inclusion I feature for table IBNXLA selector REPL appears in the following table. Fields that apply to the Patch Source

Patch Source Inclusion I (continued)

Inclusion I feature appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA selector REPL

Field	Subfield or refinement	Entry	Description
RESULT		see subfields	*Result* This field consists of subfields TRSEL, CONTINUE, REPLCODE, and OPTION.
	TRSEL	REPL	*Translation selector* Enter the translation selector REPL.
	CONTINUE	Y or N	*Continue* Enter Y if translation continues with the next translator in the normal sequence. Enter N if translation restarts from the beginning and does not continue . The translation can restart according to the network class of service (NCOS) of the user and customer translator. The translation can restart like the restart if the customer dials the replaced digits.
	REPLCODE	numeric 1 to 16 digits	*Replacement code* Enter the digit or digits that replace the digits that the customer dials.
	OPTION	RC	*Option* Enter RC if a new routing characteristic is a requirement for ISDN retranslation. Enter data in refinement RCNAME.
	RCNAME	alphanumeric one to eight characters	*Routing characteristics name* Enter the RC name that table RCNAME defines.

Datafill example for table IBNXLA selector REPL

Sample datafill for table IBNXLA selector REPL appears in the following example.

Patch Source Inclusion I (end)

MAP example for table IBNXLA selector REPL

```
>IBNXLA

                 KEY
                                                   RESULT
---------------------------------------------------------
   BNPT          113
                                      REPL Y   58742   $
```

Tools for verifying translations

The Patch Source Inclusion I feature does not use tools for verifying translations.

SERVORD

The Patch Source Inclusion I feature does not use SERVORD.

Patch Source Inclusion II

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

NA008 and later versions

Requirements

This document includes the datafill information for this functionality. You can require requirement software or hardware for complete application.

Description

Patch Source Inclusion II changes the link between Network Automatic Call Distribution (NACD) and Night Service (NS) features. This feature also increases the capacity of the Management Information System (MIS) link for call processing events.

This feature provides the following functionalities:

- allows a caller to an NACD group in NS treatment to get BUSY treatment instead of NS treatment. A caller receives BUSY treatment when NACD groups in the network take calls and agents or queue slots are not available.
- assigns different integer values of the Resource Index (RI) to the following four states of a NACD group:
  - — call queue exceeded
  - — maximum wait time exceeded
  - — all agents Make Set Busy (MSB)
  - — Night Service Active
- prevents the broadcast of RI event messages from an NACD group to the MIS link.

Operation

Before Path Source Inclusion II, a caller received NS treatment if the caller called an NACD group that was in NS treatment. At this time, other NACD groups in the network were taking calls. These groups did not have available agents or queue slots. When the system broadcast RI event messages to the MIS, the messages decreased the capacity of the MIS link.

Patch Source Inclusion II (continued)

Current implementation

Patch Source Inclusion II uses the table control option to expand the capacity of the MIS link. This feature uses table control to change the interaction between the NACD and NS features.

Changing the interaction between NACD and NS

Entry of the BSYTMT option can occur in the OPTION field of table NACDGRP. This entry causes a caller to an NACD group in NS treatment to receive BUSY treatment instead of NS treatment. When the caller calls, other NACD groups in the network take calls. These groups do not have available agents or queue slots. When the caller receives BUSY treatment, the caller knows the NACD group is available to take calls. The caller attempts to place the call again.

Note: Assignment of option BSYTMT occurs to NACD groups in table NACDGRP during ONP. This assignment occurs if the patch MDR54 was active in the old load.

Assigning different RI values to NACD group states

Patch Source Inclusion II reserves different integer values of the RI to identify each of the following states of a NACD group. This feature does not use a general value of 0.

Patch Source Inclusion II

State of NACD group	RI value
Call queue exceeded	65532
Maximum wait time exceeded	65533
All agents MSB	65534
Night Service Active	65535

The RI values in Table 1 implement the new interaction between NACD and NS. These values indicate that additional calls must not be route to an NACD group.

Preventing the broadcast of RI event messages to the MIS link

The RI messages can travel over the MultiProtocol Controller (MPC) link to the MIS link from an NACD group. The following datafill sequence prevents this broadcast:

- Set field ACDMIS to Y in table ACDGRP.
- Enter the MIS option NORIMIS for field MISOPT in table ACDGRP.

Prevention of the broadcast of RI messages to the MIS increases the capacity of the MIS link for call processing events.

Note: Assignment of the MIS option occurs to NACD groups in the table ACDGRP. The NACD groups must have the ACDMIS field set to Y.

Translations table flow

Table NACDGRP

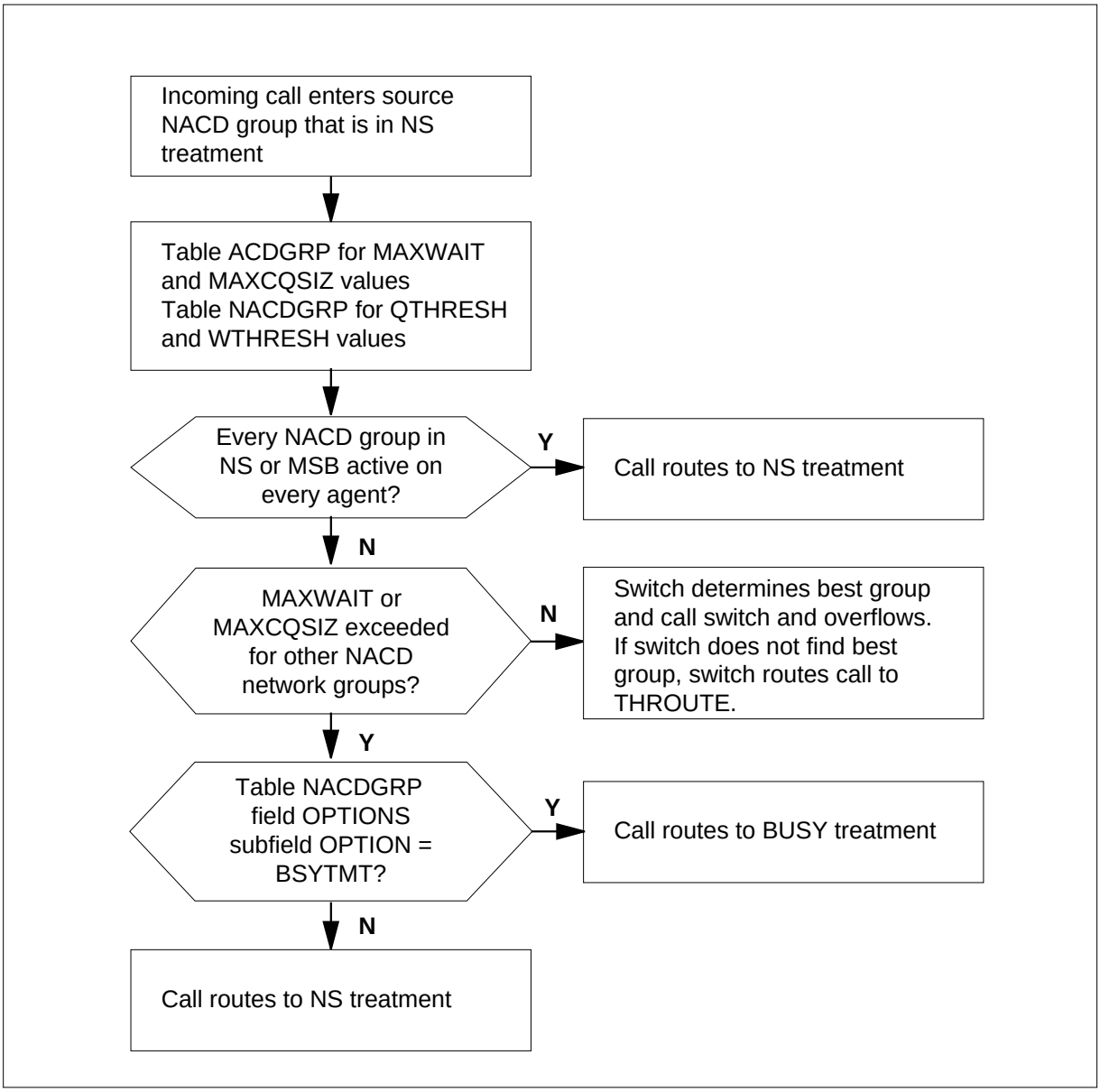
The Patch Source Inclusion II translations table NACDGRP (Network Automatic Call Distribution group) designates ACD groups as NACD groups. This feature defines when and under what conditions networking for these NACD groups occurs.

For Patch Source Inclusion II, the option BSYTMT appear in the OPTION field of table NACDGRP. Entry of BSYTMT causes a caller to an NACD group in NS treatment to receive BUSY treatment instead of NS treatment. When the caller calls, NACD groups in the network take calls. These groups do not have available agents or queue slots.

The Patch Source Inclusion II translation process for table NACDGRP appears in the following flowchart.

Patch Source Inclusion II (continued)

Table flow for Patch Source Inclusion II



The datafill content in the flowchart appears in the following table.

Datafill example for Patch Source Inclusion II

Datafill table	Example data
NACDGRP	ACDGRP1 12 14 5 N 7 5 15 (LCL ACDGRP2 5) (BSYTMT)

Patch Source Inclusion II (continued)

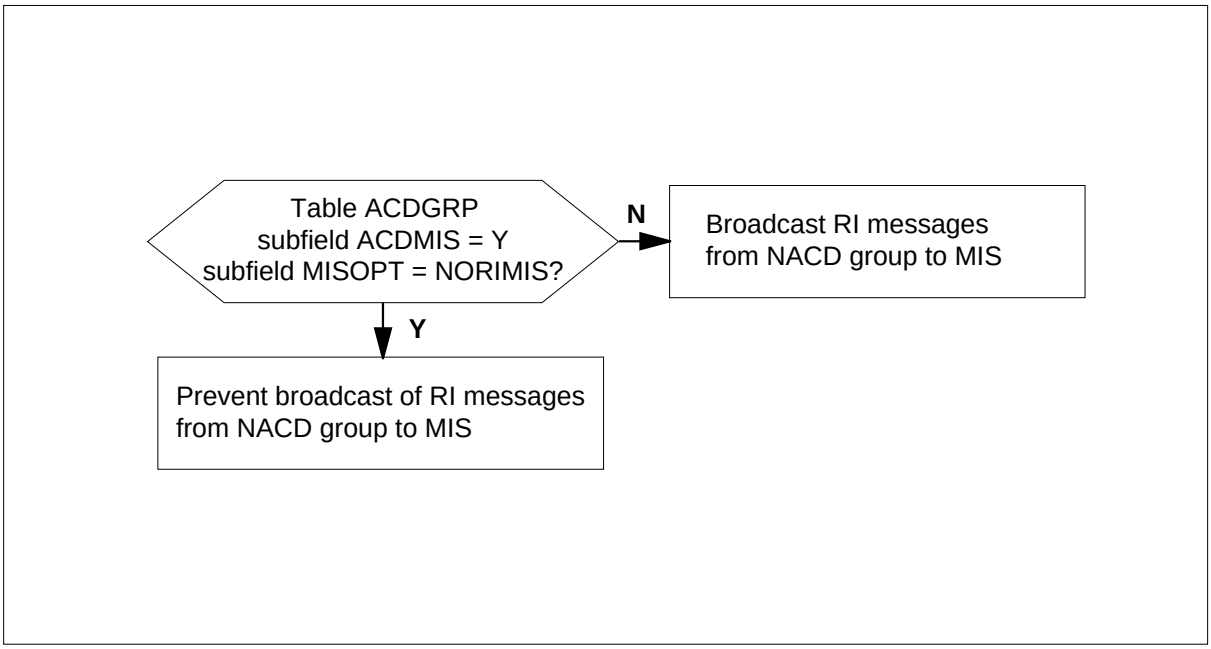
Table ACDGRP

Patch Source Inclusion II translations table ACDGRP (Automatic Call Distribution group) contains options that can affect NACD networking and queuing operations.

For Patch Source Inclusion II, field ACDMIS must be Y in table ACDGRP. You must enter option NORIMIS in the MISOPT field of table ACDGRP. This action prevents the broadcast of RI event messages to the MIS link.

Patch Source Inclusion II translation process for table ACDGRP appears in the following flowchart.

Table flow for Patch Source Inclusion II



The datafill content in the flowchart appears in the following table.

Datafill example for Patch Source Inclusion II

Datafill table	Example data
ACDGRP	ACDGRP2 CGA 12 OFR3 1 OFR3 1 0 N 12 20 Y ACDPOOL ACDSUB N (NORIMIS)$ N N NONE N

Patch Source Inclusion II (continued)

Limits

The following limits apply to Patch Source Inclusion II:

- A site in the network of ACD groups can have a load with CCM DRU less than CCM08. When this condition occurs, the patch MDR54 must activate at that site for the NACD functionality to work correctly.
- This restriction does not apply if the site in the network of ACD groups has a load with CCM DRU. The load with CCM DRU must be equal to or greater than CCM08.
- The limit above is a current limit of the patch MDR54 that PRS UT53579 already reports.

Interactions

The interactions between Patch Source Inclusion II and other functionalities appear in the following paragraphs.

Patch Source Inclusion II changes the interaction between NACD and NS features. This feature sends a caller to BUSY treatment instead of NS treatment. This condition occurs when the caller calls an NACD group that is in NS treatment. The other NACD groups in the network take calls but do not have available agents or queue slots.

Activation/deactivation by the end user

Patch Source Inclusion II does not require activation or deactivation by the end user.

Billing

Patch Source Inclusion II does not affect billing.

Station Message Detail Recording

Patch Source Inclusion II does not affect Station Message Detail Recording.

Datafilling office parameters

Patch Source Inclusion II does not affect office parameters.

Patch Source Inclusion II (continued)

Datafill sequence

The tables that require datafill to implement Patch Source Inclusion II appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Patch Source Inclusion II

Table	Purpose of table
ACDGRP	Automatic Call Distribution Group. This table contains options that can affect NACD networking and queueing operations.
NACDGRP	Network Automatic Call Distribution Group. This table designates ACD groups as NACD groups. This table designates when and under which conditions networking for these NACD groups occurs.

Datafilling table ACDGRP

Datafill for Patch Source Inclusion II for table ACDGRP appears in the following table. The fields that apply to Patch Source Inclusion II appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table ACDGRP

Field	Subfield or refinement	Entry	Explanation and action
ACDMIS		see subfields	Automatic Call Distribution Management Information System. This field contains different subfields. Only subfields ACDMIS and MISOPTS apply to this feature.
	ACDMIS	Y or N	Automatic Call Distribution Management Information System. Enter Y to assign feature ACDMIS to the ACD group. Set ACDMIS field to Y for the NACD group before you add the NORIMIS option.
	MISOPTS	see refinements	Management Information System Options. This refinement contains MISOPT and refinement NORIMIS.
	MISOPT	NORIMIS	Management Information System Option. Enter NORIMIS to prevent the broadcast of RI messages from a NACD group over the MPC link to the MIS.

Datafill example for table ACDGRP

Sample datafill for table ACDGRP appears in the following example.

Patch Source Inclusion II (continued)

MAP example for table ACDGRP

```
>ACDGRP

ACDNAME  CUSTGRP  ACDRNGTH  THROUTE  NSROUTE  PRIOPRO  DBG  MXCQSIZ
MAXWAIT  ACDMIS  MSQS  DISTRING  OBSWTONE  FRCNGTSV  OPTIONS

_____________________________________________________________________
ACDGRP2   CGA        12      OFR3 1   OFR3 1    0      Y      3
  2        Y    ACDPOOL  ACDSUB     N         N       (NORIMIS)$
```

Datafilling table NACDGRP

Datafill for Patch Source Inclusion II for table NACDGRP appears in the following table. The fields that apply to Patch Source Inclusion II appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table NACDGRP

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		see subfield	*Options* This field contains subfield OPTION.
	OPTION	BSYTMT	*Option* This option allows callers to receive the BUSY treatment if the callers call an NACD group in NS. This condition occurs when other NACD groups in the network take calls and agents or queue slots are not available. The caller believes the NACD group is available to take calls. The caller places the call again.

Datafill example for table NACDGRP

Sample datafill for table NACDGRP appears in the following example.

MAP example for table NACDGRP

```
>NACDGRP

ACDGRP  QTHRESH  WTHRESH  PWF  BESTGRP  SRVRATE   NUMIDLE   TIMEIDLE
NTWKGRPS           OPTIONS

-------------------------------------------------------------------
ACDGRP1    5       5      10     N        1          5         1
(REM RACDGRP2 10)  (BSYTMT)$
```

Tools for verifying translations

Patch Source Inclusion II does not use tools for verifying translations.

SERVORD

Patch Source Inclusion II does not use SERVORD.

Permanent Hold (500/2500 Sets)

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

NA011 and later versions

Requirements

To operate, Permanent Hold (500/2500 sets) requires BAS Generic, BAS00003.

Description

Permanent Hold (500/2500 sets) allows a station with a 500/2500 set to hold one active call against its own directory number (DN). This condition occurs without attendant help. The same station can retrieve the held call.

The held call can connect to an audio source. Table CUSTSTN (Customer Group Station Option) identifies the audio source on a customer group basis. Option LMOH (Line Music on Hold) defines multiple audio sources across one customer group. The assignment of option LMOH is made through the Service Order System (SERVORD). The assignment of option LMOH to a line with option Permanent Hold defines a music source specific for the line. The customer group audio source applies for option Permanent Hold if the assignment of option LMOH is not on the line. The assignment of option LMOH appears in table IBNFEAT (IBN Feature Assignment).

The audio source defaults to the audio source in table CUSTSTN in the following cases:

- The assignment of option LMOH is on a line, but no entry for LMOH is input in table AUDIO.
- Option LMOH is not on a line.

Operation

Assume that the calling party has Permanent Hold (500/2500 sets). The calling party makes a call, and needs to put the called party on hold. To operate the feature, the following events occur:

- The calling party flashes the hookswitch and hears special dial tone.
- The calling party dials the Permanent Hold (500/2500 sets) access code and hears confirmation tone. This tone indicates that the called party is being held. The calling party goes on-hook.

- While the called party is on hold, the calling party can receive a ring at described intervals. Another option is setting a timer so that the held party can recall the calling party. The held party can recall when the time expires and no retrieval of the call.
- The calling party can retrieve the call by going off-hook.

Translations table flow

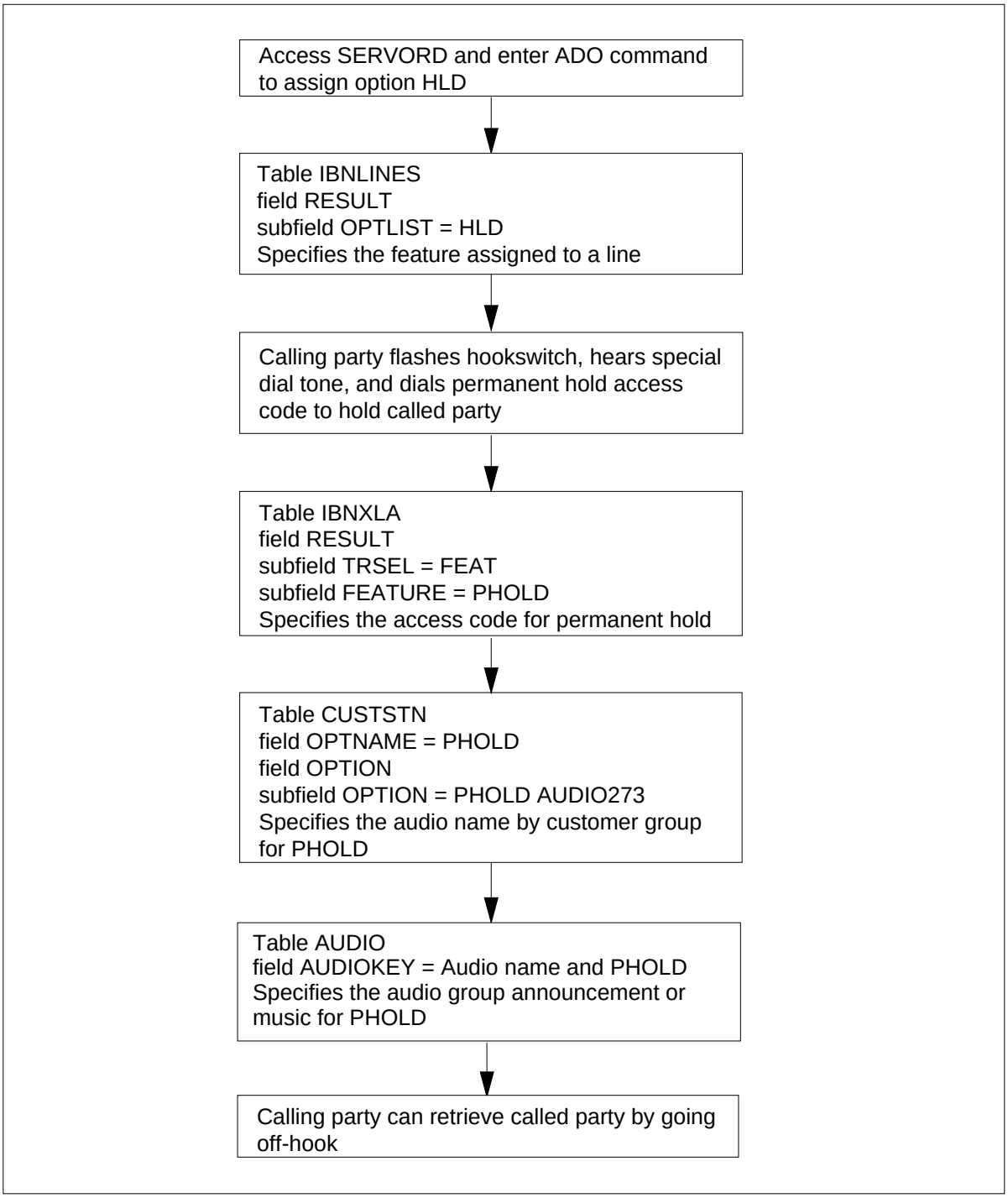
The following list describes the Permanent Hold (500/2500 sets) translations tables:

- Table IBNLINES (IBN Line Assignment) lists line assignments for each 500/2500 set assigned an MDC or Subscriber Services (SS) station number. Enter this table when the system assigns the line through SERVORD.
- Table IBNFEAT (IBN Feature Assignment) lists the line assignment for features for IBN lines. Enter this table when the system assigns the line through SERVORD.
- Table IBNXLA (IBN Translation) contains the data for the digit translation of calls from an IBN station, or an attendant console (AC). This table also contains data for the digit translation of calls from an incoming side of a two-way IBN trunk group. Data entry of table IBNXLA must occur to define the access code and translation for Permanent Hold (500/2500 sets)
- Table CUSTSTN (Customer Group Station Option) contains station options assigned to each of the customer groups. Data entry of table CUSTSTN must occur to assign Permanent Hold (500/2500 sets) to the customer group.
- Table AUDIO (Audio Interlude) defines the audio group announcement or application of music for various MDC options.

The Permanent Hold (500/2500 sets) translations process appears in the following flowchart. The assignment of option HLD to a 500/2500 set appears in the flowchart and data. The data shows the assignment of an audio announcement or music by customer group.

Permanent Hold (500/2500 Sets) (continued)

Table flow for Permanent Hold (500/2500 sets)



Permanent Hold (500/2500 Sets) (continued)

The datafill content in the flowchart appears in the following table.

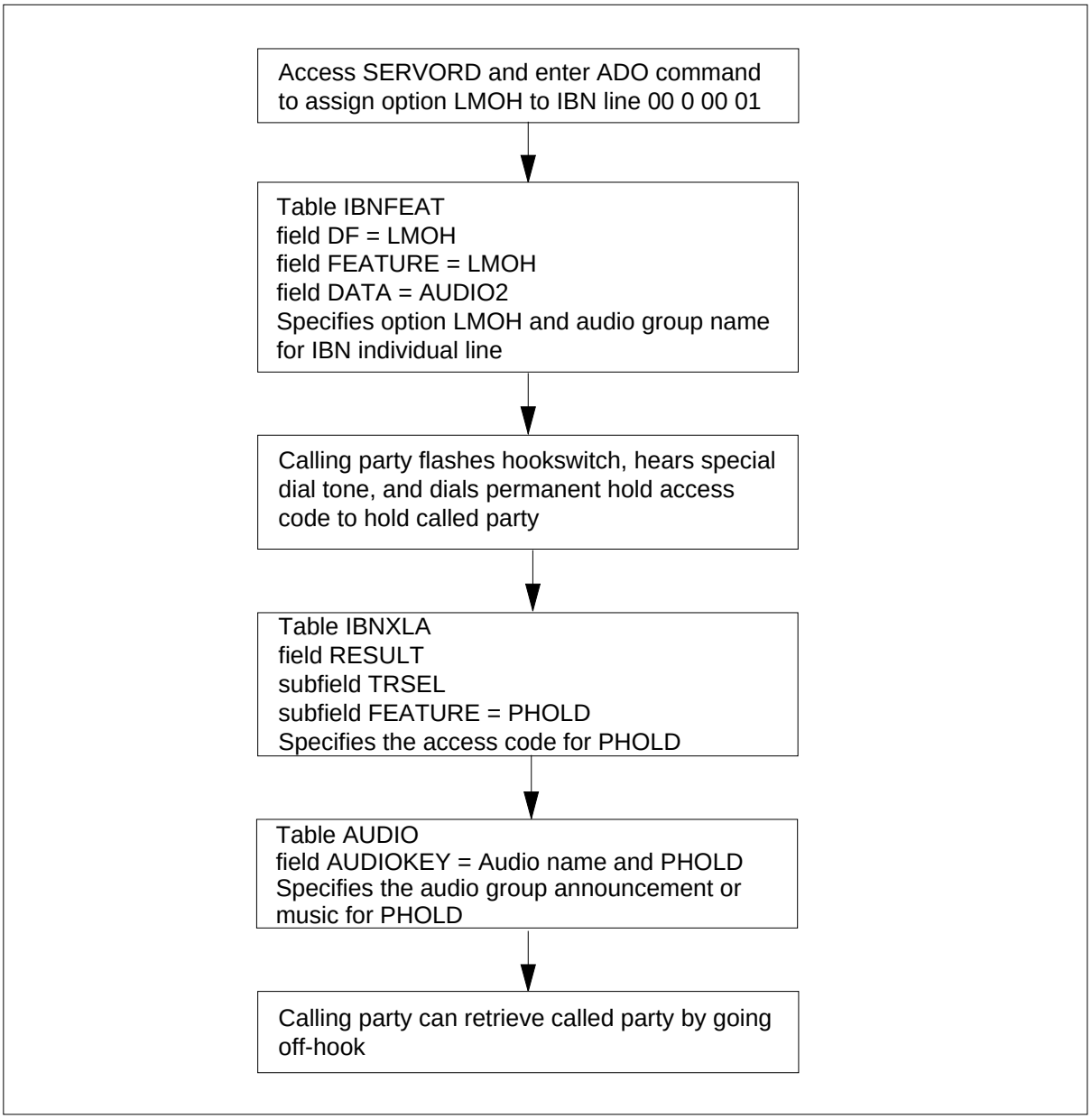
Datafill example for Permanent Hold (500/2500 sets)

Datafill table	Example data
IBNLINES	HOST 00 0 00 01 10 DT STN IBN 5554667 919 (HLD) $
IBNXLA	NTIXLA 123 FEAT N Y N HLD
CUSTSTN	MS1LBR2 PHOLD PHOLD 30 HLDREM Y AUDIO273
AUDIO	AUDIO273 PHOLD MUSIC MUSICCLLI 5 $

The Permanent Hold (500/2500 sets) translations process appears in the following flowchart. The data shows the assignment of option LMOH with an audio announcement or music to an individual line for option permanent hold.

Permanent Hold (500/2500 Sets) (continued)

Table flow for Permanent Hold (500/2500 sets)



Permanent Hold (500/2500 Sets) (continued)

The datafill content in the flowchart appears in the following table.

Datafill example for Permanent Hold (500/2500 sets)

Datafill table	Example data
IBNFEAT	HOST 00 0 00 11 0 LMOH LMOH AUDIO2
IBNXLA	NTIXLA 123 FEAT N N HLD
AUDIO	AUDIO2 PHOLD MUSIC MUSICCLLI 5 $

Limitations and restrictions

The following limitations and restrictions apply to Permanent Hold (500/2500 sets):

- Additional calls cannot originate or terminate on the set when a station activates Permanent Hold (500/2500 sets). Additional calls cannot originate or terminate at that station while a party is on hold. An incoming call to either station receives busy tone. This tone assumes the same DMS-switch serves both stations.
- If a station remains off-hook after the station activates Permanent Hold (500/2500 sets), the station does not hear the reminder ring. In this condition a recall does not occur.
- The customer group must assign a feature access code to Permanent Hold (500/2500 sets).
- Permanent Hold (500/2500 sets) cannot activate from any station involved in a three-way call. This condition is present because the system suppresses all flash-related features while the system allocates the conference circuit.
- Permanent Hold (500/2500 sets) cannot put the attendant on hold. If the attendant completes the original leg of the call and the party answers, the following can occur:
  - — The attendant releases the call, and causes the Permanent Hold (500/2500 sets).
  - — The attendant holds the call; a flash by either party recalls the attendant. Permanent Hold (500/2500 sets) is not allowed in this occurrence.
- A party cannot activate Permanent Hold (500/2500 sets) if the incoming call involves a no-disconnect trunk. When the party flashes, a call involving a no-disconnect trunk transfers immediately to the attendant.

Permanent Hold (500/2500 Sets) (continued)

- If the party on hold abandons the call, the Permanent Hold (500/2500 sets) timer cancels. If a reminder ring to the holding party applies, the reminder ring also stops.
- The ring recall applies to all ringing plans.

Interactions

The following paragraphs describe the interactions between Permanent Hold (500/2500 sets) and other functionalities:

- If the calling line identification with flash (CLI) feature is active, Permanent Hold (500/2500 sets) stops for a limited time.
- Permanent Hold (500/2500 sets) can activate only when a call is in the talking state.
- The no call transfer except to the attendant (NCT) feature is not compatible with Permanent Hold (500/2500 sets). In a normal two-port call, if the holding party flashes and has the NCT feature, the party immediately transfers to the attendant.
- A switch hook flash retrieves the party on hold for call waiting call or camped-on call. The party on hold connects to the call waiting or camped-on call. Additional flashes allow the station to alternate between the original call and the call waiting or camped-on call. Permanent Hold (500/2500 sets) stops while the station has the call waiting or camp-on feature enabled.
- While a party is in a hold state or is holding another party, calls cannot terminate on either station. These calls include call waiting and attendant camp-on calls.
- While a station is on hold busy verification cannot occur.
- The system can assign a station both Call Park and Permanent Hold (500/2500 sets). In this occurrence, the station can choose which feature to invoke.
- A station in a meet-me conference, a station-established conference, or an attendant-setup conference, cannot activate Permanent Hold (500/2500 sets).
- The Do Not Disturb feature does not have an effect on a stations ability to activate Permanent Hold (500/2500 sets).
- While a station has a call on hold, a call to that station by any means receives busy tone. This condition does not occur if the station has the call forward busy feature. In this occurrence, the call attempts to follow the call forward busy feature. The same applies to the station. on hold

Permanent Hold (500/2500 Sets) (continued)

- Speed calling with cell numbers have a use as feature access codes for Permanent Hold (500/2500 sets). This condition can only occur if you enter the feature access code that activates the feature in table IBNXLA. Enter this code in table IBNXLA under the customer group translator or a preliminary translator for the customer group. Do not enter this code for the feature star translator for the customer group. You cannot use the star translator, because a star normally dials speed call cell numbers. When the system programs a star feature access code in a speed call cell, the system must program two stars. This condition is not possible because only one feature can be programmed in a speed call cell.
- If a station activates Permanent Hold (500/2500 sets), only that station can retrieve the party being held. If the held party recalls the station that invoked the hold, another station in the call pickup group can dial the call pickup code and retrieve the call.

Activation/deactivation by the end user

Permanent Hold (500/2500 sets) affects activation or deactivation by the end user as the Operation section describes.

Billing

Permanent Hold (500/2500 sets) does not affect billing.

Station Message Detail Recording

Permanent Hold (500/2500 sets) does not affect Station Message Detail Recording.

Datafilling office parameters

Permanent Hold (500/2500 sets) does not affect office parameters.

Permanent Hold (500/2500 Sets) (continued)

Datafill sequence

The tables that require datafill to install Permanent Hold (500/2500 sets) appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Permanent Hold (500/2500 sets)

Table	Purpose of table
IBNLINES	IBN Line Assignments. This table contains the line assignments for data channel links for the Bulk Calling Line Identification (BCLI) feature under the format name of BL. ***Note:*** You enter data in this table through SERVORD. A datafill procedure or example is not input. Refer to “SERVORD" for an example of using SERVORD to enter data in this table.
IIBNFEAT	IBN Feature Assignment. This table lists the features for IBN lines. ***Note:*** You enter data in this table through SERVORD. A datafill procedure or example is not input. Refer to “SERVORD" for an example of using SERVORD to enter data in this table.
AUDIO	Audio Interlude. This table defines the audio group announcement or application of music for various MDC options.
IBNXLA	IBN Translation. This table stores data for the digit translation of calls from the following: • IBN station • attendant console • incoming IBN trunk group • incoming side of a two-way IBN trunk group
CUSTSTN	Customer Group Station Option. This table is a requirement for a switching unit with North American translations and the Meridian Digital Centrex (MDC) or Residential Enhanced Services (RES) feature. This table lists the station options assigned to each of the customer groups.

Datafilling table IBNXLA

You must enter data in table IBNXLA to define the access code and translations for Permanent Hold (500/2500 sets).

Datafill for Permanent Hold (500/2500 sets) for table IBNXLA appears in the following table. The fields that apply to Permanent Hold (500/2500 sets)

Permanent Hold (500/2500 Sets) (continued)

appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA

Field	Subfield	Entry	Explanation and action
KEY		see subfields	Key. This field contains subfields XLANAME and DGLIDX.
	XLANAME	1- to 8-characters	Translator Name. This subfield specifies the name assigned to the translator. Enter the 1-character to 8-character name.
	DGLIDX	1- to 18-digits	Digilator Index. This subfield specifies the access code. Enter the 1-digit to 18-digit number assigned as the access code.
RESULT		see subfield	Result. This field contains subfield TRSEL.
	TRSEL	FEAT	Translations Selector. This subfield defines the translations selector to use. Enter FEAT.
If TRSEL is set to FEAT, subfields ACR, SMDR, and FEATURE require datafill.			
	ACR	Y or N	Account Code Entry. This subfield defines if an account code is a requirement. Enter Y or N.
	SMDR	Y or N	Station Message Detail Recording. This subfield defines if SMDR is a requirement. Enter Y or N.
	FEATURE	PHOLD	Feature. This subfield defines the feature assigned to a line. Enter PHOLD for Permanent Hold.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

```
                KEY
                                                          RESULT
_________________________________________________________________
NTIXLA          123                             FEAT N Y N PHOLD
```

Permanent Hold (500/2500 Sets) (continued)

Datafilling table CUSTSTN

You must enter data in table CUSTSTN to assign Permanent Hold (500/2500 sets) to the customer group.

Datafill for Permanent Hold (500/2500 sets) for table CUSTSTN appears in the following table. The fields that apply to Permanent Hold (500/2500 sets) appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTSTN (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
CUSTNAME		1 to16 characters	Customer Group Name. This field specifies the 1-character to 16- character name assigned to the customer group.
OPTNAME		PHOLD	Option Name. This field specifies the option name. Enter PHOLD.
OPTION		see subfields	Option. This field contains the following subfields: • OPTION • HLDTIME • PHOLDOPT • ANNMUSIC • AUDIOGRP
	OPTION	PHOLD	Option. This subfield defines the option name. Enter PHOLD.
	HLDTIME	12 to 1023	Hold Time. This subfield specifies the time in 1 s intervals before the station is to be recalled or reminded that feature is activated. The station activated the Permanent Hold. Correct range is 12 to 1023.
	PHOLDOPT	HLDRCL HLDREM	Permanent Hold Option. This subfield assigns a Permanent Hold option. Enter HLDRCL if recalling of a station is to occur after each timeout. Enter HLDREM if station is to be reminded after each timeout occurs.

Permanent Hold (500/2500 Sets) (continued)

Datafilling table CUSTSTN (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
	ANNMUSIC	Y or N	Announcement Music. This subfield defines if announcement or music, or both, is a requirement to the call on hold.
	AUDIOGRP	see table AUDIO	Audio Group. This subfield defines the audio group entered in table AUDIO.

Datafill example for table CUSTSTN

Sample datafill for table AUDIO appears in the following example.

MAP example for table CUSTSTN

```
    CUSTNAME     OPTNAME                                  OPTION
_____________________________________________________________________
MS1LBR2       PHOLD          PHOLD  30 HLDREM Y AUDIO273
```

Datafilling table AUDIO

Enter the data in table AUDIO to assign option Permanent Hold (500/2500 sets) with an announcement or music. The table AUDIO defines multiple music sources across one customer group.

Datafilling table AUDIO

Field	Subfield	Entry	Explanation and action
AUDIOKEY		Audio group 1-512 and feature name	Audio Group Name. The field to define the audio group and feature name. The feature name is PHOLD.
ROUTES		Audio route list	Route List. The field to define the route for announcement, music, silence, ringing, repeat, or music line equipment number.

Datafill example for table AUDIO

Sample datafill for table AUDIO appears in the following example.

Permanent Hold (500/2500 Sets) (continued)

MAP example for table AUDIO

```
AUDIOKEY                              ROUTES
_____________________________________________________
AUDIO273 PHOLD                (MUSIC MUSICCLLI 0)$
AUDIO2   PHOLD                (MUSIC MUSICCLLI 5)$
```

Tools for verifying translations

Permanent Hold (500/2500 sets) does not affect translation verification tools.

SERVORD

SERVORD adds (ADO) deletes (DEO), or assigns HLD to a new 500/2500 telephone (NEW).

SERVORD prompts

The SERVORD prompts that assign Permanent Hold (500/2500 sets) to a line appear in the following table.

SERVORD prompts for Permanent Hold (500/2500 sets)

Prompt	Valid input	Explanation
OPTION	HLD	Describes the option assignment to the line

Note: The system enters data in table IBNLINES when assignment of Permanent Hold occurs with the use of SERVORD.

SERVORD example for adding Permanent Hold (500/2500 sets)

The addition of option Permanent Hold to a 500/2500 set is in the following SERVORD example.

SERVORD example for adding Permanent Hold (500/2500 sets) in prompt mode

```
SO:
> ADO
SONUMBER:   NOW 93 1 1 AM
>
DN_OR_LEN:
> 0 0 1 21
OPTION:
> HLD
OPTION:
>$
```

Permanent Hold (500/2500 Sets) (end)

SERVORD example for adding Permanent Hold (500/2500 sets) in no-prompt mode

```
> ADO $ 0 0 1 21 HLD $
```

SERVORD prompts

The SERVORD prompt that assign LMOH to a line with option Permanent Hold appear in the following table.

SERVORD prompts for Permanent Hold (500/2500 sets)

Prompt	Valid input	Explanation
OPTION	LMOH	Defines the option assignment to the line.
AUDIOGRP	AUDIO1 - AUDIO512	Defines the audio group name.

Note: The system enters data in table IBNFEAT when assignment of LMOH occurs with the use of SERVORD.

SERVORD example for addition of LMOH to a set with Permanent Hold

The addition of LMOH to a 500/2500 set with option Permanent Hold is in the following SERVORD example.

SERVORD example for addition of option LMOH in prompt mode

```
SO:
> ADO
SONUMBER:   NOW 93 1 1 AM
>
DN_OR_LEN:
> 0 0 1 21
OPTION:
> LMOH
AUDIOGRP:
>AUDIO2
OPTION:
>$
```

SERVORD example for addition of option LMOH in no-prompt mode

```
> ADO $ 0 0 1 21  LMOH AUDIO2 $
```

Position Busy

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

To operate, Position Busy requires BAS Generic, BAS00003.

Description

Position Busy allows the attendant to make the console not available to additional calls in queue. The attendant can continue to start calls and use or program the features available when the console is in the position busy state.

Operation

The attendant presses the Position Busy (POS BY) key to activate Position Busy. The attendant can start Position Busy when the console is idle, or during the handling of a call. This action does not affect the call. The attendant can start Position Busy when alerted to a call in queue. Calls already in queue remain in queue until the system abandons the call. Calls presented to the console after the system starts Position Busy receive night service treatment.

If the attendant presses the POS BY key after the attendant answers a call, the console is not alerted to queued calls. The attendant can press the POS BY key when alerted to a call in queue for answer. If the attendant pressed the POS BY key, the call remains at the head of the queue.

To deactivate Position Busy, the attendant presses the POS BY key a second time. The system ignores this key action if the attendant did not plug a handset or headset in the console.

User interface

Position Busy does not affect user interface.

Translations table flow

Position Busy does not affect translations table flow.

Limits

Future releases of this document will include limits that this release does not present.

Position Busy (continued)

Interactions

The following features interact with Position Busy:

- Incoming Calls. When the console is in the Position Busy state, incoming calls receive night service treatment.
- Queued Calls. In a multiple-console operation, calls in queue distribute to the attendant positions that remain.

Activation/deactivation by the end user

To operate Position Busy, the attendant performs the following steps.

Activation/deactivation of Position Busy by the end user

At your telephone

1 Press the Position Busy (POS BY) key. The attendant can start Position Busy when the console is idle, or during the handling of a call. This condition does not affect the current call. The attendant can start Position Busy when alerted to a call in queue.

Response:

Position Busy activates.

- The call already in queue remains in queue until the system abandons the call.
- The call that the console receives after the system starts Position Busy receive night service treatment.

2 Press the POS BY key after you answer a call.

Response:

The console is not alerted to calls in queue.

3 The attendant presses the POS BY key when alerted to a call in queue for answer.

Response:

The call remains at the head of the queue.

4 Press the POS BY key a second time.

Response:

Position Busy deactivates. The system ignores this key action if the attendant did not plug a handset or headset in the console.

Billing

Position Busy does not affect billing.

Station Message Detail Recording

Position Busy does not affect Station Message Detail Recording.

Position Busy (continued)

Datafilling office parameters

Position Busy does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Position Busy appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Position Busy

Table	Purpose of table
FNMAP	Attendant Console Functional Key. This table contains fields to assign a dedicated key and lamp for Position Busy.

Datafilling table FNMAP

Table FNMAP (Attendant Console Functional Key) contains fields to assign a dedicated key and lamp for Position Busy.

Datafill for Position Busy for table FNMAP appears in the following table. The fields that apply to Position Busy appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfields	Result. This field contains subfields KEY_SEL and SP_FN.
	KEY_SEL	SPECL	Key Selector. This subfield specifies the key selector. Enter SPECL for special.
	SP_FN	POS	Special Function. This subfield specifies the special function code. Enter POS.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

```
TABLE: FNMAP

   KEY                    RESULT
_____________________________________________________________
IBNCON1 2                 SPECL   POS
```

Tools for verifying translation

Position Busy does not use tools for verifying translation.

SERVORD

Position Busy does not use SERVORD.

Query Functional Station Grouping

Ordering codes

Operating group ordering code: MDC00001

Operating ordering code: does not apply

Release applicability

BCS23 and later versions

Requirements

Query Functional Station Grouping requires BAS Generic, BAS00003 to operate.

Description

Query Functional Station Grouping creates the query group (QGRP) command in use at the command interpreter (CI) level of the MAP (maintenance and administration position). The QGRP command allows the end user to list the members in the following:

- a multiple appearance directory number (MADN) group
- group intercom (GIC)
- key short hunt (KSH) group
- hunt (HNT) group

This ability extends the original provisions of the command. The original provisions must list all members in the following:

- call pickup (CPU) group
- speed call users (SCU) group
- query busy station (QBS) group

Query Functional Station Grouping (continued)

QGRP command parameters and variables

Command	Parameters and variables		
qgrp	blf	*blfdn*	
	cpu	*grp_num* *len*	
	ftrgrp	*dn* *ftrgrp_name* *len*	brief full
	gic	*dn* *len* *1* *key*	
	hnt	*dn* *len* *1* *key* *grp_num*	
	ksh	*dn* *len*	
	mdn	*dn* *len* *1* *key*	
	qbs	*len* *1* *key*	
	resscu	*len*	
	scu	*grp_num* *len*	

Query Functional Station Grouping (continued)

QGRP command parameters and variables (Sheet 1 of 3)

Parameters and variables	Description
1	To omit this entry forces the system to default to 1 for the key.
blf	This parameter provides a list of LENS which are Busy Lamp Field (BLF)/Set-based Lamp Field (SBLF) monitoring the input DN. It also displays the corresponding key and type of monitoring (i.e. whether it is set_monitor or group_monitor)
brief	The characteristics and options of the feature group appear in this parameter.
cpu	The members of a CPU group appear in this parameter. The CPU feature permits a station to answer incoming calls to another station in the same pickup group. Enter a group number with this parameter when the group number feature control is Y in Table OFCOPT.
dn	This variable specifies the directory number (DN), a seven-digit number. This number designates the station of a subscriber in one numbering plan area (NPA). This number is a three-digit Central Office code and a four-digit station number.
ftrgrp	The members of a feature group appear in this parameter. The ftrgrp feature allows the operating company to package residential and business line features into logical groups. Use SERVORD (SO) directory commands to assign these groups to individual lines.
ftrgrp_name	This variable specifies the name of a feature group.
full	A list of the lines assigned to the feature group appears in this parameter.
gic	The members of a GIC group appear in this parameter. The GIC feature allows a customer to terminate on a member of a set group. This process occurs with the use of abbreviated dialing.
grp_num	This variable specifies the number of the group type. The correct entry range for the CPU group is 1-32 767. The correct entry range for the SCU group is 1-30 000 on NT40 and 1-32 767 on Encore. The correct entry range for the hunt group number is 1-8191. The hunt group types come from the same pool of numbers.

Query Functional Station Grouping (continued)

QGRP command parameters and variables (Sheet 2 of 3)

Parameters and variables	Description
hnt	The members of a hunt group appear in this parameter. The following are the hunt group types: • Bridged Night Number (BNN) • directory number hunt (DNH) • distributed line hunt (DLH) • multiline hunt (MLH) The BNN feature allows the system to advertise a different number for specified hours without a third wire. When the group number feature control is Y in Table OFCOPT, specify the group number to query a BNN. The DNH feature allows the system to reroute calls to a busy line in a hunt group in the order of the DNs. This process begins with the DN dialed. The DLH feature is a hunting arrangement that contains lines divided into groups. The hunt is sequential over all groups until the system selects a line in an available group. The MLH feature allows the system to route calls that are to a busy line to other specified lines. The system does not need to assign a DN to each line.
key	This variable specifies the key on the set to monitor. Enter this variable after a line equipment number (LEN). The correct entry range is 1 - 69. Enter the key parameter with a LEN. The system prompts a key when the specified LEN is a Meridian Business Set (MBS). The exception to this action is the qgrp ksh command string, where the system requires a LEN. The system prompts a key for when the specified LEN is a MBS. The user can enters 1 or the default with the LEN of the monitored set. When the user enters this data, the system lists the LEN and key of each station. The LEN and key of each station can query the status of that monitored set. The user can enter a key that is not 1 with the LEN of the monitoring set. When the user enters this data, the system lists the LEN of the monitored set. The system lists the LEN and key of each station that remains in the group.
ksh	This parameter displays the members of a key short hunt (KSH) group. The KSH feature permits incoming calls to hunt over a set of DN appearances. The calls search for an idle DN to terminate. The set can be all standard DNs and MADNs. The set can be a subset of the DNs on an MBS.

Query Functional Station Grouping (continued)

QGRP command parameters and variables (Sheet 3 of 3)

Parameters and variables	Description
len	This variable specifies LENs. These LENs identify the site, frame, unit, drawer and circuit of the following: • MBS • Integrated Business Network (IBN) line • attendant console • data unit (DU)
mdn	This parameter displays the members of a MADN group. A MADN is a DN assigned to more than one MBS.
qbs	The members of a query busy station (QBS) group appear in this parameter. The QBS feature allows a group of business set users to monitor the busy or idle status of a specified set. The QBS feature allows the system to alert a group of business set users when that set becomes idle.
resscu	The members of a Residential Enhanced Services (RES) SCU group appear in this parameter. An SCU is a user with access to several speed calling features. These features permit the user to dial often-used numbers with two-digit or three-digit codes.
scu	The members of an SCU group appear in this parameter. A member of an SCU group is a user with access to the speed calling list of another subscriber. This list allows the user to dial often-used numbers with two-digit or three-digit codes. Enter a group number with this parameter when group number feature control is Y in Table OFCOPT.

Operation

Query Functional Station Grouping does not affect operation.

Translations table flow

Query Functional Station Grouping does not affect translations table flow.

Limits

Customer data change (CDC) users and operating companies can use this feature.

Interactions

Query Functional Station Grouping does not have functionality interactions.

Query Functional Station Grouping (end)

Activation/deactivation by the end user

Query Functional Station Grouping does not require activation or deactivation by the end user.

Billing

Query Functional Station Grouping does not affect billing.

Station Message Detail Recording

Query Functional Station Grouping does not affect Station Message Detail Recording.

Datafilling office parameters

Query Functional Station Grouping does not affect office parameters.

Datafill sequence

Query Functional Station Grouping does not affect datafill.

Tools for verifying translations

Query Functional Station Grouping does not use tools for verifying translations.

SERVORD

Query Functional Station Grouping does not use SERVORD.

Ring Again

Ordering codes

Operating group ordering code: MDC00001

Operating ordering code: does not apply

Release applicability

BCS09 and later versions

Requirements

Ring Again requires BAS Generic, BAS00003 to operate.

Description

Ring Again permits the system to notify a calling party that encounters a busy station when the busy station becomes idle. The system places the busy station automatically in a ring again mode. Coded ringing notifies the calling party that the busy station is now idle. The calling party must be off-hook.

Operation

To activate Ring Again, the calling party performs the following steps:

- The calling party flashes the hookswitch. The calling party hears special dial tone. Dial tone is two bursts of tone with continuous dial tone that follows. The calling party dials the ring again access code.
- The calling party hears confirmation tone. Confirmation tone is dial tone of 300 ms off, 150 ms on, 150 ms off, 300 ms on for 1 s period. The calling party goes on-hook. The calling party can make or receive calls.
- When the called station becomes idle, coded ringing notifies the calling party. Coded ringing is 1.5 s on, with 2.5 s of off-on-off-on-off ringing that follows.
- The calling party goes off-hook. The system calls the station. The calling party hears audible ringback tone.

To deactivate Ring Again, the calling party goes off-hook. The calling party dials the ring again access code. Ring Again deactivates if the calling party does not answer the ring again recall before the recall timer times out.

Default sets the coded ringing to continue for 8 s. Assign option RAGTIM in Table CUSTSTN [Customer Group Station Option] to set this ring from 9 s to 32 s.

Translations table flow

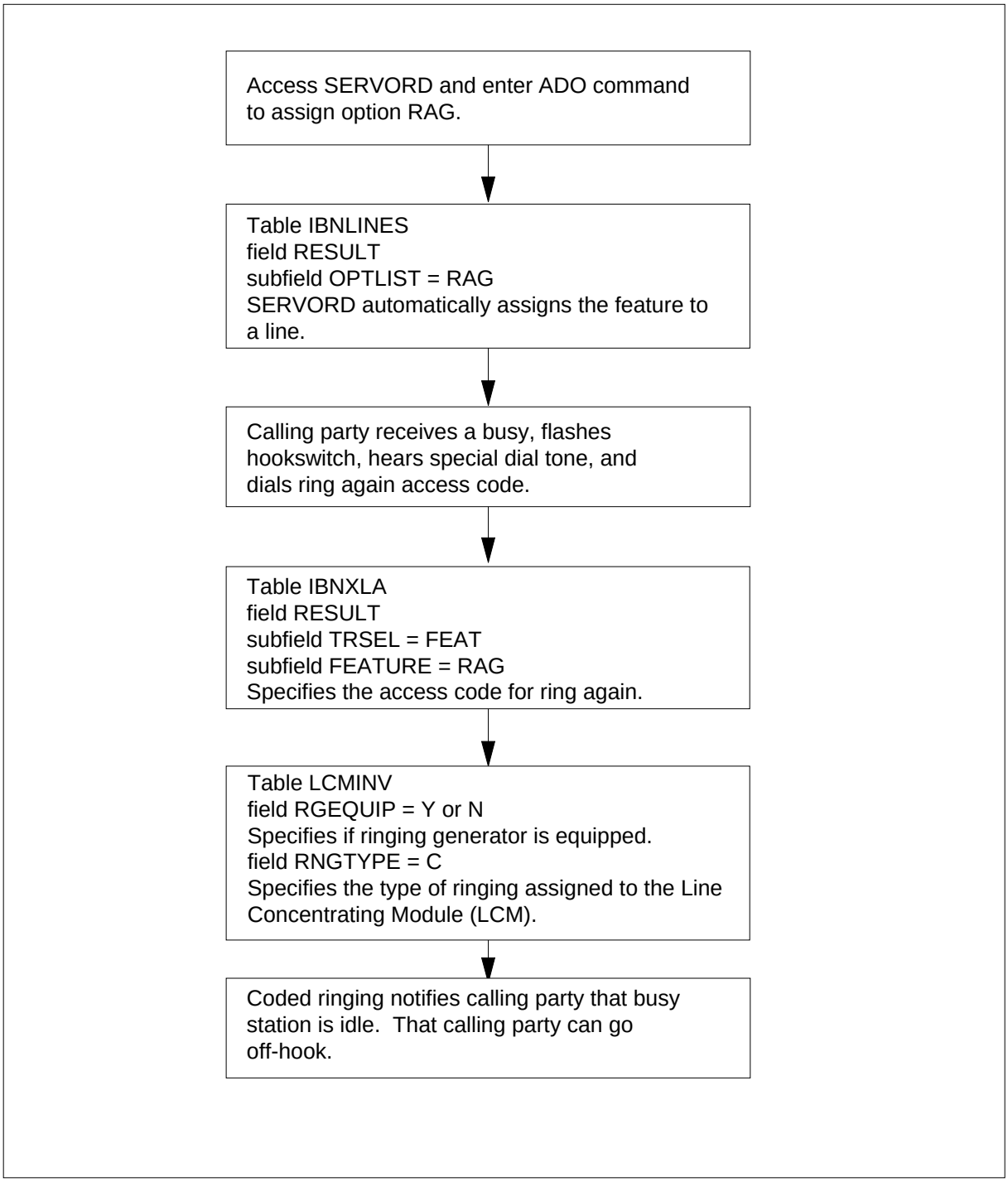
The Ring Again translations process appears in the following flowchart. Option RAG assigned to a 500/2500 set appears in the following flowchart and data.

- The hardware information for each bay associated with a ELCM, LCM ILCM, IRLCM, LCMI, and LCME appears in Table LCMINV (Line Concentrating Module Inventory). Enter Table LCMINV to define the data assignments for each peripheral. Enter Table LCMINV to set the ring type for Ring Again.
- Line assignments for each 500/2500 set assigned an MDC or SS station number appear in table IBNLINES (IBN Line Assignment). Enter this table when the system assigns the line in SERVORD.
- Table IBNXLA (IBN Translation) contains the data for the digit translation of calls from various locations. These locations are an Integrated Business Network (IBN) station, an attendant console (AC), or an incoming side of a two-way IBN trunk group. Enter Table IBNXLA to define the access code and translation for Ring Again

The Ring Again translation process appears in the following flowchart.

Ring Again (continued)

Table flow for Ring Again



The datafill content the flowchart uses appears in the following table.

Datafill example for Ring Again

Datafill table	Example data
IBNLINES	HOST 00 0 00 01 10 DT STN IBN 5554667 919 (RAG) $
IBNXLA	NTIXLA 123 FEAT N Y N RAG
LCMINV	HOST 00 1 LCE 38 1 C 2 6X04AA LCM35A LGC 1 N 0 64K LCM Y S 48V HLCM (19) (17) (16) (18) (13) (15) $

Limits

The following limits apply to Ring Again:

- The calling and called stations must belong to the same customer group.
- A station must not have more than one ring again request active against another station at a time. A station with an active ring again request can call another busy station. This call activates Ring Again against the new busy station. The new ring again request overwrites the old request.

Interactions

The following features interact with Ring Again:

Ring Again Recall (RAGRCOPT)

When option RAGRCOPT is assigned to a customer group, in table CUSTSTN, Ring Again, Network Wide Ring Again, and Call Back Queuing only recall to a Meridian Business Set when the set is idle.

Automatic Call Back

When the called party is busy, the system redirects the calling party to an idle line in the group of the called party. When Ring Again occurs, the calling party receives Ring Again notification and receives busy treatment when initiating Ring Again. The calling party must release the call. The calling party must dial the intended party again.

Call Forwarding

Ring Again does not recognize call forwarding. The calling station cannot activate RAG if the called station has activated any form of call forwarding other than Call Forward Busy (CFB). A Ring Again Recall will not be forwarded if the called station has activated: Call Forward Universal (CFU), Call Forward Intragroup (CFI), or Call Forward No Answer (CFD).

Ring Again (continued)

Hunt groups

The calling party can call a member of a hunt group, encounter busy, and activate Ring Again. When this condition occurs, the calling party is recalled when a member in the hunt group becomes idle.

Make Set Busy, Do Not Disturb

The hunt group members can have Make Set Busy (MSB) or Do Not Disturb (DND). When these features are on, the calling party can activate Ring Again against a busy hunt group. The process occurs as long as a minimum of one member of the hunt group is MSB inactive. When an MSB active member goes on-hook, the system does not serve the ring again recall. The ring again recall remains in queue until an MSB inactive member becomes idle.

Activation/deactivation by the end user

The calling party performs the following steps to activate Ring Again:

Activation of Ring Again by the end user

At your telephone:

1 The calling party flashes the hookswitch.

- Response:
- The calling party hears special dial tone, two bursts of tone with continuous dial tone that follows.

2 The calling party dials the ring again access code

- Response:
- The calling party hears confirmation tone. The confirmation tone is a dial tone of 300 ms off, 150 ms on, 150 ms off, 300 ms on. The confirmation tone sounds for a 1 s period.

3 The calling party goes on-hook. The calling party can make or receive calls.

- Response:
- When the called station becomes idle, the system notifies the calling party by coded ringing. The coded ringing is 1.5 s on, with 2.5 s of off-on-off-on-off ringing that follows.

4 The calling party goes off-hook.

- Response:
- The system rings the called station. The calling party hears audible ringback tone.

The calling party performs the following steps to deactivate Ring Again:

Deactivation of Ring Again by the end user

At your telephone:

1 The calling party goes off-hook. The calling party dials the ring again access code.

- Response:
- Ring Again deactivates if the calling party does not answer the ring again recall before the recall timer times out.
- The default sets the coded ringing to continue for 8 s. You can set the ringing to ring from 9 to 32 s. Assign option RAGTIM in Table CUSTSTN.

Billing

Ring Again does not affect billing.

Station Message Detail Recording

Ring Again does not affect Station Message Detail Recording.

Datafilling office parameters

Ring Again does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Ring Again appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Ring Again

Table	Purpose of table
IBNLINES	IBN Line Assignments Table. This table contains the line assignments for data channel links for the Bulk Calling Line Identification (BCLI) feature. These links for the BCLI are under the format name of BL. ***Note:*** Enter table IBNLINES through SERVORD. The system does not supply datafill procedure or example. See “SERVORD" for an example of how to use SERVORD to enter this table.
IBNXLA	IBN Translation Table. This table stores data for the digit translation of calls from various locations. These locations are an IBN station, attendant console, incoming IBN trunk group, or incoming side of a two-way IBN trunk group.
LCMINV	Line Concentrating Module Inventory Table. This table lists the hardware information for each bay associated with an ELCM, LCM ILCM, IRLCM, LCMI, and LCME.

Ring Again (continued)

Datafilling table LCMINV

Table LCMINV lists the hardware information for each bay associated with a ELCM, LCM ILCM, IRLCM, LCMI, and LCME. Enter Table LCMINV to define the data assignments for each peripheral. Enter Table LCMINV to set the ring type for Ring Again.

The default value for the ring again timer is 8 s. To increase that time, 9 to 32 s, enter Table CUSTSTN. See the data schema section of this document for more information.

Datafill for Ring Again for table LCMINV appears in the following table. The fields that apply to Ring Again appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table LCMINV

Field	Subfield or refinement	Entry	Explanation and action
EQPEC		6X04AA	Equipment Product Engineering Code. This field specifies the equipment product engineering code. Enter 6X04AA
RGEQUP		Y	Ringing Generator Equipped. This field specifies if the system ringing generator is equipped. Enter Y.
RNGTYPE		C	Ring Type. This field specifies the type of ringing that belongs to the line concentrating module. Enter C.

Datafill example for table LCMINV

Sample datafill for table LCMINV appears in the following example.

MAP example for table LCMINV

```
LCMNM   FRTYPE   SHPOS   FLOOR   ROW   FRPOS   EQPEC   LOAD   CSPMNO
BICTST   ADNUM   MEMSIZE   LCMTYPE
_____________________________________________________
HOST   00  1  LCE   38   1  C  2   6X04AA    LCM35A  LGC  1  N 0 64K
LCM  Y  S  48V  HLCM  (19)  (17)  (16)  (18)  (13)  (15)  $
```

Datafilling table IBNXLA

Table IBNXLA (IBN Translation) contains IBN translations. Enter Table IBNXLA to include the feature access code for Ring Again.

Datafill for Ring Again for table IBNXLA appears in the following table. The fields that apply to Ring Again appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	Key. This field contains subfields XLANAME and DGLIDX.
	XLANAME	1- to 8-characters	Translator Name. This subfield specifies the name the system assigns to the translator. Enter the 1-character to 8-character name.
	DGLIDX	1- to 18-digits	Digilator Index. This subfield specifies the access code. Enter the 1-digit to 18-digit number assigned as the access code.
RESULT		see subfield	Result. This field contains subfield TRSEL.
	TRSEL	FEAT	Translations Selector. This subfield specifies the translations selector in use. Enter FEAT.
If TRSEL adjusts to FEAT, subfields ACR, SMDR, and FEATURE require datafill.			
	ACR	Y or N	Account Code Entry. This subfield specifies if the system requires an account code. Enter Y or N.
	SMDRSMDR	Y or N	Station Message Detail Recording. This subfield specifies if the system requires SMDR. Enter Y or N.
	FEATURE	RAG	Feature. This subfield specifies the feature assigned to a line. Enter RAG.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example .

MAP example for table IBNXLA

```
           KEY                                 RESULT
_____________________________________________________________
NTIXLA     123                          FEAT N Y N RAG
```

Ring Again (end)

Tools for verifying translations

Ring Again does not use tools for verifying translations.

SERVORD

Option RAG allows the system to notify an end user that encounters a busy DN when the busy station becomes idle. The system automatically dials the same number again.

SERVORD limits

Ring Again does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts in use to assign Ring Again to a line appears in the following table.

SERVORD prompts for Ring Again

Prompt	Valid input	Explanation
OPTION	RAG	This field specifies the option the system assigns. Enter RAG.
Note: The system enters table IBNLINES when the system assigns Ring Again with SERVORD.		

SERVORD example for adding Ring Again

The addition of Ring Again to a line with the ADO command appears in the following SERVORD example.

SERVORD example for Ring Again in prompt mode

```
> ADO
SONUMBER: NOW 92 3 27 AM
>
DN_OR_LEN:
> 0 0 11 16
OPTION:
> RAG
OPTION:
>$
```

SERVORD example for Ring Again in no-prompt mode

```
>ADO $ 0 0 11 16 RAG $
```

Ring Again Cancellation Timer

Ordering codes

Operating group ordering code: MDC00001

Operating ordering code: does not apply.

Release applicability

BCS31 and later versions

Requirements

Ring Again Cancellation Timer requires BAS Generic, BAS00003 to operate.

Description

Ring Again Cancellation Timer allows the end user to set a limit on how long a nodal or network ring again request can remain active. This limit is set on a customer group basis. Before this feature, ring again requests against a station on the same switch, nodal, remained active for an indefinite period of time. Ring again requests against a station on a different switch, network, timed out after 30 min.

Operation

The Ring Again (RAG) feature allows callers that encounter a busy signal to request notification when the busy station becomes idle. The activation and deactivation of the RAG feature is as follows:

- The caller encounters a busy signal. The caller activates the RAG feature. The caller goes on-hook.
- When the station of the busy party becomes idle, the caller receives a special ringback tone.
- The caller goes off-hook. The switch places the call. The system deactivates the RAG feature.

After a specified amount of time, RAG reactivates if the caller does not answer the ringback. To cancel a ring again request, the caller can go off-hook and dial the RAG feature code.

Ring Again Cancellation Timer deactivates the ring again request when the busy party remains off-hook for a specified amount of time. Through datafill, the system sets a nodal time limit to 0, does not have a limit, or between 2 and 30 min. In the same way, the system sets a network time limit between 5 and 30 min.

Ring Again Cancellation Timer (continued)

Translations table flow

The Ring Again Cancellation Timer translations process appears in the table flow for Ring Again Cancellation Timer flowchart. The translation flow of the Ring Again Cancellation Timer feature on a nodal appears in the following flowchart and data. A network switch appears in the following flowchart and data.

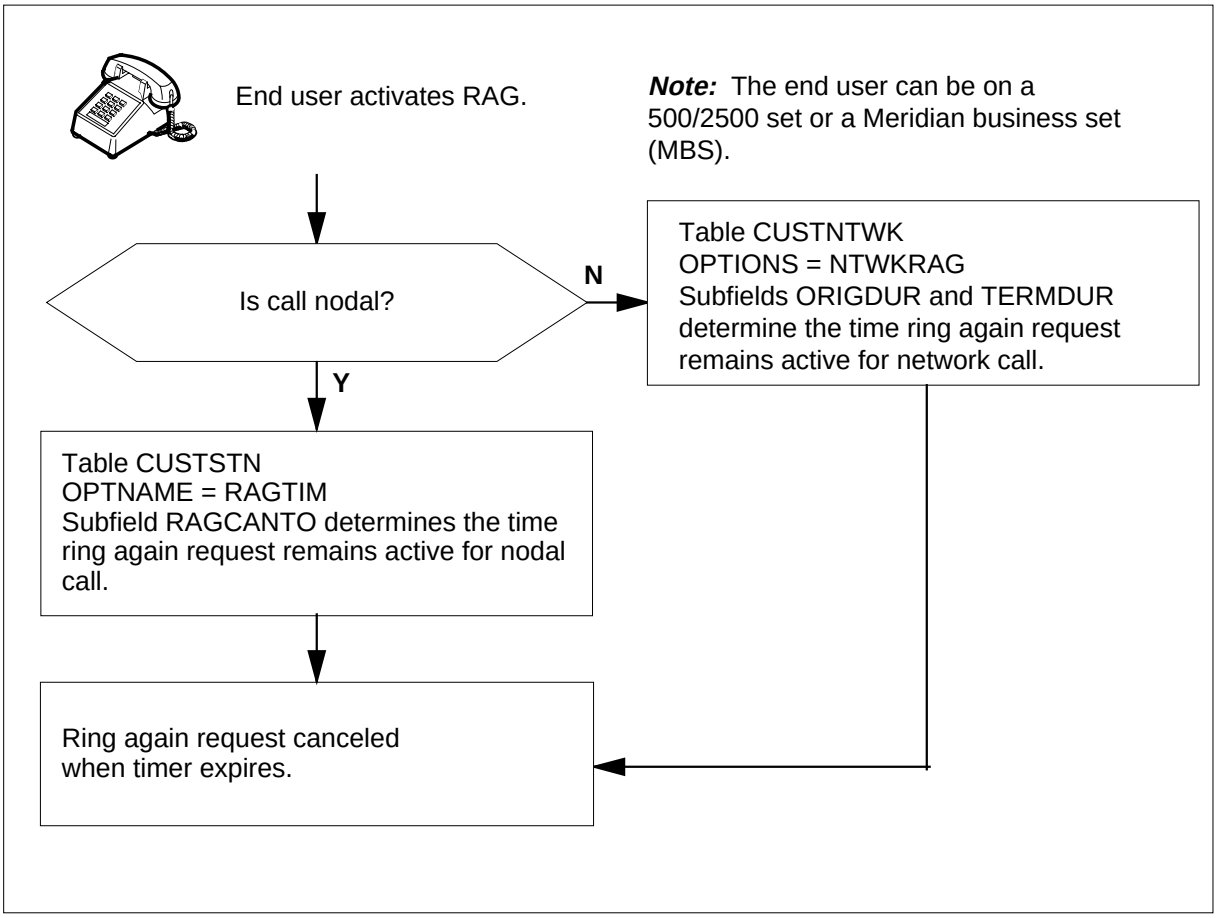
The Ring Again Cancellation Timer translations tables appear in the following list:

- Table CUSTSTN (Customer Group Station Option) contains the station options assigned to each customer group. Table CUSTSTN sets the time limits for nodal ring again requests
- Table CUSTNTWK (Customer Group Network) contains a network name to which the system associates a customer group. Table CUSTNTWK assigns calling features to customer groups. Table CUSTNTWK sets the time limits for network ring again requests

The Ring Again Cancellation Timer translation process appears in the following flowchart.

Ring Again Cancellation Timer (continued)

Table flow for Ring Again Cancellation Timer



The datafill content the flowchart uses appears in the following table.

Datafill example for Ring Again Cancellation Timer

Datafill table	Example data
CUSTSTN	MDCGRP1 RAGTIM (RAGTIM 25 15) $
CUSTNTWK	MDCGRP1 PUBLIC 1 $ (NTWKRAG 10 20 10 31 6 10 ONNET) $

Limits

Ring Again Cancellation Timer does not have limits.

Ring Again Cancellation Timer (continued)

Interactions

The interactions between Ring Again Cancellation Timer and other functionalities appear in the following list.

- Ring Again. Nodal ring again requests deactivate if Ring Again Cancellation Timer is in use.
- Network Ring Again. Deactivate network ring again requests before 30 min, depending on the time limit set through datafill.

Activation/deactivation by the end user

Ring Again Cancellation Timer does not require activation or deactivation by the end user.

Billing

Ring Again Cancellation Timer does not affect billing.

Station Message Detail Recording

Ring Again Cancellation Timer does not affect Station Message Detail Recording.

Datafilling office parameters

Ring Again Cancellation Timer does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Ring Again Cancellation Timer appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Ring Again Cancellation Timer

Table	Purpose of table
CUSTSTN	Customer Group Station Option. This table contains the station options assigned to each customer group. This table sets the time limits for nodal ring again requests.
CUSTNTWK	Customer Group Network. This table contains a network name to which a customer group associates. This table assigns calling features to customer groups. This table sets the time limits for network ring again requests.

Datafilling table CUSTSTN

Table (Customer Group Station Option) contains the station options assigned to each customer group. Table CUSTSTN sets the time limits for nodal ring again requests. Option RAGTIM in Table CUSTSTN assigns the Ring Again Cancellation Timer feature to a customer group. Subfields RAGRECTO and

Ring Again Cancellation Timer (continued)

RAGCANTO in Table CUSTSTN require datafill if field OPTION adjusts to RAGTIM.

Datafill for Ring Again Cancellation Timer for table CUSTSTN appears in the following table. The fields that apply to Ring Again Cancellation Timer appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTSTN

Field	Subfield or refinement	Entry	Explanation and action
OPTNAME		RAGTIM	Option Name. This field specifies the name of the option. Enter RAGTIM to specify Ring Again Cancellation Timer.
OPTION		see subfield	Option. This field contains subfield OPTION.
	OPTION	RAGTIM	Option. This subfield specifies the option name. Enter RAGTIM.
If OPTION adjusts to RAGTIM, subfields RAGRECTO and RAGCANTO require datafill.			
	RAGRECTO	8 to 32	Ring Again Recall Time-out. This subfield specifies the time that ring code 4 applies to a line with the RAG feature. This process indicates that the line that was busy is now idle. Enter this time in 1-s intervals. Enter a value from 8 to 32.
	RAGCANTO	0 or a value from 2 to 30	Ring Again Cancellation Time-out. This subfield specifies the time that the nodal ring again request remains active. This time occurs in 1 min intervals. Enter 0 or a value from 2 to 30. A value of 0 indicates that time-out is not a requirement.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

MAP example for table CUSTSTN

```
CUSTNAME    OPTNAME     OPTION
_____________________________________________________________
MDCGRP1     RAGTIM   ( RAGTIM   25  15 ) $
```

Ring Again Cancellation Timer (continued)

Datafilling table CUSTNTWK

Table CUSTNTWK (Customer Group Network) contains a network name to which a customer group associates. Table CUSTNTKW assigns calling features to customer groups. Table CUSTNTWK sets the time limits for network ring again requests. Option NTWKRAG in Table CUSTNTWK assigns the Network Ring Again feature to a customer group.

Datafill for Ring Again Cancellation Timer for table CUSTNTWK appears in the following table. The fields that apply to Ring Again Cancellation Timer appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTNTWK (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		NTWKRAG	Options. This field specifies the name of the option. Enter NTWKRAG to assign the Network Ring Again feature to the customer group.
If OPTIONS adjusts to NTWKRAG, subfields TIMEOUT, ORIGDUR, ORIGRTY, TERMDUR, TERMGRD, TERMQAD, and NETOPT require datafill.			
	TIMEOUT	10 to 60 or leave blank	Time-out. This subfield specifies the time to apply ringing to a line with the Network Ring Again feature. This action indicates that the line that was busy is now idle. Enter the time in 1-s intervals. Enter a value from 10 to 60. If time-out is not required, leave this subfield blank.
	ORIGDUR	5 to 30	Originator Duration Time-out. This subfield specifies the time that the network ring again request remains active at the originating switch. Enter the time in 1 min intervals. Enter a value from 5 to 30. The default is 30.
	ORIGRTY	2 to 10	Originator Retry Time-out. This subfield specifies the time that the originating switch waits after sending out a transaction capability application part (TCAP) query message. The switch sends the TCAP before the switch sends out another message or terminates the attempt. Enter the time in 1 s intervals. Enter a value from 2 to 10. The default is 5.

Ring Again Cancellation Timer (continued)

Datafilling table CUSTNTWK (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	TERMDUR	5 to 31	Terminator Duration Time-out. This subfield specifies the time that the network ring again request remains active at the terminating switch. The time is in 1 min intervals. Enter a value from 5 to 31. The default is 31. This value must be greater than that in subfield ORIGDUR.
	TERMGRD	1 to 6	Terminator Guard Time-out. This subfield specifies the time that the terminating switch waits before ringing occurs to a line. This action indicates that the line that was busy is now idle. The time is in 1 s intervals. Enter a value from 1 to 6. The default is 2.
	TERMQAD	5 to 40	Terminator Queue Advance Time-out. This subfield specifies the time that the terminating switch waits before the system sends messages to different originating switches. These messages indicate that the line that was busy is now idle. The time is in 1 s intervals. Enter a value from 5 to 40. The default is 30.
	NETOPT	ONNET, OFFNET or INTRAGRP	Network Options. This subfield specifies the network option. Enter ONNET to specify that the ring again cancellation timer applies to calls that originate on the same network. Enter OFFNET to specify that the ring again cancellation timer applies to all network calls. This timer applies to all network calls. Enter INTRAGRP to specify that the ring again cancellation timer applies to network calls between customer groups.

Datafill example for table CUSTNTWK

Sample datafill for table CUSTNTWK appears in the following example.

Ring Again Cancellation Timer (end)

MAP example for table CUSTNTWK

```
CUSTNAME   NETNAME   NETCGID    DNREVXLA
                                                    OPTIONS
_____________________________________________________________
MDCGRP1     PUBLIC     1        DN10DXLA
                                                        $
             ( NTWKRAG 10   20   10   31   6   10   ONNET )  $
```

Tools for verifying translations

Ring Again Cancellation Timer does not use tools for verifying translations.

SERVORD

Ring Again Cancellation Timer does not use SERVORD.

Ring Again on Hunt Groups

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS15 and later versions

Requirements

To operate, Ring Again on Hunt Groups has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

Special ringing notifies a station end user when the busy stations are idle. This special ringing occurs when a station end user encounters a busy station in a hunt group. The Ring Again on Hunt Groups feature allows this process to occur. When the end user answers the ringing station, the switch places the call to the idle station. This feature differs from the normal Ring Again (RAG) feature. This difference is that the RAG feature allows the calling party to ring against a member of the hunt group. The Ring Again on Hunt Groups feature allows the calling party to ring against every member of the hunt group.

This feature allows the calling party to ring against the following hunt groups:

- a directory number hunt group (DNH)
- distributed line hunt group (DLH)
- a multiline hunt group (MLH)

The calling party can call a hunt group where each member is busy. In this occurrence, the system sets the first idle member of the hunt group to feature busy. A station that is feature busy does not serve direct calls until after the service of the ring again call. If several ring again requests to the hunt group occur, the first idle member continues remains feature busy. The next idle member is also feature busy. The calling party that receives the special ringing first depends on the search order of the hunt group terminator. This calling party depends on how long the calling party takes to answer the ring again notification.

The system can deactivate the Ring Again on Hunt Groups feature. This action can occur if the calling party does not answer the ringing station before the

Ring Again on Hunt Groups (continued)

recall timer times out. The setting of the ring again recall timer can be between 8 s to 30 s.

Operation

When the calling party encounters a busy tone from the hunt group, the caller can activate the Ring Again on Hunt Groups feature. The caller can activate this feature in the following way:

- The caller flashes the hookswitch and receives a different dial tone.
- The caller dials the ring again access code and receives a confirmation tone.
- The caller hangs up.
- Special ringing alerts the caller that a station in the hunt group is idle. The caller picks up the handset to notify the switch to place the call.

Translations table flow

How Ring Again on Hunt Groups affects activation or deactivation by the end user appears in the “Operation" section.

Limits

The following limits apply to Ring Again on Hunt Groups:

- A station can have one ring again request active at a time. A station with an active ring again request can call another busy station and reactivate Ring Again on Hunt Groups. In this occurrence, the new ring again request overwrites the old request.
- The Ring Again on Hunt Groups applies if the same switch serves the originating and terminating stations. These stations must be in the same customer group.

Feature interactions

The following features interact with Ring Again on Hunt Groups:

- The call pickup feature cannot pick up a ring again call.
- The caller can activate Ring Again on Hunt Groups if the station receives a call forwarded call.

Activation/deactivation by the end user

How Ring Again on Hunt Groups affects activation or deactivation by the end user appears in the “Operation" section.

Billing

Ring Again on Hunt Groups does not affect billing.

Station Message Detail Recording

Ring Again on Hunt Groups does not affect Station Message Detail Recording.

Datafilling office parameters

Ring Again on Hunt Groups does not affect office parameters.

The office parameters that Ring Again on Hunt Groups uses appear in the following table. Refer to the *Office Parameters Reference Manual.* for additional information about office parameters.

Datafill sequence

The tables that require datafill to implement Ring Again on Hunt Groups appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Ring Again on Hunt Groups

Table	Purpose of table
LCMINV	Line Concentrating Module Inventory Table. The data assignments for each bay that associates with a line concentrating module (LCM) appear in this table.
IBNLINES (Note)	Integrated Business Network (IBN) Line Assignments. This table contains the line assignments for data channel links for the Bulk Calling Line Identification (BCLI) feature under the format name of BL. ***Note:*** Use SERVORD to enter data in this table. A datafill procedure or example is not available. Refer to “SERVORD" for an example of how to use SERVORD to enter data in this table.
IBNXLA	IBN Translation. This table stores data for the digit translation of calls from the following parts: • an IBN station • attendant console • incoming IBN trunk group • incoming side of a two-way IBN trunk group

Ring Again on Hunt Groups (continued)

Datafilling table LCMINV

Enter data in table LCMINV (Line Concentrating Module Inventory) to define the data assignments for each peripheral. Enter data in table LCMINV to set the ring type for Ring Again on Hunt Groups.

Note: The default value for the ring again timer is 8 s. To increase this time from 9 s to 32 s, enter data in table CUSTSTN (Customer Group Station Option).

Datafill for Ring Again on Hunt Groups for table LCMINV appears in the following table. The fields that apply to Ring Again on Hunt Groups appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table LCMINV

Field	Subfield or refinement	Entry	Description
EQPEC		alphanumeric	Equipment Product Engineering Code. This field specifies the equipment product engineering code. Enter 6X04AA.
RGEQUIP		Y	Ringing Generator Equipped. This field specifies if ringing generator is equipped. Enter Y.
RINGTYPE		C	Ring Type. This field specifies the ring type. Enter C for coded 20 Hz.

Datafill example for table LCMINV

Sample datafill for table LCMINV appears in the following example.

MAP example for table LCMINV

```
TABLE: LCMINV
   LCMNM FRTYPE SHPOS FLOOR ROW FRPOS  EQPEC  LOAD CSPMNO
BICTST ADNUM MEMSIZE
_____________________________________________________________
HOST 00 0      LCE      4    1  C     2 6X04AA SLCM35S
LGC 0
      N    0  256K
             LCM     Y            S 48V HLCM
(19)(17)(16)(18) (13)(15) $
```

Datafilling table IBNXLA

Datafill for Ring Again on Hunt Groups for table IBNXLA appears in the following table. The fields that apply to the Ring Again on Hunt Groups feature appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA

Field	Subfield or refinement	Entry	Description
KEY		see subfields	Key. This field contains subfields XLANAME and DGLIDX.
	XLANAME	alphanumeric	Translator Name. This subfield specifies the name of the translator. Enter the 1- to 8-character name.
	DGLIDX	numeric	Digilator Index. This subfield specifies the access code. Enter the 1- to 18-digit number assigned as the access code.
RESULT		see subfield	Result. This field contains subfield TRSEL.
	TRSEL	FEAT	Translations Selector. This subfield specifies the translations selector you must use. Enter FEAT.
		see subfield	If TRSEL is FEAT, subfields ACR, SMDR, and FEATURE require datafill.
	ACR	Y or N	Account Code Entry. This subfield specifies if an account code is required. Enter Y or N.
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if SMDR is required. Enter Y or N.
	FEATURE	RAG	Feature. This subfield specifies the feature of a line. Enter RAG.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

Ring Again on Hunt Groups (continued)

MAP example for table IBNXLA

```
TABLE: IBNXLA
         KEY                                  RESULT
_____________________________________________________________________
NTIXLA     123                    FEAT N Y N RAG
```

Tools for verifying translations

Ring Again on Hunt Groups feature does not use tools for verifying translations.

SERVORD

How the ADO command adds Ring Again on Hunt Groups appears in the following SERVORD example.

SERVORD limits

Ring Again on Hunt Groups does not have SERVORD limits.

SERVORD example for adding Ring Again on Hunt Groups

How the ADO command adds Ring Again on Hunt Groups appears in the following SERVORD example.

Ring Again on Hunt Groups (end)

SERVORD example for Ring Again on Hunt Groups in prompt mode

```
SO:
> ado
SONUMBER: NOW 92 12 18 PM
>
DN_OR_LEN:
>0 0 4 21
OPTION:
> rag
OPTION:
> $
COMMAND AS ENTERED:
ADO NOW 92 12 18 PM HOST 00 0 04 21 ( RAG ) $
```

SERVORD example for Ring Again on Hunt Groups in no-prompt mode

```
>ADO  $  0 0 4 21 RAG $
```

Second and Third Delay Announcements

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS27 and later versions

Requirements

Second and Third Delay Announcements requires BAS Generic, BAS00003.

Description

Second and Third Delay Announcement allows a call to connect to a series of announcements. Music, silence, or ringing separate these announcements. Second and Third Delay Announcement also allows for the sequence of audio selections to repeat.

Second and Third Delay Announcement allows a caller on hold or in a queue to hear a group of audio selections. The caller hears this audio group instead of continued ringing or silence. For example, an audio treatment can alternate from music to announcements. This condition indicates the system did not disconnect the call and the recipient will answer the call.

Operation

Datafill in Table AUDIO implements Second and Third Delay Announcement. Table AUDIO defines the treatments for MDC features that can connect to audio. This feature changes table AUDIO to allow a maximum of six audio selections in a treatment. The previous limit in a treatment was four. This feature adds ringing and repeat to the list of selections that the treatment contains. A treatment can include a group of announcements, music, silence, ringing, and a repeat of a part of the treatment. Before this feature, the selections were announcement, music, and silence.

The use of music, silence, and ringing can occur in the following three ways:

- as the only selection in the treatment
- between announcements
- as the last selection in the treatment

The number of seconds for each interval of music, silence, or ringing is in table AUDIO in field TIME. Enter a value of 0 to 1800 seconds in field TIME. A value of zero indicates that the interval continues until the recipient answers

Second and Third Delay Announcements (continued)

the call or until the caller hangs up. When you enter an interval with TIME equal to zero for silence or ringing, you cannot enter additional selections. If you enter additional selections, the interval continues without end. When music, silence, or ringing is the last selection in the treatment, the TIME must be zero.

A treatment in table AUDIO appears in the following example. This treatment is for the Universal Call Distribution (UCD) feature. A caller waiting in the UCD queue receives this feature.

```
AUDIO1 UCDQ (ANN Y 1 ANN1)
   +
(MUSIC MUSIC1 30)
   +
(ANN N 2 ANN2)
   +
(RINGING 20)
   +
(ANN N 1 ANN2)
   $
```

Callers hears one cycle of announcement ANN1. After the announcement ANN1, the caller hears the following selections in the following order:

- 30 s of music
- two cycles of announcement ANN2
- 20 s of ringing
- one cycle of announcement ANN2

All the selections in a treatment can play and the recipient does not answer the call. Three conditions can occur:

- If the last selection in the treatment is announcement, the caller hears silence.
- If the last selection in the treatment is music, silence, or ringing, the TIME entry must be zero. The selection continues without end.
- If the last selection is repeat, the repetition continues.

A treatment for automatic call distribution (ACD) appears in the following example. This treatment plays for callers waiting in the ACD queue.

```
AUDIO2 ACDQ (ANN Y 1 ANN1)
   +
```

Second and Third Delay Announcements (continued)

```
(SILENCE 20)
 +
(ANN N 1 ANN1)
 +
(MUSIC MUSIC1 0)
 $
```

Callers hear one cycle of announcement, and the following in the following order:

- 20 s of silence
- one cycle of announcement
- continuous music

The repeat selection must be the final selection in the treatment. The repeat selection includes a field that specifies the selection at which the repeat begins. The repeat must begin on music, silence, or ringing. The repeat cannot begin on an announcement. The selection at which the repeat begins must have a TIME of a minimum of 5 s.

A treatment for the Call Hold feature appears in the following example:

```
AUDIO3 CHD (ANN Y 1 ANN1)
  +
(ANN N 1 ANN3)
  +
(MUSIC MUSIC1 25)
  +
(ANN N 1 ANN4)
  +
 REPEAT 3)
  $
```

The caller on call hold hears the following selections in the following order:

- one cycle of announcement ANN1
- one cycle of announcement ANN3
- 25 s of music
- one cycle of announcement ANN4

Second and Third Delay Announcements (continued)

After these selections, the system repeats the treatment continuously from the third selection to the last selection. This condition means that 25 s of music alternates with one cycle of announcement ANN4. This cycle repeats until the recipient answers the call or until the caller hangs up.

A treatment can contain only announcements. A treatment for call hold appears in the following example:

AUDIO5 CHD (ANN Y 1 ANN1)
+

(ANN N 1 ANN3)
+

(ANN N 1 ANN5)
+

(ANN N 2 ANN4)
+

The caller on call hold hears the following selections in the following order:

- one cycle of ANN1
- one cycle of ANN3
- one cycle of ANN5
- two cycles of ANN4

After these events, if the recipient does not answer the call, the caller hears silence.

The full ability of this feature cannot be in use for the attendant console (AC) features in table AUDIO. The following AC features in Table AUDIO cannot have the ringing or repeat choices. You cannot enter music or silence between announcements:

- Attendant Camp-On (CAMPON)
- Attendant Hold (ACHOLD)
- Attendant Queue (ATTQ)

Call Park (CPARK) is a station feature and an AC feature. You can enter music, silence, ringing, and repeat between the announcements for the Call Park feature. When activation of the Call Park feature occurs at an AC, the system only plays the announcements and repetition do not occur. When activation of call park occurs at a station, the treatment plays like datafill specifies.

Second and Third Delay Announcements (continued)

A treatment for the Call Park feature appears in the following example:

AUDIO6 CPARK (ANN Y 1 ANN1)
+
(MUSIC 10)
+
(ANN N 2 ANN2)
+
(MUSIC 15)
+
(ANN N 1 ANN1)
+
(REPEAT 3)
$

When the system parks a call from a station, the caller hears the following selections in the appears order:

- one cycle of announcement
- 10 s of music
- two cycles of announcement
- 15 s of music
- one cycle of announcement
- continuous repetition of two cycles of announcement ANN2
- music
- one cycle of ANN1

When the system parks a call from an AC, the caller hears the following selections in the following order:

- one cycle of announcement ANN1
- two cycles of announcement ANN2
- one cycle of announcement ANN1
- silence

Music does not play. Repetition does not occur.

Second and Third Delay Announcements (continued)

Translations table flow

Second and Third Delay Announcements does not affect translations table flow.

Limits

The following limits apply to Second and Third Delay Announcements:

- The following features in table AUDIO cannot have ringing or repeat as part of the treatment. These features cannot have datafill for music or silence between announcements:
  - — CAMPON
  - — ACHOLD
  - — ATTQ
- When an AC activates call park, the system only plays the announcement parts of the treatment.
- The repeat selection must be the last choice. Repetition cannot begin an announcement.
- Music, ringing, silence, and repeat cannot be adjacent in a treatment.

Interactions

Second and Third Delay Announcements does not have functionality interactions.

Activation/deactivation by the end user

Second and Third Delay Announcements does not require activation or deactivation by the end user.

Billing

Second and Third Delay Announcements does not affect billing.

Station Message Detail Recording

Second and Third Delay Announcements does not affect Station Message Detail Recording.

Datafilling office parameters

Second and Third Delay Announcements does not affect office parameters.

Second and Third Delay Announcements (continued)

Datafill sequence

The tables that require datafill to implement Second and Third Delay Announcements appear in the following table. These tables appear in the correct entry order.

Datafill requirements for Second and Third Delay Announcements

Table	Purpose of table
AUDIO	Audio Interlude. This table contains the audio interlude broadcasts available for specified features that apply to IBN.

Datafilling table AUDIO

Table AUDIO (Audio Interlude) contains the audio interlude broadcasts available for specified features that apply to IBN. These broadcasts can include any of the following broadcast elements:

- ANNOUNCEMENT
- MUSIC
- SILENCE
- RINGING

Each tuple in the table specifies the audio broadcast for a specified audio group and feature name. The CLLI names of the announcement and music trunks appear in this table. The CLLI names must appear in Tables ANN and ANNMEMS.

Datafill for Second and Third Delay Announcements for table AUDIO appear in the following table. The fields that apply to Second and Third Delay Announcements appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table AUDIO (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
AUDIOKEY		see subfields	Audio Key This field contains subfields GROUP and FTRINDEX.
	GROUP	alphanumeric	Group This subfield specifies the required audio group name. Enter a value from AUDIO1 to AUDIO512.

Second and Third Delay Announcements (continued)

Datafilling table AUDIO (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	FTRINDEX	character	Feature Index This subfield specifies the feature that requires a broadcast. Enter one of the following: • ACDQ (Automatic Call Distribution Queue) • ACHOLD (Attendant Hold) • ATTQ (Attendant Queue) • CAMPON (Attendant Camp-on) • CHD (Call Hold) • CPARK (Call Park) • CWD (Dial Call Waiting) • CWO (Call Waiting Originating) • KSMOH (Key Set Music On Hold) • MBSCAMP (Meridian Business set Camp-on) • MPHQ (Multiple Position Hunt with Queue) • PHOLD (Permanent Hold) • UCDQ (Uniform Call Distribution Queue)

Second and Third Delay Announcements (continued)

Datafilling table AUDIO (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
CHOICE		see subfields	Audio Choice This field specifies the audio choice. Enter one of the following: • ANN for announcement • MUSIC for continuous music • SILENCE for absence of announcement or music • RINGING for ringing • REPEAT to repeat a sequence If CHOICE is ANN, subfields AR, CYCLES, and ANNCLLI require datafill. If CHOICE is MUSIC, subfields MUSICLLI and TIME require datafill. If CHOICE is SILENCE, subfield TIME requires datafill. If CHOICE is RINGING, subfield TIME requires datafill. If CHOICE is REPEAT, subfield ROUTE requires datafill.
	AR	Y or N	Audible Ringing This subfield specifies if audible ringing is a requirement before the announcement reaches the beginning of the cycle. Enter Y or N.
	CYCLES	1 to 30	Announcement Cycles This subfield specifies the number of requirement announcement cycles. Enter a value from 1 to 30.
	ANNCLLI	alphanumeric	Announcement CLLI This subfield specifies the CLLI of the announcement trunk. This CLLI must appear in Tables ANN and ANNMEMS. Enter the name of the announcement from Table CLLI.

Second and Third Delay Announcements (continued)

Datafilling table AUDIO (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	MUSICLLI	alphanumeric	Music CLLI This subfield specifies the CLLI of the audio trunk. This CLLI must appear in Tables ANN and ANNMEMS. Enter the name of a music CLLI from Table CLLI.
	TIME	0 to 1800	Time This subfield specifies the delay threshold time. Enter a value from 0 to 1800. ***Note:*** An entry of 0 provides continuous music. This entry must be the last entry.
	TIME	0 to 1800	Time This subfield specifies the delay threshold time. Enter a value from 0 to 1800. ***Note:*** An entry of 0 provides continuous silence. This entry must be the last entry.
	TIME	0 to 1800	Time This subfield specifies the delay threshold time. Enter a value from 0 to 1800. ***Note:*** An entry of 0 provides continuous ringing. This entry must be the last entry.
	ROUTE	2 to 4	Route This subfield specifies the route number that begins the repeat sequence. Enter a value from 2 to 4.

Datafill example for table AUDIO

Sample datafill for table AUDIO appears in the following example.

Second and Third Delay Announcements (end)

MAP example for table AUDIO

```
TABLE:  AUDIO

AUDIOKEY                                              CHOICE
_____________________________________________________________

AUDIO1          PHOLD
(ANN  Y  1  VCAANNC) (RINGING 10) (ANN Y 1  VCAANNC)
(SILENCE  0)  $
```

Tools for verifying translations

Second and Third Delay Announcements does not use tools for verifying translations.

SERVORD

Second and Third Delay Announcements does not use SERVORD.

Secrecy

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

Secrecy requires BAS Generic, BAS00003.

Description

The Secrecy feature excludes the source from the attendant when the attendant keys the called number. The source is the calling party. The attendant can talk to the destination party and the source does not hear the attendant. When the attendant releases the call, the source and destination connect.

Operation

The system automatically activates the Secrecy feature when the secrecy option is set in table CUSTCONS. When the user keys the first digit, the Exclude Source (EXC SRC) lamp turns on. The EXC SRC excludes the source.

Translations table flow

Secrecy does not affect translations table flow.

Limits

Future releases of this document include any limits that apply that this release does not include.

Interactions

The following features interact with Secrecy:

- Call Transfer (CXR). When the attendant answers a transferred call, the system connects the attendant to the transferring party. The system records the transferred party as the source. The system excludes the source.
- The user can enable lockout Secrecy without the lockout option. If the lockout option is on, the attendant cannot press the Loop key to cancel Secrecy and establish a conference call.

Secrecy (continued)

Activation/deactivation by the end user

Activation/deactivation of Secrecy by the end user

At your telephone

1 After keying the called number, press the Release (RLS) key.

Response:

- The source connects to the called party or hears audible ringback tone.
- The EXC SRC lamp turns off.

2 Wait for the called party to answer and talk in private with the called party.

Response:

- The attendant hears ringback tone.
- When the attendant releases the call, the source and destination connect and the EXC SRC lamp turns off.

3 Press the Loop key that associates with the call.

Response:

This action cancels Secrecy. This action establishes a conference call involving the attendant, source, and destination.

Billing

Secrecy does not affect billing.

Station Message Detail Recording

Secrecy does not affect Station Message Detail Recording.

Datafilling office parameters

Secrecy does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Secrecy appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Secrecy

Table	Purpose of table
CUSTCONS	Customer Group Attendant Console Option Table. This table contains the attendant console options for each customer group that has attendant consoles.

Datafilling table CUSTCONS

Table CUSTCONS (Customer Group Attendant Console Option) contains fields define Secrecy for the customer group. Option SEC applies to calls that

the system holds on an attendant loop. Option SEC applies to all attendant consoles (AC) in the customer group.

Datafill for Secrecy for table CUSTCONS appears in the following table. The fields that apply to Secrecy appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTCONS

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		SEC	Options. This field specifies the option assigned to the customer group. Enter SEC for secrecy.
If OPTIONS is SEC, subfield LOCKOUT requires datafill.			
	LOCKOUT	Y or N	Lockout. This subfield specifies if an attendant lockout is a requirement. Enter Y or N.

Datafill example for table CUSTCONS

Sample datafill for table CUSTCONS appears in the following example.

MAP example for table CUSTCONS

```
TABLE: CUSTCONS
 CUSTNAME                                            OPTIONS
 ________________________________________________________________

 MDCGRP1                        (  SEC    N) $
```

Tools for verifying translations

Secrecy does not use tools for verifying translations.

SERVORD

Secrecy does not use SERVORD.

Semi-Restricted Incoming Lines Call Intercept

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS32 and later versions

Requirements

Semi-restricted Incoming Lines Call Intercept requires BAS Generic, BAS00003.

Description

Semi-restricted Incoming Lines Call Intercept adds the following enhancements to the Denied Incoming (DIN) feature:

- the routing of limited MDC line calls to an intercept treatment specified for each customer group
- the routing of terminating Direct Inward Dialing (DID) calls to a tone, an announcement, or an attendant console (AC)

Operation

The DIN is part of the class of service restrictions. This feature does not allow a line to receive calls from outside a customer group. The restricted calls include calls incoming over trunks except intragroup trunks. Without Semi-restricted Incoming Lines Call Intercept, DIN provides two treatments for terminating DID calls. These treatments are blank directory number (BLDN) and AC. These treatments are not available for each customer group. The hunting algorithm and hunt overflow routes have priority over DIN treatments.

When the user assigns DIN to a Meridian business set (MBS), only specified intragroup calls and trunk groups can terminate on the MBS. In this event, some intragroup calls and trunk groups perform this action. These intragroup calls have a terminating restriction code (TRC) that matches the TRC of the Meridian business set. An attendant cannot complete incoming calls with TRCs that do not match. Calls with TRCs that do not match can connect when an alternate terminating restriction code (ALTTRC) modifies a line with option DIN.

The values for TRC and ALTTRC are in tables IBNFEAT (IBN Line Feature) and KSETFEAT (Business Set and Data Unit Feature). The user enters the

Semi-Restricted Incoming Lines Call Intercept (continued)

TRC values for incoming IBN trunk groups (IBNTI) and two-way IBN trunk groups (IBNT2) in table TRKGRP (Trunk Group).

A call with the assignment of option DIN can arrive at a station. When this call arrives, the system compares the values of the TRC and ALTTRC. These comparisons determine which of the following conditions occurs:

- The customer group has an AC and the TRC of the incoming call matches the ALTTRC of the DIN line. When this condition occurs, the call can complete.
- The customer group does not have an AC and the TRC of the incoming call matches the ALTTRC of the DIN line. When this condition occurs, the redirect option in table CUSTSTN (Customer Group Station Option) routes the call to a subgroup. If you do not enter data in table CUSTSTN with a redirect option, the send again option routes the call. The system routes the call to BLDN treatment.
- if an ALTTRC entry does not occur, the send again option routes the call to terminating treatment.

Current implementation

The Semi-restricted Incoming Lines Call Intercept feature sends intercepted calls to a treatment specified for a customer group. The treatments available are tone, announcement, and AC. Enter the chosen treatment in table IBNTREAT (IBN Treatment). The system routes the call to table IBNTREAT. An end user can prevent a single line or a group of lines from receiving DID calls. If the following conditions occur, the Semi-restricted Incoming Lines Call Intercept feature intercepts the call:

- A line with DIN assigned receives an incoming or DID call with TRCs and ALTTRCs that do not match.
- The user enters data in option DINALT.

The Semi-restricted Incoming Lines Call Intercept feature sends the call to the treatment in table IBNTREAT. If the line has DIN but does not have an entry in option DINALT, the system route the call. The system routes the call to an AC or to BLDN treatment. A match between the TRC and ALTTRC of the line determines the destination of the call.

For Semi-restricted Incoming Lines Call Intercept to work, operating companies must assign DIN to the MDC lines. Use the Service Order System (SERVORD) to assign DIN to a line.

To enter call treatment in table IBNTREAT, assign a treatment value from 0 to 63. The user must enter data in option DINALT in subfield DIN_TRMT in

Semi-Restricted Incoming Lines Call Intercept (continued)

table CUSTSTN. After the user enters the data, the system can route the call to table IBNTREAT.

With Semi-restricted Incoming Lines Call Intercept, an end user can restrict both single lines and groups of lines from receiving DID calls. When the feature intercepts a call, the system compares the TRCs and ALTTRCs. These comparisons determine which of the following conditions occurs:

- If the TRCs match, the redirect option routes the call to a line in the customer group.
- If the following events occurs, calls terminate to the console. If an AC is not present, the system sends the calls to BLDN treatment.
  - — the TRCs do not match
  - — the ALTTRCs match
  - — an AC is present
- If the following occurs, the Semi-restricted Incoming Lines Call Intercept sends the call to a treatment table IBNTREAT specifies:
  - — the TRCs and ALTTRCs do not match
  - — you enter data in option DINALT in table CUSTSTN
- If the following occurs, the system sends the call to BLDN treatment:
  - — the TRCs and ALTTRCs do not match
  - — you do not enter data in option DINALT

The result of a call is not constant. The TRC and ALTTRC values of a line with option DIN determine the result. See the following table for the TRC and ALTTRC values of a line with option DIN. These options determine the treatment a call receives.

Semi-Restricted Incoming Lines Call Intercept (continued)

Possible TRC and ALTTRC values of a line with option DINALT entered in table CUSTSTN appear in the following table.

TRC and ALTTRC values of a line with option DINALT

TRC value	TRC of trunk = TRC of station	ALTTRC value	TRC of trunk = ALTTRC of station	Option DINALT datafilled	Treatment
1-8 digits	N	1-8 digits	N	N	Call receives BLDN treatment.
1-8 digits	N	1-8 digits	N	Y	Call routes to table IBNTREAT.
1-8 digits		1-8 digits	N or Y	N or Y	Call terminates to a line in the customer group.
1-8 digits	N	1-8 digits	Y	N or Y	Call terminates to the customer group AC. If the customer group does not have an AC, call receives BLDN treatment.
None or $	N	None or $	N	N	Call receives BLDN treatment.
None or $	N	None or $	N	Y	Call routes to table IBNTREAT.
None or $	N	1-8 digits	N	N	Call receives BLDN treatment.
1-8 digits	N	None or $	N	N	Call receives BLDN treatment.
None or $	N	1-8 digits	Y	N or Y	Call terminates to the customer group AC. If the customer group does not have an AC, call receives BLDN treatment.

Semi-Restricted Incoming Lines Call Intercept (continued)

Translations table flow

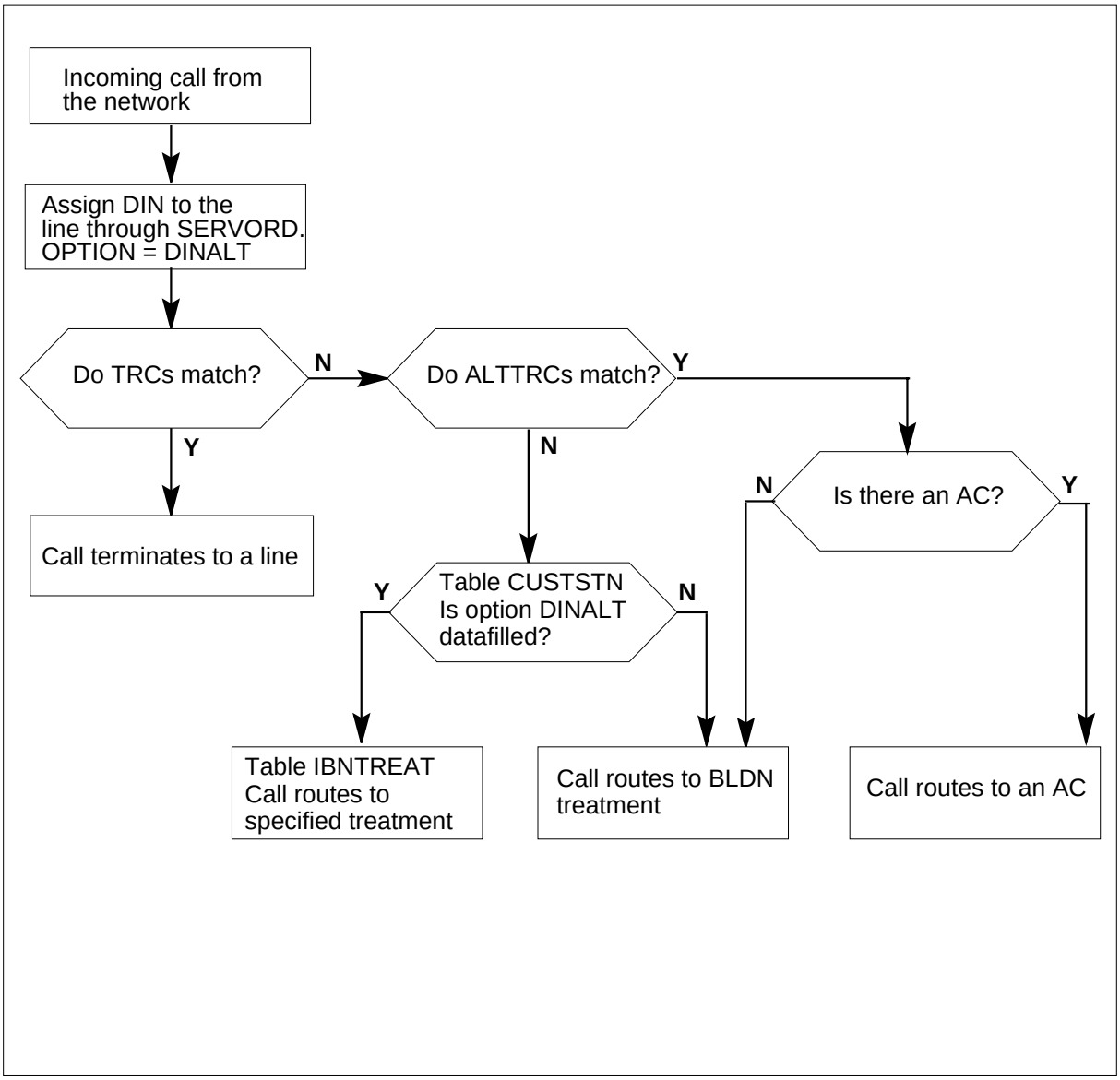
The Semi-restricted Incoming Lines Call Intercept translations process appears in the following flowchart. The flowchart and data illustrate how this feature routes a call when you assign DIN to the line.

> ***Note:*** Semi-restricted Incoming Lines Call Intercept requires the user to enter data in table IBNTREAT first. This entry assigns the treatments for terminating the calls.

Table CUSTSTN (Customer Group Station Option) is a requirement for a switching unit. This switching unit has North American translations and the IBN or Subscriber Services (SS) features. The addition of option DINALT and a treatment number to table CUSTSTN allow IBN lines with DIN to route DID calls. These calls route to a treatment. Table IBNTREAT specifies this treatment for each customer group.

Semi-Restricted Incoming Lines Call Intercept (continued)

Table flow for Semi-restricted Incoming Lines Call Intercept



The datafill content the flowchart uses appears in the following table.

Datafill example for Semi-restricted Incoming Lines Call Intercept

Datafill table	Example data
IBNFEAT	00 0 09 04 0 DIN DIN 1212 213 DINE
CUSTSTN	IBNTST DINALT DINALT 0

Semi-Restricted Incoming Lines Call Intercept (continued)

Limits

Semi-restricted Incoming Lines Call Intercept does not have limits.

Interactions

Semi-restricted Incoming Lines Call Intercept does not have functionality interactions.

Activation/deactivation by the end user

Semi-restricted Incoming Lines Call Intercept does not require activation or deactivation by the end user.

Billing

Semi-restricted Incoming Lines Call Intercept does not affect billing.

Station Message Detail Recording

Semi-restricted Incoming Lines Call Intercept does not affect Station Message Detail Recording.

Datafilling office parameters

Semi-restricted Incoming Lines Call Intercept does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Semi-restricted Incoming Lines Call Intercept appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Semi-restricted Incoming Lines Call Intercept

Table	Purpose of table
IBNFEAT (Note)	IBN Line Feature. This table lists line features that you assign to the IBN lines that appear in table IBNLINES.
CUSTSTN	Customer Group Station Option. This table contains the station options assigned to each customer group.
Note: Enter this table through SERVORD. A datafill procedure is not available.	

Datafilling table CUSTSTN

Table Customer Group Station Option (CUSTSTN) is a requirement for a switching unit. This switching unit has North American translations and the IBN or SS features. The addition of option DINALT and a treatment number to table CUSTSTN occurs. This addition allows IBN lines with DIN to route

Semi-Restricted Incoming Lines Call Intercept (continued)

DID calls to a treatment. Table IBNTREAT specifies this treatment for each customer group.

If the following occurs, the system intercepts the call:

- A line with DIN receives an incoming or DID call with TRCs and ALTTRCs that do not match.
- The line has option DINALT entry in table CUSTSTN.

The system sends this call to the treatment that you enter in table IBNTREAT. The treatments available are tone, announcement, and AC.

- If the following occurs, the system routes the call to an AC or to BLDN treatment:
- the line has DIN
- you do not enter data in option DINALT

A match between the TRCs and ALTTRCs of the line determines the destination of the call.

Datafill for Semi-restricted Incoming Lines Call Intercept for table CUSTSTN appears in the following table. The fields that apply to Semi-restricted Incoming Lines Call Intercept appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTSTN (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
CUSTNAME		1-character to 16-character customer group name	Customer Group Name. This field specifies the name of the customer group.
OPTNAME		DINALT	Option Name. This field specifies the name of the feature option. Enter DINALT.
OPTION			Option. This field contains subfield OPTION.

Semi-Restricted Incoming Lines Call Intercept (continued)

Datafilling table CUSTSTN (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	DINALT	Option. This subfield specifies the name of the option. If the setting of OPTION is DINALT, subfield DIN_TRMT requires datafill.
	DIN_TRMT	0 to 63	Denied Incoming Treatment. This subfield specifies a treatment number.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

MAP example for table CUSTSTN

```
 TABLE: CUSTSTN

CUSTNAM     OPTNAM         OPTION
_____________________________________________________________
IBNTS       DINALT         DINALT 0
```

Tools for verifying translations

Semi-restricted Incoming Lines Call Intercept does not use tools for verifying translations.

SERVORD

The SERVORD assigns DIN to a line.

Semi-Restricted Incoming Lines Call Intercept (continued)

The SERVORD prompts to assign Semi-restricted Incoming Lines Call Intercept to a line appear in the following table.

SERVORD prompts for Semi-restricted Incoming Lines Call Intercept

Prompt	Correct input	Explanation
DN_OR_LEN	7-digit DN or LEN	Specifies the 7-digit DN or LEN of the line you must change. Enter the DN or LEN.
OPTION	DIN	Indicates the name of the option
OPTKEY	1 to 69	Indicates the key on an MBS where the assignment of an option occurs.
TRC	1 to 8 digits (0 to 7) or $	Specifies the terminating restriction code (TRC) you must use with the DIN option. The TRC indicates the classes of incoming calls allowed on a trunk.
ALTTRC	1 to 8 digits (0 to 7) or $	Specifies the alternate TRC, to apply to IBN extended calls.
DINOPT	DINE, N	Specifies if the assignment of the DINE to a line is present. If you specify DINE, the system accepts some types of transferred calls. If you specify N, the system does not accept transferred calls.
Note: The system enters Table IBNFEAT when you assign Semi-restricted Incoming Lines Call Intercept using SERVORD.		

SERVORD limits

Semi-restricted Incoming Lines Call Intercept does not have SERVORD limits.

SERVORD example for adding of Semi-restricted Incoming Lines Call Intercept

The addition of Semi-restricted Incoming Lines Call Intercept with DIN 0086 to DINE appears in the following SERVORD example. The addition of this feature uses the add option (ADD) command.

Semi-Restricted Incoming Lines Call Intercept (end)

SERVORD example for adding of Semi-restricted Incoming Lines Call Intercept in prompt mode

```
>ADO
SONUMBER:      NOW  91 12  7 PM
>
DN_OR_LEN:
> 0 0 8 6
OPTION:
> DIN
TRC:
> 0
ALTTRC:
> 0
DINOPT:
> DINE
OPTKEY:
> $
```

SERVORD example for adding of Semi-restricted Incoming Lines Call Intercept in no-prompt mode

```
>ADO $ 0 0 8 6  DIN 0 0 DINE $
```

Setting Attendant Recall Timers to Zero

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS10 and later versions

Requirements

To operate, Setting Attendant Recall Timers to Zero requires the BAS Generic, BAS00003.

Description

Setting Attendant Recall Timers to Zero permits a customer to cancel the Attendant Recall feature for a customer group. Entry of a 0 value for the correct attendant recall timers accomplishes this action. Camp-ons, calls waited, calls forwarded, and no disconnect timeouts normally return to the attendant after a specified period of time.

Operation

Attendant recall timers for attendant camp-on and attendant-extended calls can be set from 12 to 60 s in 1 s increments. These timers are set for separate customer groups. A timer with a value of 0 stops the operation of the timer.

The call waiting/no answer recall timer has a default value of 30 s. The timer can be set in 1 s increments from 12 to 60 s. After this time, a call that was call-waited or terminated on a ringing telephone recalls to the attendant. If the times value is 0, the call remains call-waited, or the telephone continues to ring. The telephone rings until the called station answers or the calling party abandons. When the process involves an outgoing trunk connection, the system maintains the connection. The system maintains the connection until one of the following events occur:

- the called station answers
- the outgoing trunk sends answer supervision
- the outgoing trunk abandons

The camp-on recall timer does not have a default value. A specified time from 12 to 60 s must occur. After this time, a call that that is camped-on is recalls to the attendant. If the timer value is 0, the call remains camped-on. The call remains in this state until the called station answers or the calling party abandons the call.

Setting Attendant Recall Timers to Zero (continued)

Setting Attendant Recall Timers to Zero and Attendant Recall use two of the same timers. These timers are call waiting/no answer recall timeout (CWNATIM) and attendant camp-on recall timeout (ACORECTO).

Translations table flow

Setting Attendant Recall Timers to Zero does not affect translations table flow.

Limits

On outgoing trunks, only the recall timer that handles call waiting and no answer recalls applies.

Interactions

Setting Attendant Recall Timers to Zero does not interact with other features.

Activation/deactivation by the end user

Setting Attendant Recall Timers to Zero does not require activation or deactivation by the end user.

Billing

Setting Attendant Recall Timers to Zero does not affect billing.

Station Message Detail Recording

Setting Attendant Recall Timers to Zero does not affect Station Message Detail Recording.

Datafilling office parameters

Setting Attendant Recall Timers to Zero does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Setting Attendant Recall Timers to Zero appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Setting Attendant Recall Timers to Zero

Table	Purpose of table
CUSTCONS	Customer Group Attendant Console Option. This table contains fields that define the attendant camp-on option for the customer group.

Datafilling table CUSTCONS

Table CUSTCONS (Customer Group Attendant Console Option) contains fields for defining the attendant camp-on option for the customer group. You

Setting Attendant Recall Timers to Zero (continued)

must enter data in this table if you require a zero value for the call waiting/no answer recall timer. The value 0 indicates an infinite value.

Datafill for Setting Attendant Recall Timers to Zero for table CUSTCONS appears in the following table. The fields that apply to Setting Attendant Recall Timers to Zero appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTCONS (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		ACO or CWNATIM	Options. This field specifies the option assigned to the customer group. Enter ACO for attendant camp-on. Enter CWNATIM for call waiting, no answer recall.
		see subfields	If OPTIONS is ACO, subfields ACORECTO, FLASH, DURATION, ANNMUSIC, and AUDIOGRP require datafill.
ACORECTO		12 to 60, or 0 for infinite	Attendant Camp-On Recall Timeout. This subfield contains the number of seconds after which an unanswered camped-on call recalls to the attendant. Enter a number from 12 to 60, or 0 for infinite.
FLASH		CAMPON or FEATURES	Flash. This subfield specifies if a party that has a camped-on call can flash to connect the camped-on party. Enter CAMPON if the party can flash to connect the camped-on party. Enter FEATURES if the party cannot flash to connect the camped-on party.
DURATION		0 to 15	Duration. This subfield specifies the length of the interval, in 100 ms, that the system applies camp-on tone. Enter a number from 0 to 15.
	ANNMUSIC	Y or N	Announcement Music. This subfield specifies if the caller hears an announcement or music. Enter Y for an announcement or music. Enter N for no announcement or music.
		see subfields	If ANNMUSIC is Y, subfield AUDIOGRP requires datafill.

Setting Attendant Recall Timers to Zero (end)

Datafilling table CUSTCONS (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
		see subfields	If OPTIONS is CWNATIM, subfield CWNATO requires datafill.
	CWNATO	2 to 60, or 0 for infinite	Call Waiting/No Answer Recall Timeout. This subfield specifies the length of the interval after which the system recalls a call to an attendant. This call was call waited or terminated on a ringing phone. The interval occurs after these actions. Enter a number from 12 to 60, or 0 for infinite.

Datafill example for table CUSTCONS

Sample datafill for table CUSTCONS appears in the following example.

MAP example for table CUSTCONS

```
TABLE: CUSTCONS
CUSTNAME                                          OPTIONS
_____________________________________________________________
   MDCGRP1      ( CWNATIM 15)  ( ACO 12 CAMPON 13 N) $
```

Tools for verifying translations

Setting Attendant Recall Timers to Zero does not use tools for verifying translations.

SERVORD

Setting Attendant Recall Timers to Zero does not use SERVORD.

Simplified Dialing

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS10 and later versions.

Requirements

To operate, Simplified Dialing requires BAS Generic, BAS00003.

Description

The Simplified Dialing feature allows MDC end users to select a destination code-based dialing plan for that MDC network. This feature allows the end user to assign a destination code to different points in the private network. The tandem tie-trunk network (TTTN) of the end user can reach these different points in the private network.

The MDC end user dials a specified number of digits to reach the called party. The number of destination points through which the call must pass does not affect digits the user dials. Simplified Dialing is like direct distance dialing (DDD). The DDD requires an end user to direct-dial all digits in NPA-NXX-XXXX.

The Simplified Dialing feature uses a destination code. This destination code contains an access code and a location code. The access code identifies the network of an end user. The location code is for the end private business exchange (PBX). The MDC translation supports the dialing plan.

The DMS switch changes the fixed-length number the end user dials to a series of access codes and the extension number of the called party. This change occurs when the end user completes dialing. The system outpulses the access codes to the TTTN. The network connection occurs through the DMS switch from the end user to the outgoing trunk.

Operation

When a Simplified Dialing end user dials the correct digits, the system returns one of the following four tones:

- Ringing—Ringing indicates that a call reached the called party.
- Busy—When a destination digit completes but the called line is busy, the system returns a busy tone. The system returns a busy tone and not a reorder tone when an idle trunk is not available.

Simplified Dialing (continued)

- Reorder—If all trunks are busy, the caller receives a reorder tone. This tone indicates that all trunks at a location that is not known are busy.
- Silent—The caller receives a silent tone when an error is at a location. The cause and location are not identified.

The Simplified Dialing feature requires a new table. The feature that MDC end users require operates through the data that appears in the table.

Translations table flow

Simplified Dialing does not affect translations table flow.

Limits

Simplified Dialing does not have limits.

Interactions

Simplified Dialing does not have functionality interactions.

Activation/deactivation by the end user

The translator selects the datafill required to provide end users with the Simplified Dialing feature. When the translator completes the selection of datafill, the end user has Simplified Dialing.

To call another station in the same network, the end user follows an easy procedure. The first step is to dial an access code that connects the end user with the private network. In most systems, the access code is one digit. The end user dials the number of the called party. A standard calling sequence is 8-236-7855.

Billing

Simplified Dialing does not affect billing.

Station Message Detail Recording

Simplified Dialing does not affect Station Message Detail Recording.

Datafilling office parameters

Simplified Dialing does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Simplified Dialing appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Simplified Dialing

Table	Purpose of table
DIGMAN	Digit Manipulation. This table defines the digit manipulation data for a customer group.

Datafilling table DIGMAN

Table DIGMAN (Digit Manipulation) allows modification of the digit string before the system outpulses the digit string. The modification can occur with different methods.

Datafill for Simplified Dialing for table DIGMAN appears in the following table. The fields that apply to Simplified Dialing appear in this table. Refer to table DIGMAN in the *Customer Data Schema Reference Manual* for a description of the other fields.

Datafilling table DIGMAN (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DMIKEY		1 to 32 766	Digit Manipulation Key. This field indicates the digit manipulation key. Do not enter data in this field when data entry does not first occur in this record.
DMIDATA		see subfields	Digit Manipulation Data. This field identifies the digit manipulation that associate with the digit manipulation key. This field contains subfield DIGCOM.
	DIGCOM	ANS, ARDENY, ATD, CALL, CB, CF, CL, CLI, COM, FAIL, FLD, IFCC, INC, IPD, NEX, PAU, REM, SDN, or SIG	Digit Command. This subfield specifies the digit manipulation command that is a requirement for digit manipulation. Each digit manipulation key can contain a maximum of six digit command strings.

Simplified Dialing (continued)

Datafilling table DIGMAN (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
If DIGCOM contains REM, subfield REMCOUNT requires datafill.			
	REMCOUNT	0 to 15	Remove Digits Count. This subfield specifies the number of digits to remove. Enter a value from 0 to 15. Enter + to continue data entry for the same DMIKEY.
If DIGCOM contains PAU, subfield PAUSETIM requires datafill.			
	PAUSETIM	0 to 99	Pause Time. This subfield specifies the length of time the system pauses before the execution of the next command string. The system measures time in 100 ms intervals. For example, to enter 50 is 5 s. Enter a numeric value. Enter + to continue data entry for the same DMIKEY.
If DIGCOM contains SDN, subfields MINEXT, MAXEXT and SUBEXT require datafill.			
	MINEXT	numeric (1 to 7 digits)	Minimum Extension. This subfield specifies the extension number with the lowest numeric value in the range of values. The system compares the digits dialed to this value. Enter a numeric value.
	MAXEXT	numeric (1 to 7 digits)	Maximum Extension. This subfield specifies the extension number with the highest numeric value in the range of values. The system compares the digits dialed to this value. Enter a numeric value.
	SUBEXT	numeric (1 to 7 digits)	Substitute Directory Number. This subfield specifies the directory number that substitutes for the number dialed. Digits are in the range that fields MINEXT and MAXEXT define. Enter + to continue data entry for the same DMIKEY. Enter $ to indicate the last record in the string.

Datafill example for table DIGMAN

Sample datafill for table DIGMAN appears in the following example.

MAP example for table DIGMAN

```
DMIKEY                                          DMIDATA
_____________________________________________________
 (REM 1)  (PAU 5)  (SDN 8237 62338237 9195558237) $
```

Tools for verifying translations

Simplified Dialing does not use tools for verifying translations.

SERVORD

Simplified Dialing does not use SERVORD.

Sourcing of Patch FPA75

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: not applicable

Release applicability

NA010 and up

Sourcing of Patch FPA75 was introduced in NA010.

Prerequisites

This document includes all the data table information for this functionality. Complete use of this functionality can require software or hardware not described in this document.

Description

Sourcing of Patch FPA75 allows a user to activate Cancel Call Waiting (CCW) even if the Call Waiting (CWT) option is not assigned to a POS/RES line.

This feature modifies the CCW feature. The datafill of this feature is identical to that of the CCW feature.

This feature is useful for Advanced Display Service Interface (ADSI) lines. ADSI lines are plain ordinary telephone service (POTS) and residential (RES) lines.

Sourcing of Patch FPA75 provides the following:

- Allows an operating company to assign CCW activation without call waiting (CWT) to POTS/RES lines through the service order (SERVORD) system
- After an operating company assigns CCW, provides confirmation tone after CCW, even if the operating company does not assign CWT
- Allows the No Cancel Call Waiting Without Call Waiting (NCCW) SERVORD to deny this feature on a per-line basis
- A customer subscribing to an internet service provider (ISP) and using scripts where CCW is a prerequisite even if CWT is not present can use this feature

The feature is available on a switch-wide basis to customers by means of office parameter CCW_WITHOUT_CWT_ALLOWED. This parameter controls the feature. This parameter appears in office parameter table OFCVAR.

Sourcing of Patch FPA75 (continued)

To restrict CCW from being invoked, an operating company can assign NCCW service order (SERVORD) to that line. The NCCW SERVORD for individual POTS/RES lines can be assigned to customers who do not want this feature. Sourcing of Patch FPA75 is not available for PBX lines and GrouND state (hotel lines).

Operation

Sourcing of Patch FPA75 allows a change to the existing CCW feature. Prior to Sourcing of Patch FPA75, if a POTS or RES line user attempted to use CCW prior to origination of a call, and the line did not have CWT assigned, the REORDER tone resulted. Sourcing of Patch FPA75 provides the option to give confirmation tone or No ACKnowledgement (NACK) as per customer requirements.

If a POTS/RES line attempts to use CCW prior to origination of a call, and that line does not have CWT assigned, reorder tone results. With this functionality activated, the POTS/RES line without CWT assigned that attempts to use CCW prior to origination of a call results in a CONFIRMATION tone followed by recall dial tone.

Prior to this feature, CCW could only be activated if CWT was present. If CWT was not present and CCW was activated by the operating company, then the customer got the reorder tone treatment.

Prior to this feature, when dialing into an ISP, an end user who did not subscribe to call waiting received NACK when using script provided by the ISP. The script contains the access code for CCW before outpulsing the digits. These scripts often contain the prerequisite CCW access code.

This problem occurs for POTS/RES sets. So if POTS/RES lines do not have CWT, the application scripts for CCW are unusable. Sourcing of Patch FPA75 prevents an end user who does not subscribe to CWT from receiving NACK. Instead, the call will complete as dialed for POTS/RES lines.

This feature allows CCW activation even if CWT option is not assigned to a POTS/RES line. This functionality allows to modify the existing CCW feature.

If Sourcing of Patch FPA75 is active on a customer site, this patch automatically sets the office parameter CCW_WITHOUT_CWT_ALLOWED to Yes (Y). Setting this parameter to Yes makes the feature is available on a switch-wide basis.

Sourcing of Patch FPA75 (continued)

If Sourcing of Patch FPA75 is not active, then the default value is No (N). Setting the office parameter to No prevents the feature from functioning.

The datafill of this feature is identical to that of the CCW feature.

Translations table flow

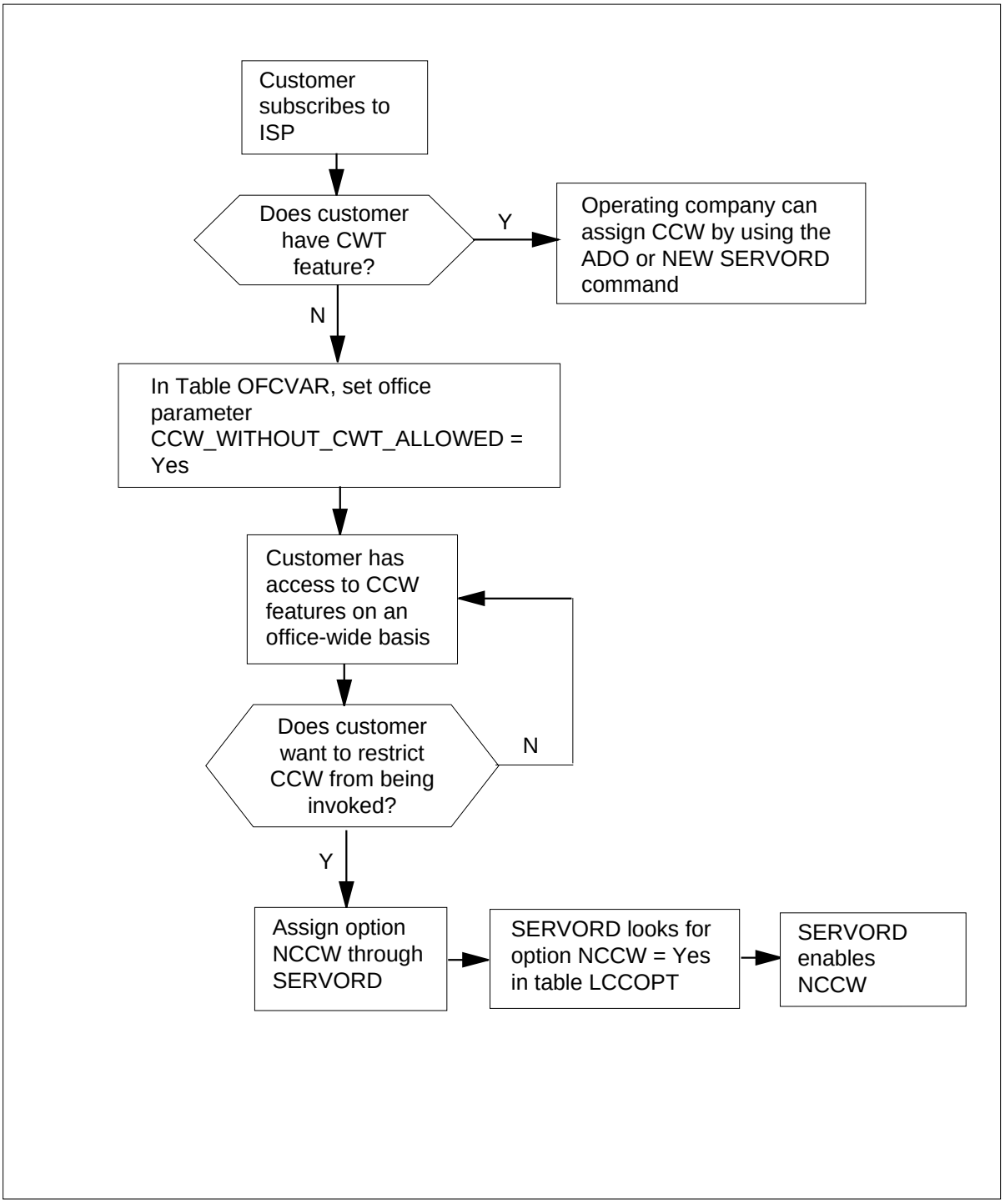
The Sourcing of Patch FPA75 translations tables are described in the following list:

- Table OFCVAR

The Sourcing of Patch FPA75 translation process is shown in the flowchart that follows.

Sourcing of Patch FPA75 (continued)

Table flow for Sourcing of Patch FPA75



Sourcing of Patch FPA75 (continued)

Note: Table OFCVAR is datafilled through SERVORD. Therefore, no datafill procedure or example appears. Refer to “SERVORD" for an example of using SERVORD to datafill this table.

Limitations and restrictions

The following limitations and restrictions apply to Sourcing of Patch FPA75:

- PBX/GND lines cannot use this feature.
- This feature must be activated prior to origination of a call. The feature will not work when the user invokes CCW through flashing and entering an access code during a call.
- The NCCW service order can only be assigned to POTS/RES lines.
- All restrictions applicable to the CCW feature are applicable to this feature.
- All restrictions applicable to the CWT feature are applicable to this feature.

Interactions

Sourcing of Patch FPA75 interacts with the AF1731, Cancel Call Waiting (CCW) feature.

Activation/deactivation by the end user

Sourcing of Patch FPA75 requires no activation by the end user.

To deactivate the feature, an operating company can assign the NCCW service order to an individual POTS/RES line.

Billing

Sourcing of Patch FPA75 does not affect billing.

Station Message Detail Recording

Sourcing of Patch FPA75 does not affect Station Message Detail Recording.

Datafilling office parameters

Sourcing of Patch FPA75 is available on a switch-wide basis to customers by means of office parameter CCW_WITHOUT_CWT_ALLOWED. This office parameter controls the Sourcing of Patch FPA75 feature.

Sourcing of Patch FPA75 (continued)

The following table shows the office parameters used by Sourcing of Patch FPA75. For more information about office parameters, refer to *Office Parameters Reference Manual.*

Office parameters used by Sourcing of Patch FPA75

Table name	Parameter name	Explanation and action
OFCVAR	CCW_WITHOUT_CWT_ALLOWED	Cancel call waiting without call waiting allowed. This office parameter controls the Sourcing of Patch FPA75 feature.

Datafill sequence

The following table lists the tables that require datafill to implement Sourcing of Patch FPA75. The tables are listed in the order in which they are to be datafilled.

Datafill tables required for Sourcing of Patch FPA75

Table	Purpose of table
LCCOPT	Line class code compatible options contains compatible options. This is a read-only table. Customers cannot modify this table. SERVORD options reference this table to insure compatibility between line class codes (LCC) and options. Referencing this table insures that incompatible options are not added to the same line.

Datafilling table LCCOPT

Note: Table LCCOPT is datafilled through SERVORD. Therefore, no datafill procedure or example is provided. Refer to “SERVORD" for an example of using SERVORD to datafill this table.

Translation verification tools

Sourcing of Patch FPA75 does not use translation verification tools.

SERVORD

The Sourcing of Patch FPA75, AF7524 feature adds the service order option NCCW) for customers. This option applies to customers who do not want the Cancel Call Waiting (CCW) feature on individual POTS/RES lines.

You can assign NCCW if the office parameter CCW_WITHOUT_CWT_ALLOWED is Y. NCCW restricts individual lines from assigning the CCW feature through SERVORD.

Sourcing of Patch FPA75 (continued)

If you set the office parameter CCW_WITHOUT_CWT_ALLOWED to N, you cannot assign NCCW to any line. Setting CCW_WITHOUT_CWT_ALLOWED to N overrides the office-wide activation of the feature on a per-line basis.

NCCW updates table LCCOPT. NCCW also updates table OPTOPT to include the incompatibility of NCCW and CCW.

When adding NCCW through SERVORD, SERVORD automatically checks that CCW is present. If CCW is present, a message appears stating that CCW is already present and there is no need to assign NCCW.

SERVORD limitations and restrictions

Sourcing of Patch FPA75 has no SERVORD limitations and restrictions.

SERVORD prompts

The following table shows the SERVORD prompts used to restrict CWT a from a POTS/RES line. NCCW for individual POTS/RES lines can be assigned on a per-line basis to customers who do not want this feature.

SERVORD prompts for Sourcing of Patch FPA75

Prompt	Valid input	Explanation
OPTION	NCCW	No Cancel Call Waiting Without Call Waiting. This option disables CCW on individual POTS/RES lines for customers who do not want the CCW feature.

SERVORD example for restricting CWT from a POTS/RES line

The following SERVORD example shows how NCCW can be added to restrict CWT from a POTS/RES line.

Sourcing of Patch FPA75 (end)

SERVORD example for Sourcing of Patch FPA75 in prompt mode

```
>ADO
SONUMBER:     NOW  97 12 19 PM
>
DN_OR_LEN:
> 0 1 9 1
OPTION:
> NCCW
OPTION:
> $
COMMAND AS ENTERED:
ADO NOW 97 12 19 PM HOST 00 1 09 01 ( NCCW) $
ENTER Y TO CONFIRM,N TO REJECT OR E TO EDIT
ON:
>Y
MACHINES ARE OUT OF SYNC, SERVICE ORDERS NOT ALLOWED
JOURNAL FILE IS INACTIVE, SERVICE ORDERS NOT ALLOWED
SHOULD ORDER BE DONE ANYWAY? (Y OR N)
> Y
```

SERVORD example for Sourcing of Patch FPA75 in no-prompt mode

```
> ADO NOW 97 12 19 PM HOST 00 1 09 01 ( NCCW) $
```

Sourcing Patch JDS54

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: not applicable

Release applicability

NA010 and up

Prerequisites

To outpulse the authorization code digits, the user must have Dual-Tone Multifrequency (DTMF) senders that are present in the 3X68AB card. These senders must be present for this feature to function.

Description

This feature enables the Automatic Dial Key (AUD) to send an authorization code (AUTHCODE) in a call. The call must meet both of the following conditions:

- The call is over a trunk which is type IBNT2/(IBNTI, IBNTO), but not an ISUP trunk.
- The call is in the generating ringing or busy tone (Termtone) state. (A second dialtone indicates this state.)

The user must program the AUD key with a correct AUTHCODE. The AUTHCODE is programmed for each AUTH feature.

Operation

Before the introduction of this feature, the subscriber could assign any of the following to the AUD key:

- direct distance dialing (DDD) numbers
- direct dialing overseas (DDO) numbers
- operator-assisted (OA) numbers

This feature enables the Automatic Dial Key (AUD) to send an authorization code (AUTHCODE) in a call. The call must meet both of the following conditions:

- The call is over a trunk, which is type IBNT2/(IBNTI, IBNTO), but not an ISUP trunk.
- The call is in the generating ringing or busy tone (Termtone) state. (A second dialtone indicates the Termtone state.)

Sourcing Patch JDS54 (continued)

When the user places a call over a trunk, the system prompts the user to enter the AUTHCODE. At that point, the user must press the AUD key. The AUD key outpulses the AUTHCODE digits.

The following example describes the action of this feature:

1. An originating telephone goes off-hook.
2. The originating dials digits.
3. A peripheral collects the digits.
4. A peripheral selects the terminating agent.
5. A peripheral establishes a connection. (This state is DIALING.)
6. The peripheral signals the terminating agent by providing audible ringback and ringing. (A second dialtone indicates the Termtone state.)
7. The terminating telephone goes off-hook.

This feature does not affect the AUD feature or the AUTH feature. All the datafill required for the AUTH feature applies to Sourcing Patch JDS54. To program the AUD key with an AUTHCODE, you use the same process you use with the AUD feature.

The AUD key enters the AUTHCODE in table OFCOPT. When a user places the call over a trunk, the switch prompts the user to enter the AUTHCODE. The user receives a second dial tone as a prompt. The user then presses the AUD key and the call is completed.

Sourcing Patch JDS54 adds the office parameter AUD_AUTH_ALLOWED to table OFCOPT to control the feature functionality. The operating company sets this office parameter to Y to make the feature available to a customer.

If the operating company activates Sourcing Patch JDS54 during a one-night process (ONP), then the following occurs:

The feature automatically sets the AUD_AUTH_ALLOWED office parameter value to Y.

The feature becomes functional.

If the operating company does not activate Sourcing Patch JDS54, then this feature automatically sets the AUD_AUTH_ALLOWED office parameter value to N. The N parameter value does not enable the feature.

Sourcing Patch JDS54 (continued)

Translations table flow

This feature does not affect translations table flow.

Limitations and restrictions

The following limitations and restrictions apply to Sourcing Patch JDS54:

- This feature requires DTMF senders with the 3X68AB card. Other versions will not work.
- If this feature is used during a conference, the maximum number of ports should be six ports. More than six ports will not work.
- All restrictions applied to the AUD feature are valid.
- All restrictions applied to the AUTH feature are valid.
- There should be n number of DTMF senders if n number of users activate this feature in an instance.
- A user with one AUD key can use this key to autodial the AUTHCODE.
- This feature will allow the functionality on a switch-wide basis.
- This feature does not work for iSUP trunks
- This feature only works for IBNT2/(IBNTO, IBNTI), which are ISUP types.

Note: Users must be aware that having the AUTHCODE on a key is a security consideration.

Interactions

Sourcing Patch JDS54 has no functionality interactions.

Activation/deactivation by the end user

Sourcing Patch JDS54 requires no activation or deactivation by the end user.

Billing

Sourcing Patch JDS54 does not affect billing.

Station Message Detail Recording

Sourcing Patch JDS54 does not affect Station Message Detail Recording.

Datafilling office parameters

The following table shows the office parameters used by Sourcing Patch JDS54. For more information about office parameters, refer to *Office Parameters Reference Manual.*

Office parameters used by Sourcing Patch JDS54

Table name	Parameter name	Explanation and action
OFCOPT	AUD_AUTH_ALLOWED	This office parameter controls the functionality of this feature. If the user sets the parameter value to N, the functionality is not available. If the user sets the parameter value to Y, the functionality is available on a switch-wide basis.

Datafill sequence

This feature does not affect datafill sequence.

Translation verification tools

Sourcing Patch JDS54 does not use translation verification tools.

SERVORD

Sourcing Patch JDS54 does not use SERVORD.

Sourcing Patches RER26, RER32, and MBR75

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: not applicable

Release applicability

NA010 and up

Prerequisites

The Sourcing Patches RER26, RER32, and MBR75 feature requires you to set the Simplified Message Desk Interface (SMDI) terminal to go to an ASYNC MAP terminal with a 1X67FA card. Set the SMDI terminal in the following way:

1. If you use a hunt group, add option SMDI to the hunt group instead of entering UCDGRP and DNROUTE.
2. After entering the option SMDI, you can log a line into UCDGRP. To do this, add the option UCD and option SMDI in SERVORD. Use the Y autolog.
3. A line must be logged into the UCDGRP to receive calls to the Voice Messaging (Mail) System (VMS).

You do not need to log hunt group lines into an SMDI hunt group. Hunt group lines receive calls immediately after they are established as a member of an SMDI hunt group.

Description

This feature provides the following:

- Adds a hardware audit to check for stuck hardware for the 1X67FA card.
- Adds suboption PVT_SRC_NET (bool) to the Network Message Waiting Indication Private (NMSPVT) option in the SLLNKDEV table (Link Device table). The suboption is a boolean expression (bool). When set, this bool allows Network Message Service (NMS) to check for the NMSTBRTE option present in the Internal Logical Network Names (NETNAMES) table. If you enter the NMSTBRTE option, table NETNAMES uses the network datafilled in table NMSDATA.
- Allows you to restrict response messages within a network. This features does this by using the network in table NMSDATA as the source network in the Transaction Capability Application part (TCAP) messages.

Sourcing Patches RER26, RER32, and MBR75 (continued)

Operation

This feature includes the following:

- Adds a hardware audit process for the SMDI 1X67FA card. This process audits the state of the SMDI card every 5 min. to check the state of the card. Before the introduction of this feature, disruption of messaging was the indication that the card was in the stuck state. The audit process introduced by this feature detects the card entering this state. If the card is in the stuck state, the audit process introduced by this feature does two things. First, the audit process busies (BSY) the card. Then the audit process returns the card to service (RTS). Thus, this audit process brings the card out of the stuck state and allow the card to function correctly.
- Allows NMS to check for option NMSTBRTE in table NETNAMES. If option NMSTBRTE appears in table NETNAMES, you can access the network entered in table NMSDATA. That restricts the routing of TCAP messages through table MSGRTE within the “PRIVATE" network.
- Allows response messages to use the “PRIVATE" network as the source network in the TCAP messages. This feature is optional on an SMDI link basis. For this feature to be in effect, you must enter option NMSPVT and set PVTSNET to YES.

Translations table flow

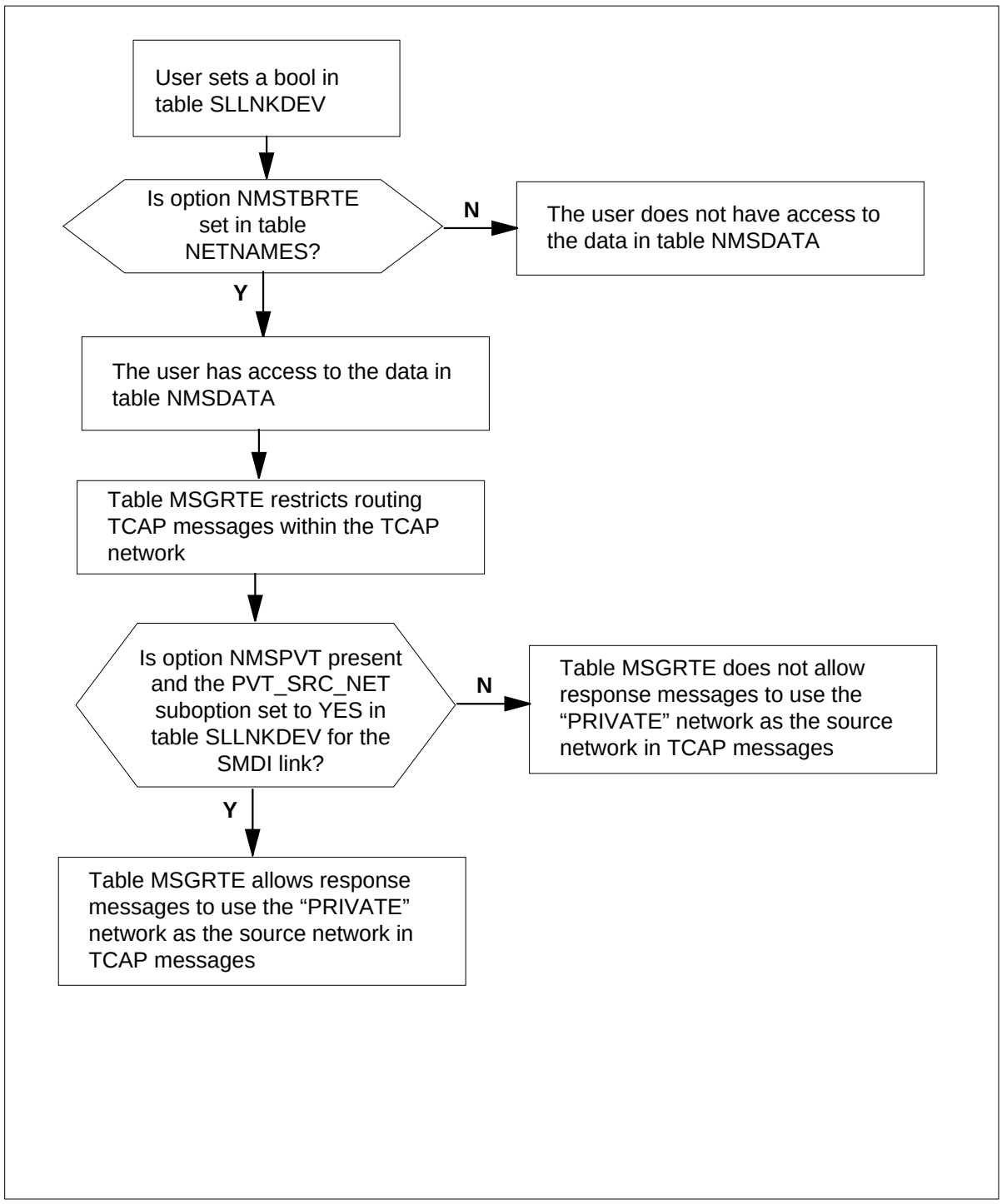
The Sourcing Patches RER26, RER32, and MBR75 translations tables are described in the following list:

- Table SLLNKDEV specifies the characteristics of up to 64 data links used by the device connecting procedure LNKUTIL (link utility), increment CI (command interpreter). This table enables the device-connecting procedure to make use of the characteristics of the device. All devices must be datafilled in table SLLNKDEV before they are connected in the LNKUTIL CI increment.
- Table NETNAMES associates logical network names with external global network identifiers.

The Sourcing Patches RER26, RER32, and MBR75 translation process is shown in the flowchart that follows.

Sourcing Patches RER26, RER32, and MBR75 (continued)

Table flow for Sourcing Patches RER26, RER32, and MBR75



Sourcing Patches RER26, RER32, and MBR75 (continued)

The following table lists the datafill content used in the flowchart.

Datafill example for Sourcing Patches RER26, RER32, and MBR75

Datafill table	Example data
SLLNKDEV	SMDI0 1X67 NONE NONE INOUTLK (SMDIDATA (NMSPVT Y) $)$
NETNAMES	NORTEL 2 0 (NMSTBRTE) $

Limitations and restrictions

The following limitations and restrictions apply to Sourcing Patches RER26, RER32, and MBR75:

- The NMSDATA datafill is necessary for this feature to work.
- You can not get the network name from the table CUSTNTWK for the SMDI from the UCDGRP or HNTGRP.

Interactions

Sourcing Patches RER26, RER32, and MBR75 has no functionality interactions.

Activation/deactivation by the end user

Sourcing Patches RER26, RER32, and MBR75 requires no activation or deactivation by the end user.

Billing

Sourcing Patches RER26, RER32, and MBR75 does not affect billing.

Station Message Detail Recording

Sourcing Patches RER26, RER32, and MBR75 does not affect Station Message Detail Recording.

Datafilling office parameters

Sourcing Patches RER26, RER32, and MBR75 does not affect office parameters.

Sourcing Patches RER26, RER32, and MBR75 (continued)

Datafill sequence

The following table lists the tables that require datafill to implement Sourcing Patches RER26, RER32, and MBR75. The tables are listed in the order in which you provision them.

Datafill tables required for Sourcing Patches RER26, RER32, and MBR75

Table	Purpose of table
SLLNKDEV	Link Device table specifies the characteristics of up to 64 data links used by the device-connecting procedure LNKUTIL (link utility), increment CI (command interpreter). This table enables the device-connecting procedure to make use of the characteristics of the device. All devices must be entered in table SLLNKDEV before they are connected in the LNKUTIL CI increment.
NETNAMES	Internal Logical Network Names associates logical network names with external global network identifiers.

Datafilling table SLLNKDEV

The following table shows the datafill specific to Sourcing Patches RER26, RER32, and MBR75 for table SLLNKDEV. Only those fields that apply directly to Sourcing Patches RER26, RER32, and MBR75 are shown. For a description of the other fields, refer to the data schema section of this document.

Datafilling table SLLNKDEV

Field	Subfield or refinement	Entry	Explanation and action
XFERS	NMSPVT	bool	Transfers. Enter option Network Message Waiting Indication Private (NMSPVT) on an SMDI link. This option is a boolean expression. Refinements are not necessary.
	PVT_SRC_NET	bool	If option NMSPVT is present and you set PVT_SRC_NET to YES, this feature will be in effect. If you set PVT_SRC_NET to NO, the source network defaults to “PUBLIC," as was the case prior to this feature.

Datafill example for table SLLNKDEV

The following example shows sample datafill for table SLLNKDEV.

MAP display example for table SLLNKDEV

```
DEVNAME DEVTYPE XLATION PROTOCOL DRECTION XFERS

--------------------------------------------------------

SMDI0 1X67 NONE NONE INOUTLK (SMDIDATA ( NMSPVT Y) $)$
```

Datafilling table NETNAMES

The following table shows the datafill specific to Sourcing Patches RER26, RER32, and MBR75 for table NETNAMES. Only those fields that apply directly to Sourcing Patches RER26, RER32, and MBR75 are shown. For a description of the other fields, refer to the data schema section of this document.

Datafilling table NETNAMES

Field	Subfield or refinement	Entry	Explanation and action
NETOPTS	OPTION	NMSTBRTE	Network option. This feature allows NMS to use option NMSTBRTE, entered in table NETNAMES, to route the TCAP messages using the network datafilled in table NMSDATA. This restricts the response messages within that network by using the network in NMSDATA as the source network in the TCAP messages. This functionality is optional on an SMDI link basis. If TCAP messages sent for the network NWI must be routed through the use of table MSGRTE (as opposed to using the SCCP NMS subsystem), enter NMSTBRTE.

Datafill example for table NETNAMES

The following example shows sample datafill for table NETNAMES.

Sourcing Patches RER26, RER32, and MBR75 (end)

MAP display example for table NETNAMES

```
TABLE NETNAMES
_____________________________________________________________

NORTEL  2  0  (NMSTBRTE)  $
```

Translation verification tools

Sourcing Patches RER26, RER32, and MBR75 does not use translation verification tools.

SERVORD

Sourcing Patches RER26, RER32, and MBR75 does not use SERVORD.

Special Intercept Through Service Orders

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS14 and later versions

Requirements

To operate, Special Intercept Through Service Orders requires BAS Generic, BAS00003.

Description

When a customer orders the removal of a line from service, the Service Order System (SERVORD) handles the order. When the customer removes an MDC line from service, the customer can provide an intercept message. This message indicates to callers the line is not in service. The customer selects the intercept message type when the entry of a command that disables service to the line occurs. The entry of this command occurs during the service order process.

Operation

When a customer removes a line from service, the customer receives the option of six types of intercept messages to send to callers. These intercept messages appear in the following list:

- operator intercept (OPRT)
- machine intercept (ANCT)
- unassigned number treatment (UNDN)
- blank directory number treatment (BLDN)
- attendant intercept routed to an ICI lamp on the attendant console (AINT)
- customer announcements (CANN)

When the customer selects CANN, the customer enters a number. The number corresponds to an announcement the customer specified. The customer can provide custom intercept messages for out-of-service lines in that customer group. The customer must select the type of intercept correct for the line the system removes from service.

When the customer selects any of the first five intercepts, the customer enters the name of the intercept. When the customer selects CANN, the system

Special Intercept Through Service Orders (continued)

prompts the user to add the number that associates with the messages that table CUSTANN (Customer Group Announcement) identifies.

Translations table flow

Special Intercept Through Service Orders does not affect translations table flow.

Limits

The following limits apply to Special Intercept Through Service Orders:

- The intercepts AINT and CANN are only available for MDC lines. The other four intercepts are for use with MDC or plain old telephone service (POTS) lines.

Interactions

Special Intercept Through Service Orders does not have functionality interactions.

Activation/deactivation by the end user

Special Intercept Through Service Orders does not require activation or deactivation by the end user.

Billing

Special Intercept Through Service Orders does not affect billing.

Station Message Detail Recording

Special Intercept Through Service Orders does not affect Station Message Detail Recording.

Datafilling office parameters

Special Intercept Through Service Orders does not affect office parameters.

Special Intercept Through Service Orders (continued)

Datafill sequence

The tables that require datafill to implement Special Intercept Through Service Orders appear in the following table. The tables appear in the correct entry order.

Note: Data entry must occur in table OFRT for the correct route table. The data in table CUSTANN is for use as an index to table OFRT. See “Service orders" in this feature description for additional information.

Datafill requirements for Special Intercept Through Service Orders

Table	Purpose of table
CUSTANN	Customer Group Announcement. This table allows the operating company to assign a maximum of 16 different treatments for each customer group.

Datafilling table CUSTANN

Table CUSTANN allows the operating company to assign a maximum of 16 different treatments for each customer group. These different treatments are for use with MDC station intercepts.

Datafill for Special Intercept Through Service Orders for table CUSTANN appears in the following table. The fields that apply to Special Intercept Through Service Orders appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTANN (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
CANNKEY		see subfields	Customer Group Announcement Key. This field contains subfields CUSTGRP and CANNINDX.
	CUSTGRP	alphanumeric (1 to 16 characters)	Customer Group Name. This subfield specifies the 1- to 16-character alphanumeric name for the customer group. Enter the customer group name.
	CANNINDX	0 to 15	Customer Group Announcement Index. This subfield specifies the index number for the customer group announcement. Enter a value from 0 to15.
CANNRTE		see subfields	Customer Group Announcement Route. This field contains subfields OFCRTE and RTEID.

Special Intercept Through Service Orders (continued)

Datafilling table CUSTANN (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	OFCRTE	OFRT, OFR2, OFR3, or OFR4	Office Route. This subfield specifies the office route translation table to which the system routes the call. Enter OFRT, OFR2, OFR3, or OFR4.
	RTEID	0 to 1023	Route Identification. This subfield specifies a value that indexes the route to the table field OFCRTE specifies. Enter a value from 0 to 1023.

Datafill example for table CUSTANN

Sample datafill for table CUSTANN appears in the following example.

MAP example for table CUSTANN

```
          CANNKEY          CANNRTE
_____________________________________________________________________
    POTSDATA   1 OFRT           2
```

Tools for verifying translations

Special Intercept Through Service Orders does not use tools for verifying translations.

SERVORD

The SERVORD prompts for an intercept message when the customer enters one of four commands. These four commands are:

- DEL (delete line from a hunt group)
- OUT (remove service)
- CDN (change DN)
- CICP (change intercept)

The customer can receive a maximum of 16 separate messages for each customer group. When the customer chooses the CANN intercept, the prompt ANNOUNCEMENT_NUMBER appears. The system prompts for the number of the intercept type that table CUSTANN defines.

SERVORD limits

Special Intercept Through Service Orders does not have SERVORD limits.

Special Intercept Through Service Orders (end)

SERVORD prompts

The SERVORD prompts to assign Special Intercept Through Service Orders to a line appear in the following table.

SERVORD prompts for Special Intercept Through Service Orders

Prompt	Correct input	Explanation
INTERCEPT_ NAME	Alphabetic	Specifies the intercept name. Enter OPRT, ANCT, UNDN, BLDN, AINT, or CANN.
ANNOUNCE MENT_NUMB ER	0 to 15	Specifies the number of the announcement. Enter the same value that the value table CUSTANN defines. The prompt appears only if the customer selects CANN as the type of intercept.

SERVORD example fo adding Special Intercept Through Service Orders

How to add Special Intercept Through Service Orders to a current line with the OUT command appears in the following example.

The entry must be in table OFRT. When the removal of the route from table OFRT occurs, the update of table CUSTANN for a new route must occur. If this condition does not occur, an error occurs when a customer attempts to assign a standard announcement through the index.

SERVORD example for adding Special Intercept Through Service Orders in prompt mode

```
>
SO:
> OUT
SONUMBER:   NOW 83  8   25  AM
>
DN:
> 7224121
LEN:
> 0057
INTERCEPT_NAME
> BLDN
```

SERVORD example for Special Intercept Through Service Orders in no-prompt mode

```
>OUT $ 7224121 HOST 00 0 05 07 BLDN $
```

Speed Calling Group - Long List

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

To operate, Speed Calling Group - Long List requires BAS Generic, BAS00003.

Description

Speed Calling Group - Long List allows a group of end users to have access to a speed calling long list. The group of end users can use the numbers in the long list. The group of end users cannot add to or change the list. One end user is the controller and can add to or change the list. The controller can be any end user that has a speed calling long list.

Many speed calling groups can be in a customer group. The number of lines that the speed calling group contains ranges. This number ranges from two to all the lines in a customer group. A speed calling group with two lines includes one controller and one end user.

Operation

To activate speed calling, the end user:

- goes off-hook and receives a dial tone
- dials an asterisk (*), or the digit that represents an asterisk, and the two-digit code assigned to the stored number

Translations table flow

Descriptions of the Speed Calling Group - Long List translations tables appear in the following paragraphs:

The Speed Calling Group - Long List translations process appears in the following flowchart. The flowchart and data describes how to assign Speed Calling Group - Long List to an MBS.

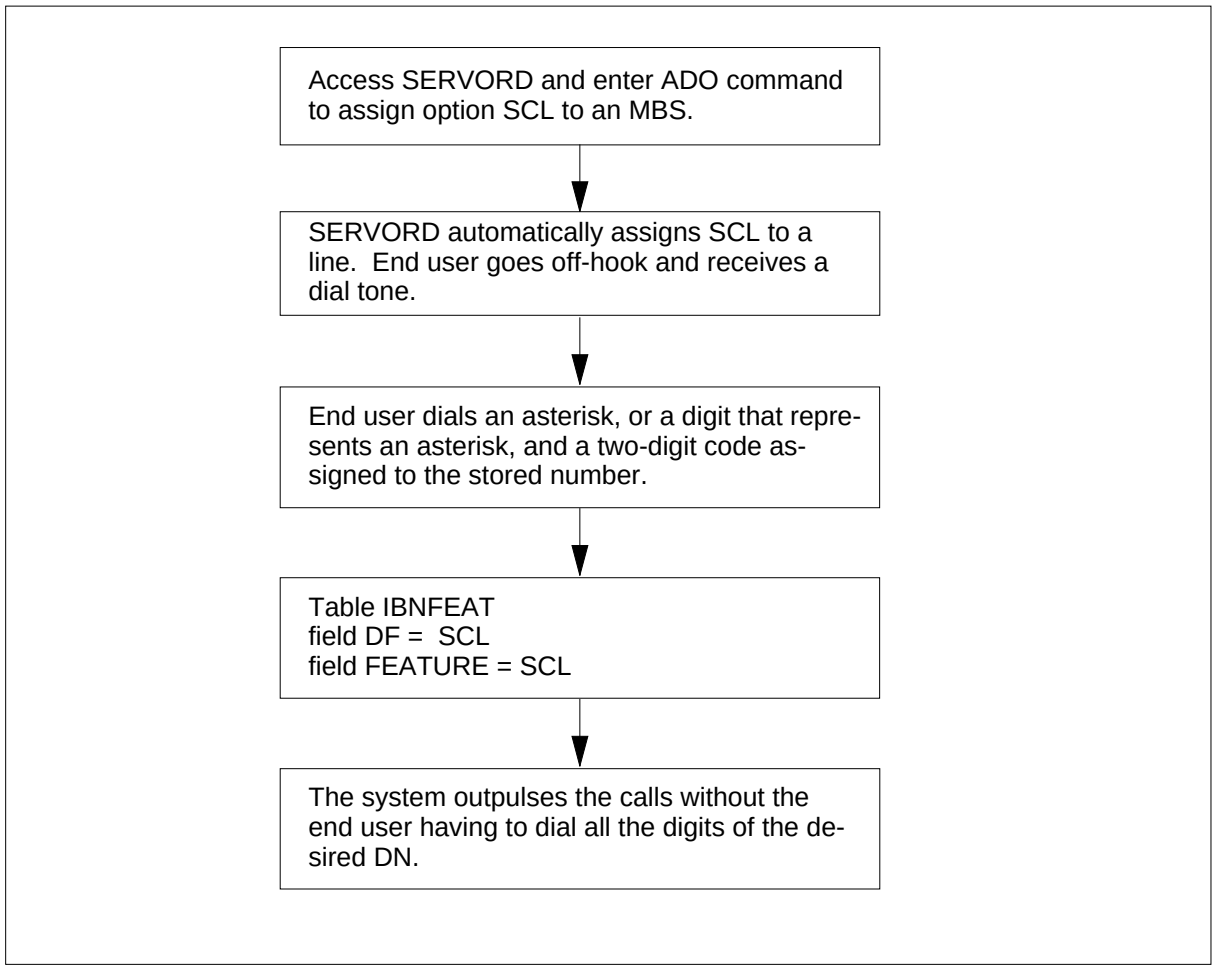
Speed Calling Group - Long List (continued)

Table IBNFEAT (IBN Line Feature) contains the line features assigned to the MDC lines in Table IBNLINES (IBN Line Assignment). This table contains the following:

- the DN and numbering plan area (NPA) of the line
- the group name to which the line belongs
- any options assigned to the line

The Speed Calling Group - Long List translation process appears in the following flowchart.

Table flow for Speed Calling Group - Long List



Speed Calling Group - Long List (continued)

The datafill content in the flowchart appears in the following table.

Datafill example for Speed Calling Group - Long List

Datafill table	Example data
IBNFEAT	HOST 00 0 00 04 0 SCL SCL 50

Limits

The limits that apply to Speed Calling Group - Long List appear in the following list:

- The system limits Speed Calling Group - Long List applies only to long lists. Speed calling group does not apply to short lists.
- A speed calling end user can use only one speed calling long list. When the controller has a long and short list, an end user can use only the long list. An end user can have a separate short list.
- The end user must dial both digits of the two-digit code, even if the first digit is zero.
- The system can allow or deny the end user the use of toll calls in the speed calling list. This function occurs if the system normally restricts the end user from toll calls.
- The system does not check to prevent an end user from using a group speed calling list when a controller updates the list.

Note: These limits for the speed calling long list apply to the controller of a speed calling group list.

Interactions

Descriptions of the interactions between Speed Calling Group - Long List and other functionalities appear in the following paragraphs.

Account codes

The end user can use a group speed calling list to dial account codes.

Authorization codes

The end user can use a group speed calling list to dial authorization codes.

Call forwarding

The end user can use a number in a speed calling list. This condition requires the station to have both features assigned to activate call forwarding.

Speed Calling Group - Long List (continued)

Three-way Conference/Transfer

Speed Calling Group - Long List can establish a three-way call and transfer a call.

Activation/deactivation by the end user

To activate Speed Calling Group - Long List, the end user must complete the following steps.

Activation/deactivation of Speed Calling Group - Long List by the end user

At your telephone

1 go off-hook and receive a dial tone

2 dial an asterisk (*), or the digit that represents an asterisk, and the two-digit code assigned to the stored number.

Billing

Speed Calling Group - Long List does not affect billing.

Station Message Detail Recording

Speed Calling Group - Long List does not affect Station Message Detail Recording.

Datafilling office parameters

Speed Calling Group - Long List does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Speed Calling Group - Long List appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Speed Calling Group - Long List

Table	Purpose of table
IBNFEAT (Note)	IBN Line Feature. This table lists line features assigned to the IBN lines listed in table IBNLINES.
Note: The SERVORD enters data in this table. This document does not provide a datafill procedure or example. Refer to “SERVORD" for an example of how to use SERVORD to enter data in this table.	

Tools for verifying translations

The ADO command adds the Speed Calling Group - Long List to a line. A description of this function appears in the following service order example.

Speed Calling Group - Long List (end)

SERVORD

The SERVORD enters data in table IBNFEAT. Table IBNFEAT contains line features assigned to the IBN lines that appear in table IBNLINES.

The SERVORD is for use to assign Speed Calling Group - Long List to lines. The system updates a tuple in table IBNFEAT when SERVORD assigns Speed Calling Group - Long List.

SERVORD limits

Speed Calling Group - Long List does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts are not a requirement to assign Speed Calling Group - Long List to a line.

SERVORD example for adding Speed Calling Group - Long List

Addition of Speed Calling Group - Long List to a current line with the ADO command appears in the following SERVORD example.

SERVORD example for Speed Calling Group - Long List in prompt mode

```
SO:
>ADO
SONUMBER: NOW 90 1 2 AM
>
DN_OR_LEN:
> 7211000
OPTION:
> SCL
LISTTYPE:
> L50
OPTION:
> $
```

SERVORD example for Speed Calling Group - Long List in no-prompt mode

```
> ADO  $ 7211000 SCL L50 $
```

Speed Calling Individual - Short List

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

To operate, Speed Calling Individual - Short List requires BAS Generic, BAS00003.

Description

Speed Calling Individual - Short List combines features with NT numbers F0416 (Speed Calling - Individual Short List) and F0417 (Speed Calling Individual - Long List).

Speed Calling Individual - Short List allows an end user to store a maximum of ten often dialed directory numbers (DN). The end user stores the DN numbers in a speed calling short list. The end user dials a single-digit code that causes the system to automatically outpulse the DNs. The end user dials the speed calling short list feature access code to cause this event. This code contains an asterisk (*) and a single-digit code (0-9). The end user does not dial all the digits of the desired DN. For rotary dial telephones, one to seven digits replace the asterisk. A maximum of two asterisks is the recommended number. The individual end users program the stored DNs at the telephone sets of the end users. A single end user only has access to the short list.

Speed Calling Individual - Short List allows an end user to store a maximum of 70 often dialed DNs in a speed calling long list. The end user dials a two-digit code that causes the system to automatically outpulse the DNs. The end user dials the speed calling long list feature access code to cause this event. The end user does not dial all the digits of the desired DN. This code contains an asterisk (*) and a two-digit code (00-69). For rotary dial telephones, one to seven digits replace the asterisk. A maximum of two asterisks is the recommended number.

Note: The speed calling long list can contain 30, 50, or 70 stored DNs. The speed calling long list feature access code must be different from all other feature access codes. This condition includes the speed calling short list feature access code. The end user cannot use the digits reserved for the two-digit codes as access codes. The reserved digits are 00-29 for 30 stored DNs, 00-49 for 50 stored DNs, and 00-69 for 70 stored DNs.

Speed Calling Individual - Short List (continued)

Operation

Speed calling short list

To add a DN to or change a DN in a speed calling short list, the end user performs the following actions:

- goes off-hook and receives dial tone
- dials the speed calling short list feature access code and receives special dial tone. The special dial tone is three short bursts of tone. Normal dial tone follows.
- dials the single-digit code assigned to the DN to store in the list. The single-digit code ranges from 0 to 9.
- dials the DN to store in the list. The DN is a maximum of 24 digits. These are the correct digits to outpulse. An asterisk (*) as the last character allows the end user to key in more digits. These digits are in addition to the digits the end user dialed with the speed calling feature.

  Note: If the end user attempts to store more than 24 digits, and an asterisk, the system returns the reorder tone.

- dials the octothorpe (#) to indicate the end of programming. This step is optional. Time-out occurs after 4 s.
- receives confirmation tone if the system accepts the DN to store.

To delete a DN from a speed calling short list, the end user performs the following actions:

- goes off-hook and receives dial tone.
- dials an asterisk (*) and the speed calling short list feature access code. The end user receives special dial tone. The special dial tone is three short bursts of tone. Normal dial tone follows.
- dials the single-digit code assigned to the stored DN to delete. The single-digit access code ranges from 0 to 9.
- dials the octothorpe (#) to indicate the end of programming. This step is optional. Time-out occurs after 4 s.
- receives confirmation tone.

Speed calling long list

To add a DN to or change a DN in a speed calling long list, the end user performs the following actions:

- goes off-hook and receives dial tone
- dials the speed call long list feature access code and receives special dial tone. The special dial tone is three short bursts of tone. Normal dial tone follows.
- dials the two-digit code, 00-69, assigned to the DN to store in the list
- dials the DN to store in the list. The DN is a maximum of 24 digits. These are the correct digits to outpulse. An asterisk (*) as the last character allows the end user to key in more digits. These digits are in addition to the digits the end user dialed with the speed calling feature.

  Note: If the end user attempts to store more than 24 digits, and an asterisk, the system returns reorder tone.

- dials the octothorpe (#) to indicate the end of programming. This is an optional step. Time-out occurs after 4 s.
- receives confirmation tone if the system accepts the DN to store.

To delete a DN from a speed calling long list, the end user performs the following actions:

- goes off-hook and receives dial tone
- dials an asterisk (*) and the speed calling long list feature access code. The end user receives special dial tone. The special dial tone is three short bursts of tone. Normal dial tone follows.
- dials the two-digit code assigned to the stored DN to delete. The two-digit code ranges from 00 to 69.
- dials the octothorpe (#) to indicate the end of programming. This step is optional. Time-out occurs after 4 s.
- receives confirmation tone

Translations table flow

The Speed Calling Individual - Short List translations process appears in the following flowchart. The assignment of Speed Calling Individual - Short List to an MBS appears in the following flowchart and data.

- Table IBNFEAT (IBN Line Feature) contains the line features assigned to the MDC lines entered in Table IBNLINES (IBN Line Assignment). This table contains the DN and numbering plan area (NPA) of the line. This

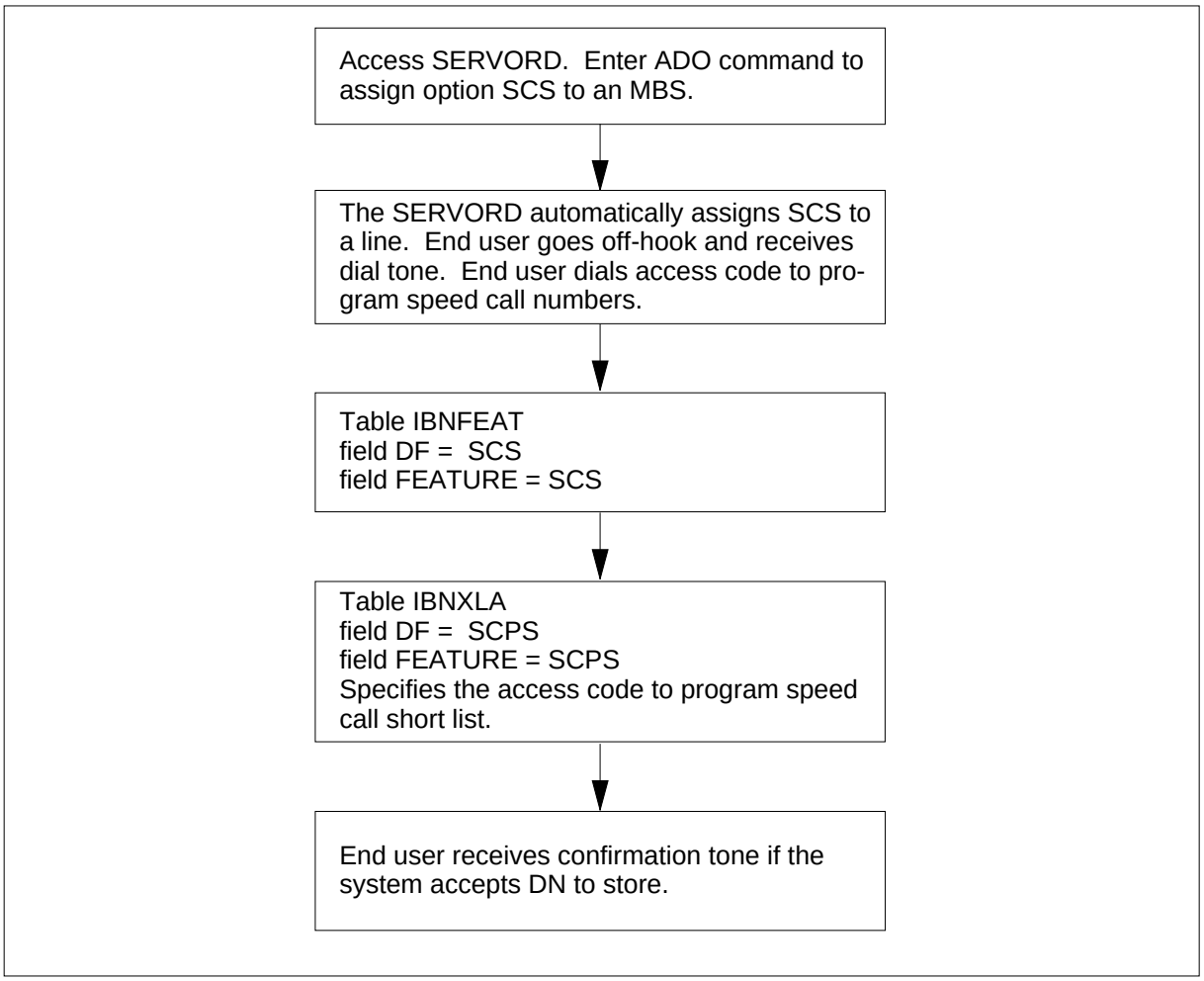
Speed Calling Individual - Short List (continued)

table contains the group name to which the line belongs and the options assigned to the line.

- Table IBNXLA (IBN Translation) contains IBN translations. You must enter data into table IBNXLA twice so that the table contains the speed calling short list feature access code. You must also enter data into table IBNXLA twice so that the table contains the speed calling long list feature access code.

The Speed Calling Individual - Short List translation process appears in the following flowchart.

Table flow for Speed Calling Individual - Short List



Speed Calling Individual - Short List (continued)

The datafill content in the flowchart appears in the following table.

Datafill example for Speed Calling Individual - Short List

Datafill table	Example data
IBNFEAT	MDCGRP1 DN SCS SCS 10MDCGRP1 DN SCS SCS 10
IBNXLA	MDCGRP1 123 FEAT N Y N SCPS

Limits

The following limits apply to Speed Calling Individual - Short List:

- An update of a speed calling list cannot occur when the line is busy on another call. For example, the end user cannot perform the following functions and add to or update the speed calling list:
  - — place a call
  - — receive an answer
  - — flash the hookswitch
  - — receive special dial tone
- The system does not validate stored numbers when programmed. Validation occurs when use of the feature occurs.
- The number of speed calling short lists available for each office is 16 384 .
- The number of speed calling long lists available for each office is 8192 for lists of 30 DNs. The number of speed calling lists available for each office is 4096 for lists of 50 or 70 DNs.
- The DP sets can use any digit instead of an asterisk (*) if the system does not return second dial tone. Normally, 9 and 0 are not eligible.
- The speed calling short list feature access code must be different for that feature.
- The speed calling long list feature access code must be different for that feature.
- For speed calling long list, the end user must dial both digits of the two-digit code, even if the first digit is 0.
- The end user can dial an asterisk (*) and a two-digit code to access more than 30 features. When this event occurs, a speed calling long list cannot store 70 DNs.

Speed Calling Individual - Short List (continued)

Interactions

A description of the interactions between Speed Calling Individual - Short List and other functionalities appears in the following paragraphs.

Account codes

The storage of account codes in a speed calling list can occur.

Authorization codes

The storage of authorization codes in a speed calling list can occur.

Call forwarding

Call forwarding can be active on a DN a speed calling list contains. This action occurs if the station has the call forwarding feature and the Speed Calling Individual - Short List feature assigned.

Speed Calling Individual - Long List

A station can have a speed calling short list and a speed calling long list.

Station Restrictions

Station restrictions continue to apply to a station with a speed calling list. For example, a toll restricted station can have a toll number stored in the speed calling list. A toll restricted station can use speed calling to place the toll call. When these events occur, the system blocks the call.

Three-way Conference/Transfer

The use of the Speed Calling Individual - Short List to establish a three-way call and to transfer a call can occur.

Activation/deactivation by the end user

To activate Speed Calling - Individual Short List, the end user completes the following steps.

Procedure to activate Speed Calling - Individual Short List

At the telephone of the end user

1. the end user goes off-hook and receives dial tone
2. the end user dials an asterisk (*), or the digits that represent an asterisk, and the one-digit or two-digit code assigned to the stored DN. These codes are 0-9 for speed calling short list DNs and 00-69 for speed calling long list DNs.

Billing

Speed Calling Individual - Short List does not affect billing.

Speed Calling Individual - Short List (continued)

Station Message Detail Recording

Speed Calling Individual - Short List does not affect Station Message Detail Recording.

Datafilling office parameters

Speed Calling Individual - Short List does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Speed Calling Individual - Short List appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Speed Calling Individual - Short List

Table	Purpose of table
IBNFEAT (Note)	IBN Line Feature. The line features assigned to the IBN lines table IBNLINES lists appear in this table.
IBNXLA	IBN Translation. This table stores data for the digit translation of calls from one of the following: • an IBN station • attendant console • incoming IBN trunk group • incoming side of a two-way IBN trunk group
Note: The SERVORD enters data in this table. A datafill procedure or example is not available. See "SERVORD" for an example of how to use SERVORD to enter data in this table.	

Datafilling table IBNXLA

Datafill for Speed Calling Individual - Short List for table IBNXLA appears in the following table. The fields that apply to Speed Calling Individual - Short

Speed Calling Individual - Short List (continued)

List appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	Key. This field contains subfields XLANAME and DGLIDX.
	XLANAME	1- to 8 character name	Translator Name. This subfield specifies the name assigned to the translator. Enter the 1-character to 8-character name.
	DGLIDX	1- to 18-digit access code	Digilator Index. This subfield specifies the access code. Enter the 1-digit to 18-digit number assigned as the access code.
RESULT		see subfield	Result. This field contains subfield TRSEL.
	TRSEL	FEAT	Translations Selector. This subfield specifies the translations selector to use. Enter FEAT.
If TRSEL is FEAT, subfields ACR, SMDR, and FEATURE require datafill.			
	ACR	Y or N	Account Code Entry. This subfield specifies if an account code is a requirement. Enter Y or N.
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if SMDR is a requirement. Enter Y or N.
	FEATURE	SCPS or SCPL	Feature. This subfield specifies the feature assigned to a line. Enter SCPS or SCPL.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

```
              KEY
                                               RESULT
 ________________________________________________________
NTIXLA      123                     FEAT N Y N SCPS
```

Speed Calling Individual - Short List (continued)

Tools for verifying translations

Speed Calling Individual - Short List does not affect tools for verifying translations (TRAVER).

SERVORD

Use the SERVORD to enter data in table IBNFEAT. Table IBNFEAT lists line features assigned to the IBN lines that appear in table IBNLINES.

Use the SERVORD to assign Speed Calling Individual - Short List to lines with the SCL or SCS Option. The SERVORD assigns Speed Calling Individual - Short List. When this event occurs, the system updates a tuple in table IBNFEAT.

The SCL Option allows an end user to specify a list of frequently called numbers. The end user dials a two-digit speed calling code and not the complete DN to call these numbers.

The SCS Option allows an end user to specify a list of frequently called numbers. The end user dials a one-digit speed calling code and not the complete DN to call these numbers.

SERVORD limits

Speed Calling Individual - Short List does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts in use to assign Speed Calling Individual - Short List to a line appear in the following table.

SERVORD prompts for Speed Calling Individual - Short List

Prompt	Valid input	Explanation
OPTION	SCL, SCS	This field specifies the option to assign. Enter SCL or SCS.
LISTTYPE	L30, L50, L70	This field specifies the length of the list. For MBS hunt groups, the specification of the key must occur. (K1-K69). Enter L30, L50, or L70.
Note: The SERVORD assigns the Speed Calling Individual - Short List. When this event occurs, the system updates table IBNFEAT.		

Speed Calling Individual - Short List (end)

SERVORD example for adding Speed Calling Individual - Short List

The addition of Speed Calling Individual - Short List to a current line with the ADO command can occur. An example of this event appears in the following example.

SERVORD example for Speed Calling Individual - Short List in prompt mode

```
>ADO
SONUMBER: NOW 92 5 12 PM
>
DN_OR_LEN:
> 0 0 1 23
OPTION:
> SCS
LISTTYPE:
> L50
OPTION:
> $
```

SERVORD example for Speed Calling Individual - Short List in no-prompt mode

```
>ADO $ 0 0 1 23 SCS  L50 $
```

Station Activated DND with Feature Active Reminder

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS25 and later versions

Requirements

Station Activated DND with Feature Active Reminder requires BAS Generic, BAS00003

Description

Station Activated Do Not Disturb (DND) with Feature Active Reminder provides an separate Integrated Business Network (IBN) station that can make the station appear busy to incoming calls. The reminder feature uses the make set busy (MSB) feature. The user assigns the MSB feature to separate directory numbers (DNs). The user activates the MSB feature with the feature activation code. Use a separate code to deactivate the feature.

The system applies a temporary 500 ms splash of ringing to the line. This application informs the station end user of the diversion of an incoming call. The system diverts the call because of the MSB feature. The system applies the ring splash to idle lines with the 500/2500 sets.

Two variations of this feature are available. The variations are: make set busy all calls (MSB), and make set busy intragroup (MSBI). The MSB feature allows the end user to make the line or DN appear busy to all incoming calls. The MSBI feature makes the line or directory number appear busy to intragroup calls only. This feature does not block external calls.

The customer can specify the type of treatment that external incoming calls receive. If the customer does not specify a treatment, external calls receive busy tone as the default treatment. Intragroup calls always receive busy tone when the MSB feature blocks these calls. Activity in the MSB or MSBI does not affect this action.

The user assigns an MSB feature key to a Digital Multiplex System (DMS) proprietary business set. If the set does not have an assigned MSB key, the user can assign the MSB feature. The user assigns the MSB feature to the DN of the set. A DMS proprietary business set can have one of the two features assigned to the set at a time. If a business set has a MSB key, the end user cannot activate the MSB feature with the activation code.

Station Activated DND with Feature Active Reminder (continued)

Operation

To activate make set busy, the end user dials the MSB feature access code. The end user waits until the system returns the confirmation tone. A line without the MSB feature receives reorder tone if end user dials the MSB activation code.

To deactivate MSB, the end user dials the feature deactivation code. The system returns a confirmation tone if the deactivation completes. A line that does not have MSB receives reorder tone if the end user dials the MSB deactivation code.

Datafill for subscriber usage billing

To activate subscriber usage billing, set option subscription usage sensitive pricing (SUSP) to ON in table AMAOPTS. See the following figure for an example of option SUSP in table AMAOPTS.

Example of option SUSP in table AMAOPTS

```
OPTION                                              SCHEDULE
-------------------------------------------------------------
SUSP                                                      ON
```

Limits

Station Activated DND with Feature Active Reminder does not have limits.

Interactions

The following features interact with Station Activated Do Not Disturb (DND) with Feature Active Reminder:

- The MSB and MSBI options are not compatible. If the user specifies the MSB and MSBI as line options, the line uses the MSB option.
- The denied termination, denied origination, and automatic line options are not compatible with MSB.
- The Multiple Appear Directory Number (MADN) feature is not compatible with the MSB and MSBI options when the MSB and MSBI options are on lines. These lines attach to 500/2500 sets for this condition to occur.
- The system denies ring again requests from other lines when a line activates MSB. The MSB is the caller receives reorder tone.
- The system blocks the call back queuing (CBQ) requests from other lines when a station activates MSB.

Station Activated DND with Feature Active Reminder (continued)

- If MSB active on a line, call waiting cannot interrupt the line. If MSBI is active, only intragroup calls cannot perform call waiting to the line.
- The system uses the call hold feature and not MSB in all call conditions.
- The system blocks attempts by incoming calls to activate the executive busy override (EBO) feature when a line has active MSB. The treatment for this condition is reorder tone, not busy tone.
- The MSB has priority over call forwarding.
- The system blocks attempts by an attendant to originate or extend a call to a line with the MSB feature activated.
- The MSB and DND are compatible. The system uses the MSB, not DND when both features active.
- An attendant can activate or deactivate the DND for an individual station (DNDIS) feature on a line that has active MSB. The end user of a line can activate or deactivate MSB if DNDIS is active on the line.
- An attendant can activate or deactivate the DND for a group (DNDGX) feature on a group with a line with MSB active. The system uses the MSB over DNDGX when the system applies a treatment to calls that terminate on that line.
- An attendant cannot use DND to override a line with DND and MSB active.
- Busy verification lines (BVL) overrides MSB. An attendant that applies BVL to an IBN line with MSB active does not know that MSB is active.
- An attendant can camp a call on a line with MSBI active. Attendant camp-on cannot occur on lines with MSB active. The attendant cannot originate or extend a call to the line.
- The MSB and UCD are not compatible. If a customer has MSB assigned to a set, do not use MSB when the customer logs in as a UCD agent.
- A member of a hunt group with active MSB appears busy when the system checks during the hunting process. The line skipped appears like the line is busy. The caller to the hunt group does not receive an MSB treatment. The skipped line does not receive the MSB reminder ring splash. Hunting continues with the next member of the hunt group.
- A person that uses a line with MSB active can establish a conference. An attendant can add a line with MSB active to a conference if the line has MSBI.
- The system cannot include a line with MSB active in a preset conference.

Station Activated DND with Feature Active Reminder (continued)

Activation/deactivation by the end user

To activate make set busy, the end user dials the MSB feature access code. The end user waits until the system returns the confirmation tone. A line without the MSB feature receives reorder tone if the user dials the MSB activation code.

To deactivate MSB, the end user dials the feature deactivation code. The system returns a confirmation tone if the deactivation completes. A line without MSB receives reorder tone if the end user dials the MSB deactivation code.

Billing

Station Activated DND with Feature Active Reminder does not affect billing.

The Station Activated DND with Feature Active Reminder feature generates billing records for subscriber usage billing. There are two billing records for MSB activation and deactivation. Both records use call code 006C. Both records have module code 611 appended to them. Module code 611 specifies subscriber use billing for feature MSB. Refer to the *Bellcore Format AMA Reference Guide,* 297-1001-830 for more information about call code 006C and module code 611.

The billing record for subscriber usage billing uses structure code 00510 to indicate MSB activation and deactivation. Refer to the *Bellcore Format AMA Reference Guide,* 297-1001-830 for more information about structure code 00510.

The following figure is an example of an AMA record generated for call code 006.

Call code 006

```
*HEX ID:AA  STRUCTURE CODE:40510C  CALL CODE:006C  SENSOR
TYPE:036C  SENSOR ID:0000000C  REC OFFICE TYPE:036C  REC
OFFICE ID:0000000C  DATE:80218C  TIMING IND: 00000C
STUDY IND:0000000C  CLD PTY OFF-HK:0C  SERVICE
OBSERVED:0C  OPER ACTION:0C  SERVICE FEATURE:000C  SIG
DIGITS NEXT FIELD:009C  ORIG OPEN DIGITS  1:00036340101C
ORIG OPEN DIGITS 2:FFFFFFFFFF  ORIGINATING CHARGE
INFO:FFFF  DOMESTIC/INTL INDICATOR:1C  SIG DIGITS NEXT
FIELD:007C  TERM OPEN DIGITS 1:00006340102C  TERM OPEN
DIGITS 2:FFFFFFFFF  CONNECT TIME:1451038C  ELAPSED
TIME:000000138C  MODULE CODE:611C  GENERIC CONTEXT
ID:8002415C  GENERIC DIGITS STRING ONE:94A28200000090C
MODULE CODE:000C
```

Station Activated DND with Feature Active Reminder (continued)

Station Message Detail Recording

Station Activated DND with Feature Active Reminder does not affect Station Message Detail Recording.

Datafilling office parameters

Station Activated DND with Feature Active Reminder does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Station Activated DND with Feature Active Reminder appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Station Activated DND with Feature Active Reminder

Table	Purpose of table
CUSTSTN	Customer Group Station Option Table. This table is necessary for a switching unit with North American translations and the Integrated Business Network (IBN) or the Residential Enhanced Services (RES).
KSETLINE (Note)	Keyset Line. This table associates call appearances, ISDN LT call activators and indicators, to DNs and feature options. This table is a current MDC table.
IBNXLA	IBN Translation table. This table stores data for the digit translation of calls from an IBN station and attendant console. This table stores data for an incoming IBN trunk group and an incoming side of a two-way IBN trunk group.
IBNLINES (Note)	IBN Line Assignments table. This table contains the line assignments for data channel links for the Bulk Calling Line Identification (BCLI) feature under the format name of BL.
Note: The user enters data in this table through SERVORD. This document does not provide datafill procedure.	

Datafilling table CUSTSTN

Datafill for Station Activated DND with Feature Active Reminder for table CUSTSTN appears in the following table. The fields that apply directly to

Station Activated DND with Feature Active Reminder (continued)

Station Activated DND with Feature Active Reminder appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTSTN

Field	Subfield or refinement	Entry	Explanation and action
CUSTNAME		character	Customer Name. This field specifies the 1 to 16 character name assigned to the customer group.
OPTNAME		MSB	Option Name. This field specifies the option name. Enter MSB.
OPTION		see subfields	Option. This field contains subfields OPTION and MSBTRMT.
	OPTION	MSB	Option. This subfield specifies the option name. Enter the option MSB.
	MSBTRMT	1 to 63	Make Set Busy Treatment. This subfield specifies the treatment number assigned in Table IBNFEAT. This treatment number is for the routing of calls to a p-phone with the MSB feature activated. The correct range is from 1 to 63.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

MAP example for table CUSTSTN

```
TABLE: CUSTSTN
CUSTNAME    OPTNAME                                    OPTION
_____________________________________________________________
NETRES          MSB                                    MSB  0
```

Datafilling table IBNXLA

Datafill for Station Activated DND with Feature Active Reminder for table IBNXLA appears in the following table. The fields that apply directly to

Station Activated DND with Feature Active Reminder (continued)

Station Activated DND with Feature Active Reminder appear in the table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	Key. This field contains subfields XLANAME and DGLIDX.
	XLANAME	character	Translator Name. This subfield specifies the name assigned to the translator. Enter the 1-character to 8-character name.
	DGLIDX	numeric	Digilator Index. This subfield specifies the access code. Enter the 1-digit to 18-digit number assigned as the access code.
RESULT		see subfield	Result. This field contains subfield TRSEL.
	TRSEL	FEAT	Translations Selector. This subfield specifies the translations selector for use. Enter FEAT.
		see subfields	If TRSEL has a FEAT setting, subfields ACR, SMDR, and FEATURE require data entries.
	ACR	Y or N	Account Code Entry. This subfield specifies if an account code is a requirement. Enter Y or N.
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if SMDR is a requirement. Enter Y or N.
	FEATURE	MSBA or MSBD	Feature. This subfield specifies the feature assigned to a line. Enter MSBA or MSBD.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

```
TABLE: IBNXLA
           KEY
                                              RESULT
________________________________________________________
NTIXLA     123                      FEAT N Y N MSBA
```

Station Activated DND with Feature Active Reminder (continued)

Tools for verifying translations

Station Activated DND with Feature Active Reminder does not use tools for verifying translations.

SERVORD

SERVORD limits

Station Activated DND with Feature Active Reminder does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts used to assign Station Activated DND with Feature Active Reminder appear in the following example.

SERVORD prompts for Station Activated DND with Feature Active Reminder

Prompt	Correct input	Explanation
OPTION	MSB, MSBI	This field specifies the option for assignment. Enter MSB or MSBI.

Note: The system enters table KSETLINE or table IBNLINES when assignment of Station Activated Do Not Disturb (DND) with Feature Active Reminder through SERVORD occurs.

SERVORD example for adding Station Activated DND with Feature Active Reminder

How the addition of Station Activated DND with Feature Active Reminder occurs with the ADO command appears in the following SERVORD example.

SERVORD example for Station Activated DND with Feature Active Reminder in prompt mode

```
>ADO
SONUMBER: NOW 92 4 13 PM
>
DN_OR_LEN:
> 0 0 8 8
OPTKEY:
> 1
OPTION:
> MSB
OPTKEY:
> $
```

Station Activated DND with Feature Active Reminder (end)

SERVORD example for Station Activated DND with Feature Active Reminder in no-prompt mode

```
>ADO $ 0 0 8 8 1 MSB $
```

Storing of 24 Dialed Digits

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS17 and later versions

Requirements

Storing of 24 Dialed Digits requires BAS Generic, BAS00003.

Description

Storing of 24 Dialed Digit allows the system to store a maximum of 24 digits for IBN lines, consoles, and Meridian business sets (MBS). Before this feature, the system stored 18 digits of a called number for outpulsing or digit manipulation.

Operation

The system collects the 18 digits for IBN and plain old telephone service (POTS) translations. The system can collect more digits. Calls that require collection of more than 18 digits appear in the following example. First, the user dials the 20 digits for the following international call that uses a carrier selection code:

- 10xxx carrier selection code
- 011 international access code
- xxxxxxxxxxxx 12-digit international number. The number can be 7 to 12 digits.

The user next dials 23 digits when an IBN/SL100 customer accesses a private tie-line switching network:

- xx network access code. The code can be 2 to 10 digits.
- xxxxxx 6-digit authorization code. The code can be 2 to 10 digits.
- 011 international access code
- xxxxxxxxxxxx 12-digit international number. The number can be 7 to 12 digits.

Share current storage areas with compatible software functions to obtain storage for additional digits. This feature does not require additional storage.

Storing of 24 Dialed Digits (continued)

Translations table flow

Storing of 24 Dialed Digits does not affect translations table flow.

Limits

The following limits apply to Storing of 24 Dialed Digits:

- This feature does not increase the number of digits that the user can program for call forwarding features.
- The user can program a maximum of eight digits for call forward busy (CFB).
- The user can program a maximum of eight digits for call forward don't answer (CFD).
- The user can program a maximum of eight digits for 11 digits for call forward intragroup (CFI).
- The user can program a maximum of 11 digits for call forward universal (CFU).

Interactions

Storing of 24 Dialed Digits does not have functionality interactions.

Activation/deactivation by the end user

Storing of 24 Dialed Digits does not require activation or deactivation by the end user. The system collects a maximum of 24 digits.

Billing

Storing of 24 Dialed Digits does not affect billing.

Station Message Detail Recording

Storing of 24 Dialed Digits does not affect Station Message Detail Recording.

Datafilling office parameters

Storing of 24 Dialed Digits does not affect office parameters.

Datafill sequence

Storing of 24 Dialed Digits does not affect datafill.

Tools for verifying translations

Storing of 24 Dialed Digits does not use tools for verifying translations.

Storing of 24 Dialed Digits (end)

SERVORD

Storing of 24 Dialed Digits does not use SERVORD.

TGB/TAC Access thru Special Keys

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS10 and later versions

Requirements

The TGB/TAC Access thru Special Keys has the following requirements:

- BAS Generic, BAS00003
- MDC Standard, MDC00003

Description

The TGB/TAC Access thru Special Keys allows the attendant to monitor the busy/idle status of a specified trunk group. The attendant can control access to that group. The system provides two new keys for this feature:

- customer trunk group busy (GTGB)
- trunk access control (GTAC)

The GTGB key provides trunk group busy queries for a trunk group allocated to the customer group. The GTAC key allows the attendant to toggle the TAC of a trunk allocated to the attendant subgroup. The Wild Card key assigns these functions.

When TAC is active, the attendant can give a caller access to the controlled trunk group through delayed or not delayed operation. The attendant can give access by dialing.

If the trunk group has a designated alternate route, the DMS-100 switch proceeds with the alternate routing.

Operation

The TGB/TAC Access thru Special Keys does not affect operation.

User interface

The TGB/TAC Access thru Special Keys does not affect user interface.

TGB/TAC Access thru Special Keys (continued)

Translations table flow

The TGB/TAC Access thru Special Keys does not affect translations table flow.

Limits

The following limits apply to TGB/TAC Access thru Special Keys:

- The attendant must have an idle loop or be active on a loop to activate the Wild Card Key feature.
- The tone and lamp states do not reflect changes in the status of the trunk group during the 3-second timeout period.

Interactions

The TGB/TAC Access thru Special Keys is compatible with Through Dialing and the Wild Card Key features.

Activation/deactivation by the end user

To operate TGB/TAC Access thru Special Keys, the attendant performs the following steps:

Activation/deactivation of TGB/TAC Access thru Special Keys by the end user

At your telephone

1 To determine the status of one of the customer group trunk groups, press the GTGB key.

Response:

The associated lamp turns on.

2 The attendant enters the trunk group number.

Response:

The switch in Table CLLINAME assigns this number. If the trunk group is busy, the user hears two seconds of busy tone. If an idle trunk is present in the group, the user hears the dial tone for one second. The feature times out after three seconds. The feature times out when the attendant presses a key on the console.

3 To change the TAC status of a trunk group, the attendant presses the GTAC key.

Response:

The associated lamp turns on.

4 The attendant enters the trunk group number.

Response

TGB/TAC Access thru Special Keys (continued)

The system toggles the TAC status and the system updates the lamp state with the new trunk group status. If the trunk group is busy, the user hears two seconds of busy tone. If there is an idle trunk, the user hears the dial tone for one second. When an activation/ deactivation that is not complete occurs, the user hears the reorder tone. The feature times out after three seconds. The feature times out when the attendant presses any key other than the GTAC key.

Billing

The TGB/TAC Access thru Special Keys does not affect billing.

Station Message Detail Recording

The TGB/TAC Access thru Special Keys does not affect Station Message Detail Recording.

Datafilling office parameters

The TGB/TAC Access thru Special Keys does not affect office parameters.

Datafill sequence

Tables that require datafill to implement TGB/TAC Access thru Special Keys appear in the following table. The tables appear in the correct entry order.

Datafill requirements for TGB/TAC Access thru Special Keys

Table	Purpose of table
FNMAP	Attendant Console Functional Key. This table contains fields for assigning two keys and lamps on the attendant console (AC). These lamps and keys are for the TGB/TAC Access thru Special Keys.
WCKCODES	Wild Card Key Codes. This table contains fields that allow the attendant to select any trunk group. The attendant controls the trunk group access using a Wild Card key access code.

Datafilling table FNMAP

Table Attendant Console Functional Key (FNMAP) contains fields to assign two keys and lamps on the AC. Assign these fields for the TGB/TAC Access thru Special Keys.

The user must enter data in this table twice. In field SP_FN, enter GTAC as the special function code the first time the user enters data in this table. Enter GTGB as the special function code the second time the user enters data in table FNMAP.

Datafill for TGB/TAC Access thru Special Keys for table FNMAP appears in the following table. The fields that apply to TGB/TAC Access thru Special

TGB/TAC Access thru Special Keys (continued)

Keys appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfields	Result. This field contains subfields KEY_SEL and SP_FN.
	KEY_SEL	SPECL	Key Selector. This subfield specifies the key selector. Enter SPECL for special.
	SP_FN	GTAC or GTGB	Special Function. This subfield specifies the special function code. Enter GTAC for group trunk access control. Enter GTGB for group trunk group busy.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

```
  TABLE: FNMAP
    KEY                    RESULT
-------------------------------------------------------------
    IBNCON1   2            SPECL GTAC
```

The GTGB as the wild card key special function code appears in the second example.

MAP example for table FNMAP

```
TABLE: FNMAP
  KEY                                  RESULT
_____________________________________________________________
IBNCON1 2                            SPECL  GTGB
```

Datafilling table WCKCODES

Table WCKCODES (Wild Card Key Codes) contains fields that allow the attendant to select any trunk group. The attendant can control access to a trunk group with a Wild Card key access code.

TGB/TAC Access thru Special Keys (continued)

The user must enter data into this table twice. For field WCSPFN, enter GTAC as the wild card key special function code. Make this entry the first time the user enters data in this table. Enter GTGB as the special function code the second time the user enters data in table WCKCODES.

Datafill for TGB/TAC Access thru Special Keys for table WCKCODES appears in the following table. The fields that apply to TGB/TAC Access thru Special Keys appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table WCKCODES

Field	Subfield or refinement	Entry	Explanation and action
VALUE		see subfield	Value This field contains subfield WC_SP_FN.
	WC_SP_FN	GTAC or GTGB	Wild Card Key Special Function. This subfield specifies the Wild Card key special function code. Enter GTAC for group trunk access control. Enter GTGB for group trunk group busy.

Datafill example for table WCKCODES

Sample datafill for table WCKCODES appears in the following table.

MAP example for table WCKCODES

```
TABLE: WCKCODES
  WCKEY                                VALUE
________________________________________________________
BNRMC    14                  GTAC
```

MAP example for table WCKCODES

```
TABLE: WCKCODES
  WCKEY                                     VALUE
________________________________________________________
  BNRMC    14                               GTGB
```

Tools for verifying translations

The TGB/TAC Access thru Special Keys does not use tools for verifying translations.

TGB/TAC Access thru Special Keys (end)

SERVORD

The TGB/TAC Access thru Special Keys does not use SERVORD.

Through Dialing

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS09 and later versions

Requirements

The Through Dialing requires BAS Generic, BAS00003 to operate.

Description

Through Dialing allows an attendant to access a trunk for a station user that is a restricted trunk normally. After dialing the access code, the attendant releases the call to the station user. The station user completes the dialing. The access code can include prefix digits. The attendant uses Through Dialing as a manual override of outgoing station restrictions.

Operation

Through Dialing does not affect user operation.

Translations table flow

Through Dialing does not affect translations table flow.

Limits

The following limits apply to Through Dialing limits:

- Through Dialing is not available for automatic lines, stations outside the customer group, or incoming calls.
- The attendant cannot assign Through Dialing to individual consoles. The attendant must assign Through Dialing to all attendant consoles (AC) in the customer group.

Interactions

The attendant cannot recall calls that Through Dialing extends.

Activation/deactivation by the end user

To start Through Dialing, the attendant performs the following steps.

Activation/deactivation of Through Dialing by the end user

At your telephone, perform the following steps:

Through Dialing (end)

Actuvate/deactivate through dialing

At your telephone

1 The calling station dials the number for the attendant. The attendant operates the Loop key or Incoming Call Identification (ICI) key to answer the call. The calling station asks to place a call over a restricted route. The attendant can access this route.

The attendant has the following options:

- The attendant can dial the access code. The access code is normally 9 for a central office and 8 for the common control switching arrangement. After the attendant dials the access code, the attendant can release the call from the console.
- The attendant can dial the access code and a minimum of one leading digit (DDD or IDDD). After the attendant dials the code and the digits, the attendant can release the call from the console.

Billing

Through Dialing does not affect billing.

Station Message Detail Recording

Through Dialing does not affect Station Message Detail Recording.

Datafilling office parameters

Through Dialing does not affect office parameters.

Datafill sequence

Through Dialing does not affect datafill.

Tools for verifying translations

Through Dialing does not use tools for verifying translations.

SERVORD

Through Dialing does not use SERVORD.

Trouble Key on IBN Console

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS12 and later versions

Requirements

The Trouble Key on IBN Console requires BAS Generic, BAS00003 to operate.

Description

Trouble Key on IBN Console allows an attendant to alert maintenance personnel to a problem in how the system handles a call. Customer datafill defines a set of one- and two-digit numeric trouble codes. This set of numeric troubles codes allows the attendant to classify the problem in a correct category.

When in use, the Trouble key generates an output message with the log system. This output message identifies the following features:

- source and destination of a call
- console
- type of trouble

This output message provides other information to help maintenance personnel.

Operation

To use Trouble Key on IBN Console, the attendant must be active on a loop. When the attendant encounters trouble, the attendant performs the following steps.

- Press the Trouble key. The Trouble lamp turns on. The display asks for a trouble code.
- Enter the trouble code. The Trouble lamp remains on. The meaning assigned to the trouble appears.
- Press the Trouble key again to confirm if the trouble code is correct.

The switch generates the log message. The trouble lamp turns off. When this action applies, the switch signals an audible alarm.

Trouble Key on IBN Console (continued)

The attendant can activate the Trouble Key on IBN Console through the Wild Card key. If this type of activation occurs, the attendant can press the Wild Card key or the Trouble key. Use of these keys has the same result.

User interface

Trouble Key on IBN Console does not affect user interface.

Translations table flow

Trouble Key on IBN Console does not affect translations table flow.

Limits

Future releases of this document will contain limits that this release did not present.

Interactions

A description of the interactions between Trouble Key on IBN Console and other functionalities appears in the following paragraphs.

Attendant Speed Call

When the attendant uses Attendant Speed Call to dial the call, the speed call list supplies the digits the log message reports. The called number does not reflect the digits the attendant dials.

Call Park

The attendant can use the Trouble key when the attendant is active with a parked call. When this event occurs, a destination does not appear in the log message. The log message does not indicate the involvement of the Call Park feature.

Camp-on/Call Waiting (CWT)

When the attendant handles a call where Camp-On or CWT applies, the attendant can use Trouble Key on IBN Console. In these occurrences, the log message identifies a source and a destination.

Night Service/Position Busy Keys

When Trouble Key on IBN Console is active, use of Night Service and Position Busy Keys can occur.

Trouble Key on IBN Console (continued)

Activation/deactivation by the end user

Activation/deactivation of Trouble Key on IBN Console by the end user

At your telephone

1 Press the Trouble key.

Response:

The Trouble lamp turns on. The display asks for a trouble code.

2 Enter the Trouble code.

Response:

The Trouble lamp stays on. The meaning assigned to the trouble appears.

3 Press the Trouble key again to confirm if the trouble code is correct.

Response:

The switch generates the log message. The Trouble lamp turns off. When this action applies, the switch signals an audible alarm.

To use Trouble Key on IBN Console, the attendant must be active on a loop. When the attendant encounters trouble, the attendant performs the following steps.

Billing

Trouble Key on IBN Console does not affect billing.

Station Message Detail Recording

Trouble Key on IBN Console does not affect Station Message Detail Recording.

Datafilling office parameters

Trouble Key on IBN Console does not affect office parameters.

Trouble Key on IBN Console (continued)

Datafill sequence

The tables that require datafill to implement Trouble Key on IBN Console appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Trouble Key on IBN Console

Table	Purpose of table
FNMAP	Attendant Console Functional Key. This table contains fields to assign a key and lamp on the attendant console (AC) for Trouble Key on IBN Console.
WCKCODES	Wild Card Key. This table contains fields which allow the attendant to start Trouble Key on IBN Console. The attendant starts Trouble Key on IBN Console with a Wild Card key access code.
TRBLCODE	IBN Console Trouble Code. This table contains fields to define the trouble codes for the attendant(s) to use to classify of problems.

Datafilling table FNMAP

Table FNMAP (Attendant Console Functional Key) contains fields. These fields assign a key and lamp on the attendant console (AC) for Trouble Key on IBN Console.

Datafill for Trouble Key on IBN Console for table FNMAP appears in the following table. The fields that apply to Trouble Key on IBN Console appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfields	Result. This field contains subfields KEY_SEL and SP_FN.
	KEY_SEL	SPECL	Key Selector. This subfield specifies the key selector. Enter SPECL for special.
	SP_FN	TRBL	Special Function. This subfield specifies the special function code for the Trouble Code feature. Enter TRBL.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

```
TABLE: FNMAP
KEY                                  RESULT
_____________________________________________________________

IBNCON1  30                          SPECL  TRBL
```

Datafilling table WCKCODES

Table WCKCODES (Wild Card Key Codes) contains fields. These fields allow the attendant to start Trouble Key on IBN Console with a Wild Card key access code.

Datafill for Trouble Key on IBN Console for table WCKCODES appears in the following table. The fields that apply to Trouble Key on IBN Console appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table WCKCODES

Field	Subfield or refinement	Entry	Explanation and action
WCKEY		see subfields	Wild Card Key. This field contains subfields CUSTGRP and TABIDX.
	CUSTGRP	1- to 16-alphanumeric	Customer Group. This subfield specifies the name the attendant assigns to the customer group. Enter a 1- to 16-alphanumeric character name.
	TABIDX	00 to 99	Table Index. This field specifies the Wild Card key access code the attendant assigns to the Conference Call feature. Enter a value from 00 to 99.
VALUE		subfield	Value. This field contains subfield WC_SP_FN.
	WC_SP_FN	TRBLKEY	Wild Card Key Special Function. This field specifies the Wild Card key special function for the Trouble Code feature. Enter TRBLKEY.

Datafill example for table WCKCODES

Sample datafill for table WCKCODES appears in the following example.

Trouble Key on IBN Console (continued)

MAP example for table WCKCODES

```
TABLE: WCKCODES
  WCKEY                                  VALUE
 ------------------------------------------------------------
 BNRMC     14                  TRBLKEY
```

Datafilling table TRBLCODE

Table TRBLCODE (IBN Console Trouble Code) contains fields to define the trouble codes the attendant uses to classify problems. Only trouble codes this table contains are correct for use with Trouble Key on IBN Console.

Datafill for Trouble Key on IBN Console for table TRBLCODE appears in the following table. The fields that apply to Trouble Key on IBN Console appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table TRBLCODE

Field	Subfield or refinement	Entry	Explanation and action
CODE		0 to 99	Code. This field specifies the trouble code number. Enter a value from 0 to 99.
MESSAGE		alphanumeric	Message. This field specifies the call handling problem. Enter the alphanumeric message.
ALARM		NA, MN, MJ, CR	Alarm. This field specifies the type of alarm. Enter NA for no alarm, MN for minor alarm, MJ for major alarm, or CR for critical alarm.

Datafill example for table TRBLCODE

Sample datafill for table TRBLCODE appears in the following example.

MAP example for table TRBLCODE

```
TABLE: TRBLCODE
  CODE    MESSAGE      ALARM
 ------------------------------------------------------------
  50      TROUBLE        MJ
```

Tools for verifying translations

Trouble Key on IBN Console does not use tools for verifying translations.

SERVORD

Trouble Key on IBN Console does not use SERVORD.

Trunk Busy Verify Tone

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS20 and later versions

Requirements

To operate, Trunk Busy Verify Tone requires BAS Generic, BAS00003.

Description

The Busy Verification - Trunks feature allows the attendant to barge-in to calls in progress. This condition applies on trunk-to-trunk or trunk-to-line calls. This action can occur when the Busy Verification - Trunks feature is active.

Trunk Busy Verify Tone provides a signaling system with OPTIONAL interruption to enhance Busy Verification - Trunks. Trunk Busy Verify Tone immediately returns an audible indication of the trunks state. This action does not cause a barge-in.

Operation

To operate Trunk Busy Verify Tone, the attendant performs the steps that appear in section “Activation/deactivation by the end user."

Translations table flow

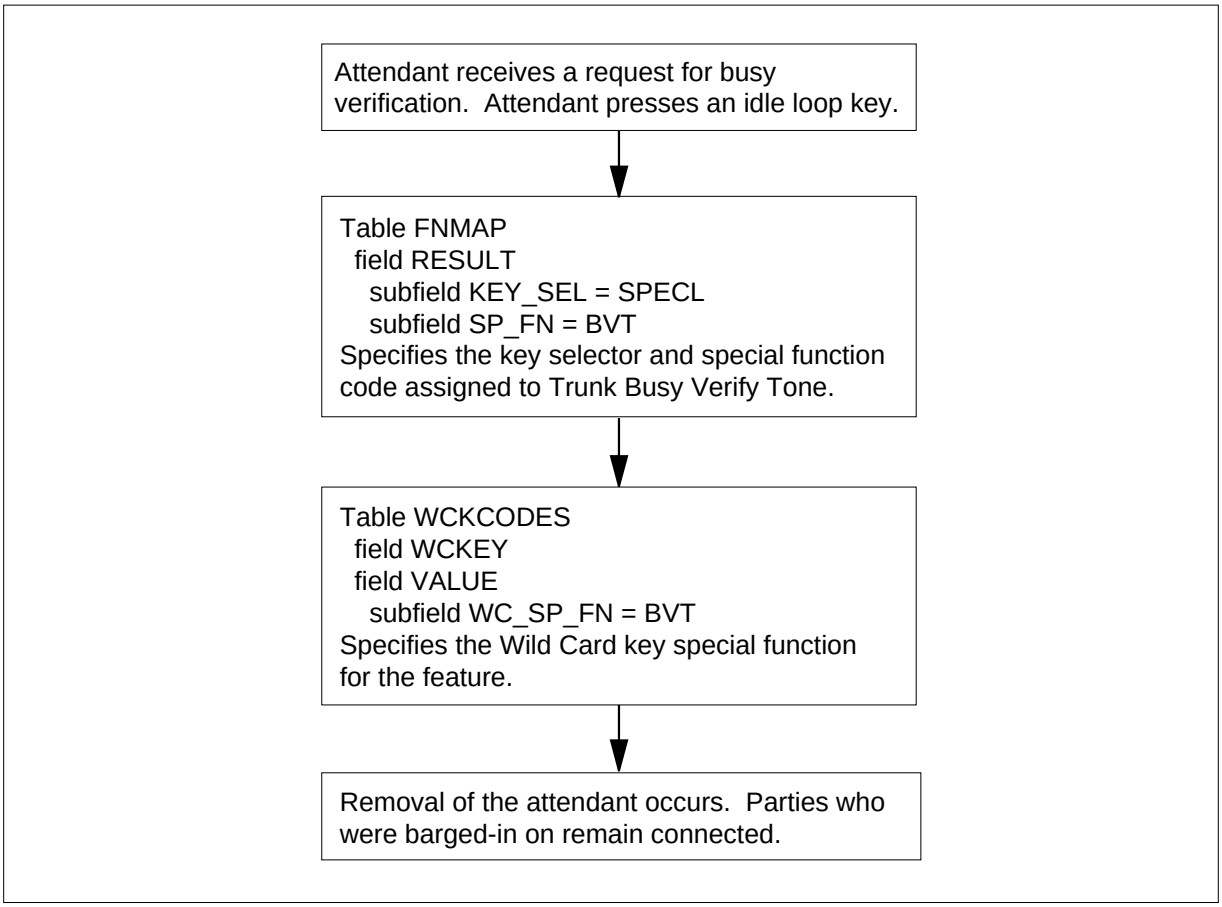
A description of the Trunk Busy Verify Tone translations tables appears in the following list:

- Table FNMAP (Attendant Console Functional Key) contains fields for the assignment of a dedicated key and lamp on the attendant console (AC). The dedicated key and lamp is for Trunk Busy Verify Tone.
- Table WCKCODES (Wild Card Key Codes) contains fields for the assignment of a Wild Card key access code. This access code is for Trunk Busy Verify Tone.

The Trunk Busy Verify Tone translation process appears in the following flowchart. The flowchart and data describe how the assignment of Trunk Busy Verify Tone to a customer group occurs.

Trunk Busy Verify Tone (continued)

Table flow for Trunk Busy Verify Tone



The datafill in the flowchart appears in the following table.

Datafill example for Trunk Busy Verify Tone

Datafill table	Example data
FNMAP	IBNCON1 30 SPECL BVT Y
	IBNCON2 20 SPECL WC
WCKCODES	BNRMC 14 BVT N Y 9

Limits

The following limits apply to Trunk Busy Verify Tone:

- The attendant cannot force release a busy trunk.
- The attendant cannot connect another party to a busy connection.

Trunk Busy Verify Tone (continued)

- A keying sequence that the “Activation/deactivation by the end user" section of this feature description does not specify is not correct.
- The attendant cannot busy verify trunks that are in other customer groups.
- The attendant cannot busy verify one-way incoming trunks.
- The attendant cannot busy verify a trunk that is in a state without stability. The attendant cannot break into a connection that is in a state without stability.
- The attendant cannot busy verify a connection that involves another AC.
- The attendant cannot remain barged-in for more than 45 s. The system removes the attendant from the connection after 45 s.
- When an attendant busy verifies a DMS station, the system ignores all flash features of the DMS station.

Interactions

The features with which Trunk Busy Verify Tone interacts appear in the following list:

- Barge-in: After barge-in occurs, the system ignores all key hits. This condition does not apply to the following:
  - — Night Service (Nite) key
  - — Position Busy (POS BSY) key
  - — the RLS or Release Source (RLS SRC) key
- Busy Tone: The attendant hears a busy tone if the attendant tries to busy verify the following:
  - — a connection with malicious call trace active
  - — a connection that involves a station that has a call waiting or camped-on
  - — a three-way connection
  - — a conference call
  - — a connection that involves another attendant
  - — a connection where the terminating station has option CLF
  - — a trunk with a state of tk_man_busy, tk_cp_busy_deload, or tk_cp_deloaded
- Busy Verification: Trunks must be present for Trunk Busy Verify Tone to work correctly. After the attendant presses the Busy Verification key, the

system ignores all other key hits. This condition does not apply to the following:

— digits

— the Nite key

— the POS BSY key

— the RLS key

- Call Hold (CHD): The attendant cannot put a call on hold as the call busy verifies.
- Call Waiting/Camp-on: The attendant cannot busy verify a connection that involves a station that has a call waiting or camped-on.
- Calling Line Identification with Flash (CLF): The attendant cannot enter a connection if the terminating station has option CLF assigned.
- Conference Calls: The attendant cannot busy verify conference calls.
- Console Hold: When a connection on a console is on hold, the attendant cannot busy verify this connection.
- Entering Digits. The attendant cannot use speed calling to enter the digits.
- No Double Connect (NDC): The attendant cannot barge-in to a connection that involves a station with the NDC option. The assignment of option NDC to trunks cannot occur.
- Reorder Tone: The attendant hears a reorder tone when the following conditions occur:
  - — the connection the attendant busy verifies is in a state without stability
  - — the attendant keys in a trunk group number, called number or trunk member number that is not correct
  - — the trunk is in specified states without stability. Examples of states without stability are not equipped or offline.
  - — different system resources are not available. Examples of these system resources are feature blocks or extension blocks.
  - — specified software utilities fail. Examples of these software utilities are digit collector, wakeup utilities, or network connection utilities.
- Three-Way Call: The attendant cannot busy verify a three-way call.

Activation/deactivation by the end user

To operate Trunk Busy Verify Tone, the attendant performs the following steps.

Trunk Busy Verify Tone (continued)

Activation/deactivation of Trunk Busy Verify Tone by the end user

At your telephone

1 Receive a request for busy verification.

2 Press an idle Loop key.

3 Press the Busy Verification-Trunks key if this key is not already.

4 Dial the access code of the trunk group that you must verify.

Response:

If this code is not correct, the system routes the attendant to a treatment.

5 Dial the called number. This step is optional.

Response:

When the feature is in use for attendant trunk testing only, the attendant does not dial the called number.

6 Dial an octothorpe (#).

7 Dial the external trunk member number.

Response:

If this number is not correct, the system routes the attendant to a treatment.

8 Dial another octothorpe if you dialed the called number in step 5.

Note: If the called number was not dialed in step 5, an asterisk (*) must be dialed in this step and not an octothorpe.

9 The attendant receives one of the following responses:

Response:

1. If the accessed trunk group contains an idle trunk, the following occurs:

   Response:

   The attendant hears 1 s of dial tone.

   If the attendant dialed a called number, the system routes the call out of the office. If the attendant did not dial a called number, the loop remains active. The system can place the call in the normal method.

2. If all the trunks are busy in the trunk group accessed, the following occurs:

   Response:

   The attendant hears a busy tone. The attendant can receive 2 s of busy verification tone. This busy verification tone indicates that the connection contains a station with the no double connect option. Attendants cannot barge-in on these types of connections.

An updated display appears on the attendant console.

3. The attendant performs one of the following tasks:

   The attendant presses the Busy Verification - Trunks key a second time. The following occurs:

   Response:

   The system applies the busy verification tone to the parties on the access trunk member.

   Before barge-in, the two parties on the trunk receive 2 s of busy verification tone. The attendant performs a barge-in to the call. The two parties can connect to the attendant for a maximum of 45 s. After each 15 s period during this connection, the parties receive another 0.5 s burst of busy verification tone.

   or

   The attendant does not press the Busy Verification-Trunks key. The following occurs:

   Response:

   Timeout occurs after 30 s.

   The system routes the attendant to treatment. The attendant can press the Release (RLS) key in the timeout period. When the attendant presses this key, the system does not route the attendant to treatment.

   Note: The attendant can press the RLS key at any point during busy verification to exit the feature. The parties on which the attendant performed the barge-in remain connected after the removal of the attendant.

Billing

Trunk Busy Verify Tone does not affect billing.

Station Message Detail Recording

Trunk Busy Verify Tone does not affect Station Message Detail Recording.

Datafilling office parameters

Trunk Busy Verify Tone does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Trunk Busy Verify Tone appear in the following table. The tables appear in the correct entry order.

Note: Busy Verification - Trunks must be present for Trunk Busy Verify Tone to function. See “Busy Verification - Trunks" for more information on this feature.

Trunk Busy Verify Tone (continued)

Datafill requirements for Trunk Busy Verify Tone

Table	Purpose of table
FNMAP	Attendant Console Functional Key. This table contains keys that a console common language location identifier (CLLI) name identifies. The attendant uses a console CLLI name when the attendant enter data into a single AC.
WCKCODES	Wild Card Key Codes. This table contains fields for the assignment of a Wild Card key access code to Trunk Busy Verify Tone.

Datafilling table FNMAP

Table FNMAP (Attendant Console Functional Key) contains keys that a console CLLI name identifies. The attendant uses a console CLLI name when the attendant enters data in a single AC.

The two options for the installation of the AC keys for this feature appear in the following list:

- the assignment of this feature to a dedicated key and lamp on the AC
- the assignment of this feature on a wild card key on the AC

Datafill for Trunk Busy Verify Tone for table FNMAP appears in the following table. The fields that apply to Trunk Busy Verify Tone appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table FNMAP (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfields	Result. This field contains subfields KEY_SEL and SP_FN.
	KEY_SEL	SPECL	Key Selector. This subfield specifies the key selector. Enter SPECL for special.
	SP_FN	BVT	Special Function. This subfield specifies the special function code for this feature. Enter BVT. ***Note:*** If SP_FN is BVT, subfields ATT_PRE_EMPT, BVTAUD, and BVTNRVAL require datafill.

Datafilling table FNMAP (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	ATT_PRE_EMPT	Y or N	Attendant Pre-empt. This subfield specifies that the attendant can pre-empt all connections to the trunk. Enter Y or N.
	BVTAUD	Y or N	Busy Verification Trunks Audible. This subfield specifies if the attendant can verify the status of a trunk without immediate barge-in. Enter Y or N.
	BVTNRVAL	5 to 20	Busy Verification Trunk Time Interval. This subfield specifies the time, in 1 s intervals, between busy verification tones. Enter a value from 5 to 20.

Enter data in table FNMAP to install a dedicated key and lamp for the wild card function.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Explanation and action
RESULT			Result. This field contains subfields KEY_SEL and SP_FN.
	KEY_SEL		Key Selector. This subfield specifies the key selector. Enter SPECL for special.
	SP_FN		Special Function. This subfield specifies the special function code for the Wild Card (WC) feature. Enter WC.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

Trunk Busy Verify Tone (continued)

MAP example for table FNMAP

```
TABLE: FNMAP

KEY                                              RESULT

______________________________________________________________

IBNCON1  30                             SPECL  BVT  Y
IBNCON2  20                             SPECL  WC
```

Datafilling table WCKCODES

Table WCKCODES (Wild Card Key Codes) contains fields for the assignment of a Wild Card key access code. This access code is for Trunk Busy Verify Tone.

Datafill for Trunk Busy Verify Tone for table WCKCODES appears in the following table. The fields that apply to Trunk Busy Verify Tone appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table WCKCODES (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
WCKEY		see subfields	Wild Card Key. This field contains subfields CUSTGRP and TABIDX.
	CUSTGRP	alphanumeric	Customer Group. This subfield specifies the name assigned to the customer group. Enter a 1 to 16 alphanumeric character name.
	TABIDX	00 to 99	Table Index. This field specifies the Wild Card key access code that the attendant assigns to the Conference Call feature. Enter a value from 00 to 99.
VALUE		see subfield	Value. This field contains subfield WILDCARD_SP_FN.

Datafilling table WCKCODES (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	WC_SP_FN	BVT	Wild Card Key Special Function. This subfield specifies the Wild Card key special function for the Busy Verification Trunk feature. Enter BVT. ***Note:*** If WP_SP_FN is BVT, subfields BSY_VER_PREEMPT, BVTAUD, and BVT_INTERVAL require datafill.
	BSY_VER_PREEMPT	Y or N	This subfield specifies that the attendant can pre-empt all connections to the trunk. Enter Y or N.
	BVTAUDBVTAUD	Yor N	Busy Verification Trunks Available. This subfield specifies if the attendant can verify the status of a trunk without immediate barge-in. Enter Y or N.
	BVT_INTERVAL	5 to 20	Busy Verification Trunk Interval. This subfield specifies the time, in 1 s intervals, between busy verification tones. Enter a value from 5 to 20.

Datafill example for table WCKCODES

Sample datafill for table WCKCODES appears in the following example.

MAP example for table WCKCODES

```
TABLE: WCKCODES

WCKEY                                    VALUE

_____________________________________________________________

BNRMC   14                               BVT   N  Y  9
```

Tools for verifying translations

Trunk Busy Verify Tone does not use tools for verifying translations.

SERVORD

Trunk Busy Verify Tone does not use SERVORD.

Two-Way Splitting

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

To operate, Two-Way Splitting requires BAS Generic, BAS00003.

Description

Two-Way Splitting allows the attendant to talk privately with the calling party or the called party. The calling party is the source and the called party is the destination. The attendant can alternate between the source and the destination.

Operation

Two-Way Splitting does not affect operation.

User interface

Two-Way Splitting does not affect user interface.

Translations table flow

Two-Way Splitting does not affect translations table flow.

Limits

Operation of the Loop key associated with the call cancels any active exclusions. Operation of the Loop key associated with the call establishes a three-port conference call. This conference call includes the attendant, the source and the destination.

Interactions

To press the EXC SRC key when first extending the call is the manual equivalent of the Secrecy feature.

Activation/deactivation by the end user

The steps the attendant must perform to activate Two-Way Splitting appear in the following list.

Activation/deactivation of Two-Way Splitting by the end user

At your telephone

1 Press the EXC SRC key or the EXC DEST key to activate Two-Way Splitting.

2 Press the EXC SRC key any time after answering and before releasing a call.

Response:

To press the EXC SRC key when the system does not include the destination connects the attendant and the destination.

3 Press the EXC DEST key any time after the system outpulses the destination digits or after the system makes a connection.

Response:

To press the EXC DEST key when the system does not include the source connects the source and the attendant.

Billing

Two-Way Splitting does not affect billing.

Station Message Detail Recording

Two-Way Splitting does not affect Station Message Detail Recording.

Datafilling office parameters

Two-Way Splitting does not affect office parameters.

Datafill sequence

Two-Way Splitting does not affect datafill.

Tools for verifying translations

Two-Way Splitting does not use tools for verifying translations.

SERVORD

Two-Way Splitting does not use SERVORD.

UCD Night Service Invocation Enhancements

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

The UCD Night Service Invocation Enhancements was introduced in BCS34.

Requirements

The UCD Night Service Invocation Enhancements does not have requirements.

Description

The UCD Night Service Invocation Enhancements (UCDNS) allows a Uniform Call Distribution (UCD) agent, in a UCD group, logged to activate Night Service without all UCD agents logging out. The remaining UCD agents answer the remainder of calls that wait in queue. The system routes all new calls that arrive to the Night Service treatment defined earlier.

Operation

The current use of the UCD feature provides the capability to activate Night Service for a UCD group. The system activates Night Service when all UCD agents log out of the UCD group. This activation of Night Service causes the system to send all incoming calls to the UCD group to the Night Service treatment. Table UCDGRP specifies the Night Service treatment. This activation prevents the introduction of additional calls to the UCD group.

The current use of UCD Night Service can allow calls that enter the UCD queue to be trapped in the queue. The calls are trapped in the queue when the final member of the UCD group logs out. These callers receive treatment that indicates that the system entered their calls in the UCD queue. The system enters the calls in the UCD queue through either a recorded announcement, music, or silence. The treatment indicates that the next available agent will answer their calls.

The UCD Night Service Invocation Enhancements allows the UCD group to handle calls that remain in the current queue. The UCD group handles the calls when a UCD agent activates the Night Service. The system presents the calls that remain in the queue to all UCD agents logged in the UCD group when Night Service occurs. The system continues to present the calls that remain in the queue until the queue is empty. Other UCD agents can log in when the

UCD Night Service Invocation Enhancements (continued)

UCD group is in Night Service. These UCD agents can help handle the calls that remain in the queue.

When the queue is empty, the system does not present more calls to the UCD agents. The system presents more calls when a UCD agent deactivates Night Service. A UCD agent deactivates Night Service by dialing the Night Service deactivation access code. The system does not present calls to the UCD group until the UCD agent deactivates Night Service.

When a UCD agent activates Night Service, the system sends new calls for the UCD group to the Night Service treatment. Table UCDGRP (Uniform Call Distribution Group), field NSROUTE, specifies this Night Service treatment.

This feature does not affect the functionality of the current feature. A UCD position in make set busy (MSB) mode cannot receive recall, UCD or non-UCD calls. The ability to log out of the group when calls remain is possible.

One UCD agent can activate UCDNS and a different UCD agent can deactivate UCDNS.

The system retains the current method to activate Night Service through agent logout for groups that want to continue to use current methods. This function occurs even if the system assigns the UCD group to the UCDNS option in table UCDGRP. When the a UCD agent uses the current activation method, calls in the UCD queue can continue to become trapped.

The activation of the UCDNS feature enhancement does not affect each login or logout status of the agents. This activation does affect the ability to receive the calls incoming to the group. An agent can log in when the UCDNS feature is active and the UCD queues are empty. When this action occurs, the system does not present new calls to the UCD group to that agent.

Translations table flow

The UCD Night Service Invocation Enhancements does not affect translations table flow.

Limits

A UCD agent must log in to the group before activating and deactivating the Night Service feature.

Interactions

The UCD Night Service Invocation Enhancements does not have functionality interactions.

UCD Night Service Invocation Enhancements (continued)

Activation/deactivation by the end user

Procedures that provide activation and deactivation of UCD Night Service appear in the following paragraphs.

UCD Night Service activation

An idle UCD agent can activate Night Service by going off-hook and dialing the UCDNSA access code. A UCD agent on a call can activate Night Service. This UCD agent flashes the switchhook and dials the UCDNSA to activate Night Service.

Activation of UCD Night Service Invocation Enhancements by the end user

At your telephone:

1 The UCD agent goes off-hook.

Response:

The UCD agent receives a dial tone.

2 The UCD agent dials the UCDNSA access code.

Response:

The UCD agent hears a confirmation tone.

3 The UCD agent goes on-hook.

Response:

The system now activates UCDNS.

UCD Night Service deactivation

An idle UCD agent can deactivate Night Service by going off-hook and dialing the UCDNSD access code. A UCD agent on a call can deactivate Night Service. This UCD agent flashes the switchhook and dials the UCDNSD to deactivate Night Service.

Deactivation of UCD Night Service Invocation Enhancements by the end user

At your telephone:

1 The UCD agent goes off-hook.

Response:

The UCD agent receives a dial tone.

2 The UCD agent dials the UCDNSD access code.

Response:

The UCD agent hears a confirmation tone.

3 The UCD agent goes on-hook.

Response:

The system now activates UCDNS.

UCD Night Service Invocation Enhancements (continued)

Billing

The UCD Night Service Invocation Enhancements does not affect billing.

Station Message Detail Recording

The UCD Night Service Invocation Enhancements does not affect Station Message Detail Recording.

Datafilling office parameters

The UCD Night Service Invocation Enhancements does not affect office parameters.

Datafill sequence

The tables that require datafill to implement UCD Night Service Invocation Enhancements appear in the following table. The tables appear in the correct entry order.

Datafill requirements for UCD Night Service Invocation Enhancements

Table	Purpose of table
UCDGRP	Uniform Call Distribution Group. This table permits the system to evenly distribute calls to a number of pre-designated 500/2500 stations.
IBNXLA	IBN Translation. This table contains the data for the digit translation of calls from one of the following: • an Integrated Business Network (IBN) station • an attendant console • an incoming IBN trunk group • an incoming side of a two-way IBN trunk group

Datafilling table UCDGRP

The datafill for UCD Night Service Invocation Enhancements for table UCDGRP appears in the following table. The fields that apply directly to UCD

UCD Night Service Invocation Enhancements (continued)

Night Service Invocation Enhancements appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table UCDGRP

Field	Subfield or refinement	Entry	Explanation and action
NSROUTE		see subfield	Night service route. This field contains subfields TABNAME and INDEX. Field NSROUTE specifies the night service route in tables IBNRTE or OFRT. The system routes incoming calls to the night service route if active agents are not present in the UCD group.
	TABNAME	IBNRTE or OFRT	Table name. This subfield specifies the name of the table to which translation routes.
	INDEX	0 to 1023	Index. This subfield specifies the number assigned to the route list in tables IBNRTE or OFRT to which translation routes.
OPTIONS		see subfield	Options. This field contains subfield OPTION. Enter the list of options and associated refinements assigned to the UCD group.
	OPTION	UCDNS	Option. This subfield specifies the list of options and associated refinements assigned to the UCD group. Option UCDNS allows UCD agent logged in an UCD group with option UCDNS to activate or deactivate Night Service.

Datafill example for table UCDGRP

Sample datafill for table UCDGRP appear in the following example.

MAP example for table UCDGRP

```
UCDNAME ACD             CUSTGRP  UCDRNGTH                THROUTE
      NSROUTE PRIOPRO MAXPOS DBG DEFPRIO RLSCNT MAXWAIT MAXCQSIZ
                                                            OPTIONS
-------------------------------------------------------------------
PHONE_UCD     N             BNR       20                OFRT   1
       OFRT    1     20     20    N      0     5    1800        10
                                    (    BCLID    0 )   (  UCDNS  )$
```

UCD Night Service Invocation Enhancements (continued)

Datafilling table IBNXLA

The datafill for UCD Night Service Invocation Enhancements for table IBNXLA appears in the following table. The fields that apply to UCD Night Service Invocation Enhancements appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfield	Result. This field contains subfield TRSEL.
	TRSEL	FEAT	Translations Selector. This subfield specifies the translations selector for use. Enter FEAT. When subfield TRSEL is FEAT, subfields ACR, SMDR, and FEATURE require datafill.
	ACR	Y or N	Account Code Entry. This subfield specifies if the system requires an account code.
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if the system requires SMDR.
	FEATURE	UCDNSA or UCDNSD	Feature. This subfield specifies the feature assigned to a line. Enter UCDNSA to allow logged in UCD agent to activate Night Service for that UCD group with the UCDNS option. Enter UCDNSD to allow logged in UCD agent to deactivate Night Service for that UCD group with the UCDNS option.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

```
                 KEY
                                                              RESULT
----------------------------------------------------------------------
STARXLA          423                                  FEAT N N N UCDNSA

STARXLA          424                                  FEAT N N N UCDNSD
```

Tools for verifying translations

The UCD Night Service Invocation Enhancements does not use tools for verifying translations.

UCD Night Service Invocation Enhancements (end)

SERVORD

The UCD Night Service Invocation Enhancements does not use SERVORD.

UCD Queue Status Lamp

Ordering codes

Operating group ordering code: MDC00001

Operating ordering code: does not apply

Release applicability

BCS22 and later versions

Requirements

The UCD Queue Status Lamp requires BAS Generic, BAS00003 to operate.

Description

The Queue Status Lamp places calls in a queue. The queue processes the calls in the order the calls arrive when all agents are busy. The UCD routes the calls to the next available agent.

The Queue Status Lamp allows the status of calls to appear when a signal lamp lights. The light pattern changes at a preset interval. The interval indicates the length of time the call remains in the queue. The system measures the time in the switch at automatic audit intervals.

The Queue Status Lamp identifies the UCD group that receives the heaviest incoming call activity. Operating company personnel determine if the redistribution of agents must occur. The redistribution of agents allows the system to handle calls faster.

The UCD option is available to DMS-100 and SL-100 customer groups that use 500/2500 stations. Earlier entries identify the 500/2500 stations.

Operation

The Queue Status Lamp audit operates when the queue contains calls. After the audit, the lamps identify the waiting times of the queued calls. The signal appears when one of three signal distribution (SD) points is active. The SD points connect to a series of lamps or to an external display.

The entry of the QSL option determines the order in which the system turns on SD points. The length of time the system holds the call in the queue determines the order. The SD points light up one point at a time and turn off one point at a time. If the queue does not contain calls, the system does not identify SD points.

UCD Queue Status Lamp (continued)

The operating company enters data to specify the number of calls the system can hold in the queue. The operating company specifies the maximum amount of time the system holds the calls. The operating company uses the following information to determine the number of calls based on intervals of 60 s:

- number of active agents
- weighted average delay
- incoming call threshold

The maximum wait in the queue depends on the data the operating company enters. The number of seconds the customer wants calls held determines the length of the wait.

Translations table flow

The UCD Queue Status Lamp does not affect translations table flow.

Limits

The following limits apply to UCD Queue Status Lamp:

- The Queue Status Lamp does not function when the maximum queue size or maximum wait fields in table UCDGRP (Uniform Call Distribution Group) are zero.
- Table SDGRP (Signal Distributor Group) must define the signal distributer group before the assignment of the SD point.
- The audit interval default is the same for all UCD groups that operate in the DMS-100 or SL-100 switch. The audit interval default is 30 s.

Interactions

The UCD Queue Status Lamp does not have functionality interactions.

Activation/deactivation by the end user

The UCD Queue Status Lamp does not require activation or deactivation by the end user.

Billing

The UCD Queue Status Lamp does not affect billing.

Station Message Detail Recording

The UCD Queue Status Lamp does not affect Station Message Detail Recording.

UCD Queue Status Lamp (continued)

Datafilling office parameters

The office parameters for UCD Queue Status Lamp appear in the following table. Refer to the *Office Parameters Reference Manual* for additional information on office parameters.

Office parameters by UCD Queue Status Lamp

Table name	Parameter name	Explanation and action
OFCSTD	UCD_QSL_AUDIT_INTERVAL	Specifies the time interval in seconds between UCD QSL audits. This audit inspects the UCD groups that have the QSL option. This audit determines the wait times of a call at the head of an incoming call queue. This audit displays the wait times. Enter a value from 20 to 120. The default value is 30 s.

Datafill sequence

The tables that require datafill to provide UCD Queue Status Lamp appear in the following table. The tables appear in the correct order entry.

Datafill requirements for UCD Queue Status Lamp

Table	Purpose of table
OFCSTD	Standard office parameter. This table contains data on standard office parameters. See "Datafilling office parameters" for how UCD Queue Status Lamp affects office parameters.
SDGRP (Note)	Signal distributor group. This table contains the product engineering code (PEC). This table contains the location of signal distributor groups at the host or remote switching unit. The system reserves the signal distributor groups as SD points for line features.
UCDGRP	Uniform call distribution group. This table contains a primary UCD DN and a maximum of four additional DNs.
Note: Enter data in table SDGRP for the signal distributor group before you assign signal distributor point in table UCDGRP.	

Datafilling table SDGRP

Table SDGRP contains the PEC. Table SDGRP contains the location of the signal distributor groups at the host or remote switching unit. This table contains the location of signal distribution groups reserved as SD points for line feature. Table SDGRP must contain data to identify the location of the signal distributor card.

UCD Queue Status Lamp (continued)

Datafill for UCD Queue Status Lamp for table SDGRP appears in the following table. The fields that apply to UCD Queue Status Lamp appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table SDGRP

Field	Subfield or refinement	Entry	Explanation and action
SDGRPNO		0-511	Signal Distributor Group. This field specifies the signal distributor group number. Enter a value from 0 to 511.
TMTYPE		MTM, RMM, or RSM	Trunk Module Type. This field specifies the type of trunk module that contains the signal distributor card. Enter MTM for maintenance trunk module. Enter RMM for remote maintenance module. Enter RSM for remote service module.
TMNO		0-2047	Trunk Module Number. This field specifies the number assigned to the module that contains the signal distribution card. This number is the number for the maintenance trunk module, remote maintenance module, or remote service module. Enter a value from 0 to 2047.
TMCKTNO		0-29	Trunk Module Circuit Number. This field specifies the trunk module circuit number for the signal distribution group. This number is the number for the maintenance trunk module, remote maintenance module, or remote service module. Enter a value from 0 to 29.
CARDCODE		2X57AA	Card Code. This field specifies the PEC of the signal distributor card. Enter 2X57AA.

Datafill example for table SDGRP

Sample datafill for table SDGRP appears in the following example.

MAP example for table SDGRP

```
SDGRPNO      TMTYPE      TMNO        TMCKTNO      CARDCODE
-------------------------------------------------------------
2            MTM         4           1            2X57AA
```

Datafilling table UCDGRP

Table UCDGRP contains a primary UCD DN and a maximum of four additional DNs. Enter data in this table after you enter the location of the signal distributor card in table SDGRP.

Datafill for UCD Queue Status Lamp for table UCDGRP appears in the following table. The fields that apply directly to UCD Queue Status Lamp appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table UCDGRP (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
UCDNAME		alphanumeric	Uniform Call Distribution Name. This field specifies the 1- to 16-character alphanumeric name assigned to the UCD group. Enter the uniform call distribution group name.
ACD		N	Automatic Call Distribution. This field specifies if the system activates automatic call distribution. Enter N.
CUSTGRP		alphanumeric	Customer Group Name. This field specifies the 1- to 16-character alphanumeric name assigned to the customer group. The UCD group belongs to the customer group. Enter the customer group name.
UCDRNGTH		0-63	The UCD Ringing Threshold. This field specifies the ringing threshold in intervals of 1 s. After this interval, an unanswered call that rings the phone of an agent forwards to the route that field THROUTE specifies. Enter a value from 0 to 63. ***Note:*** An entry of 0 (zero) sets the ring timeout for the UCD group to the maximum number of seconds specified by parameter RNG_TMEOUT_NO_OF_SECS in table OFCENG.
THROUTE		see subfields	Threshold Route. This field contains subfields TABNAME and INDEX.
	TABNAME	IBNRTE or OFRT	Table Name. This subfield specifies the table to which translations routes. Enter IBNRTE or OFRT.

UCD Queue Status Lamp (continued)

Datafilling table UCDGRP (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	INDEX	1-1023	Index. This subfield specifies the number assigned to the route list in table IBNRTE or table OFRT to which translations routes. Enter a value from 1 to 1023.
NSROUTE		see subfields	Night Service Route. This field contains subfields TABNAME and INDEX.
	TABNAME	IBNRTE or OFRT	Table Name. This subfield specifies the table to which translations routes. Enter IBNRTE or OFRT.
	INDEX	1-1023	Index. This subfield specifies the number assigned to the route list in table IBNRTE or table OFRT. Translations routes to this route list. Enter a value from 1 to 1023.
PRIOPRO		0-255	Priority Promotion Timeout. This field specifies the maximum time in seconds, that a call waits in a queue. When this time expires, the system places the call in a queue of higher priority. Enter a value from 0 to 255.
MAXPOS		0-1023	Maximum Number of Positions. This field specifies the maximum number of agent positions that can be active in this group at the same time. Enter a value from 0 to 1023. ***Note:*** A value of 0 does not allow agents to be active in the UCD group.
DBG		Y or N	Delayed Billing. This field specifies when billing starts. Enter Y if billing starts when a UCD agent answers the call. Enter N if billing starts when the caller receives a recorded announcement. This field is active if the parameter TOLL_OFFICE_DELAYED_BILLING in table OFCENG=Y.
DEFPRIO		0-3	Default Priority. This field specifies the default priority number that applies to local calls that terminate on the primary UCD directory number. Enter a value from 0 to 3.

UCD Queue Status Lamp (continued)

Datafilling table UCDGRP (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
RLSCNT		0-31	Release Count. This field specifies the maximum number of calls that can terminate on a UCD station without an answer. The calls cannot receive an answer because UCDRNGTH expires or the caller abandons the call. After the number of calls reaches this number, the system deactivates the agent from the UCD group. Enter a value from 0 to 31. ***Note:*** A value of 0 means infinite limit.
MAXWAIT		0-1800	Maximum Wait Time. This field specifies the maximum time that a call waits in the incoming call queue before the call receives an answer. The field specifies the time in seconds. Enter a value from 0 to 1800. ***Note:*** A value of 0 indicates all calls that cannot terminate on an available agent position route to the overflow route. Field THROUTE specifies the overflow route. If the first call in the incoming call queue waits longer than MAXWAIT, all new calls route to the overflow rate. This condition occurs if the call at the head of the incoming call queue for the UCD group waits less than the maximum allowed wait time.
MAXCQSIZ		0-511	Maximum Call Queue Size. This field specifies the maximum number of calls that can queue in the incoming call queue of the group at the same time. Enter a value from 0 to 511. ***Note:*** A value of 0 indicates calls that cannot terminate on an available agent position route to the overflow route. The field THROUTE specifies this route.
OPTIONS		AUDIO or QSL	Options. This field specifies the options assigned to the UCD group. Enter AUDIO and QSL. ***Note:*** Separate each option and subfield with a blank space. Use as many records as necessary to enter the list of options and associated subfields.

UCD Queue Status Lamp (continued)

Datafilling table UCDGRP (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
If the value of OPTIONS is AUDIO, subfields OPTIONS, RANTH, ANNMUSIC, and AUDIOGRP require datafill.			
	OPTIONS	AUDIO	Options. This subfield specifies the audio option. Enter AUDIO.
	RANTH	0 or 6-60	Recorded Announcement Threshold. This subfield specifies the time an incoming call waits before a recorded announcement plays. This subfield specifies the time in seconds. Enter a value of 0 or a value from 6 to 60.
	ANNMUSIC	Y or N	Announcement/Music. This subfield specifies if the system applies announcement or music to calls that the system cannot answer immediately. Enter Y or N.
If ANNMUSIC adjusts to Y, subfield AUDIOGRP requires datafill.			
	AUDIOGRP	AUDIO1-AUDIO15	Audio Group. This subfield specifies the audio group entered in table AUDIO. Option UCDQ specifies announcements or music for calls that the system cannot answer immediately. Enter a value from AUDIO1 to AUDIO15.
If the value of OPTIONS is QSL, subfields OPTIONS, SDGRPNO1, SDPOINT1, SDGRPNO2, SDPOINT2, SDGRPNO3, and SDPOINT3 require datafill.			
	OPTIONS	QSL	Options. This subfield specifies the queue status lamp option. Enter QSL.
	SDGRPNO1	0-511	Signal Distribution Group 1. This subfield specifies the number of the SD group that identifies the tuple in table SDGRP. The tuple defines the hardware location of the SD card. Enter a value from 0 to 511.
	SDPOINT1	0-6	Signal Distribution Point 1. This subfield specifies the SD point number on the SD card. Assign this point to the UCD group for the QSL option.

Datafilling table UCDGRP (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	SDGRPNO2	0-511	Signal Distribution Group 2. This subfield specifies the number of the SD group that identifies the tuple in table SDGRP. This tuple defines the hardware location of the SD card. Enter a value from 0 to 511.
	SDPOINT2	0-6	Signal Distribution Point 2. This subfield specifies the SD point number on the SD card. The subfield assigns the SD point to the UCD group for the QSL option.
	SDGRPNO3	0-511	Signal Distribution Group 3. This subfield specifies the number of the SD group that identifies the tuple in table SDGRP. The tuple in Table SDGRP defines the hardware location of the SD card. Enter a value from 0 to 511.
	SDPOINT3	0-6	Signal Distribution Point 3. This subfield specifies the SD point number on the SD card. The subfield assigns the SD point to the UCD group for the QSL option.

Datafill example for table UCDGRP

Sample datafill for table UCDGRP appears in the following example.

MAP example for table UCDGRP

```
UCDNAME ACD     CUSTGRP     UCDRNGTH            THROUTE
NSROUTE PRIOPRO MAXPOS  DBG DEFPRIO RLSCNT MAXWAIT MAXCQSIZ
                                                OPTIONS
_____________________________________________________________
UCD625   N      MDC625          28              IBNRTE 2
IBNRTE   2       15    4  N     0     2     1800    511
                                                     $
```

Tools for verifying translations

The UCD Queue Status Lamp does not use tools for verifying translations.

SERVORD

The UCD Queue Status Lamp does not use SERVORD.

Uniform Call Distribution (to 500/2500 Telephone Sets)

Ordering codes

Operating group ordering code: MDC00001

Operating ordering code: does not apply

Release applicability

BCS11 and later versions

Requirements

Uniform Call Distribution (to 500/2500 Telephone Sets) requires BAS Generic, BAS00003 to operate.

Description

Uniform Call Distribution (to 500/2500 Telephone Sets) (UCD) provides an even distribution of incoming calls to a listed directory number (LDN). This feature distributes calls over a group of 500/2500 stations. Another name for this group of stations is a UCD group. Each station in the UCD group has a different directory number. The station end users can toggle the status of the station between active and inactive. This toggle provides an answering agent for the LDN. The end users can dial a feature code. When the status of a UCD station is active, the system forwards directed calls to the LDN to the UCD station. When the status of a UCD station is inactive, the system does not direct the calls directed to the LDN to the UCD station.

Operation

Each station has a separate directory number. Calls are made to the personal directory number that belongs to the station. The system directs these calls to that station.

When one or more active stations in a UCD group are idle, a queue of these agents forms. As calls arrive at the LDN, the system sends each call to the station that is idle the longest. When all of the answering agents are busy, the system places the incoming calls in an incoming call queue. The incoming calls receive audible ringback or audio treatment. When an agent becomes available, the agent answers the call.

When the delay interval exceeds the operating company delay threshold, a recorded announcement advises the delay. Some callers complain that recorded announcements handle toll calls. To avoid complaints, operating companies must not provide delay announcement.

Uniform Call Distribution (to 500/2500 Telephone Sets) (continued)

Organizations like service industries and catalog sales groups use Uniform Call Distribution (to 500/2500 Telephone Sets). These organizations have a number of answering stations that can serve incoming calls in the same way.

The UCD is a feature option for MCD lines.

Each operating company can define a maximum of 128 UCD directory numbers. Each UCD directory number can have a maximum of 255 agents or answering positions assigned. Each UCD directory number has an associated incoming call queue and associated agent queue. A DMS-100 switch can have a maximum of 4096 UCD groups.

Translations table flow

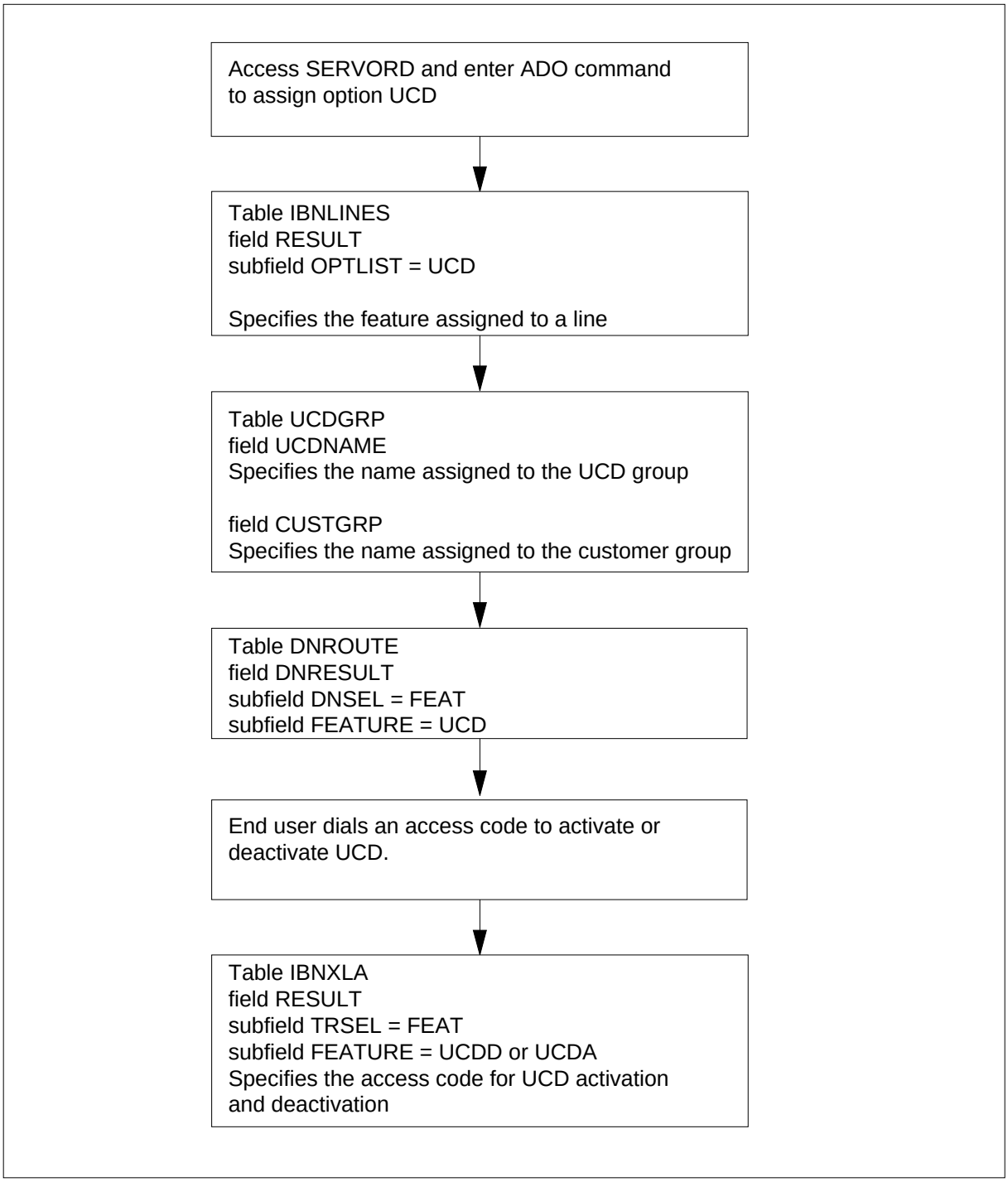
The Uniform Call Distribution (to 500/2500 Telephone Sets) translations tables appear in the following list:

- Table UCDGRP (Uniform Call Distribution Group) contains the attributes associated with each UCD group. Table UCDGRP must contain data to define the queue parameters for the UCD group. Table UCDGRP must contain data to assign options to the group.
- Line assignments for each 500/2500 set assigned an MDC or SS station number appear in table IBNLINES (IBN Line Assignment). This table requires datafill when the line assignment is SERVORD.
- Table DNROUTE (Directory Number Route) contains information for DNs that identify a route and not a line equipment number (LEN). Table DNROUTE associates a DN with a specified trunk group member. Enter data in table DNROUTE to establish the listed DNs for the UCD group. The UCD group contains one primary DN and a maximum of four additional DNs.
- Table IBNXLA (IBN Translation) contains the data for the digit translation of calls. The calls are from an MDC station, an attendant console (AC), or the incoming side of a two-way MDC trunk group. Enter data in table IBNXLA twice to assign the activation and deactivation codes for Uniform Call Distribution (to 500/2500 Telephone Sets). The activation code is UCDA and the deactivation code is UCDD.

The Uniform Call Distribution (to 500/2500 Telephone Sets) translation process appears in the following flowchart.

Uniform Call Distribution (to 500/2500 Telephone Sets) (continued)

Table flow for Uniform Call Distribution (to 500/2500 Telephone Sets)



Uniform Call Distribution (to 500/2500 Telephone Sets) (continued)

Datafill content used in the flowchart appears in the following table .

Datafill example for Uniform Call Distribution (to 500/2500 Telephone Sets)

Datafill table	Example data
IBNLINES	HOST 00 0 00 01 10 DT STN IBN 5554667 919 (UCD) $
UCDGRP	LBR2UCD N LBR2TRAF 20 IBNRTE 1 INBRTE 1 0 2 Y 0 0 30 3 $
DNROUTE	613 621 1000 FEAT UCD EXTCON PRIM 0
IBNXLA	NTIXLA 123 FEAT N Y N UCDD

Limits

The following limits apply to Uniform Call Distribution (to 500/2500 Telephone Sets):

- This feature does not support conference calls that involve a UCD directory number.
- When an agent becomes available while a call receives a delay announcement, the call routes to the agent.
- The feature removes abandoned calls from incoming call queues and recorded announcements.
- An attendant can forward a call to a UCD directory number. When an agent is idle, the agent answers the call. If agents are not available, the system queues the forwarded calls in the incoming call queue for the UCD group.
- This feature allows the dialing of a station directory number on the second leg of a three-way call. This feature allows the dialing of a station directory number that is part of a UCD group. The number must not be the UCD directory number.
- A UCD agent can initiate a three-way call.
- An active UCD agent can flash the hookswitch, while talking to another party and dial the UCD deactivation code. In this event, the system does not place the agent in the list of available agents when the current call ends. If other agents in the UCD group are not active calls remain in the call queue until abandoned.
- The directory numbers in a UCD group can have call waiting or attendant camp-on assigned. A line cannot have call-waiting and attendant camp-on assigned. The directory number must not be the UCD.
- Operating companies can assign music on hold for calls waiting in the UCD queue.

Uniform Call Distribution (to 500/2500 Telephone Sets) (continued)

- The UCD agents can start call hold and permanent hold. An agent can have a call on hold and go on-hook before retrieving of the held call. In this event, the agent receives any UCD queued calls before the held call.
- A UCD station can be a member of a call pickup group. All members of a pickup group can answer calls that terminate on the UCD station.
- The assignment of a station can occur to only one UCD directory number.
- A UCD station cannot be part of a hunt group.
- This feature does not support Per Call Screening (PCS) a UCD group.

Interactions

The interactions between Uniform Call Distribution (to 500/2500 Telephone Sets) and other functionalities appear in the following paragraphs.

The following features interact with Uniform Call Distribution (to 500/2500 Telephone Sets):

- Call Forward Universal and Call Forward Intragroup

  A line that is a member of a UCD group can have Call Forward Universal and Call Forward Intragroup assigned. The system can only forward calls when the called directory number is the directory number assigned to the station. The called directory number must not be the UCD directory number.

- Uniform Call Distribution

  All agents that serve a UCD directory number can deactivate the Uniform Call Distribution feature. In this event, the UCD directory number is in night service. All calls in the queue when the directory number moves to night service remain in the queue until abandoned. Calls that arrive in the queue after the directory number enters night service receive a night recorded announcement.

- Call Forwarding

  This feature allows the assignment of Call Forwarding (CFW) to lines that are part of a UCD directory number. The directory number must not be the number of the station. The directory number must not be the number used to reach the UCD group.

- Call Waiting and Attendant Camp-On

  This feature allows the assignment of Call Waiting (CWT) or Attendant Camp-On (ATC) to stations in a UCD group. The stations cannot have both Call Waiting and Attendant Camp-On at the same time.

Uniform Call Distribution (to 500/2500 Telephone Sets) (continued)

Activation/deactivation by the end user

To activate Uniform Call Distribution (to 500/2500 Telephone Sets), the station agent dials the UCD activation code from Table IBNXLA. Table IBNXLA is IBN Translation. The agent receives special dial tone. The agent dials the UCD directory number to which the answering station belongs. The UCD directory number is the UCD number from Table DNROUTE (Directory Number Route). A confirmation tone indicates that the feature is active.

To deactivate Uniform Call Distribution (to 500/2500 Telephone Sets), the station agent dials the UCD deactivation code. A confirmation tone indicates that the feature deactivates.

Billing

Uniform Call Distribution (to 500/2500 Telephone Sets) does not affect billing.

Station Message Detail Recording

Uniform Call Distribution (to 500/2500 Telephone Sets) does not affect Station Message Detail Recording.

Datafilling office parameters

The office parameters used by Uniform Call Distribution (to 500/2500 Telephone Sets) appear in the following table. Refer to the *Office Parameters Reference Manual* for more information about office parameters.

Office parameters used by Uniform Call Distribution (to 500/2500 Telephone Sets)

Table name	Parameter name	Explanation and action
OFCSTD	UCD_QSL_AUDIT_INTERVAL	Specifies the time interval in seconds that elapses between executions of the UCD QSL audit. The default is 30, minimum value is 20. The maximum value is 120.

Uniform Call Distribution (to 500/2500 Telephone Sets) (continued)

Datafill sequence

The tables that require datafill to provide Uniform Call Distribution (to 500/2500 Telephone Sets) appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Uniform Call Distribution (to 500/2500 Telephone Sets)

Table	Purpose of table
OFCSTD	Office standards. This table contains data on office standards parameters. See “How to enter office parameters" for how Uniform Call Distribution (to 500/2500 Telephone Sets) affects office parameters.
IBNLINES (Note)	IBN line assignments. This table contains the line assignments for data channel links for the Bulk Calling Line Identification (BCLI) feature under the format name of BL.
UCDGRP	Uniform call distribution group. This table contains the attributes for each UCD group.
DNROUTE	Directory number route. This table contains information for DNs that identify a route and not a LEN.
IBNXLA	IBN translation. This table contains the data for the digit translation of calls from: • an MDC station • an attendant console (AC) • the incoming side of a two-way MDC trunk group.
Note: Data entry in this table is through SERVORD. This table does not provide data entry procedures or examples. See “SERVORD" for an example of how to use SERVORD to enter the data in this table.	

Datafilling table UCDGRP

Table UCDGRP contains the attributes for each UCD group. Data entry in table UCDGRP defines the queue parameters for the UCD group. Data entry in table UCDGRP assigns options to the group.

Datafill for Uniform Call Distribution (to 500/2500 Telephone Sets) for table UCDGRP appears in the following table. The fields that apply to Uniform Call

Uniform Call Distribution (to 500/2500 Telephone Sets) (continued)

Distribution (to 500/2500 Telephone Sets) appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table UCDGRP (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
UCDNAME		alphanumeric (1 to 16 characters)	Uniform Call Distribution Name. This field specifies the name assigned to the UCD group. Enter a 1- to 16-digit character name.
ACD		N	Automatic Call Distribution. This field specifies if ACD applies. Enter N.
CUSTGRP		alphanumeric (1 to 16 characters)	Customer Group Name. This field specifies the name assigned to the customer group. Enter a 1- to 16-digit character name to which the UCD group belongs.
UCDRNGTH		0-63	UCD Ringing Threshold. This field specifies the UCD ringing threshold in 1-second intervals. Enter a value from 0 to 63. Zero sets the ring timeout for the UCD group to the maximum number of seconds specified by parameter RNG_TMEOUT_NO_OF_SECS in table OFCENG.
THROUTE		see subfields	Threshold Route. This field contains subfields TABNAME and INDEX.
	TABNAME	IBNRTE or OFRT	Table Name. This subfield specifies the route in table IBNRTE or table OFRT to which the system routes overflow and UCD ring timeouts. Enter IBNRTE or OFRT.
	INDEX	0-1023	Index. This subfield specifies the number assigned to the route list in IBNRTE or OFRT to which translation must route. Enter a value from 0 to 1023.
NSROUTE		see subfields	Night Service Route. This field contains subfields TABNAME and INDEX.
	TABNAME	IBNRTE or OFRT	Table Name. This subfield specifies the route in table IBNRTE or table OFRT to which the system routes overflow and UCD ring timeouts. Enter IBNRTE or OFRT.

Uniform Call Distribution (to 500/2500 Telephone Sets) (continued)

Datafilling table UCDGRP (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	INDEX	0-1023	Index. This subfield specifies the number assigned to the route list in IBNRTE or OFRT to which translation must route. Enter a value from 0 to 1023.
PRIOPIO		0-255	Priority Promotion Timeout. This field specifies the maximum time in seconds that a call waits in a queue. Enter a value from 0 to 255.
MAXPOS		0-023	Maximum Number of Positions. This field specifies the maximum number of agent positions that can be active in a group at the same time. Enter a value from 0 to 1023. A value of 0 prevents agents from being active in the UCD group.
DBG		Y or N	Delayed Billing. This field specifies if billing starts when the called party answers. Enter Y if billing starts when the called party answers. Enter N if billing starts when the caller receives a recorded announcement. This field is active when the parameter TOLL_OFFICE_DELAYED_BILLING in table OFCENG=Y.
DEFPRIO		0-3	Default Priority. This field specifies the default priority number. The default priority number applies to local calls that terminate on the primary UCD DN. Enter a value from 0 to 3.
RLSCNT		0-31	Release Count. This field specifies the maximum number of calls that can terminate on a UCD station without an answer. Enter a value from 0 to 31.
MAXWAIT		0-1800	Maximum Wait Time. This field specifies the maximum time in seconds that a call can wait in the incoming call queue without an answer. Enter a value from 0 to 1800.

Uniform Call Distribution (to 500/2500 Telephone Sets) (continued)

Datafilling table UCDGRP (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
MAXCQSIZ		0-511	Maximum Call Queue Size. This field specifies the maximum number of calls that can queue together in the incoming call queue of the group. Enter a value from 0 to 511.
OPTIONS		see explanation	Options. This field specifies the list of options and associated subfields for the UCD group. Enter the name of the option.

Datafill example for table UCDGRP

Sample datafill for table UCDGRP appears in the following example.

MAP example for table UCDGRP

```
  UCDNAME  ACD      CUSTGRP  UCDRNGTH          THROUTE
NSROUTE PRIOPRO MAXPOS DBG DEFPRIO RLSCNT MAXWAIT
MAXCQSIZ

OPTIONS
_____________________________________________________________
  LBR2UCD  N        LBR2TRAF    20              IBNRTE   1
IBNRTE   1     0    2   Y   0    0      30          3
                                        $
```

Datafilling table DNROUTE

Table DNROUTE contains information for DNs that identify a route instead of a LEN. Data entry in table DNROUTE establishes the listed directory numbers for the UCD group. The UCD group contains one primary directory number and a maximum of four additional directory numbers.

Datafill to Uniform Call Distribution (to 500/2500 Telephone Sets) for table DNROUTE appears in the following table. The fields that apply to Uniform

Uniform Call Distribution (to 500/2500 Telephone Sets) (continued)

Call Distribution (to 500/2500 Telephone Sets) appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table DNROUTE

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	Directory Number Results. This field contains several subfields. Only subfields DN_SEL and FEATURE apply to this feature.
	DN_SEL	FEAT	Directory Number Selector. This subfield specifies the type of DN selector. Enter FEAT.
	FEATURE	UCD	Feature. This subfield specifies the name of the feature. Enter UCD.

Datafill example for table DNROUTE

Sample datafill for table DNROUTE appears in the following example.

MAP example for table DNROUTE

```
AREACODE   OFCCODE   STNCODE                          DNRESULT
_____________________________________________________________
613          621       1000       FEAT   UCD   EXTCON Y   CUST1 4
```

Datafilling table IBNXLA

Table IBNXLA contains the data for the digit translation of calls from:

- an MDC station
- an attendant console (AC)
- the incoming side of a two-way MDC trunk group

Table IBNXLA requires two entries. These entries assign the activation (UCDA) and deactivation (UCDD) codes for Uniform Call Distribution (to 500/2500 Telephone Sets).

Datafill for Uniform Call Distribution (to 500/2500 Telephone Sets) for table IBNXLA appears in the following table. The fields that apply to Uniform Call

Uniform Call Distribution (to 500/2500 Telephone Sets) (continued)

Distribution (to 500/2500 Telephone Sets) appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	Key. This field contains subfields XLANAME and DGLIDX.
	XLANAME	alphanumeric (1 to 8 characters)	Translator Name. This subfield specifies the name assigned to the translator. Enter the 1- to 8-character name.
	DGLIDX	numeric (1 to 18 digits)	Digilator Index. This subfield specifies the access code. Enter the 1- to 18-digit number assigned as the access code.
RESULT		TRSEL	Result. This field contains subfield TRSEL.
	TRSEL	FEAT	Translations Selector. This subfield specifies the translations selector to use. Enter FEAT.
If TRSEL adjusts to FEAT, subfields ACR, SMDR, and FEATURE require datafill.			
	ACR	Y or N	Account Code Entry. This subfield specifies if an account code is necessary. Enter Y or N.
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if SMDR is necessary. Enter Y or N.
	FEATURE	UCDA or UCDD	Feature. This subfield specifies the feature that belongs to a line. Enter UCDA or UCDD.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA the following example.

MAP example for table IBNXLA

```
KEY                          RESULT
________________________________________________________
NTIXLA     123                   FEAT N Y N UCDA
NTIXLA     124                   FEAT N Y N UCDD
```

Tools for verifying translations

Uniform Call Distribution (to 500/2500 Telephone Sets) does not use tools for verifying translations.

Uniform Call Distribution (to 500/2500 Telephone Sets) (continued)

SERVORD

Use the Service Order System (SERVORD) command ADO (add option) to assign option UCD. Use the DEO (delete option) command to remove option UCD. Option UCD provides the even distribution of calls over predetermined sets.

SERVORD prompts

The SERVORD prompts that assign Uniform Call Distribution (to 500/2500 Telephone Sets) to a present line appear in the following table.

SERVORD prompts for Uniform Call Distribution (to 500/2500 Telephone Sets)

Prompt	Valid input	Explanation
DN_OR_LEN	7-digit DN or LEN	Specifies the 7-digit DN or LEN of the line to change. Enter the DN or LEN.
OPTION	UCD	Indicates the name of the option. Enter UCD.
Note: The system enters data in Table IBNLINES when you use SERVORD to assign Uniform Call Distribution (to 500/2500 Telephone Sets).		

SERVORD example for implementing Uniform Call Distribution (to 500/2500 Telephone Sets)

The assignment of Uniform Call Distribution (to 500/2500 Telephone Sets) to a present line appears in the following SERVORD example. This example uses the ADO command.

SERVORD example for Uniform Call Distribution (to 500/2500 Telephone Sets) in prompt mode

```
SO:
> ADO
SONUMBER:    NOW 87 10 10 PM
>
DN_OR_LEN:
> 2 1 2 11
OPTION:
> UCD
OPTION:
> $
```

Uniform Call Distribution (to 500/2500 Telephone Sets) (end)

SERVORD example for Uniform Call Distribution (to 500/2500 Telephone Sets) in no-prompt mode

```
> ADO  $  2 1 2 11  UCD  $
```

Uniform Call Distribution from Queue

Ordering codes

Operating group ordering code: MDC00001

Operating ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

Uniform Call Distribution from Queue requires BAS Generic, BAS00003 to operate.

Description

Uniform Call Distribution from Queue provides even distribution of calls over a group of attendant consoles (AC). As the consoles become idle, the feature distributes incoming calls on a first-in, first-out basis.

Operation

The system places all new call arrivals, in the call queue in order of call arrival. The new call arrivals include recalls.

- When one call waits in the queue, console buzzing notifies the most idle console in the queue of ACs. The Source lamp of the first idle loop on the console flashes. If present, the Incoming Call Identification (ICI) lamp for the call type turns on.
- When two calls wait in the queue, console buzzing notifies the most idle and second most idle consoles in the group. The Source lamp of the first idle loop on each of the consoles flashes. If the call type differs for the two calls, the two correct ICI lamps turn on at both consoles.

The attendant processes an active call and releases the call from the console. The console goes to the bottom of the queue of idle positions.

To limit the length of the queue, establish a maximum time that a call can wait in the queue. Calls that exceed the established time threshold route to busy tone or announcement. The diversion threshold ranges from 4 s to 17 min. The threshold values can be in 4 s intervals. The diversion threshold can also be infinite. Establish the threshold for each subgroup.

User interface

Uniform Call Distribution from Queue does not affect user interface.

Uniform Call Distribution from Queue (continued)

Translations table flow

Uniform Call Distribution from Queue does not affect translations table flow.

Limits

Uniform Call Distribution from Queue requires that multiple console operation be present and that positions can accept a call.

Interactions

The following features interact with Uniform Call Distribution from Queue.

- Held Loop Recalls. Held Loop Recalls do not queue for idle consoles. The system presents Held Loop Recalls on the same consoles and loops that first held the Held Loop Recalls.
- Position Busy/Night Service. When Position Busy or Night Service is active, the system routes new calls and recalls to the correct night service treatment.

Activation/deactivation by the end user

The attendant performs the following steps to activate Uniform Call Distribution from Queue.

Activation/deactivation of Uniform Call Distribution from Queue by the end user

At your location

1 To answer a call, the attendant presses the Loop key associated with the flashing Source lamp.

Response:

- The removal of the console occurs from the queue of idle positions.
- The system dequeues the oldest call that waits in the queue. The system presents the oldest call on the loop.
- The Source lamp changes from flashing to on. The system updates the Destination lamp to reflect the call type.
- The ICI lamp that corresponds to the dequeued call remains on. The other ICI lamp and release lamp turn off.
- The system updates the ICI lamp on the other AC to reflect the type of call that remains in the queue.

2 To answer a call, the attendant can also press the ICI key of a lamp that is lit or flashes.

Response:

- The system removes the console from the queue of idle positions.
- The system deques the oldest call of the selected type. The system presents the oldest queue in the loop.

Uniform Call Distribution from Queue (continued)

- The ICI that corresponds to the dequeued call remains on. The other ICI lamp and Release (RLS) lamp turn off.
- The system updates the ICI lamp on the other AC to reflect the type of call that remains in the queue.

Billing

Uniform Call Distribution from Queue does not affect billing.

Station Message Detail Recording

Uniform Call Distribution from Queue does not affect Station Message Detail Recording.

Datafilling office parameters

Uniform Call Distribution from Queue does not affect office parameters.

Datafill sequence

Table CUSTCONS (Customer Group Attendant Console Option) contains fields that establish a maximum amount of time that incoming calls remain in queue for an idle AC. If this table does not contain data, the default is 17 min.

The tables that require datafill to provide Uniform Call Distribution from Queue appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Uniform Call Distribution from Queue

Table	Purpose of table
CUSTCONS	Customer Group Attendant Console Option. This table contains fields that establish a maximum amount of time that incoming calls remain in queue for an idle AC.
FNMAP	Attendant Console Functional Key. This table contains fields that assign dedicated ICI keys and lamps for Uniform Call Distribution from Queue.

Datafilling table CUSTCONS

Table CUSTCONS (Customer Group Attendant Console Option) contains fields that establish a maximum amount of time that incoming calls remain in queue for an idle AC. If this table does not contain data, the default is 17 min.

Datafill for Uniform Call Distribution from Queue for table CUSTCONS appears in the following table. The fields that apply to Uniform Call

Distribution from Queue appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTCONS

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		FLASHTHR	Options. This field specifies the option for the customer group. Enter FLASHTHR for incoming call identification (ICI) flash threshold.
If OPTIONS is FLASHTHR, subfield ICIFLTHR requires datafill			
	ICIFLTHR	0 to 255	Lockout. This subfield specifies if an attendant lockout is a requirement Enter a number from 0 to 255.

Datafill example for table CUSTCONS

Sample datafill for table CUSTCONS appears in the following example.

MAP example for table CUSTCONS

```
TABLE: CUSTCONS
  CUSTNAME                          OPTIONS
_____________________________________________________________________

   MDCGRP1                       (   FLASHTHR   100) $
```

Datafilling table FNMAP

Table FNMAP (Attendant Console Functional Key) contains fields for assigning dedicated ICI keys and lamps for Uniform Call Distribution from Queue.

Datafill for Uniform Call Distribution from Queue for table FNMAP appears in the following table. The fields that apply to Uniform Call Distribution from

Uniform Call Distribution from Queue (end)

Queue appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfields	Result. This field contains subfields KEY_SEL and ICI.
	KEY_SEL	ICICODE	Key Selector. This subfield specifies the ICI code selector. Enter ICICODE for ICI code selector.
	ICI	0 to 254	Incoming Call Identification Code. This subfield specifies the ICI number that belongs to the AC key number defined in field ACKEY. Enter a number from 0 to 254.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

```
TABLE   FNMAP
   KEY                                  RESULT
_____________________________________________________________

   IBNCON1  2               ICICODE  100
```

Tools for verifying translations

Uniform Call Distribution from Queue does not use tools for verifying translations.

SERVORD

Uniform Call Distribution from Queue does not use SERVORD.

Variable Length/Same Leading Digit(s) Translation

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS23 and later versions

Requirements

To operate, Variable Length/Same Leading Digit(s) Translation requires BAS Generic, BAS00003.

Description

The Variable Length/Same Leading Digit(s) Translation feature allows the translation of access codes and station numbers. The access codes and station numbers have different lengths and have the same leading digits. The DMS switch can assign two different translator names.

The switch assigns two different translator names when the following conditions occur:

- the first digits are not clear
- correction of this problem depends on the number of digits

The switch assigns translator SHORTXLA when the number of digits dialed is less than or equal to a maximum value (MAXSHDIG). The switch assigns translator (LONGXLA) when the number of digits exceeds that specified value. Dialing plans that are not clear accomodate additional groups of access codes. The plans and codes extend current capacity for the end user.

An incoming MDC trunk, station, or attendant console can activate the Variable Length/Same Leading Digit(s) Translation feature.

Operation

The Variable Length/Same Leading Digit(s) Translation feature establishes a selector in the translator table. This selector distinguishes between dialed digit input for feature and station access. The AB or ABC (SHORTXLA) represents feature access. The ABXXX or ABCXX (LONGXLA) represents station access. The A, B, C, and X signify any digit from zero to nine.

Variable Length/Same Leading Digit(s) Translation (continued)

The system reports an end-of-dialing indication to the DMS-100 central controller when one of the following conditions occurs:

- an end user on a dual tone multifrequency (DTMF) line dials an octothorpe (#).
- an interdigital timeout occurs on a DTMF or dial-pulse line.

Translations table flow

Variable Length/Same Leading Digit(s) Translation does not affect translations table flow.

Limits

The following limits apply to Variable Length/Same Leading Digit(s) Translation:

- The first dialed digits can translate to a route that requires a second dial tone. When this condition occurs, the system does not return second dial tone.
- The table editor does not block the datafill of the incorrect or special selectors for SHORTXLA or LONGXLA in table IBNXLA. The entry of incorrect or special selectors produces results that are not expected.
- Some IBN translation selectors can specify another digit collection name to collect the digits. An example of a selector is the NET selector. These selectors cannot be for codes that are not clear. The system does not translate the digits that are not clear until a fixed number of digits are dialed. This action can occur too late to use another digit collection.

  Note 1: Attendent Consoles with selector AMBIG datafill, do not use the table DIGCOL, instead the time duration for dialing is set by a hardcoded statement in Module ACSET which sets the duration to 10 seconds.

  Note 2: The AMBIG selector is the only selector this feature introduces. You must later define the SHORTXLA and LONGXLA names in table IBNXLA. Define these names according to customer requirements. You must define three tuples in table IBNXLA, table XLANNAME, or both tables, to activate this feature.

  Note 3: Use the AMBIG translation to correctly enter table DIGCOL. This action makes sure a short interdigit time-out occurs after the feature access codes are dialed. Incorrect entry of table DIGCOL causes a long wait of 10 seconds. This wait resolves the problem of digits that are not clear.

Variable Length/Same Leading Digit(s) Translation (continued)

Interactions

Variable Length/Same Leading Digit(s) Translation does not have functionality interactions.

Activation/deactivation by the end user

Variable Length/Same Leading Digit(s) Translation does not require activation or deactivation by the end user.

Billing

Variable Length/Same Leading Digit(s) Translation does not affect billing.

Station Message Detail Recording

Variable Length/Same Leading Digit(s) Translation does not affect Station Message Detail Recording.

Datafilling parameters

Variable Length/Same Leading Digit(s) Translation does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Variable Length/Same Leading Digit(s) Translation appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Variable Length/Same Leading Digit(s) Translation

Table	Purpose of table
XLANAME	List of Translator Names. This table stores the default data. This data includes the acceptable digilator range.
IBNXLA	IBN Translation. This table stores the data for the digit translation of calls from an Integrated Business Network (IBN) station and an attendant console. This table stores data for the translation of calls from an incoming, or an incoming side of a two-way IBN trunk group.

Datafilling table XLANAME

Table XLANAME (List of Translator Names) stores the default data for each translator. An access code is not always available in table IBNXLA for a specified translator. If a code is not available, the system uses default data from table XLANAME. If the default data for the operating company client group translator is not present, the system uses the treatment in field VACTRMT. Field VACTRMT is in table CUSTHEAD (Customer Group Head).

Variable Length/Same Leading Digit(s) Translation (continued)

Datafill for Variable Length/Same Leading Digit(s) Translation for table XLANAME appears in the following table. The fields that apply to Variable Length/Same Leading Digit(s) Translation appear in this table. See the data schema section of this document for a description of other fields.

Datafilling table XLANAME

Field	Subfield or refinement	Entry	Explanation and action
XLANAME			Translator Name This field specifies the 1- to 8-character alphanumeric name assigned to the customer, feature, or preliminary translator. Enter the translator name.

Datafill example for table XLANAME

Sample datafill for table XLANAME appears in the following example.

MAP example for table XLANAME

```
TABLE:  XLANAME

XLANAME
MAXDIG                                                  DEFAULT
_____________________________________________________________

IBNXLA
   9                                                      $
```

Datafilling table IBNXLA

Table IBNXLA (IBN Translation) stores the data for the digit translation of calls from an IBN station and attendant console. This table stores translation for an incoming side of a two-way IBN trunk group.

Datafill for Variable Length/Same Leading Digit(s) Translation for table IBNXLA appears in the following table. The fields that apply to Variable

Variable Length/Same Leading Digit(s) Translation (continued)

Length/Same Leading Digit(s) Translation appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA

Field	Subfield or refinement	Entry	Explanation and action
RESULT			Result This field contains many subfields. This feature affects subfields TRSEL, SHORTXLA, MAXSHDIG, and LONGXLA.
	TRSEL		Translator Selector This field specifies the translation selector AMBIG. Enter AMBIG.
	SHORTXLA		Short Translator Name This subfield specifies the 1- to 8-digit alphanumeric translator name the switch assigns. The switch assigns the translator name when the number of digits dialed is less than or equal to the number subfield MAXSHDIG specifies. Enter the short translator name.
	MAXSHDIG		Maximum Short Digits This subfield specifies the maximum number of digits in the short digit string. Enter a value from 0 to 15.
	LONGXLA		Long Translator Name This subfield specifies a 1- to 8-digit alphanumeric translator name. The switch assigns this name when the number of digits dialed exceeds the number subfield MAXSHDIG specifies.

Note 1: The translator CUTTD is the translator used for cut-through dialing. This translator is a selector (value) that is not correct. Special values include NET, NSC, ROUTE, TTTR, FTR, and PNO. These selectors return a second dial tone when the SDT field is Y. See "Limits" in this feature description for additional information.

Note 2: The AMBIG selector is the only selector this feature introduces. You must later define the SHORTXLA and LONGXLA names in table IBNXLA. Define these names according to customer requirements. You

Variable Length/Same Leading Digit(s) Translation (end)

must define three tuples in table IBNXLA, table XLANAME, or both tables, to activate this feature.

Note 3: Use the AMBIG translation to correctly enter table DIGCOL. This action makes sure a short interdigit time-out occurs after the feature access codes are dialed. Incorrect entry of table DIGCOL causes a long wait of 10 s. This wait resolves the problem of digits that are not clear.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

```
TABLE:  IBNXLA

            KEY
                                                          RESULT
_____________________________________________________________________

POTSXLA     115
                                    AMBIG  CXIN  5  TRAFFIC
```

Tools for verifying translations

Variable Length/Same Leading Digit(s) Translation does not use tools for verifying translations.

SERVORD

Variable Length/Same Leading Digit(s) Translation does not use SERVORD.

Variable Speed Call Access Code

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS22 and later versions

Requirements

The Variable Speed Call Access Code feature does not have requirements.

Description

The Variable Speed Call Access Code feature allows IBN speed call end users to dial the following codes without the asterisk (*) prefix:

- speed call access codes (74 and 75)
- speed call abbreviation codes (2 to 7 and 20 to 69)

Another name for the Variable Speed Call Access Code feature is Ambiguous Speed Calling.

The Variable Speed Call Access Code feature allows an IBN end user to perform the following actions:

- dial an abbreviation code in the range 2 to 9 to access members of a speed call short (SCS) list
- dial an abbreviation code in the range 20 to 69 to access members of a speed call long (SCL) list

This ability does not require table IBNXLA (IBN Translation) translation data. Each line in a customer group with option AMBISC entered in table CUSTSTN (Customer Group Station Option) has this ability.

Note: Customer groups that use the digit 8 or 9 as the access code to the public network cannot use abbreviation code 8 or 9.

End users do not have access to abbreviation codes 0 or 1 (for SCS) or 0 to 19 (for SCL). When an attempt occurs to program these cells, the system produces a negative acknowledgment (NACK) treatment. When an attempt occurs to access these cells, the cells attempt to terminate on the digit dialed. Table IBNXLA translation data determines the digit dialed.

Variable Speed Call Access Code (continued)

Translations Background

The translation of the IBN/RES speed calling codes must occur in table IBNXLA or in table XLANAME. Table datafill determines the meaning of the codes. These datafill tables identify extension numbers, addresses, and feature codes. When an explicit translation occurs, the digits are not correct or not enough digits are present. The system sends the call that corresponds to treatment.

You can check codes that are not assigned or digit strings against correct speed-calling codes that are not entered in a translation table. This section describes how to identify the difference between explicit translations and speed-calling codes that do not have a prefix.

A prefix, like an asterisk (*), can precede IBN/RES speed-calling codes. The system normally processes speed-calling codes with a prefix through the feature translator. The feature translator enters feature access codes in table IBNXLA. When table IBNXLA does not contain a code, the system can use the code for speed calling.

The preliminary translators or the main translator perform translations for the speed-calling codes that do not have a prefix. The operation is not as simple as the operation with the prefixed codes. The translators do not have many codes available that are not in use. The translators normally have non-default datafill in table XLANAME that are not entered in table IBNXLA. The system can perform additional translations on codes after the IBN translations are complete. These conditions limit the use of speed calling in the IBN translations framework. The Variable Speed Call Access Code functionality defines this non-prefixed class of speed calling.

Operation

Each line in a customer group with the AMBISC option in table CUSTSTN has access to the SC abbreviation. These codes appear in the following list. The SCL L70 allows access to 50 speed call abbreviation codes. The user must not use SCL L70 when the AMBISC option is present.

- The SCS L6-SCS L6 end users can access abbreviation codes 2 to 7. These end users cannot store numbers in speed call cells that correspond to abbreviation codes 0, 1, 8, and 9. Tuples with key numbers of 2 through 7 store entries in table IBNSC for abbreviation codes 2 to 7. The storage occurs in that order. Table IBNSC is IBN Speed Calling list.
- The SCS L8-SCS L8 end users can access abbreviations codes 2 to 9. These end users cannot store numbers in speed call cells that correspond to abbreviation code 0 or 1.

- The SCL L30-SCL L30 end users can access abbreviation codes 20 to 49. These end users cannot store numbers in speed call cells that correspond to abbreviation codes 00 to 19. Tuples with key numbers of 00 to 29 store entries in tables IBNSC for abbreviation codes 20 to 49. The storage occurs in that order.
- The SCL L50-SCL L50 end users access abbreviation codes 20 to 69. These end users cannot store numbers in speed call cells that correspond to abbreviation codes 00 to 19. Tuples with key numbers of 00 through 49 store entries in table IBNSC for abbreviation codes 20 to 69. The storage occurs in that order.
- SCL L70-SCL L70 end users can only access abbreviation codes 20 to 69. These end users cannot store numbers in speed call cells that correspond to abbreviation codes 00 to 19. Tuples with key numbers of 00 through 49, store entries in table IBNSC for abbreviation cods 20 to 69. The storage occurs in that order.

The speed call program short (SCPS) has access code 74 for lines in a customer group with this feature. The speed call program long (SCPL) has access code 75 for lines in a customer group with this feature. The feature activation codes do not require table IBNXLA datafill. Table IBNXLA datafill in the NCOS feature translator or the customer feature translator can expand the access code. Table IBNXLA datafill allows the system to use 74 or *74 as the SCPS access code. Table IBNXLA allows the system to use 75 or *75 as the SCPL access code.

Invocation

The Variable Speed Call Access Code functionality occurs in IBN translations when specified conditions occur. Table IBNXLA does not always contain the codes. When this event occurs, the following conditions apply to the speed calling codes and the programming codes SCPS/SCPL:

- The assignment of AMBISC option occurs in table CUSTSTN. Table CUSTSTN assigns the correct speed calling option to the line that corresponds. For example, the assignment of option SCS/SCL/SCU occurs for IBN lines. Another example is the assignment of option SC1/SC2/SC3/SCU that occurs for RES lines. The dialed digit(s) must be in one of the specified numeric ranges.
- The NCOS preliminary translator, the CUSTHEAD preliminary translator, or the CUSTHEAD main translator translate the non-prefixed dialed digits. This condition includes an intermediate translator that the AMBIB selector invokes.
- Do not enter the dialed digit(s) in table IBNXLA for all the translators that apply. The translators that correspond have the default ($) entered in table

Variable Speed Call Access Code (continued)

XLANAME. This datafill can be a two-digit code and the first digit does not have a longer refinement in table IBNXLA. When this event occurs, the initial digit collection must be a maximum of two digits. The initial digit collection is not important. The digit collection indicates a timeout requirement or a # character. This condition applies when the dialed digit(s) translate through the intermediate AMBIG selector and do not reach a final selector. The short translator of the AMBIG always requires a timeout or a # character without special digit collection requirements.

The invocation of this functionality occurs when IBN translations in tables IBNXLA or XLANAME cause one of the following conditions. The conditions require a timeout or #.

- The timed-out digit(s) require more digits to translate in table IBNXLA. For example, the code 40 is too short for the 400 entered in table IBNXLA. Use of this code can occur in speed calling. The initial digit collection is not important.
- Table IBNXLA contains the timed-out digits. The selector that corresponds is EXTN, ROUTE, NET, FLEXI, or TRMT. For the EXTN selector, the DIGINEXT number must be greater than the number of timed-out digit(s). For the ROUTE selector, MINDIGS must be greater than the number of timed-out digit(s). Additional conditions for NET, FLEXI, and TRMT selectors do not occur. The five selectors require the initial digit collection to exceed the number of timed-out digit(s). This condition occurs when the intermediate AMBIG selector translates the dialed digits before the digits reach one of the five selectors. The short translator of the AMBIG always requires a timeout or # without special digit collection requirements.
- Table IBNXLA does not contain the timed-out digit(s). The table XLANAME datafill uses EXTN, ROUTE, NET, FLEXI, or TRMT selector. The requirements for each selector are the same as in the previous condition.

Datafill techniques

Some datafill changes can cause speed calling codes that do not correspond to the requirements that appear in the preceding list. The system cannot solve these conflicts when the entered one-digit or two-digit strings define specified activation codes. The system can solve these conflicts when the system assigns the lines to different NCOS numbers with separate preliminary NCOS translators. When the entered digit strings define the prefixes of longer codes or addresses, the system can apply methods to enter data.

Some of these methods appear in the following list:

- *Conflicts with one-digit strings in table IBNXLA.* If the system does not use specified refinements, the deletion or replacement of refinements can occur. Assume a translator CXT is entered with the single digit 3, and the code 30 and the refinements are not in use. When the deletion of the code occurs with the command DEL CXT 30, nine new codes are now available. The nine new codes are 31 to 39. The deletion of the code can occur with the command REP CXT 30 TRMT VACT. When this event occurs, use of the codes 30 and 3 can occur for speed dialing.
- *Conflicts with two-digit strings in table IBNXLA.* When specified refinements are not in use, the deletion or replacement of the refinements can occur. This condition requires the deletion of a minimum of three digits.
- *Conflicts with datafill in table XLANAME.* Conflicts with datafill in table XLANAME can occur when table IBNXLA does not contain specified codes. To solve this conflict, identify the codes and the refinements that the system sends to treatment. Enter the codes in table IBNXLA with the TRMT or FLEXI selector or enter the accurate codes in table IBNXLA. Enter the entry that corresponds in table XLANAME with the default ($) value.
- *Other conflicts.* Use the AMBIG selector when you cannot identify the refinements not in use to apply the above methods.

Translations table flow

The Variable Speed Call Access Code translations tables appear in the following list:

- Table CUSTSTN lists the station options assigned to each of the customer groups defined in the switch.
- Table IBNXLA stores the data for the digit translation of calls from the following:

  — an IBN station

  — an attendant console (AC)

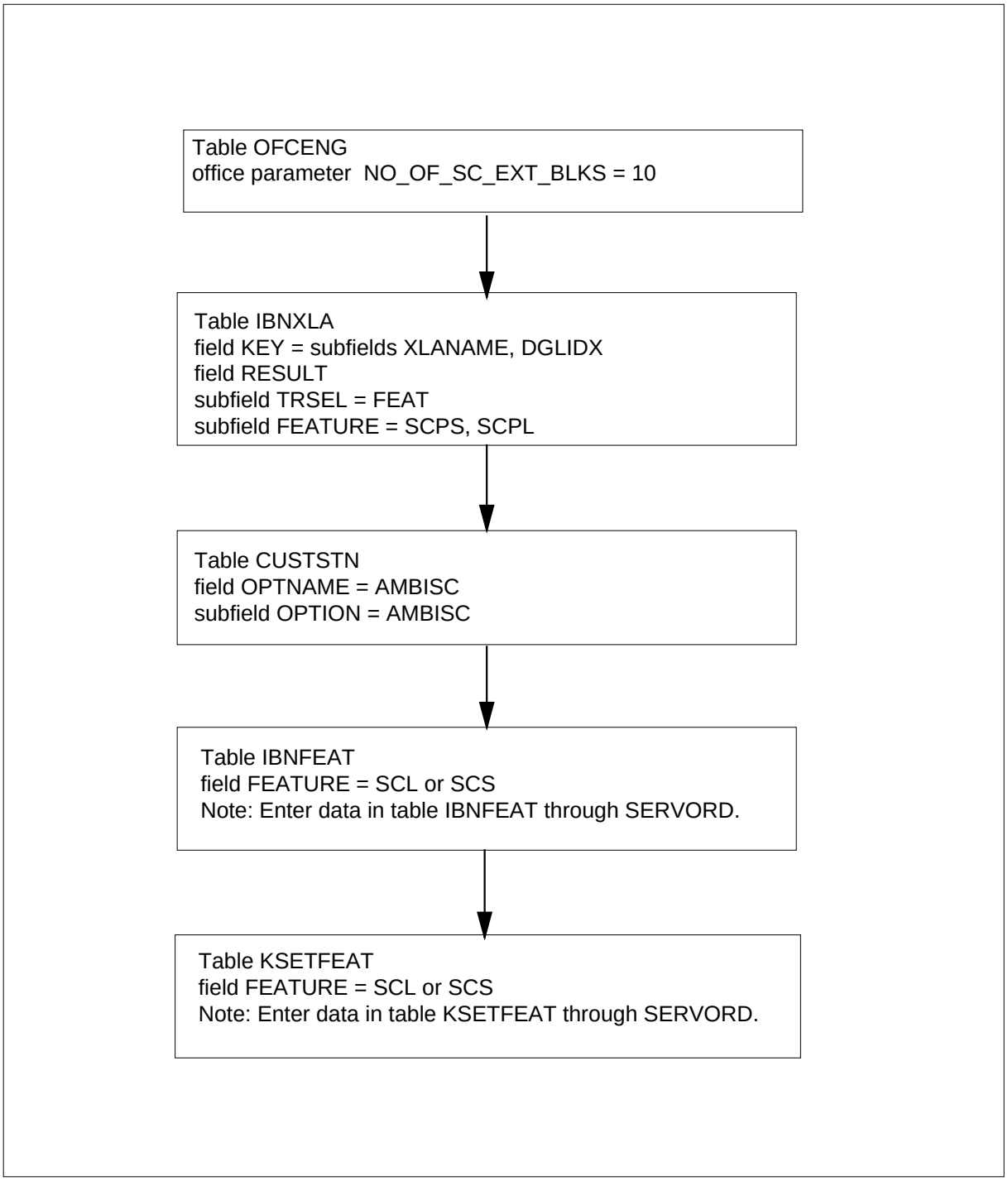
  — an incoming side of a two-way IBN trunk group

  This table provides the name of the feature and option associated with a feature access code.

The Variable Speed Call Access Code translation process appears in the following flowchart.

Variable Speed Call Access Code (continued)

Table flow for Variable Speed Call Access Code



Variable Speed Call Access Code (continued)

Datafill content in use in the flowchart appears in the following table.

Datafill example for Variable Speed Call Access Code

Datafill table	Example data
IBNXLA	IBNTST 74 FEAT N N N SCPS
	IBNTST 75 FEAT N N N SCPL
CUSTSTN	IBNTST AMBISC AMBISC L6
IBNFEAT	00 0 1 2 4 SCS SCS L30
	00 0 2 3 6 SCL SCL L50 297
KSETFEAT	00 1 02 03 8 SCL SLC L50
	00 0 09 01 1 SCS SCS

See the “Operation" section of this document for information how the Variable Speed Call Access Code functionality affects translations table flow.

Limits

The following limits apply to the Variable Speed Call Access Code feature:

- End users do not prefix speed call short (SCS) and speed call long (SCL) abbreviation codes with the asterisk (*) digit. This limit occurs when the end users access stored numbers.
- The SCS L6 end users must access abbreviation codes 2 to 7. These end users cannot store numbers in speed call cells that correspond to abbreviation codes 0, 1, 8, and 9.
- The SCS L8 end users must access abbreviation codes 2 to 9. These end users cannot store numbers in speed call cells that correspond to abbreviation codes 0 or 1. Use the SCS L8 when the customer group uses a POTS-like dial plan. This condition occurs when the system does not use digits 8 and 9 as prefix digits for network access.
- The SCL L30 end users have access to abbreviation codes 20 to 49. These end users cannot store numbers in speed call cells that correspond to abbreviation codes 00 to 19. Tuples with key numbers of 00 to 29 store entries in table IBNSC for abbreviation codes 20 to 49. The storage occurs in that order.
- The SCL L50 end users have access to abbreviation codes 20 to 69. These end users cannot store numbers in speed call cells that correspond to abbreviation codes 00 to 19. Tuples with key numbers of 00 to 49 store

Variable Speed Call Access Code (continued)

entries in table IBNSC for abbreviation codes 20 to 69. The storage occurs in that order.

- The SCL L70 end users can only access abbreviation codes 20 to 69. These end users cannot store numbers in speed call cells that correspond to abbreviation codes 00 to 19. Tuples with key numbers of 00 through 49 store entries in table IBNSC for abbreviation codes 20 to 69. The storage occurs in that order.
- The speed call program short (SCPS) access code is 74. This code does not require an entry in table IBNXLA.
- The speed call program long (SCPL) access code is 75. This code does not require an entry in table IBNXLA.
- The SCS end users do not have access to abbreviation codes 0, 1, 8, and 9. When an attempt occurs to program these cells, the system causes a negative acknowledgment (NACK) treatment. When an attempt occurs to access these cells, the cell attempts to terminate on the digit dialed. Table IBNXLA translation data determines the digit dialed.
- The SCL end users do not have access to abbreviation codes 00 to 19. When an attempt occurs to program these cells, the system causes a negative acknowledgment (NACK) treatment. When an attempt occurs to access these cells, the cells attempt to terminate on the digit dialed. Table IBNXLA translation data determines the digit dialed.
- A timeout or a # character must terminate the codes that match the selectors EXTN, ROUTE, NET, FLEXI, or TRMT. These selectors appear in tables IBNXLA or XLANAME during the initial digit collection. This condition occurs when the intermediate selector AMBIG does not occur. The initial digit collection must be a minimum of two digits in the following two conditions:
  - — a two-digit code does not match any selector
  - — the first digit does not have a longer refinement
- The DIGCOL selector or a reserved digit collector entered in tables NCOS or CUSTHEAD indicates the timeout period. The timeout must be a short interval. Four reserved digit collectors are present: NDGT, POTS, AUTO, and RES. See the correct NTP document for information.
- The system does not translate NET, FLEXI, and TRMT selectors when the following actions occur:
  - — the system receives a one-digit code from a line with short-speed calling option
  - — the system receives a two-digit code from a line with long-speed calling option

This code does not have to be a pre-programmed speed calling code. A timed-out code that matches the numeric range of the line option that corresponds stops additional translations. The user cannot dial a one- or two-digit code that conflicts that translates through the NET, FLEXI, or TRMT selector. A code can overwrite these selectors when the code is not programmed as a correct speed calling code. The system does not check codes against correct speed calling codes in table IBNSC during IBN translations.

- The system does not translate speed calling codes during the programming stage. The user must use the codes to check that the codes are correct.
- Table IBNXLA does not require programming codes 74 (SCPS) and 75 (SCPL). The user must make sure that datafill for these codes in tables IBNXLA or XLANAME do not cause conflicts. Enter codes in table IBNXLA to maintain functionality with other features.
- The system normally translates speed calling codes with and without a prefix with different translators. The use of a prefix is not always optional.

Interactions

The Variable Speed Call Access Code feature does not have functionality interactions.

Activation/deactivation by the end user

Datafill activates the Variable Speed Call Access Code feature. Activation is transparent to the end user.

Billing

The Variable Speed Call Access Code feature does not affect billing.

Station Message Detail Recording

The Variable Speed Call Access Code feature does not affect Station Message Detail Recording.

Variable Speed Call Access Code (continued)

Datafilling office parameters

Office parameters for Variable Speed Call Access Code appear in the following table. Refer to *Office Parameters Reference Manual* for additional information about office parameters.

Office parameters for Variable Speed Call Access Code

Table name	Parameter name	Description and action
OFCENG	NO_OF_SC_EXT_BLKS	Specifies the number of extension blocks required for each active speed call that stores a minimum of 12 digits. Enter a value from 0 to 32 767. The default value is 10.

Datafill sequence

Datafill for the Variable Speed Call Access Code feature appears in the following table. The tables appear in the correct entry order.

Datafill requirement for Variable Speed Call Access Code

Table	Function of table
OFCENG	Office Engineering Table. This table contains data on engineering parameters for the office. See “Datafilling office parameters" for how the Variable Speed Call Access Code feature affects office parameters.
IBNXLA	IBN translation. This table lists the name of the feature and option associated with a feature access code.
CUSTSTN	Customer Group Station Option. This table contains the station options assigned to each customer group.
IBNFEAT (see note)	IBN Line Feature. This table contains the line features assigned to the IBN lines that appear in table IBNLINES.
KSETFEAT (see note)	Business Set and Data-Unit Feature. This table contains the line features assigned to the business sets and data units (DU) that appear in table KSETLINE.
Note: Enter data in this table through SERVORD. A datafill procedure is not available. See “SERVORD" for an example of how to use SERVORD to enter data in this table.	

Datafilling table IBNXLA

Datafill for Variable Speed Call Access Code for table IBNXLA appears in the following table. The fields that apply to Variable Speed Call Access Code

appear in this table. See the data schema section of this document for a description of the other fields. The examples relate to programming codes.

Datafilling table IBNXLA

Field	Subfield or refinement	Entry	Description and action
KEY		see subfields	Key. This field has subfields XLANAME and DGLIDX.
	XLANAME	alphanumeric (1 to 8 characters)	Translator Name. This subfield specifies the name assigned to the translator.
	DGLIDX	1 to 18 digits	Digilator index. This subfield specifies the digit or digits assigned as an ambiguous code.
RESULT		see subfields	Result. This field has subfield TRSEL.
	TRSEL	FEAT	Translations selector. This subfield specifies the translations selector to use. When subfield TRSEL = FEAT, subfields ACR, SMDR, and FEATURE require datafill.
	ACR	Y or N	Account code entry. This subfield specifies when the system requires an account code.
	SMDR	Y or N	Station message detail recording. This subfield specifies when the system requires SMDR.
	FEATURE	SCPS, SCPL	Feature. This subfield specifies the feature assigned to a line.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

```
  KEY                                                  RESULT
______________________________________________________________
IBNTST     52                   FEAT   N   N   N   SCPC,SCPL
```

Variable Speed Call Access Code (continued)

Datafilling table CUSTSTN

Table CUSTSTN (Customer Group Station Option) contains the station options assigned to each customer group.

Datafill for Variable Speed Call Access Code for table CUSTSTN appears in the following table. The fields that apply to Variable Speed Call Access Code appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTSTN

Field	Subfield or refinement	Entry	Description and action
CUSTNAME		1 - to 16-alphanumeric characters	Customer Group Name. This field specifies the 1- to 16-character alphanumeric name assigned to the customer group.
OPTNAME		AMBISC	Option Name. This field specifies the variable speed calling access code option.
OPTION		see subfields	Option. This field has subfields OPTION and LISTTYPE.
	OPTION	AMBISC	Option Name. This subfield specifies the variable speed calling access code option.
	LISTTYPE	L6 or L8	List Type. This field specifies the list type. Enter L6 when the abbreviated codes are 2 to 7. The customer group members with option SCS can dial these abbreviated codes. Enter L8 when the abbreviated codes are 2 to 9. The customer group members with option SCS can dial these abbreviated codes. ***Note:*** Use L8 when a customer group uses a POTS-like dialing plan. This condition occurs when the system does not use digits 8 and 9 as prefix digits for network access.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

MAP example for table CUSTSTN

```
TABLE:  CUSTSTN

   CUSTNAME          OPTNAME                          OPTION
_____________________________________________________________

   IBNTST             AMBISC                       AMBISC L6
```

Tools for verifying translations

The Variable Speed Call Access Code feature does not use tools for verifying translations.

SERVORD

The Service Order (SERVORD) system adds SCL and SCS to a line.

SERVORD limits

The Variable Speed Call Access Code feature does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts that assign the Variable Speed Call Access Code feature to a line appear in the following table.

SERVORD prompts for Variable Speed Call Access Code

Prompt	Correct input	Description
OPTION	SCL, SCS	Specifies the option assigned to the line. Enter SCL (speed calling long) or SCS (speed calling short). ***Note:*** When you set OPTION to SCL, prompt LISTTYPE appears.
LISTTYPE	L30, L50, or L70	Specifies the length of the list. Enter L30, L50, or L70.

Note: The system enters data in table KSETFEAT or IBNFEAT when you use SERVORD to assign the Variable Speed Call Access Code feature.

SERVORD example for adding Variable Speed Call Access Code

The following SERVORD example describes the addition of the SCL option of Variable Speed Call Access Code adds to a line with the ADO command.

Variable Speed Call Access Code (continued)

SERVORD example for adding the SCL option of Variable Speed Call Access Code to a current line in prompt mode

```
>ADO
SONUMBER:   NOW 92  5   12  PM
>
DN_OR_LEN:
>0 0 1 21
OPTION:
>SCL
LISTTYPE:
>L50
OPTION:
>$
```

SERVORD example for adding SCL option of Variable Speed Call Access Code to a current line in no-prompt mode

```
>ADO $ 0 0 1 21 SCL L50 $
```

The following SERVORD example describes the adding of the SCS option of Variable Speed Call Access Code to a line with the ADO command.

SERVORD example for the adding SCS option of Variable Speed Call Access Code to a current line in prompt mode

```
>ADO
SONUMBER:   NOW 92  5   12  PM
>
DN_OR_LEN:
>0 0 8 15
OPTKEY:
>2
OPTION:
>SCS
OPTKEY:
>$
```

Variable Speed Call Access Code (end)

SERVORD example for adding the SCS option of Variable Speed Call Access Code to a current line in no-prompt mode

```
>ADO $ 0 0 8 15 2 SCS $
```

Variable Types of Outpulsing on Same Call

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS13 and later versions

Requirements

The Variable Types of Outpulsing on Same Call feature requires BAS00003.

Description

The digit manipulation data can specify the outpulsing signaling mode and the interdigital timing associated with a call. This feature uses this capability to change the outpulsing signaling mode and the interdigital timing. These changes can occur during the outpulsing of digits.

Changes in outpulsing signaling mode and interdigital timing decrease post-dial delay. A change in the signaling mode normally indicates a change in the interdigital timing.

Operation

The operation of Variable Types of Outpulsing on Same Call occurs through datafill. The operation of this feature is transparent to the end user.

Normal interdigital time values and ranges of values are for each signaling type. A list of these values are as follows:

- Dial pulse (DP): The normal value for DP signaling is 700 ms. The normal range of values for DP signaling is 300 ms to 1000 ms.
- Dual-tone multifrequency (DTMF): The normal value for DTMF signaling is 50 ms. The normal range of values for DTMF signaling is 30 ms to 300 ms.
- Multifrequency (MF): The normal value for MF signaling is 70 ms. The normal range of values is not for MF.

Note: The system uses these normal values as the default value when entry of interdigital times does not occur.

Translations table flow

The Variable Types of Outpulsing on Same Call feature does not affect translations table flow.

Variable Types of Outpulsing on Same Call (continued)

Limits

The following limits apply to the Variable Types of Outpulsing on Same Call feature:

- On trunks that require ANI spill, ANI spill always occurs in MF.
- The signaling format must be compatible between the originating and terminating offices.
- Changes to interdigital times can occur. The new interdigital times must be in the specifications of the terminating office.

Interactions

The following paragraphs describe the interactions between Variable Types of Outpulsing on Same Call and other functionalities.

The system cannot outpulse the DP after the system receives the electrical answer. This condition does not apply to fake answer or answer that the audio tone detector detects.

The DTMF and MF outpulsing handle stop-dial signals from the far end.

Activation/deactivation by the end user

The Variable Types of Outpulsing on Same Call feature does not require activation or deactivation by the end user.

Billing

The Variable Types of Outpulsing on Same Call feature does not affect billing.

Station Message Detail Recording

The Variable Types of Outpulsing on Same Call feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Variable Types of Outpulsing on Same Call feature does not affect office parameters.

Variable Types of Outpulsing on Same Call (continued)

Datafill sequence

Tables that require datafill to implement the Variable Types of Outpulsing on Same Call feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Variable Types of Outpulsing on Same Call

Table	Function of table
DIGMAN	Digit Manipulation. This table contains fields to specify a fixed number of digits that reach a called party. The number of digits in the connection does not affect this procedure.

Datafilling table DIGMAN

Table DIGMAN (Digit Manipulation) contains fields to specify a fixed number of digits that reach a called party. The number of digits in the connection does not affect this condition. This table allows a customer to adopt a Destination Code base dialing plan for the private network. This private network contains the switching unit. Enter table DIGMAN to change the outpulsing signaling mode and the interdigital time during outpulsing.

Datafill for Variable Types of Outpulsing on Same Call for table DIGMAN appears in the following table. The fields that apply to Variable Types of Outpulsing on Same Call appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table DIGMAN (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description and action
DMIDATA			Digit Manipulation Data This field contains subfield DIGCOM.
	DIGCOM		Digit Command This subfield specifies the digit command to change signaling type during outpulsing. Enter SIG. ***Note:*** If you enter SIG for DIGCOM, subfields PULSETYPE and IDGTIME require datafill.

Variable Types of Outpulsing on Same Call (end)

Datafilling table DIGMAN (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Description and action
	PULSETYPE		Pulse Type This subfield specifies the pulse type. Enter DP (dial pulse), DT (Digitone), MF (multifrequency), or RP (revertive).
	IDGTIME		Interdigital Timing This subfield specifies the interdigital timing, in units of 10 ms. Enter a value from 0 to 99. ***Note:*** A value of 0 indicates to use the default value for the specified signaling type.

Datafill example for table DIGMAN

Sample datafill for table DIGMAN appears in the following example.

MAP example for table DIGMAN

```
TABLE:  DIGMAN

DMIKEY
                                                        DMIDATA
_____________________________________________________________________

   1
        ( SIG  MF  5)  (  INC       3)  (  INC       4)$
```

Tools for verifying translations

The Variable Types of Outpulsing on Same Call feature does not use tools for verifying translations.

SERVORD

The Variable Types of Outpulsing on Same Call feature does not use SERVORD.

Wild Card Key

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS10 and later versions

Requirements

The Wild Card Key feature requires BAS Generic, BAS00003.

Description

The Wild Card feature allows the attendant to program and perform features that are not available through a feature key on the console. This feature increases the number of special features that the attendant can program in the console. The attendant has enough keys to assign to specified procedures.

Operation

Specify feature codes in table WCKCODES (Wild Card Key Codes). See “Datafill sequence" for information.

Translations table flow

The Wild Card feature does not affect translations table flow.

Limits

The following limits apply to Wild Card:

- The Wild Card key allows only one active feature at a time.
- You cannot set incoming call identification (ICI) codes through the Wild Card key.
- Only two-digit (00-99) feature codes are available for use.
- Only attendants can use the Wild Card feature.
- You cannot assign the Wild Card feature to selective consoles. You can assign this feature to all consoles in the customer group.

Interactions

You cannot use attendant speed call to enter the two-digit function code when you use the Wild Card.

Activation/deactivation by the end user

To activate Wild Card Key, the attendant performs the following steps.

Activation/deactivation of Wild Card Key by the end user

At the telephone

1 Press the Wild Card key.

Response:

The Wild Card lamp flashes at 60 ipm.

2 Enter the two-digit function code of the feature that you requested.

Response:

The Wild Card lamp lights.

3 To process the call, perform the steps that apply to the feature.

Response:

The Wild Card lamp turns off.

Billing

The Wild Card Key feature does not affect billing.

Station Message Detail Recording

The Wild Card Key feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Wild Card Key feature does not affect office parameters.

Datafill sequence

Tables that require datafill to provide the Wild Card Key feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Wild Card Key

Table	Function of table
FNMAP	Attendant Console Functional Key. This table contains fields to assign a dedicated key and lamp for Wild Card Key.
WCKCODES	Wild Card Key Codes. This table contains fields. These fields allow the attendant to select any VFG to query with a Wild Card key access code.

Datafill procedure for table FNMAP

Table FNMAP (Attendant Console Functional Key) contains fields to assign a dedicated key and lamp for the Wild Card feature.

Wild Card Key (continued)

Datafill for table FNMAP appears in the following table. The fields that apply to this feature appear in this table. See data schema section of this document for a description of the other fields.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Description and action
RESULT		see subfields	Result. This field contains subfield KEY_SEL and SP_FN.
	KEY_SEL	SPECL	Key Selector. This subfield specifies the key selector. Enter SPECL for special.
	SP_FN	WC	Special Function. This subfield specifies the special function code. Enter WC.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

```
TABLE: FNMAP
KEY                                         RESULT
________________________________________________________________

 IBNCON1  2                 SPECL   WC
```

Datafilling table WCKCODES

Table WCKCODES (Wild Card Key Codes) contains fields. These fields allow the attendant to select any VFG to query with a Wild Card key access code.

Wild Card Key (end)

Datafill for Wild Card Key for table WCKCODES appears in the following table. The fields that apply to Wild Card Key appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table WCKCODES

Field	Subfield or refinement	Entry	Description and action
VALUE		see subfield	Value. This field contains subfield WC_SP_FN.
	WC_SP_FN	WC	Wild Card Key Special Function This field specifies the wild card key special function code. Enter WC.

Datafill example for table WCKCODES

Sample datafill for Table WCKCODES appears in the following table. Table WCKCODES with a Wild Card key assigned to Wild Card Key appears in the example.

MAP example for table WCKCODES

```
TABLE: WCKCODES
   WCKEY                                VALUE
________________________________________________________
 BNRMC    14               WC
```

Tools for verifying translations

The Wild Card Key feature does not use tools that verify translations.

SERVORD

The Wild Card Key feature does not use SERVORD.

2 Datafilling MDC MSAC

The following chapter describes the MDC MSAC, MDC00002, functionality.

Attendant Console OM on an Individual Console Basis

Ordering codes

Functional group ordering code: MDC00002

Functionality ordering code: does not apply

Release applicability

BCS26 and later versions

Requirements

To operate, Attendant Console OM on an Individual Console Basis has the following requirements:

- BAS Generic, BAS00003CCMXLFMDC0177
- MDC Minimum, MDC000001

Description

Supervisory personnel can perform several actions with Attendant Console Operational Measurements (ACOM) on an Individual Console Basis capability. Supervisory personnel can manage loads of work, monitor production levels, and identify training needs with this feature. The feature provides operational measurements (OM). The OMs, through peg and use counts, contain information that personnel gathers during different time intervals. This information is on the load and performance of the system for each separate attendant console (AC). These time frames appear through several additions. These additions contain the following:

- a new MAP screen
- additional fields on the ACOM display
- revisions to a current OM group
- additional OM group

The MAP display counts are in the OM report. The new OM group provides counts that were not available through MAP display. The system generates the reports through current OM tables.

Operation

To monitor the performance of employees, the customer group chooses the types of OMs to count during specified time frames. The customer group can schedule OMs on a separate console.

The selection of OM group IBNAC and field OMIBNCONINFO causes the population of subfields. This selection causes the population of subfields for

Attendant Console OM on an Individual Console Basis (continued)

customer group name, subgroup name, and console ID. Events can trigger fields that represent registers in this selection. These fields appear in the following list.

- IACLDN
- IACINTRP
- IACDIALO
- IACXFRAT
- IACCFW
- IACRECAL
- IACSPCL
- IACQTOTL
- IACHLD
- IACORIG
- IACEXTD
- IACPOSBY
- IACAUTH

The IBNAC includes several events. These events are IACTOTDR, IACORDR, IACCTVTU, and IACBSYDR.

Reports for IBNAC OMs contain the same schedule as other OM reports through the OM table.

The addition of several fields to IBNSG makes sure that all OMs on separate ACs are in synchronization. These fields are TOTDR, ORIGDR, ACPOSBY, and ACBSYSDR.

The user that schedules the registers on the separate ACs must select the type of information to gather on the attendant.

Background

The current feature provides OMs for IBN ACs on a subgroup basis. The AC use reports are available through two methods. One method is to report real time on a MAP display. The other method is an OM report based on a specified time period in minutes, hours, or days.

The information that this current feature provides has limits. The division of this information occurs only to the subgroup level in current OM reports. Information on separate ACs is not available.

Attendant Console OM on an Individual Console Basis (continued)

Addition of fields to the ACOM display in the attendant console dynamic measurements (ACDYMS) MAP display occurs. This addition occurs to meet the needs of tracking separate ACs and user performance. Use of the fields occurs for ACs that do not have an equivalent subgroup running total in ACOM. The new feature does not affect the available OM information.

The addition of a command for selection of the new MAP display to the integrated business network measurement (IBNMEAS) menu occurs. The command is individual attendant console operational measurements (INACOM). The command provides running totals on separate ACs.

The new OM group allows scheduling and accounting on an separate AC basis. The new group is integrated business network attendant console (IBNAC). Upgrades to OM group integrated business network subgroup (IBNSG) enable ACs to have the same OM report capability.

User interface

This feature affects three commands. Menu option IBNMEAS includes the INACOM command and provides INACOM MAP display. The display includes 13 fields with equivalent subgroup fields on the ACOM MAP display.

The fields and a short explanation follow. A translation to the correct ACOM MAP display field follows.

- IACLDN Individual Attendant Console Answered LDN Peg Count

  The count increases by one each time the attendant answers a call to a listed directory number (LDN). Counts occur for each LDN assigned to a customer. This OM is the same as >ANSLDN in the ACOM MAP display.

- IACINTRP Individual Attendant Console Answered Intercept Peg Count

  The count increases each time the attendant answers any type of intercepted call. This OM is the same as >INTRPT in the ACOM MAP display.

- IACDIALO Individual Attendant Console Answered Dial 0 Peg Count

  Each time the attendant answers a call that starts with a zero, the count increases by one. The count includes station calls, automatic station originations, and incoming calls on attendant trunks. This OM is the same as >ANSDIALO in the ACOM MAP display.

- IACXFRAT Individual Attendant Console Answered Transfer To Attendant Calls Peg Count

  The count increases by one in the following conditions. One condition is when an attendant answers a call transferred by stations that use switch

Attendant Console OM on an Individual Console Basis (continued)

flash and dial O. The other condition is during attendant recalls through tie trunks. This OM is the same as >ANSXFRAT in the ACOM MAP display.

- IACRECAL Individual Attendant Console Answered Timed Recalls

  Each time the attendant responds to call waiting, camp-on, and no answer recalls, the count increases by one. This OM is the same as >RECALLS in the ACOM MAP display.

- IACCFW Individual Attendant Console Answered Call Forward Calls

  When the attendant answers calls forwarded to the console, the count increases by one. This OM is the same as >ANSCFW in the ACOM MAP display.

- IACSPCL Individual Attendant Console Answered Miscellaneous Calls

  The attendant can respond to a call that does not meet the requirements for any other type of call. When this event occurs, the count increases by one. This OM is the same as >SPCLCCT in the ACOM MAP display.

- IACQTOTL Individual Attendant Console Answered Total Queued Calls Peg Count

  The count increases by one when the attendant answers calls when a Loop key or the Incoming Call Identification (ICI) key is pressed. This OM also counts each time the attendant causes an OM peg count in one of the following registers. These registers appear in the following list:

  — IACDIALO

  — IACLDN

  — IACINTRP

  — IACXFRAT

  — IACRECAL

  — IACSPCL

  — IACCFW

  This OM is the same as the >QTOTAL in the ACOM MAP display.

- IACPOSBY Individual Attendant Console Position Busy Peg Count

  The attendant can place the console in the position busy state after the attendant presses the Position Busy (POS BSY) key. Every time this event occurs, the count increases by one. This OM is the same as >ACPOSBSY in ACDYMS.

- IACORIG Number Of Calls Originated By An Individual Attendant Console

Attendant Console OM on an Individual Console Basis (continued)

This OM records the number of calls the attendant originates. This OM increases by one when access of an idle Loop key occurs and dialing begins. The ACOM MAP display does not contain an OM that corresponds.

- IACEXTD Number Of Calls Extended By An Individual Attendant Console

  This OM measures the number of calls that the attendant extends. The count increases by one when the attendant completes dialing the number. The ACOM MAP display does not contain an OM that corresponds.

- IACHLD Number Of Held Calls By And Individual Attendant Console Peg Count

  The count increases by one each time the attendant presses the Hold (HOLD) key or a Loop key while active on a different Loop key. The ACOM MAP display does not contain a OM that corresponds.

- IACAUTH Individual Attendant Console Calls Involving Authorization Codes Peg Count

  The OM increases by one when the attendant presses the Authorization (AUTH) code key after the attendant enters an authorization code. This OM is the same as >AUTHCALL on the IBNSG OM.

The implementation of this feature causes all commands for INACOM to correspond to ACOM commands. This feature adds and changes several commands to achieve this synchronization. The SELECT menu command <customer group> <subgroup> and <console> displays the console OMs for the customer group, subgroup, and AC specified. The <customer group> and <subgroup> input is optional. This information defaults to the correct console. The CONSCLLI in table ATTCONS (Attendant Console) identifies the correct console.

The <NextSG> menu command changes. The command displays the information on the first console in the next subgroup in a customer group.

Attendant Console OM on an Individual Console Basis (continued)

This feature adds the <NextCON> menu command to the INACOM command menu. This command displays the next console in the specified subgroup.

CAUTION
Selection of NextCON command causes loss of information.
When you select this command, the system loses information displayed on the previous console. To save the information, you must store the information before you select the next console through this command.

An example of the INACOM MAP display appears in the following figure. The selection of the correct customer group name, subgroup, and separate AC displays the registers for each selected OM.

INACOM MAP example

```
                    START TIME:
INACOM
 0 Quit             IACLDN   : XXXXX      IACINTRP : XXXXX      IACDIALO  : XXXXX
 2                  IACXFRAT : XXXXX      IACCFW   : XXXXX      IACRECAL  : XXXXX
 3 Select_          IACSPCL  : XXXXX      IACQTOTL : XXXXX      IACHLD    : XXXXX
 4                  IACORIG  : XXXXX      IACEXTD  : XXXXX      IACPOSBY  : XXXXX
 5                  IACAUTH  : XXXXX      IACLDN1  : XXXXX      IACLDN2   : XXXXX
 6 Nextsg           IACLDN3  : XXXXX      IACLDN4  : XXXXX      IACLDN5   : XXXXX
 7 NextCON          IACLDN6  : XXXXX      IACLDN7  : XXXXX      IACLDNR   : XXXXX
 8
 9
10
11 StartOM
12 StopOM
13
14
15
16
17
18
  BASE1
Time: 10:19
```

Attendant Console OM on an Individual Console Basis (continued)

The ACOM MAP display includes four new menu options. These options make sure that all OMs for individual ACs have the same subgroup OM. An explanation of the four fields follows:

- ORIGCALL Number Of Calls Originated

  The OM records the activity each time the following event occurs. This event occurs when the attendant presses an idle Loop key and dials to originate a call at the console. This OM is the same as >IACORIG in the INACOM MAP display.

- EXTDCALL Number Of Calls Extended

  This OM records each time the attendant enters a destination number to extend a call. This OM is the same as >IACEXTD in the INACOM MAP display.

- HLDCALL Number Of Held Calls

  This OM records the activity when the following event occurs. This event occurs when the attendant presses the HOLD key or Loop key while active to place a call on hold. This OM is the same as >IACHLD in the INACOM MAP display.

- AUTHCALL Number Of Calls Involving Authorization Calls

  The count increases by one each time the attendant places a call that requires an authorization code. The OM increases by one when the attendant presses the AUTH code key. This OM is the same as IACAUTH in the INACOM MAP display.

An example of the ACOM MAP display appears in the following figure. The selection of the correct customer group name, subgroup, and individual AC causes the display of the registers for each selected OM. In the first OM column, ORIGCALL and AUTHCALL are the new registers. The EXTDCALL at the end of the second column is another new register. The HLDCALL at the end of the third column is the fourth register added.

Attendant Console OM on an Individual Console Basis (continued)

ACOM MAP example

```
                    START TIME:
ACOM
 0 Quit             WRKTMU    : XXXXX     LPU       : XXXXX       CWINQU    : XXXXX
 2                  ACTVTU    : XXXXX     LPOVFL    : XXXXX       ATQDFL    : XXXXX
 3 Select_          ABNDN     : XXXXX     NSCALLS   : XXXXX       ANSLDN    : XXXXX
 4                  ANSINTRP  : XXXXX     ANSDIALO  : XXXXX       ANSXFRAT  : XXXXX
 5                  CWRECALL  : XXXXX     CORECALL  : XXXXX       DARECALL  : XXXXX
 6 Nextsg           RECALLS   : XXXXX     SPCLCCT   : XXXXX       ANSCFW    : XXXXX
 7 NextCON          LPHLDREC  : XXXXX     ANSDELAY  : XXXXX       QTOTAL    : XXXXX
 8                  ORIGCALL  : XXXXX     EXTDCALL  : XXXXX       HLDCALL   : XXXXX
 9                  AUTHCALL  : XXXXX     SERIALRC  : XXXXX
10
11 StartOM
12 StopOM
13
14
15
16
17
18
  C
Time: 15:04
```

Commands

The addition of four fields to the menu display causes the ACOM MAP display to be the same for each AC. Commands available in the ACOM MAP display are in a list with a description of the commands and actions. The commands and actions occur between the system and the user.

ACOM command

Displays the ACOM MAP selection.

System response

Displays template and menu on the MAP screen.

Explanation: MAP terminal displays the subgroup.

INACOM command

Opens a new directory, INACOMSCANDIR. In this directory, selection of commands produces OMs on an individual AC. Each time use of the command occurs, a new menu appears and an OM viewing template appears at the MAP position.

Attendant Console OM on an Individual Console Basis (continued)

System response

Displays template and menu on the MAP screen.

Explanation: The user reaches INACOMSCANDIR and individual AC information displays.

QUIT command

The user exits from the INACOM level of the MAP display.

Parameters

QUIT	ALL	literal	Optional parameter used to return to top level

System response

Returns CI prompt or returns to IBNMEAS display.

Explanation: The user exits INACOM display.

SELECT command

Displays console OMs for a specified customer group, subgroup, and attendant console.

Parameters

SELECT	customer group	CUSTCLLI	Name associated with a customer group
	subgroup	zero through seven	
	console	CONSCLLI	Name entered in table ATTCONS for a given attendant console

System responses

Displays customer group name, subgroup number, and console name.

User Action: The user enters command STARTOM to begin scanning.

NO SUCH CUSTOMER GROUP

Explanation: The user entered a customer name that is not correct.

Attendant Console OM on an Individual Console Basis (continued)

User Action: Check the customer name and enter again.

NOT A CORRECT SUBGROUP

Explanation: The use entered a subgroup number that is not correct.

User Action: Check the subgroup number and enter again.

NOT A CORRECT CONSOLE NAME

Explanation: The console name that you entered is not correct.

User Action: Check the console number and enter again.

SCANNING MUST BE STOPPED FIRST

Explanation: While OM registers are scanned, you cannot change the subgroup selection.

User Action: Enter the STOPCOM command. Change the subgroup and enter again.

NEXTSG command

Displays OM information for the first console in the next subgroup. A message appears if more subgroups are not present.

System response

The next highest subgroup for the customer group is the selected display.

NO MORE SUBGROUPS - USE SELECT COMMAND

Explanation: Additional subgroup selections for the customer group are not present.

User Action: Enter the SELECT command and choose customer group name, subgroup number, and console name.

USE SELECT COMMAND FIRST

Explanation: Selection of the initial customer group name, subgroup number, and console name did not occur.

User Action: Enter the customer group name, subgroup number, and console name before you enter the SELECT command.

CANNOT SELECT SUBGROUP WHEN SCANNING IS ENABLED

Explanation: You tried to select the next subgroup while OM registers were scanned for the displayed subgroup.

Attendant Console OM on an Individual Console Basis (continued)

User Action: Enter the STOPOM command. Change the subgroup number and enter the subgroup number again.

NEXTCON command

Displays the next console of a subgroup for a customer group name. If more consoles are not available, a message appears.

System response

The selection display changes to the next console in table ATTCONS.

This process is a selection process only.

NO MORE CONSOLES - USE SELECT COMMAND

Explanation: Consoles populated in table ATTCONS are not present.

User Action: Enter the SELECT command to choose another customer group name, subgroup number, or console name.

USE SELECT COMMAND FIRST

Explanation: Selection of the first customer group name, subgroup number, and console name did not occur.

User Action: Use SELECT and enter a customer group name, subgroup number, and console name before you enter this command.

CANNOT SELECT CONSOLE WHEN SCANNING IS ENABLED

Explanation: You tried to select the next console name while OM registers were scanned for the displayed subgroup.

User Action: Enter the STOPOM command. Change the subgroup number and press the Enter key.

STARTOM command

This command starts the scanning process. When the system accepts the entry of the command, all registers return to zero before scanning starts.

System response

STARTOM OK

The time the scan began appears. If consoles are on night service, the *NS* indicator appears.

Explanation: When counts appear against register names, scanning starts.

Attendant Console OM on an Individual Console Basis (continued)

SCANNING ALREADY STARTED

Explanation: You entered the STARTOM command already.

USE SELECT COMMAND FIRST

Explanation: Selection of first customer group name, subgroup number, and console name did not occur.

User Action: Enter the SELECT command. To change the console to monitor, enter the console number.

STOPCOM command

Stops the scanning process and displays the information that system collects.

System response

STOPCOM OK

Explanation: Information the system collects remains on the display even though scanning stops.

SCANNING NOT STARTED

Explanation: The command is not correct because the scanning process was not active.

User Action: Enter STARTOM before you enter STOPCOM.

Scanning OMs of a separate AC

The procedure of scanning OMs of a separate AC appears in the following table.

MAP—menu commands (Sheet 1 of 2)

Step	Action
	From MAPCI, enter >IBNMEAS.
	Enter >INACOM.
3	Select <customer group>. If you do not make a selection, customer group defaults to the first console of the first subgroup.
4	Select <subgroup>. If you do not make a selection, subgroup automatically defaults to the first console in the specified customer group.

Attendant Console OM on an Individual Console Basis (continued)

MAP—menu commands (Sheet 2 of 2)

Step	Action
5	Select <console>. If you do not select a console, the console defaults to the first console that the lowest AC_Number identifies as assigned by the system. To specify consoles, enter the CONSCLLI from table ATTCONS.
6	Enter the >INACOM command to open directory INACOMSCNDIR. The issue of commands from this location occurs to view OMs on ACs. A new menu screen appears with the template for the display of information that the system generates at the MAP position.
7	To exit INACOM, enter >QUIT. The system returns the user to the CI prompt or IBNMEAS display. If the user enters >QUIT ALL, the CI prompt returns.
8	To continue MAP display, type >SELECT. The user can choose the <customer group name> <subgroup> or <console>.
9	Enter >NEXTSG to change the subgroup on which OM registers are being made. When information on all consoles for the customer name and subgroup appears, a message appears. This message indicates that additional subgroups to choose are not present.
10	Enter >STOPCOM to change the subgroup monitored. The user can enter the number for the next subgroup.
11	Enter >NEXTCON to select the next console in the subgroup for display of the information collected by the OMs.
12	To begin the scanning process for OMs on individual ACs, enter >STARTOM. The start times appear in the display. If consoles are on night service (*NS*), the *NS* indicator appears on the display. Scanning begins and counts occur.
13	To cancel the scan of the individual AC, enter >STOPCOM. The scanning process stops. You can continue to view information in this state.

Translations table flow

Attendant Console OM on an Individual Console Basis does not affect translations table flow.

Attendant Console OM on an Individual Console Basis (continued)

Limits

Attendant Console OM on an Individual Console Basis does not affect call processing. The feature affects the real-time processing with the presence of OM pegs.

The accuracy of usage counts has limits. The counts occur at 10- and 100-s intervals. Calls that last less than the counted interval are not correct. Peg counts are exact.

Users must only eliminate individual consoles from the table ATTCONS after the data for that AC has transferred to storage. Deletion of the console can occur when data transfer is complete.

The EBS/ACD replacement of the Meridian services attendant console (MSAC) has the following limits:

- The originating and terminating nodes must be DMS.
- The intermediate nodes must pass the information in the initial address message (IAM) and address complete message (ACM) intact.
- The system does not support camp-on over protocols interworking with IBN7.
- The system can camp one call on to a busy station.
- Operating company personnel cannot assign MBSCAMP to a key >9.
- The system cannot camp a call on to an MSAC.
- The system cannot camp a call on to an integrated services digital network (ISDN) set.
- The system does not support automatic call distribution (ACD) configured as COMPUCALL.
- Users cannot initiate camp-on from a Meridian Digital Centrex (MDC) (formerly integrated business network) set.

CAUTION

Deletion of the console causes loss of information.

If you delete an AC from table ATTCONS before storage of the information occurs, the following events occur. Deletion of ACTIVE and HOLDING registers for OM group IBNAC occurs and the system loses information for that console.

Attendant Console OM on an Individual Console Basis (continued)

Interactions

The following paragraphs describe the actions between Attendant Console OM on an Individual Console Basis and other functionalities.

- OM Holding Class Enhancements
- OM Thresholding and Alarming

The EBS/ACD replacement of the Meridian services attendent console (MSAC) has the following interactions at the operator:

- The activation of do not disturb (DND) or make set busy (MSB) does not prevent calls to that station. A recall to an agent other that the original ACD agent does not override DND or MSB.
- If an operator activates call forward universal (CFU), a recall overrides the CFU. If the operator forwards a CFU call, the call does not return to the operator as a recall.
- If the operator is busy, the system does not forward a call to the call forward busy (CFB). The system starts the recall timer.
- The system sends the recall to the operator when the call forward no answer (CFNA) feature is active.
- Recall takes precedence over denied termination (DT).
- Campon is not compatible with bearer capability (BC), dial call waiting (CWD), call-waiting originating (CWO), or denied origination (DOR).
- The system can camp on a call that routes through virtual facility groups (VFG) to the called party.

The EBS/ACD replacement of the MSAC has the following interactions at the called party:

- If the called party is busy and has CFB active, the system forwards the call and does not camp the call on.
- If the called party is busy and has CFU active, the system forwards the call and does not camp the call on.
- If the called party is busy and has CFDA active, the system forwards the camped-on call when the CFD timer expires.
- A user cannot use the call pickup feature to pick up a camped on call.
- If the called party has call waiting (CWT), call wait takes precedence. The system starts the transfer recall timer. When the timer expires, the system performs the blind transfer recall.
- The system does not camp a call on to a busy station which has call-waiting exempt (CWX).

Attendant Console OM on an Individual Console Basis (continued)

- The system cannot camp a call on to a line that has malicious call hold (MCH) active. If a user has a camped-on call, the user cannot activate MCH.
- When a user places a call to a multiple appearance directory number single call arrangement (MADN SCA), the system camps the call against the busy number.
- When a user places a call to a busy MADN multiple call arrangement (MCA) group, the system camps the call on the primary member of the group.
- If an MDC line (formerly IBN) with call hold active already has a call on hold, the system does not camp-on the new call. If the system camps on a call to an IBN set, the user cannot activate call hold.
- If an agent activates ring again against another line, and the system camps on a call to the second line, the camped-on call takes priority.
- If an EBS set has a camped-on call, the user cannot activate 3WC. The system does not camp a call on a line when the user is the controlling party in a 3WC call.
- If the system transfers a call to a line that is part of a hunt group, the system does not camp the call on.
- The system cannot camp a call on to a line that has MSB active.
- The system cannot camp a call on to a line that has no double connect (NDC) active.
- The system cannot camp a call on to a line that has DND active.
- The system cannot camp a call on to a line that has DT active.
- The system cannot camp a call on to a line that is in conversation with an emergency services bureau.
- The system cannot camp a call on to a uniform call distribution (UCD) agent.
- The system cannot camp a call on to an ACD agent.
- For a recalled call, the system deallocates the VFGs if the operator answers the call.

Activation/deactivation by the end user

The attendant that operates the console is not responsible for activation of this feature. The customer group orders all registers that this feature generates. The attendant handles incoming and outgoing calls to trigger events. Each time the attendant accesses a Loop key or ICI indicators, the triggering of an event occurs and registers start to accumulate.

Attendant Console OM on an Individual Console Basis (continued)

Billing

The Attendant Console OM on an Individual Console Basis does not affect billing.

Station Message Detail Recording

The Attendant Console OM on an Individual Console Basis does not affect Station Message Detail Recording.

Datafilling office parameters

The Attendant Console OM on an Individual Console Basis does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Attendant Console OM on an Individual Console Basis appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Attendant Console OM on an Individual Console Basis

Table	Purpose of table
ATTCONS	Attendant Console. This table contains datafill for all ACs. Special datafill is not a requirement to activate the OMs.

Datafilling table ATTCONS

Table ATTCONS contains datafill for all ACs. Special datafill is not a requirement to activate the OMs. The OMs are kept for each console you enter in table ATTCONS.

Datafill for Attendant Console OM on an Individual Console Basis for table ATTCONS appears in the following table. Fields that apply to Attendant

Attendant Console OM on an Individual Console Basis (continued)

Console OM on an Individual Console Basis appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table ATTCONS

Field	Subfield or refinement	Entry	Explanation and action
CONSOLE		alphanumeric (1 to 16 characters)	Console. This field specifies the common language location identifier (CLLI) assigned to the console. Enter the CLLI name.
CUSTNAME		alphanumeric (1 to 16 characters)	Customer Group Name. This field specifies the name of the customer group assigned in table CUSTHEAD with field CONSOES = Y. The customer group is also assigned in table CUSTCONS. Enter the customer group name.
SUBGRP		zero to seven	Subgroup. This field specifies the number of attendant subgroups that have the console assigned. Enter a value from zero to seven.
NCOS		0-511	Network class of service. This field specifies the network class of service number assigned to the attendant console. Enter a value from 0 to 511.
CDR		Y or N	Call detail recording. This field specifies if a call detail recording of the call is kept. Enter Y when the system records all calls that originate from the attendant console in the station message detail recording (SMDR) format. Enter N for do not keep a record.

Datafill example for table ATTCONS

Sample datafill for table ATTCONS appears in the following example.

MAP example for table ATTCONS

```
 TABLE: ATTCONS
 CONSOLE   CUSTNAME  SUBGRP  NCOS  CDR  CARDCODE
 INLEN            OUTLEN            TALKLEN       INSV
OPTIONS
_____________________________________________________________

BNRCON      BNRMC      0      5     Y  4X08AA
 HOST 02 0 04  02 HOST 02 0 04 03  HOST 02 0 04 04 Y
 (BUZZ) $
```

Attendant Console OM on an Individual Console Basis (end)

Tools for verifying translations

The Attendant Console OM on an Individual Console Basis does not use tools for verifying translations.

SERVORD

The Attendant Console OM on an Individual Console Basis does not use SERVORD.

Do Not Disturb

Ordering codes

Functional group ordering code: MDC00002

Functionality ordering code: does not apply

Release applicability

SN07 (DMS)

Enhanced DND features added to support A00002196.

BCS 10 and later versions

Basic facilities introduced.

Requirements

To operate, Do Not Disturb requires BAS Generic, BAS00003

Description

The Do Not Disturb permits the attendant to restrict calls to a station or group of stations. While Do Not Disturb is active, the following condition applies. The attendant can override the feature to complete a call to the affected stations.

Operation

To activate or deactivate Do Not Disturb for a separate station or group, the attendant:

1. presses an idle loop key
2. presses the Do Not Disturb (DND) key
3. enters the digits of the station number, or enters an asterisk (*) followed by the group number (1-63)
4. presses the DND key again. The DND lamp turns on to confirm that the attendant activated or deactivated the feature.
5. presses the release key to exit the feature

Note: The attendant can repeat steps 3 and 4 to activate or deactivate Do Not Disturb against a series of numbers.

Do Not Disturb (continued)

To override Do Not Disturb, the attendant:

1 presses an idle loop key

2 enters the digits of the station number. If Do Not Disturb is in effect for the called station, the DND lamp turns on. Two seconds of reorder tone play.

3 presses the DND key. If the station is idle, the attendant rings the station. In other conditions, two seconds of reorder tone play.

4 presses the release key to exit the feature

Translations table flow

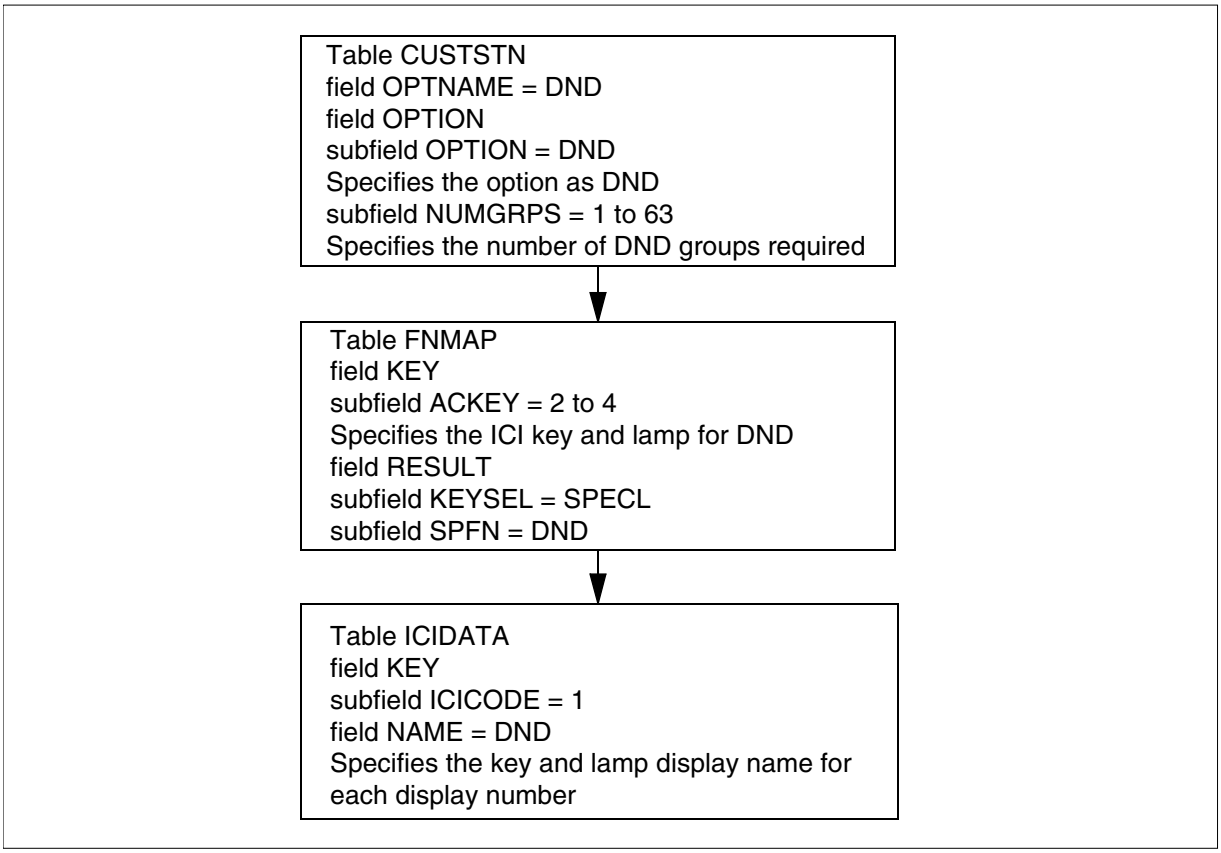
The Do Not Disturb translations process appears in the following flowchart. The process of how to assign how Do Not Disturb to a separate station or group appears in the flowchart and data.

A description of the Do Not Disturb translations tables appears in the following list:

- Table CUSTSTN (Customer Group Station Option) contains station options assigned to each of the customer groups. Entries in table CUSTSTN must define Do Not Disturb for the customer group.
- Table FNMAP (Attendant Console Functional Key) assigns features to keys 2 through 43 on specified consoles. Entries in table FNMAP must assign a dedicated incoming call identification (ICI) key and lamp for Do Not Disturb.
- Table ICIDATA (Incoming Call Identification Data) provides flexible night service and the key and lamp display for each ICI number. Entries in table ICIDATA must assign a key and lamp display for Do Not Disturb

The Do Not Disturb translation process appears in the following flowchart.

Table flow for Do Not Disturb



The datafill content used in the flowchart appears in the following table.

Datafill example for Do Not Disturb

Datafill table	Example data
CUSTSTN	`NETDMT1  DN  DND  10`
FNMAP	`ATTCONS  13  SPECL  DND`
ICIDATA	`NETWORK  13  DND  $`

Limits

The following limits apply to Do Not Disturb:

- The assignment of Do Not Disturb can occur to the wild card key.
- Camp-on and call waiting are not compatible with Do Not Disturb.

Do Not Disturb (continued)

- An attendant can busy verify a station affected by Do Not Disturb. If the attendant uses busy verify feature, the attendant does not know of the occurrence of Do Not Disturb.
- The Do Not Disturb affects only terminating calls, not calls that the station end user originates. The station is free to place outward dial (DOD) and intragroup calls that are direct.

Interactions

The Do Not Disturb does not interact with other features.

Activation/deactivation by the end user

The Do Not Disturb does not require activation or deactivation by the end user.

Billing

The Do Not Disturb does not affect billing.

Station Message Detail Recording

The Do Not Disturb does not affect Station Message Detail Recording.

Datafilling office parameters

The Do Not Disturb does not affect office parameters.

Datafill sequence

A list of the tables that require datafill to implement Do Not Disturb appears in the following table. The tables appear in the correct entry order.

Datafill requirements for Do Not Disturb

Table	Purpose of table
CUSTSTN	Customer Group Station Option Table. A switching unit with North American translations and the Meridian Digital Centrex (MDC) or the feature AG0508, Residential Enhanced Services (RES) requires this table. The station options assigned to each of the customer groups appears in this table.

Datafill requirements for Do Not Disturb

Table	Purpose of table
FNMAP	Attendant Console Functional Key Table. Local switching units equipped with the integrated business network (IBN) can require this table. Local switching units require this table when one or more of the customer groups is in an arrangement for attendant consoles require this table. This table assigns features to keys 2 through 43 on specified consoles.
ICIDATA	Incoming Call Identification Data Table. This table provides flexible night service and the key and lamp display for each incoming call identification (ICI) number. Flexible night service provides attendant programming of night service routes for each ICI assigned to a customer group.

Datafilling table CUSTSTN

Table CUSTSTN (Customer Group Station Option) contains station options assigned to each customer group. Entries in table CUSTSTN must define Do Not Disturb for the customer group.

Datafill for Do Not Disturb for table CUSTSTN appears in the following table. The fields that apply to Do Not Disturb appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTSTN

Field	Subfield or refinement	Entry	Explanation and action
CUSTNAME		1 to 16 characters	Customer Name. This field specifies the 1 to 16 character name assigned to the customer group in Table CUSTHEAD. Enter the customer name.
OPTNAME		DND	Option Name. This field specifies the option name. Enter DND.
OPTION		see subfields	Option. This field contains subfields OPTION and NUMGRPS.
	OPTION	DND	Option. This subfield specifies the option name. Enter the option DND.
	NUMGRPS	1 to 63	Number of Groups. This subfield specifies the number of Do Not Disturb groups required. Enter a value from 1 to 63.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

Do Not Disturb (continued)

MAP example for table CUSTSTN

```
CUSTNAME        OPTNAME                              OPTION
_____________________________________________________________

NETDMT1     DND                  DND 10
```

Datafilling table FNMAP

Table FNMAP (Attendant Console Functional Key) assigns features to keys 2 through 43 on specified consoles. Table FNMAP must contain data to assign a dedicated incoming call identification (ICI) key and lamp for Do Not Disturb.

Datafill for Do Not Disturb for table FNMAP appears in the following table. The fields that apply to Do Not Disturb appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	Key. This field contains subfields CONSCLLI and ACKEY.
	CONSCLLI	alphanumeric	Console Common Language Location Identifier. This subfield contains the code assigned to the attendant console in Table CLLI. Enter the CLLI.
	ACKEY	2 to 43	Attendant Console Key and Lamp Number. This subfield contains the number of the attendant console key and lamp assigned to the activation and deactivation of the DND feature. Enter a value from 2 to 43. The default is 13.
RESULT		see subfields	Result. This field contains subfields KEYSEL and SPFN.
	KEYSEL	SPECL	Key Selector This subfield specifies the selector. Enter SPECL.
	SPFN	DND	Special Function. This subfield specifies the special function. Enter DND.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

```
KEY                                                  RESULT
_______________________________________________________________________


   ATTCONS  13                              SPECL  DND
```

Datafilling table ICIDATA

Table ICIDATA (Incoming Call Identification Data) provides flexible night service and the key and lamp display for each ICI number. Entries in table ICIDATA must assign a key and lamp display for Do Not Disturb.

Datafill for Do Not Disturb for table ICIDATA appears in the following table. The fields that apply to Do Not Disturb appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table ICIDATA

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	ICIDATA Key. This field contains subfields CUSTGRP and ICICODE.
	CUSTGRP	1 to 16 alphanumeric	Customer Group Name. This subfield specifies the name assigned to the customer group. Enter a 1 to 16 alphanumeric name.
	ICICODE	0 to 255	Incoming Call Identification Code. This subfield specifies the incoming call identification code number. Enter a value from 0 to 255.
NAME		DND	KLD Name. This field specifies the key and lamp display name. Enter DND.

Datafill example for table ICIDATA

Sample datafill for table ICIDATA appears in the following example.

MAP example for table ICIDATA

```
KEY        NAME                                      OPTIONS
_______________________________________________________________________N
ETWORK 13     DND                                            $
```

Do Not Disturb (continued)

Datafilling tables CUSTSTN, DNDSCHED and IBNTREAT for Enhanced DND

Prior to datafilling table DNDSCHED, datafill table CUSTSTN to indicate the number of DND groups supported for the customer group.

Datafill example for table CUSTSTN

In the example shown, the value 63 represents the number of Do Not Disturb groups supported by the customer group. Its range is 1 to 63.

Datafill example for table CUSTSTN for Enhanced DND

```
CUSTNAME    OPTNAME     OPTION
_____________________________________________________________________
RESGRP      DND         DND 63
```

Datafill example for table DNDSCHED

Using this datafill as an example, if a RES subscriber who resides in the RESGRP customer group is assigned the DND option, and DNDGRP is set to 2 at SERVORD time, then DND is active each evening from 6 p.m. until 7 p.m. for this line. If DND is active, then incoming calls to the RES subscriber are diverted to IBN treatment number 2 as defined by the DIVERSN field. The DIVERSN field is used an an index to table IBNTREAT.

Datafill example for table DNDSCHED for Enhanced DND

```
DNDSCKEY    DIVERSN     SCHED
_____________________________________________________________________
RESGRP 1    1                       $
RESGRP 2    2           (18 0 19 0)$
```

Datafill example for table IBNTREAT

The DIVERSN field from table DNDSCHED is used as an index to table IBNTREAT so callers who receive DND treatment are routed correctly.

Datafill example for table IBNTREAT for Enhanced DND

```
CUSTGRP     IBNTRTMT    ITDATA
_____________________________________________________________________
RESGRP      2            Y TRMT BUSY
```

*Note:*If a line is assigned the DND option but does not wish to activate DND at a preassigned time each day, datafill table DNDSCHED as shown above for the RES 1 tuple. This ensures that a DIVERSN is associated with each DND line in RESPGRP 1. The example below shows a corresponding entry in table IBNTREAT associated with the RESGRP 1 entry from the example for table DNDSCHED. The relationship between tables DNDSCHED and IBNTREAT ensure that callers receive the correct treatment when calling lines with DND active, even when no schedule is provided.

Datafill example for table IBNTREAT for Enhanced DND

```
CUSTGRP    IBNTRTMT    ITDATA
_____________________________________________________________
RESGRP     1           Y TRMT BUSY
```

Tools for verifying translations

The Do Not Disturb does not use tools for verifying translations

SERVORD

A caller who calls a DND that is active in RESGRP line 2 can be routed to BUSY treatment provided SCA with DND_ONLY = Y is inactive. If SCA is active with DND_ONLY = Y, then Enhanced DND functionality is provided and callers on the SCA list are allowed to terminate while callers not on the SCA list are not allowed to terminate.

Example DND ADO with DNDGRP assigned as RESGRP 2

```
ADO $6210042
OPTION:
> DND
DNDGRP:
> 1
```

If a subscriber in the RESGRP customer group does not want DND to become active at a preset time each day, then they can be assigned to RESGRP 1.

Do Not Disturb (continued)

Example DND ADO with DNDGRP assigned as RESGRP 1

```
ADO $6210040
OPTION:
> DND
DNDGRP:
> 1
```

The follwoing ADO example assigns SCA with DND_ONLY set to Y.

Example SCA ADO with DND_ONLY = Y

```
ADO $6210040
OPTION:
> SCA
BILLING OPTION: NOAMA
>
STATUS:
> ACT
DNS:
> 6136213500
VBCOUNT:
> 7
DNS:
> $
DND_ONLY:N
> Y
```

Enhancements to Do Not Disturb

The enhanced Do Not Disturb feature is available to RES and MDC lines and provides the following capabilities:

- A subscriber can dial the feature access code to activate or deactivate DO Not Disturb. DNDACT activates Do Not Disturb, and DNDDAEACT deactivates Do Not Disturb.
- Table DNDSCHED can be used to block calls for a predetermined time each day. This table allows up to 63 different time periods to be datafilled for each customer group.
- Table DNDSCHED begin and end times interact with DNDACT and DNDDEACT. If a subscriber's line has Do Not Disturb active as a result of a begin time in table DNDSCHED, the subscriber can dial DNDDEACT to deactivate DND. Similarly, and end-time deactivation of DND through table DNDSCHED turns off Do Not Disturb, whether it was activated through DND or a begin time in table DNDSCHED.

- SCA allows callers on the SCA screening list to bypass DND when it is active. This bypass is controlled by the parameter DND_ONLY, which is visible when you provision DNDSCHED.
- Enhanced Do Not Disturb is controlled by SOC RES00102.
- Enhanced DND is defined as a line with both the DND and SCA options with the SCA field DND_ONLY set to Y:

Do Not Disturb	Selective Call Acceptance	Action
Active and DND_ONLY=Y	Active and DND_ONLY=Y	Callers on the SCA screening list terminate to a line with DND active, whether DND was activated through table DNDSCHED, or by dialling the DNDACT access code from table IBNXLA. Callers not on the SCA screening list are routed to SCA treatment.
Active	Inactive and DND_ONLY=Y	All callers receive DND treatment as defined by tables DNDSCHED and IBNTREAT.
Inactive	Active and DND_ONLY=Y	SCA screening is not attempted on any termination. With DND_ONLY=Y, SCA screening is done only when DND is active. Under this condition, SCA OMs are not pegged.

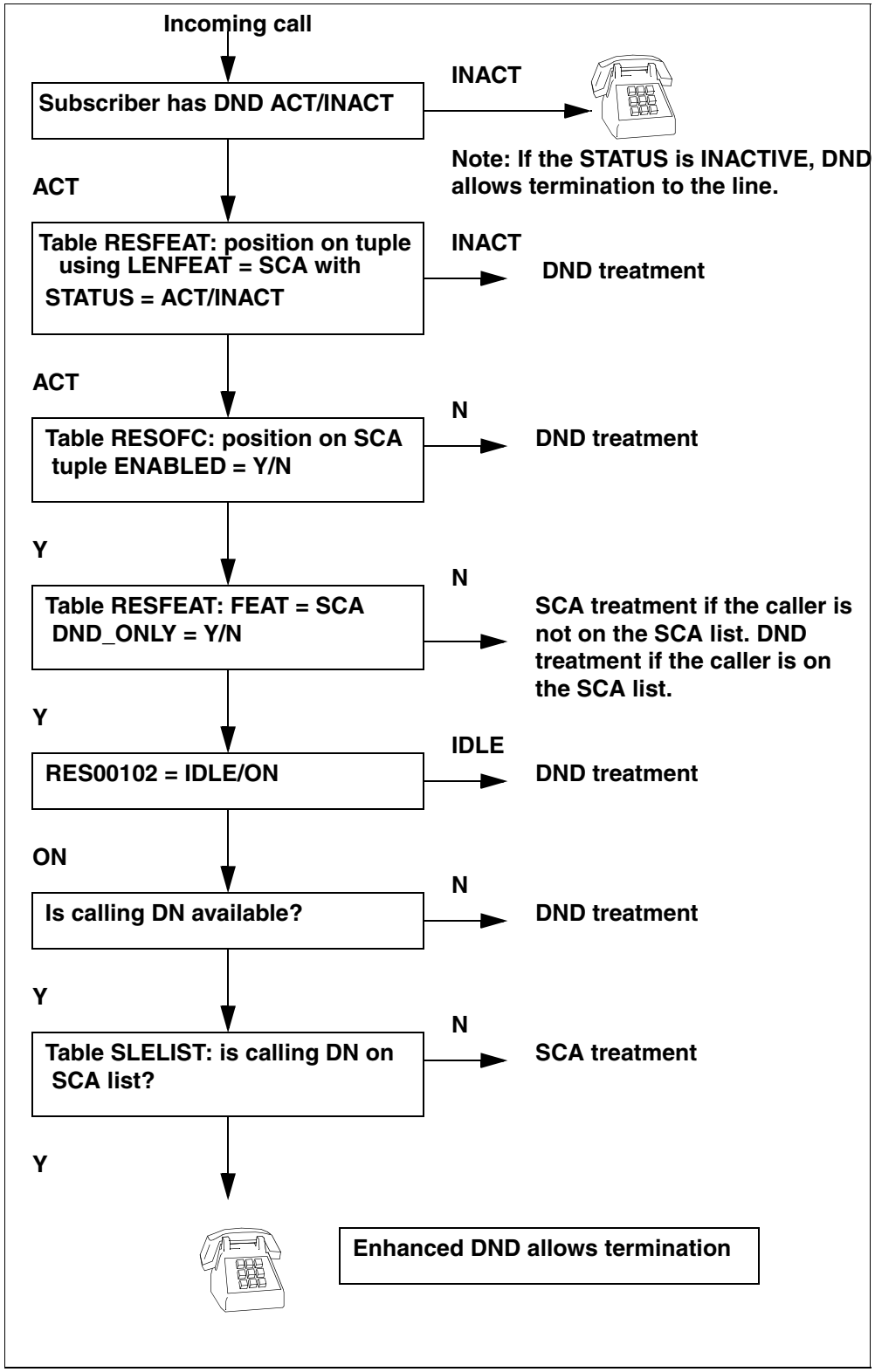
If the DND subscriber wishes to block all callers when DND is active, then turn off the SCA feature, do not subscribe to it, or set DND_ONLY to N.

The Enhanced DND call flow appears in the following diagram.

Do Not Disturb (continued)

Enhanced DND call flow

Do Not Disturb (continued)



Do Not Disturb (continued)

Interactions SCA

The following tables summarize the interactions between Enhanced DND and SCA.

DND and SCA (DND_ONLY = Y) Provisioned (RES00102 SOC = ON)

If DND_ONLY = Y	THEN
DND Inactive SCA Inactive	All callers terminate to the Enhanced DND subscriber.
DND Inactive SCA Active	All callers terminate to the Enhanced DND subscriber.
DND Active SCA Active	Callers on the SCA list terminate to the Enhanced DND subscriber. Callers not on the SCA list receive SCA treatment.
DND Active SCA Inactive	No callers terminate to the Enhanced DND subscriber.

DND and SCA (DND_ONLY = Y) Provisioned (RES00102 SOC = IDLE)

If DND_ONLY = Y	THEN
DND Inactive SCA Inactive	All callers terminate to the Enhanced DND subscriber.
DND Inactive SCA Active	All callers terminate to the Enhanced DND subscriber.
DND Active SCA Active	No callers terminate to the Enhanced DND subscriber.
DND Active SCA Inactive	No callers terminate to the Enhanced DND subscriber.

DND and SCA (DND_ONLY = N) Provisioned (RES00102 SOC = IDLE or SOC = ON)

If DND_ONLY = N	THEN
DND Inactive SCA Inactive	All callers terminate to the Enhanced DND subscriber.
DND Inactive SCA Active	Callers on the SCA list terminate to the Enhanced DND/SCA subscriber. Callers not on the SCA list receive SCA treatment.
DND Active SCA Active	Callers on the SCA list pass SCA screening but are denied termination by DND. Callers not on the SCA list receive SCA treatment.
DND Active SCA Inactive	Callers denied termination by DND.

Feature history

SN07 (DMS)

Feature A00002196 introduces enhancements which allow the setting of a scheduled time for the Do Not Disturb feature. In addition, the inclusion of Selective Call Acceptance (SCA) feature allows a subscriber to selectively accept calls arriving from a limited set of previously identified directory numbers. This affects datafilling of tables CUSTSTN, DNDSCHED and IBNTREAT

Feature history added.

Dynamic Measurements

Ordering codes

Operating group ordering code: MDC00002

Functionality ordering code: does not apply

Release applicability

BCS13 and later versions

Requirements

To operate, the Dynamic Measurements requires the following:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

Dynamic measurements (ACDYMS) is a MAP (maintenance and administration position) display of attendant console (AC) measurement activities of a specified subgroup of a customer group.

The information contains:

- number of attendants active
- number of calls waiting in queue
- number of consoles in position busy state
- number of idle consoles
- waiting time of the oldest call in queue

Operation

The Dynamic Measurements creates a new MAP display, IBNMEAS. The access of all operational measurement (OM) MAP displays occurs from IBNMEAS. The new MAP display ACDYMS is one of the OM MAP displays accessible from IBNMEAS. The ACDYMS displays the OMs of AC activities of a specified subgroup of a customer group. The display is dynamic and updates each 4 s. These measurements are for activity that occurs at the ACs in the 4 s interval. Dynamic Measurements do not accumulate.

Dynamic Measurements (continued)

User interface

The MAP display IBNMEAS appears in the following figure. The MAP display IBNMEAS has a blank display area and three menu commands:

- ACOM
- ACMON
- ACDYMS

The menu commands access the OM MAP levels ACOM and ACDYMS.

IBNMEAS MAP example

```
IBNMEAS
 0  QUIT
 2                    IBNMEAS:
 3
 4  ACOM
 5  ACMON
 6  ACDYMS
 7
 8  INACOM
 9
10
11
12
13
14
15
16
17
18
  OPERATOR
Time: 15:04
```

Dynamic Measurements (continued)

The OM MAP display ACDYMS appears in the following figure and contains the following fields:

- ACACTIVE
  - — The number of ACs in the selected subgroup that are active appears in this field.
- ACIDLE
  - — The number of ACs in the selected subgroup that are idle appears in this field.
- ACPOSBSY
  - — The number of ACs with the Position Busy (POS BSY) lamp lit appears in this field.
- OLDESTCALL
  - — The amount of time the oldest call in the selected subgroup waited in queue appears in this field.
- QCALLS
  - — The number of calls in the selected subgroup inactive in queue appears in this field.

OM MAP display ACDYMS has the following menu commands:

- Nextsg
  - — This command displays the next subgroup of the customer group when displaying a subgroup of a customer group. The loss of the displayed console OMs of the subgroup occurs when you issue this command. The OMs of the next subgroup appear in their zero state. If the system displays the last subgroup of the customer group when you issue the command, the system returns the message
    `NO MORE SUBGROUPS - USE SELECT COMMAND.`
- Quit
  - — This command quits from the ACOM MAP display and cancels the display of the current OMs.
- Select_ customer group (subgroup)
  - — This command displays the console OMs for a customer group and subgroup. You must specify the customer group parameter. The subgroup parameter is optional. If you do not specify the subgroup, the

Dynamic Measurements (continued)

console OMs of subgroup 0 of the specified customer group appears. At the start, the OMs appear in the zero state.

ACDYMS MAP example

```
ACDYMS
 0  QUIT                ACACTIVE : XXXXX            ACIDLE    : XXXXX
 2
 3  Select_
 4                      ACPOSBY  : XXXXX            QCALLS    : XXXXX
 5
 6  Nextsg
 7                                          OLDESTCALL: XXXXX
 8
 9                  ACDYMS:
10
11
12
13
14
15
16
17
18
  C
Time: 15:04
```

Translations table flow

The Dynamic Measurements does not affect translations table flow.

Limits

The Dynamic Measurements does not have limits.

Interactions

The Dynamic Measurements does not have functionality interactions.

Activation/deactivation by the end user

Enter the following command to access the ACDYMS MAP display:

MAPCI;IBNMEAS;ACDYMS

Billing

The Dynamic Measurements does not affect billing.

Dynamic Measurements (end)

Station Message Detail Recording

The Dynamic Measurements does not affect Station Message Detail Recording.

Datafilling office parameters

The Dynamic Measurements does not affect office parameters.

Datafill sequence

The Dynamic Measurements does not affect datafill.

Tools for verifying translations

The Dynamic Measurements does not use tools for verifying translations.

SERVORD

The Dynamic Measurements does not use SERVORD.

Flexible Display Language

Ordering codes

Functional group ordering code: MDC00002

Functionality ordering code: does not apply

Release applicability

BCS13 and later versions

Requirements

To operate, Flexible Display Language has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The Flexible Display Language allows the AC operator to change the display on an attendant console (AC) to a language different from English. The feature provides the customer with the option of seven additional languages for system messages that appear on the AC. The user defines the seven additional languages.

The AC operator can select the correct language for a specified station. When an AC operator selects a language for the console, the language is an automatic default. The default remains until the operator changes the datafill.

The feature requires two new tables and three updated tables. In table ACLANG (Attendant Console Language) the customer selects and enters the language. Enter data in the translations in table ACMSG (Attendant Console Message).

Operation

Before the addition of Flexible Display Language, system messages appeared in English. The AC operator can adapt consoles to the language that the attendant selects. The use of the Language Feature Key or the Wild Card Key feature allows the AC operator to perform this action. The entry of datafill determines the translations of the messages. The end user enters the messages in the same format that the messages appear on the console.

The addition of Flexible Display Language does not increase the capabilities of the display. The translated messages must have the same letters, numbers, and special characters as the English version of the message. The translation

of English system messages through datafill in French appears in the following example.

English	French
CONFERENCE CALL	APPEL CONFERENCE
PLEASE TRY AGAIN	SVP ESSAYER ENCORE*
SRC DISCONNECT	SRC DECONNECTER
NETWORK BLOCK	RESEAU BLOQUE
NO ACTIVE LOOP	NON BOUCLE ACTIVE*
TRY AGAIN	ESSAYER DE NOUVEAU*
UNASSIGNED DN	DN NON ATTRIBUE
TRUNK TROUBLE	DERANG DE CIRCUIT*

Translations table flow

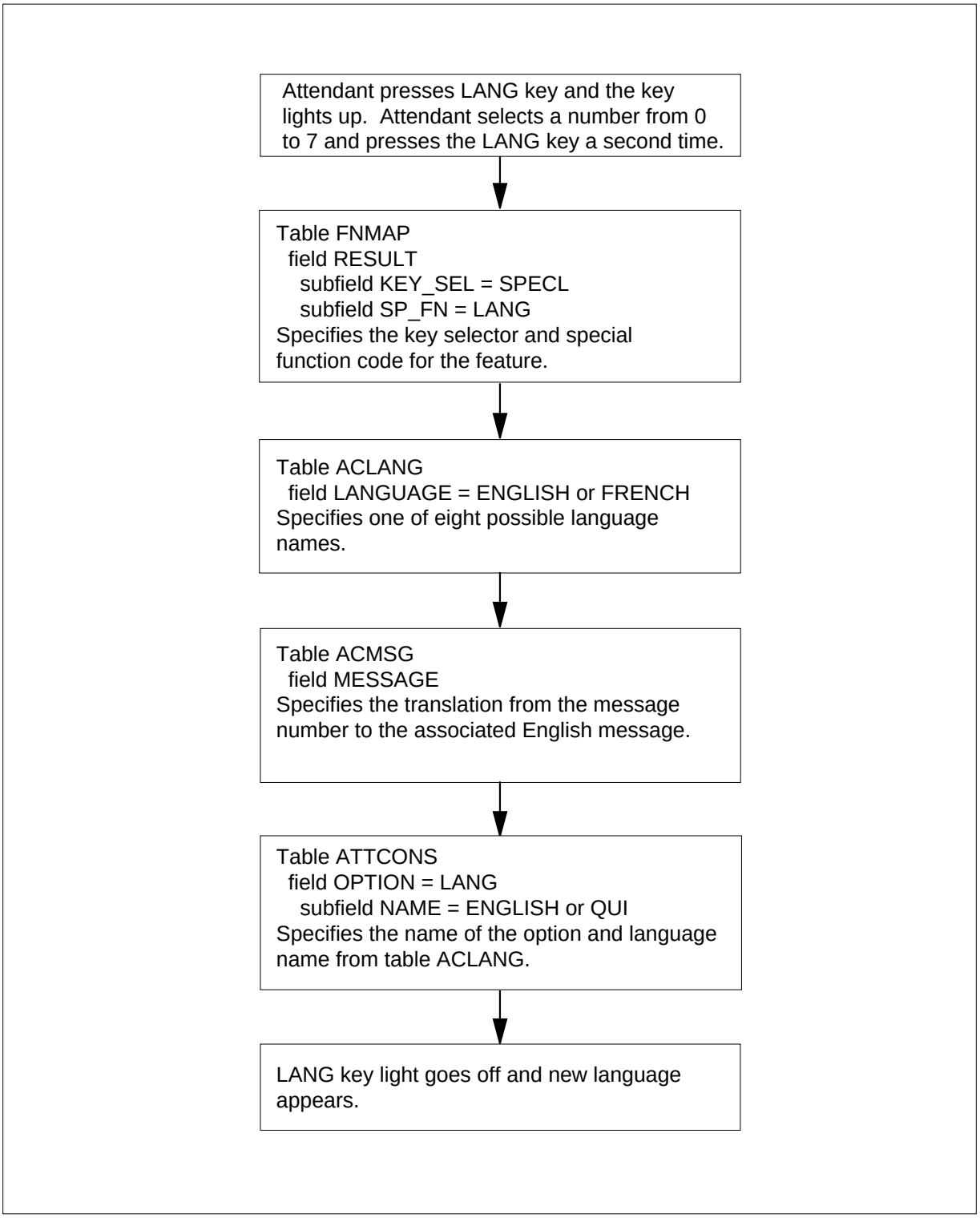
A description for Flexible Display Language translations tables appears in the following list:

- Table FNMAP: (Attendant Console Functional Key) contains fields for the assignment of a dedicated incoming call identification (ICI) key and lamp to parked calls. The parked calls timed out and are in the process of a recall to the attendant.
- Table WCKCODES: (Wild Card Key Codes) contains fields for the assignment of a Wild Card key access code to Flexible Display Language.
- Table ACLANG: (Attendant Console Display Language) contains fields to store the language names available for the AC display.
- Table ACMSG: (Attendant Console Messages) contains a set of English messages for AC display and adjustable sets of messages in alternate languages.
- Table ATTCONS: (Attendant Console) contains a list of options accessible to the attendant console. You can add a new option to table ATTCONS for automatic default to the selected language.

The Flexible Display Language translation process appears in the following flowchart.

Flexible Display Language (continued)

Table flow for Flexible Display Language



Flexible Display Language (continued)

The datafill content for the flowchart appears in the following table.

Datafill example for Flexible Display Language

Datafill table	Example data
FNMAP	IBNCON1 2 SPECL LANG
WCKCODES	BNRMC 14 LANG
ACLANG	ENGLISH
	FRENCH
ACMSG	ENGLISH MSG 1 CONFEREE_ADDED
	FRENCH MSG 1 PART_CONF_ADJOUTE
ATTCONS	BNRMCCON1 BNRMC 0 5 Y 4X08AA HOST 02 0 04 02
	HOST 02 0 04 03 HOST 02 0 04 04 Y (LANG ENGLISH) $

Limits

The limits that apply to Flexible Display Language follow:

Language selections can have a maximum of 16 characters. The limits are the English alphabet, numbers 0 through 9. The limits include special characters & < > * , - . / : _ . The maximum number of characters that the system can display limits the number of message translations to 16. Message 0 in English, NO SUPV can have a maximum of seven characters. Translation for time and date displays cannot occur. Time and date displays appear in standard form (HH MM). Translation for month and day can occur. Month and day displays appear in the same order in all languages (MM DD).

Interactions

The paragraphs that follow describe the interactions between Flexible Display Language and other functionalities.

A console maintains the language of operation when automatic or manual maintenance procedures occur. To key in language changes, you must plug in a headset or handset. If you do not plug in a headset or a handset, the sequence is not correct. When language selection is complete, you do not affect the selection when you unplug the headset/handset.

Flexible Display Language (continued)

If the console does not have the Feature or Wild Card key, the selection of display language occurs in datafill. To change the language you must perform the following steps:

- remove the console from service
- select the language option in table ATTCONS (Attendant Console)
- return the console to service

Maintenance personnel receive a printed log of treatments when the system sends a treatment to the display. The log contains an English version of the treatment message. The system can record the logs in French for maintenance personnel that use French.

Activation/deactivation by the end user

The customer selects the correct datafill when the subscriber selects option Flexible Display Language. The customer defines the language the console must use.

The user can select the alternate console display. To select this display, the user can use the Function key on the console or the Wild Card key. To change the operating language of the console, the attendant can press the LANG key. The key lights up. The attendant must select a number from 0 through 7. The number must correspond to the desired display language. The attendant must press the LANG key a second time. The light goes off and the new language appears.

Examples of an activation of an alternate console display language that the attendant keys, appear in the following table.

Desired State	Keying sequence
English Operation	LANG+ 0 + LANG
Alternate Language Operation	LANG + n + LANG

Legend
LANG: Flexible Language Key
0: English
n: 1–7 Index of Defined Languages

If the attendant enters a key sequence that is not correct, the current language in the console remains. The attendant must not access a loop to complete a key sequence.

The attendant can query the system to make sure that correct language selection occurs. The query displays when the attendant presses LANG + # (octothorpe). The first language that appears is English. Press the octothorpe to display subsequent languages. The attendant knows all languages did appear when English appears again.

To add a language while in the query mode, the attendant can press the LANG key when the desired language displays. To exit the query, the attendant presses any key except the LANG key, or a key that is not assigned. The display clears when the attendant exits the query.

Billing

The Flexible Display Language does not affect billing.

Station Message Detail Recording

The Flexible Display Language does not affect Station Message Detail Recording.

Datafilling office parameters

The Flexible Display Language does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Flexible Display Language appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Flexible Display Language (Sheet 1 of 2)

Table	Purpose of table
FNMAP (see note)	Attendant Console Functional Key. This table contains fields to assign a dedicated incoming call identification (ICI) key and lamp for parked calls. The calls must have timed out and are in the process of a recall to the attendant.
WCKCODES (see note)	Wild Card Key Codes. This table contains fields that assign a Wild Card key access code to Flexible Display Language.
ACLANG	Attendant Console Display Language. This table contains fields that store the language names available for the AC display.
Note: The entry of data in table FNMAP (Attendant Console Functional Key) or table WCKCODES (Wild Card Key Codes) occurs. You do not have to enter data in both tables.	

Flexible Display Language (continued)

Datafill requirements for Flexible Display Language (Sheet 2 of 2)

Table	Purpose of table
ACMSG	Attendant Console Messages. This table contains a set of English messages for AC display and adjustable sets of messages in alternate languages.
ATTCONS	Attendant Console. This table contains a list of options accessible to the attendant console. You must add a new option to table ATTCONS for automatic default to the selected language.
Note: The entry of data in table FNMAP (Attendant Console Functional Key) or table WCKCODES (Wild Card Key Codes) occurs. You do not have to enter data in both tables.	

Datafilling table FNMAP

Table FNMAP (Attendant Console Functional Key) contains fields to assign a dedicated incoming call identification (ICI) key and lamp for parked calls. The calls are timed out and recalled to the attendant.

Datafill for Flexible Display Language for table FNMAP appears in the following table. The fields that apply to Flexible Display Language appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfields	Result. This field contains subfields KEY_SEL and SP_FN.
	KEY_SEL	SPECL	Key Selector. This subfield specifies the key selector. Enter SPECL for special.
	SP_FN	BUZZ	Special Function. This subfield specifies the special function code for the Flexible Console Alerting feature. Enter BUZZ.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

```
KEY                                            RESULT
________________________________________________________
IBNCON1    2                          SPECL        LANG
```

Datafilling table WCKCODES

Table WCKCODES (Wild Card Key Codes) contains fields to assign a Wild Card key access code to Flexible Display Language.

Datafill for Flexible Display Language for table WCKCODES appears in the following table. The fields that apply to Flexible Display Language appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table WCKCODES

Field	Subfield or refinement	Entry	Explanation and action
WCKEY		see subfields	Key. This field contains subfields CUSTNAME and TABIDX.
	CUSTNAME	customer group name	Customer Group Name. This subfield specifies the 1- to 16-character name assigned to the customer group. Enter the name of the customer group.
	TABIDX	0-99	Table Index. This subfield specifies the Wild Card key access code which the system assigns to the Flexible Console Alerting feature. Enter a value from 0 to 99.
VALUE		see subfield	Result. This field contains subfield WC_SP_FN.
	WC_SP_FN	BUZZ	Wild Card Key Special Function. This subfield specifies the Wild Card key special function for the Flexible Console Alerting feature. Enter BUZZ.

Datafill example for table WCKCODES

Sample datafill for table WCKCODES appears in the following example.

Flexible Display Language (continued)

MAP example for table WCKCODES

```
WCKEY                                        VALUE
--------------------------------------------------
BNRMC       14                               LANG
```

Datafilling table ACLANG

Table ACLANG (Attendant Console Display Language) contains fields to store the language names available for the AC display.

Datafill for Flexible Display Language for table ACLANG appears in the following table. The fields that apply to Flexible Display Language appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table ACLANG

Field	Subfield or refinement	Entry	Explanation and action
LANGUAGE		language name (1-16 characters)	Language This field specifies one of eight possible 1-character to 16-character language names. The first tuple of the table is ENGLISH. Enter the language name.

Datafill example for table ACLANG

Sample datafill for table ACLANG appears in the following example.

MAP example for table ACLANG

```
 LANGUAGE
--------------------------------------------------
  ENGLISH
  FRENCH
```

Datafilling table ACMSG

Table ACMSG (Attendant Console Messages) contains a set of English messages for AC display and adjustable sets of messages in alternate languages.

Datafill for Flexible Display Language for table ACMSG appears in the following table. The fields that apply to Flexible Display Language appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table ACMSG

Field	Subfield or refinement	Entry	Explanation and action
MSGKEY		see subfields	Message Key. This field contains subfields LANGUAGE, MSGTYPE, and MSGNUM
	LANGUAGE		
	MSGTYPE	MSG, TRMT, PREFIX, DAY	Message Type. This subfield specifies the message type. Enter MSG, TRMT, PREFIX, or DAY.
	MSGNUM	0-127	Message Number. This subfield specifies the sequence number for the message. Enter a value from 0 to 127.
MESSAGE			Message. This field specifies a string of characters to use as the translation of the corresponding ENGLISH message. Enter the message.

Datafill example for table ACMSG

Sample datafill for table ACMSG appears in the following example.

MAP example for table ACMSG

```
  MSGKEY                                                    MESSAGE
-------------------------------------------------------------------

ENGLISH     MSG             1             CONFEREE_ADDED
FRENCH      MSG             1             PART_CONF_ADJOUTE
```

Flexible Display Language (end)

Datafilling table ATTCONS

Table ATTCONS (Attendant Console) contains a list of options that the attendant console can access. The addition of a new option to table ATTCONS for automatic default to the selected language occurs.

Datafill for Flexible Display Language for table ATTCONS appears in the following table. The fields that apply to Flexible Display Language appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table ATTCONS

Field	Subfield or refinement	Entry	Explanation and action
OPTION		LANG	Option This field specifies that the addition of a new option, LANG, occurred. Enter LANG.
	NAME	ENGLISH or QUI	Name This subfield specifies the name of a language from table ACLANG. Enter ENGLISH or QUI.

Datafill example for table ATTCONS

Sample datafill for table ATTCONS appears in the following example.

MAP example for table ATTCONS

```
CONSOLE     CUSTNAME  SUBGRP     NCOS     CDR       CARDCODE
INLEN         OUTLEN             TALKLEN              INSV
                                                      OPTION
_____________________________________________________________

BNRMCCON1         BNRMC    0          5        Y      4X08AA
HOST 02 0 04 02 HOST 02 0 04 03  HOST 02 0 04 04  Y
                          (LANG ENGLISH)  $
```

Tools for verifying translations

The Flexible Display Language does not use tools for verifying translations.

SERVORD

The Flexible Display Language does not use SERVORD.

Immediate Notification of Priority Enqueued Calls

Ordering codes

Functional group ordering code: MDC00002

Functionality ordering code: does not apply

Release applicability

BCS13 and later versions

Requirements

To operate, Immediate Notification of Priority Enqueued Calls has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC000001

Description

The Immediate Notification of Priority Enqueued Calls allows the system to alert the attendant to a queued emergency call. The attendant can be active on a call, position busy, or programming a feature.

Operation

The Immediate Notification of Priority Enqueued Calls allows the system to alert the attendant to a queued emergency call. The attendant can be active on a call, position busy, or programming a feature.

Translations table flow

The Immediate Notification of Priority Enqueued Calls does not affect translations table flow.

Limits

The Immediate Notification of Priority Enqueued Calls does not have limits.

Interactions

The Immediate Notification of Priority Enqueued Calls does not have functionality interactions.

Activation/deactivation by the end user

The Immediate Notification of Priority Enqueued Calls does not require activation or deactivation by the end user.

Immediate Notification of Priority Enqueued Calls (continued)

Billing

Immediate Notification of Priority Enqueued Calls does not affect billing.

Station Message Detail Recording

The Immediate Notification of Priority Enqueued Calls does not affect Station Message Detail Recording.

Datafilling office parameters

The Immediate Notification of Priority Enqueued Calls does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Immediate Notification of Priority Enqueued Calls appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Immediate Notification of Priority Enqueued Calls

Table	Purpose of table
SUBGRP	Attendant Subgroup. This table contains the options to assign the emergency alerting tones to Immediate Notification of Priority Enqueued Calls.
ICIDATA	Incoming Call Identification Data. This table contains fields to assign an ICI key and lamp display for emergency calls.

Datafilling table SUBGRP

Table SUBGRP (Attendant Subgroup) contains the options to assign the emergency alerting tones to Immediate Notification of Priority Enqueued Calls.

Enter table SUBGRP with option EMALTONE for an alerting tone. Enter SUBGRP with EMALTONE when an attendant console (AC) in the subgroup receives emergency calls.

> ***Note:*** You cannot assign the audible alerting tone for each console. Consoles that are not idle can receive the alerting tone. This process can annoy an attendant that handles an active call or another emergency call.

Datafill for Immediate Notification of Priority Enqueued Calls for table SUBGRP appears in the following table. The fields that apply to Immediate

Notification of Priority Enqueued Calls appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table SUBGRP

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		EMALTONE	Options. This field specifies that the subgroup has the emergency alerting tone option. Enter EMALTONE.

Datafill example for table SUBGRP

Sample datafill for table SUBGRP appears in the following example.

MAP example for table SUBGRP

```
TABLE: SUBGRP

SGRPKEY    SNPADN     CQOVTRMT  CQFLTHR  CQDIVTHR STNEXTLN
                                         MINDIGSR  OPTIONS
_____________________________________________________________

MDCGRP1 1 919 2256780   7        5        6          5
                                          5 (EMALTONE) $
```

Datafilling table ICIDATA

Table ICIDATA (Incoming Call Identification Data) contains fields to assign an ICI key and lamp display for emergency calls. Enter data in this table one time for each Emergency ICI key required. You can enter data for a maximum of five Emergency ICI keys. Enter field OPTIONS with EMERG to assign the emergency option.

Datafill for Immediate Notification of Priority Enqueued Calls for table ICIDATA appears in the following table. The fields that apply to Immediate

Immediate Notification of Priority Enqueued Calls (end)

Notification of Priority Enqueued Calls appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table ICIDATA

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	ICIDATA Key. This field contains subfields CUSTGRP and ICICODE.
	CUSTGRP	alphanumeric (1 -16 characters)	Customer Group Name. This subfield specifies the 1- to 16-character alphanumeric name assigned to the customer group. Enter the customer group name.
	ICICODE	3	Incoming Call Identification Code. This subfield specifies the ICI code. Enter 3.
OPTIONS		EMERG	Options. This field specifies the option and associated subfield that the ICICODE can receive. Enter EMERG.

Datafill example for table ICIDATA

Sample datafill for table ICIDATA appears in the following example.

MAP example for table ICIDATA

```
TABLE: ICIDATA

   KEY          NAME                  OPTION
_____________________________________________________

   BNRMC    3   CMPONRC                        (EMERG)  $
```

Tools for verifying translations

The Immediate Notification of Priority Enqueued Calls does not use tools for verifying translations.

SERVORD

The Immediate Notification of Priority Enqueued Calls does not use SERVORD.

Peg Counts on LDNs on Attendant Consoles

Ordering codes

Functional group ordering code: MDC00002

Functionality ordering code: does not apply

Release applicability

BCS27

Requirements

To operate, Peg Counts on LDNs on Attendant Consoles has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The Peg Counts on LDNs on Attendant Consoles improves the operational measurements (OM) taken on attendant consoles (AC). Peg Counts provides separate peg counts for listed directory numbers (LDN). An LDN register increases each time an attendant answers a call to the LDN. The OMs are available for each subgroup and each AC.

The M selector in field DN_SEL defines the LDN in table DNROUTE. Table DNROUTE associates each LDN with a customer group and subgroup. This feature creates a field in table DNROUTE. The name of this field is LDN_OM_REPORT. If LDN_OM_REPORT is Y (yes) for a specified LDN, the system takes OMs on that LDN. A maximum of seven LDNs can have LDN_OM_REPORT set to Y in a specified customer group subgroup.

The Peg Counts on LDNs on Attendant Consoles adds the QLDN (query listed directory numbers) command to the INACOM level of the MAP. This command allows the system to display LDNs.

Operation

The Peg Counts on LDNs on Attendant Consoles improves the OM taken on ACs. Peg Counts provide separate peg counts for LDNs. An LDN register increases each time an attendant answers a call to the LDN. The system provides OMs for each subgroup and each AC.

Translations table flow

The Peg Counts on LDNs on Attendant Consoles does not affect translations table flow.

Peg Counts on LDNs on Attendant Consoles (continued)

Limits

A subgroup can have more than seven LDNs. A maximum of seven LDNs in a subgroup can have separate LDN registers. For specified customer group and subgroup, a maximum of seven LDNs can have field LDN_OM_REPORT in Table DNROUTE set to Y.

Interactions

The Peg Counts on LDNs on Attendant Consoles does not have functionality interactions.

Activation/deactivation by the end user

The Peg Counts on LDNs on Attendant Consoles does not require activation or deactivation by the end user.

Billing

The Peg Counts on LDNs on Attendant Consoles does not affect billing.

Station Message Detail Recording

The Peg Counts on LDNs on Attendant Consoles does not affect Station Message Detail Recording.

Datafilling office parameters

The Peg Counts on LDNs on Attendant Consoles does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Peg Counts on LDNs on Attendant Consoles appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Peg Counts on LDNs on Attendant Consoles

Table	Purpose of table
DNROUTE	Directory Number Route. This table contains directory numbers in the switch. These numbers include a directory number (DN) that identifies a route. This table does not contain a line equipment number (LEN).

Datafilling table DNROUTE

Table DNROUTE (Directory Number Route) contains DNs in the switch like a DN that identifies a route. The table does not contain a LEN. Table DNROUTE associates a DN with a specified trunk group member.

Peg Counts on LDNs on Attendant Consoles (continued)

Use the M selector in field DN_SEL to define LDNs in table DNROUTE. Table DNROUTE associates each LDN with a customer group and subgroup.

For each LDN, field LDN_OM_REPORT of table DNROUTE specifies if the system can keep an OM for the LDN. A maximum of seven LDNs in a subgroup can have LDN_OM_REPORT set to Y. A subgroup can have more than seven LDNs. The DMS switch does not allow you to enter Y in field LDN_OM_REPORT. You cannot enter Y in field LDN_OM_REPORT on the eighth or higher LDN tuple in a subgroup.

Datafill for table DNROUTE for this feature appears in the following table. The fields that apply to this feature appear in this table. See the data schema section in this document for details on all fields in this table.

Datafilling table DNROUTE

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	Directory Number Results. This field contains subfields DNSEL, CUSTGRP, SUBGRP, ICI, and LDN_OM_REPORT. Only subfields DNSEL and LDN_OM_REPORT apply to this feature.
	DNSEL	M	Directory Number Selector. This subfield specifies the DN selector. Enter M.
	LDN_ OM_ REPORT	Y or N	Listed Directory Number Report. This subfield specifies if the listed DN increases for the OM file. Enter Y to turn on operational measurements (OMs) for the LDN. Enter N if OMs are not a requirement for the LDN.
Note: You cannot change an LDN tuple in table DNROUTE. You must delete the tuple and add the tuple again.			

Datafill example for table DNROUTE

Sample datafill for table DNROUTE appears in the following example.

MAP example for table DNROUTE

```
 TABLE: DNROUTE
AREACODE   OFCCODE   STNCODE                          DNRESULT
_____________________________________________________________
613         621      1000                    M   CUST1 0 28 Y
```

Peg Counts on LDNs on Attendant Consoles (end)

Tools for verifying translations

The Peg Counts on LDNs on Attendant Consoles does not use tools for verifying translations.

SERVORD

The Peg Counts on LDNs on Attendant Consoles does not use SERVORD.

3 Datafilling MDC Standard

The following chapter describes the MDC Standard, MDC00003, functionality.

Activate/Deactivate CFU/CFI Functionality

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

NA003 and up

NA003 introduced Activate/Deactivate CFU/CFI Functionality.

Requirements

To operate Activate/Deactivate CFU/CFI Functionality requires the functional groups that follow:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The full name of this feature is Attendant Console (AC) - Activate/Deactivate Call Forwarding Universal / Call Forwarding Intragroup. This feature allows an attendant to activate, deactivate, and program Call Forwarding for a customer group station number.

Operation

The attendant can assign a console feature key to the call forward station (CFS). The attendant can also assign this feature to the Wild Card key.

To query the current CFU/CFI status of a station, the attendant performs the steps that follow:

- Press the CFS key. The CFS lamp flashes at 60 ipm. The prompt for the station directory number appears as CF:INPUT.
- Enter the station DN.
- Press the CFS key again. The system updates the CFS lamp indication, and one of the following appears for the station:
  - — The CFS lamp is on if Call Forwarding is active for the station. The console displays ACTIVATED.
  - — The CFS lamp flashes at 60 ipm if the station has CFU/CFI as a line option but the feature is not active. The console displays DEACTIVATED.

— The CFS lamp is off if the station does not have CFU/CFI as a line option. The console displays DISALLOWED.

After the attendant has queried the CFU/CFI status for the station, the attendant can end the query by pressing the Release (RLS) key.

To activate or deactivate CFU/CFI for a station, the attendant performs the steps that follow:

- To activate CFU/CFI for an IBN or Meridian business set:
  - — Determine whether CFU/CFI was previously activated for the set.
  - — If CFU/CFI was previously activated for the set, press the CFS key, press the asterisk key (*), and then press the CFS key again. The message ACTIVATED appears on the console and the CFS lamp turns on for 3 s.
  - — If CFU/CFI was not previously activated for the set, press the CFS key, enter the DN to which the system forwards calls, and then press the CFS key again. The message ACTIVATED appears on the console and the CFS lamp turns on for 3 s.
- To activate CFU/CFI for a 500/2500 set, perform the following steps:
  - — Press the asterisk key (*).
  - — Enter the DN to which the system forwards calls.
  - — Press the CFS key again. The message ACTIVATED appears on the console and the CFS lamp turns on for 3 s.
- To deactivate CFU/CFI, press the CFS key, press the octothorpe key (#), and press the CFS key again. The message DEACTIVATED appears on the console.

Translations table flow

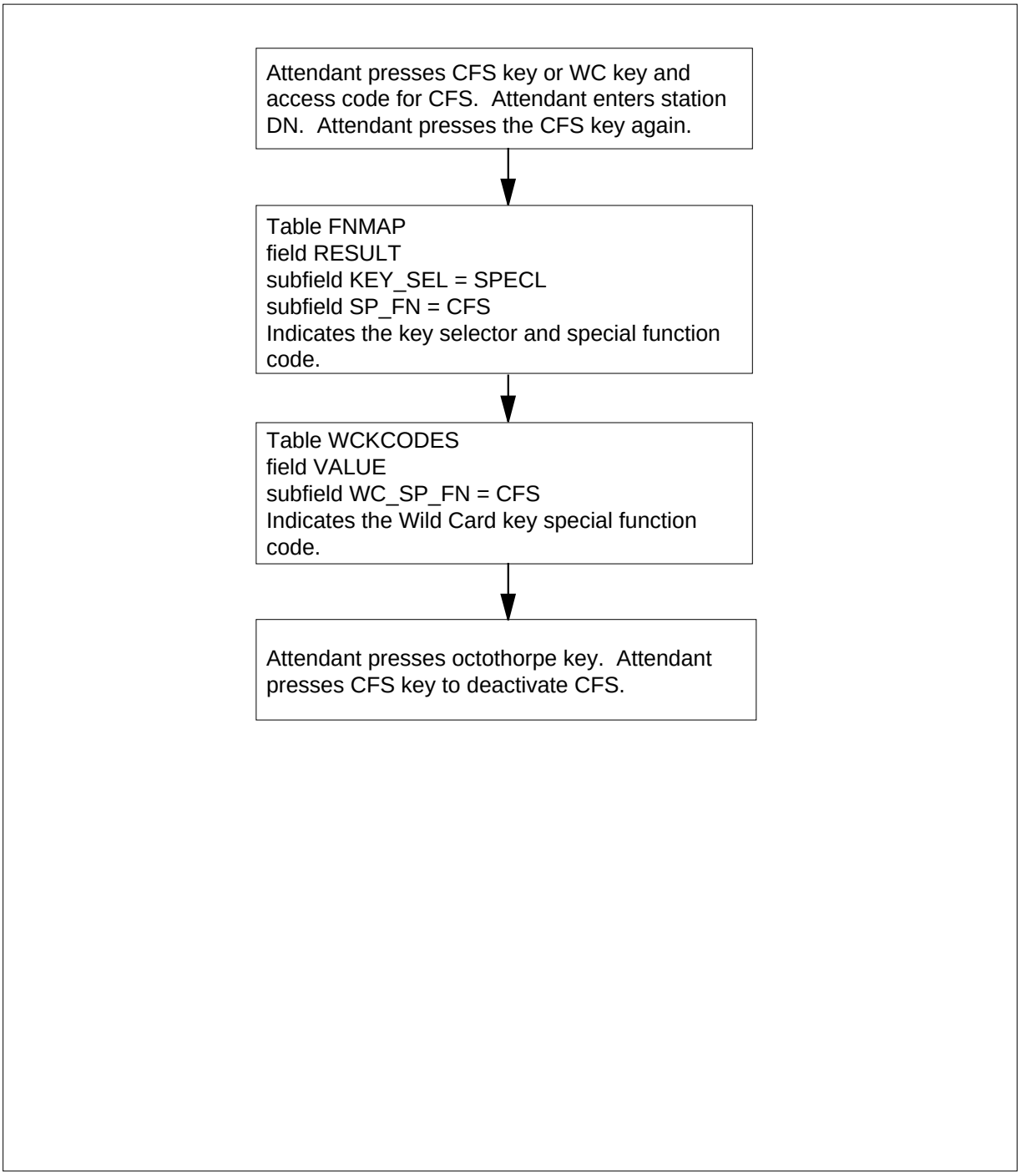
A description of the Activate/Deactivate CFU/CFI Functionality translations tables appears in the following list:

- Table FNMAP (Attendant Console Functional Key) contains fields that allow the attendant to assign a CFS key and lamp on the AC.
- The attendant can activate and deactivate Call Forwarding with a Wild Card key access code. The attendant does not use a dedicated key to activate and deactivate Call Forwarding. To perform this action, the attendant uses the fields in table WCKCODES (Wild Card Key Codes).

The flowchart that follows provides the Activate/Deactivate CFU/CFI Functionality translations process.

Activate/Deactivate CFU/CFI Functionality (continued)

Table flow for Activate/Deactivate CFU/CFI Functionality



Activate/Deactivate CFU/CFI Functionality (continued)

The table that follows lists the datafill content used in the flowchart.

Datafill example for Activate/Deactivate CFU/CFI Functionality

Datafill table	Example data
FNMAP	ATTCONS 30 SPECL CFS
WCKCODES	BNRMC 14 CFS

Limitations and restrictions

The limitations and restrictions that follow apply to Activate/Deactivate CFU/CFI Functionality:

- The AC and the station that the attendant queries must belong to the same customer group.
- The attendant console and the station that the attendant activates or programs must belong to the same customer group.
- The AC and the station that the attendant deactivates must belong to the same customer group.

Interactions

The paragraphs that follow describe how Activate/Deactivate CFU/CFI Functionality interacts with other functionalities.

For IBN or Meridian business sets, each activation or deactivation sequence by the attendant results in a corresponding activation or deactivation for each of the DN appearances on the set.

For 500/2500 sets, the DN to which calls are forwarded is deleted when CFU/CFI is deactivated.

Attendant - Auto Dial

The Attendant - Auto Dial feature and the Activate/Deactivate CFU/CFI Functionality can operate at the same time.

Console Trouble Key

The Console Trouble Key feature and the Activate/Deactivate CFU/CFI Functionality can operate at the same time.

HOLD Key

The attendant can press the HOLD key to terminate the feature.

Activate/Deactivate CFU/CFI Functionality (continued)

Loop Key

The attendant can press a Loop key to terminate the feature.

Release Key

The attendant can press the RLS key to terminate the feature.

Wild Card Key

The attendant can start the feature with the Wild Card Key.

Activation/deactivation by the end user

The attendant must assign a console feature key or the Wild Card Key to the CFS. The attendant performs the following steps to query the current CFU/CFI status of a station. To activate, deactivate or program CFU/CFI, the attendant must also perform the following steps:

Activation and deactivation of Activate/Deactivate CFU/CFI Functionality by the user

At the attendant console

1 Press the CFS key.

Response:

The CFS lamp flashes at 60 ipm. The message CF:INPUT appears as a prompt for the station DN.

2 Enter the station DN.

Response:

No response.

3 Press the CFS key again.

Response:

This action updates the CFS lamp. One of the following appears for the station:

- The CFS lamp is on if call forwarding is active for the station. The console displays ACTIVATED.
- The CFS lamp flashes at 60 ipm if the station has CFU/CFI as a line option but the feature is not active. The console displays DEACTIVATED.
- The CFS lamp is OFF if the station does not have CFU/CFI as a line option. The console displays DISALLOWED.

After the attendant presses the CFS key a second time, the attendant can terminate the feature. To terminate the feature, the attendant presses the Release (RLS) key, or uses one of the following keyboard sequences:

4 To activate CFU/CFI for a Meridian or IBN business set, press the asterisk key (*) and press the CFS key.

Response:

The message ACTIVATED appears on the console. The CFS lamp turns on for 3 s.

5 To activate and program CFU/CFI for 500/2500 sets, perform the following actions:

- Press the asterisk key (*).
- Enter the DN to which the system forwards calls.
- Press the CFS key.

Response:

The message ACTIVATED appears on the console. The CFS lamp turns on for 3 s.

6 To deactivate CFU/CFI, press the octothorpe key (#) and press the CFS key.

Response:

The message DEACTIVATED appears on the console.

Billing

Activate/Deactivate CFU/CFI Functionality does not generate billing records or changes.

Station Message Detail Recording

Activate/Deactivate CFU/CFI Functionality does not require Station Message Detail Recording.

Office parameters used by activate/deactivate CFU/CFI functionality

Activate/Deactivate CFU/CFI Functionality does not generate office parameters.

Datafill sequence

The table that follows lists the tables that require datafill to put Activate/Deactivate CFU/CFI Functionality into operation. You must enter data into the table in this order.

Datafill requirements for Activate/Deactivate CFU/CFI Functionality

Table	Purpose of table
FNMAP	Attendant Console Functional Key. This table contains fields that the attendant uses to assign a CFS key and lamp on the AC. The attendant performs this action to access the Activate/Deactivate CFU/CFI Functionality.
WCKCODES	Wild Card Key. This table contains fields that allow the attendant to activate and deactivate Call Forwarding with a Wild Card key access code. The attendant does not use a dedicated key to activate and deactivate Call Forwarding. The attendant uses this table to perform this action.

Activate/Deactivate CFU/CFI Functionality (continued)

Datafill related to activate/deactivate CFU/CFI functionality for table FNMAP

Table FNMAP (Attendant Console Functional Key) contains fields that the attendant uses to assign a CFS key and lamp on the AC. The attendant assigns a CFS key and lamp to access the CFU/CFI functionality.

The table that follows provides the datafill related to Activate/Deactivate CFU/CFI Functionality for table FNMAP. This table includes only those fields that apply directly to Activate/Deactivate CFU/CFI Functionality.

Datafill related to table FNMAP

Field	Subfield	Entry	Explanation and action
RESULT		see subfields	Result. This field contains the subfields KEY_SEL and SP_FN.
	KEY_SEL	SPECL	Key Selector. This subfield indicates the key selector. Enter SPECL for special.
	SP_FN	CFS	Special Function. This subfield indicates the special function code for this feature. Enter CFS.

Datafill example for table FNMAP

The figure that follows shows sample datafill for table FNMAP.

MAP example for table FNMAP

```
   KEY                                          RESULT
_____________________________________________________________

ATTCONS  30                                     SPECL  CFS
```

Datafill related to activate/deactivate CFU/CFI functionality for table WCKCODES

Table WCKCODES (Wild Card Key Codes) contains fields that allow the attendant to activate and deactivate Call Forwarding. The attendant activates and deactivates Call Forwarding with a Wild Card key access code. The attendant does not use a dedicated key to activate and deactivate Call Forwarding.

Activate/Deactivate CFU/CFI Functionality (continued)

The table that follows provides the datafill related to Activate/Deactivate CFU/CFI Functionality for table WCKCODES. This table includes only those fields that apply directly to Activate/Deactivate CFU/CFI Functionality.

Datafill related to table WCKCODES

Field	Subfield	Entry	Explanation and action
WCKEY		see subfields	Wild Card Key. This field contains the subfields CUSTGRP and TABIDX.
	CUSTGRP	alphanumeric (1-16 characters)	Customer Group. This subfield indicates the name assigned to the customer group. Enter a 1- to 16-alphanumeric character name.
	TABIDX	00 - 99	Table Index. This field indicates the Wild Card key access code that the attendant assigns to the Conference Call feature. Enter a value from 00 to 99.
VALUE		see subfield	Value. This field contains subfield WILDCARD_SP_FN.
	WC_SP_FN	CFS	Wild Card Key Special Function. This field indicates the wild card key special function for the Call Forward Station Code Validation feature. Enter CFS.

Datafill example for table WCKCODES

The figure that follows shows sample datafill for table WCKCODES. Table WCKCODES with a Wild Card key assigned to CFU/CFI appears in this example.

MAP example for table WCKCODES

```
WCKEY                                VALUE
------------------------------------------------------------
BNRMC             14                   CFS
```

Translation verification tools

Activate/Deactivate CFU/CFI Functionality does not use translation verification tools.

Activate/Deactivate CFU/CFI Functionality (end)

SERVORD

Activate/Deactivate CFU/CFI Functionality does not use the Service Order System (SERVORD).

AC to IBNISUP Interworking

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

NA008 and later versions

Requirements

To operate, AC to IBNISUP Interworking has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001
- Base ISUP, ISP70001
- TEL CCS7 Base, TEL00008

Description

The AC to IBNISUP Interworking interworks attendant console (AC) and Integrated Business Networks (IBN) integrated services digital network (ISDN) user part (ISUP) trunks. As a result, the following occur:

- ACs and IBN ISUP trunks provide full voice communications
- more features work when ACs use IBN ISUP trunks

Operation

The AC to IBNISUP Interworking allows the following AC keys to function on calls that use IBN ISUP trunks:

- Exclude Destination (EXC DEST)
- Exclude Source (EXC SRC)
- Night Service (NITE)
- Position Busy (POS BSY)

The system supports these AC features on IBN ISUP and plain old telephone service (POTS) trunks:

- Attendant Console Trunk Queueing (ACTQ)
- Loud-speaker Paging (LSPK)
- Secrecy
- Virtual Facilities Group (VFG)

AC to IBNISUP Interworking (continued)

The system supports these AC features on IBN ISUP trunks:

- Busy Trunk Verify (BTV)
- Group TAC (GTAC)
- Group TGB (GTGB)
- Group VAC (GVAC)
- Group VGB (GVGB)
- Trunk Access Control (TAC)
- Trunk Group Busy (TGB)
- Virtual Access Control (VAC)
- Virtual Group Busy (VGB)

These features already work with IBN ISUP trunks:

- AC and Conferencing
- AC and Meet Me Conference
- AC and Preset Conference
- AC and Three Way Calling (3WC)
- AC Call Park/Unpark
- AC Call Waiting
- AC Conference
- AC Do Not Disturb (DND)
- AC Hold
- AC Message Waiting
- AC Music on Hold
- AC Release
- AC to Automatic Call Distribution (ACD)
- AC to Universal Call Distribution (UCD)
- Announcement in AC Queue
- Busy Verify Line
- Camp-On
- Camp On with Music
- Display of Calling Line ID and Network Class of Service (NCOS)

- Immediate Release
- Interposition Calling
- Music in AC Queue
- Recall to AC
- Routing ISUP to Treatment

Translations table flow

The AC to IBNISUP Interworking does not affect translations table flow.

Limits

The calls divert through loopback trunks and continue under the following conditions:

- an AC attempts to use the Attendant Console End-to-End Signaling feature
- an AC attempts to use the AC to Code Calling feature through ISUP trunks

Interactions

The AC to IBNISUP Interworking does not have functionality interactions.

Activation/deactivation by the end user

The AC to IBNISUP Interworking does not require activation or deactivation by the end user.

Billing

The AC to IBNISUP Interworking does not affect billing.

Station Message Detail Recording

The AC to IBNISUP Interworking does not affect Station Message Detail Recording.

Datafilling office parameters

The AC to IBNISUP Interworking does not affect office parameters.

Datafill sequence

The AC to IBNISUP Interworking does not affect datafill.

Tools for verifying translations

The AC to IBNISUP Interworking does not use tools for verifying translations.

AC to IBNISUP Interworking (end)

SERVORD

The AC to IBNISUP Interworking does not use SERVORD.

Account Codes

Ordering codes

Operating group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

NA012 and later versions

Requirements

This document contains all the datafill information for this functionality. Complete implementation can require specified software or hardware.

Description

The Account Codes functionality allows a subscriber to enter a billing number into a Station Message Detail Recording (SMDR) record for charge-back purposes. The fixed account code length can range from 2 to 14 digits. The account code length cannot change in the customer group.

See the MDC Variable Customer Dialed Account Recording (CDAR) feature description in this document. This section has information on variable-length account codes, in NA005 and later versions. Software optionality control (SOC) manages MDC Variable CDAR. Activation of the MDC Variable CDAR occurs when the SOC meets the tariff conditions. See the Customer Dialed Account Recording (CDAR) feature description in this document for additional information.

The Star in Account Code First feature enhances the voluntary account code. The voluntary account code is also known as account code first. The star or asterisk is a valid digit in Account Code First. The enhancement allows the customer to choose the asterisk as a valid digit for account code first or for reset dialing. Reset dialing is also known as call origination. The subfield STARACPT (star accept) in table CUSTHEAD (Customer Group Head) for option ACCT (account) determines whether the asterisk is a valid digit or call origination.

The subfield for POTSDGT (Plain Old Telephone Service Digit Collection) in table CUSTHEAD (Customer Group Head) improves the voluntary account code feature. The enhancement allows the operating company personnel to select POTS digit collection or Meridian Digital Centrex (MDC) digit collection for the called number digits. The optionality for digit collection of the called number is on a customer group basis.

Account Codes (continued)

The operating company personnel enters N (no) for subfield POTSDGT to select MDC digit collection. The operating company personnel enters Y (yes) for subfield POTSDGT to select POTS digit collection. The default value for subfield POTSDGT is N. The patch RTP21 requires the use of POTS digit collection. The NA012 feature sources the functionality of patch RTP21 with optionality.

Operation

The Account Codes functionality allows a subscriber to:

- enter a cost accounting or client billing number to an SMDR record.
- receive a prompt for an account code. The called number and the station attributes determines the account code.
- receive a prompt from DMS-100 switch office for an account code because of the authorization code or the called number.
- enter a cost account or client billing number when the recipient answers the incoming call.

These three methods activate Account Codes:

- Voluntary. The subscriber goes off-hook. The subscriber dials the feature access code and waits for special dial tone (SDT). The subscriber enters the selected account code and dials the directory number (DN). The system generates an SMDR record. The SMDR record reflects information about the call that the subscriber requires. The asterisk is a valid digit for an account code or for reset dialing with the AF7484 feature in NA010. The account code first is another name for the voluntary method.
- Flash. While active on a call, the subscriber flashes and receives SDT. The subscriber dials the feature access code. The subscriber enters the selected account code and flashes back to the call in progress. The system generates an SMDR record. The SMDR record reflects the period of the call. A second call can occur on the second leg. This call generates an SMDR record.

  Note: See the “Interactions" section for features that conflict with flash activation of account codes.

- Compulsory. The subscriber goes off-hook and dials the DN. The SDT prompts the subscriber to enter the selected account code. The subscriber enters the selected account code. The system places the call. The system generates an SMDR record. The SMDR reflects the period of the call. This method is Forced Account Code, Account Code Last, or Account Code Required (ACR).

The following inform the DMS switch that the system requires an account code:

- network class of service (NCOS) of the caller
- authorization code of the caller
- data associated with the call

When the system requires an account code, the system prompts the subscriber. The prompt is a 440 Hz at -13 dBm tone. Silence follows the tone. The subscriber dials a feature access code to enter an account code. The feature access code informs the DMS switch that the digits that follow are an account code.

Translations table flow

Account Codes does not affect translations table flow.

Limitations and restrictions

The following limitations and restrictions apply to account codes:

- Account codes can range from 2 to 14 digits in length. The length of the account code is the validation method in the North American and the Canadian market.
- The reset dialing does not work if the STARACPT suboption is set to Y and the account code is entered voluntarily.
- The STARACPT subfield is set to N for the Asia Pacific CALA markets. The account code validation is by content when subfield STARACPT is set to N.
- The log AMAB150 displays a blank space for the asterisk as the valid digit for the voluntary account code.
- The functionality for POTS digit collection applies to the voluntary account code activation only.

Interactions

A description of the interactions between Account Codes and other functionalities appears in the following paragraphs.

Account Code Last

The asterisk digit indicates reset dialing for the account code last feature.

Authorization Codes

The asterisk digit indicates reset dialing for the auth code first and last features.

Account Codes (continued)

Attendant Camp-on

If this feature is active, the subscriber cannot flash the switchhook to activate the account code ability.

Call Pickup

When the subscriber uses this feature to pick up a call, the subscriber can enter an account code. When the recipient answers a call, or retrieves a call, the subscriber can enter an account code.

Call Transfer

An end user cannot flash the switchhook and enter an account code during a call transfer. If an end user flashes the switchhook, the system drops a third party from the connection. When an end user transfers a call, the recipient of the call can enter an account code.

Call Waiting

If this feature is active, the subscriber cannot flash the switchhook to activate the account code ability.

Combined Account and Auth Code

The asterisk digit indicates reset dialing for the combined account code and authorization code.

Reset Dialing

The asterisk indicates reset dialing for account code last, authorization code last, and authorization first.

Speed Calling

The subscriber can use the speed calling feature to enter an account code.

Three-Way Call or Conference

An end user cannot flash the switchhook and enter an account code during a three-way conference. The system drops the third party from the connection if the end user flashes the switchhook.

The star in account code first feature changes three-way call or conference. The asterisk is a valid account code in the following situations:

- The caller uses account code first.
- The STARACPT subfield is set to Y in table CUSTHEAD for the option ACCT.

Voluntary Account Code

The subfield POTSDGT in table CUSTHEAD provides the optionality for POTS digit collection or MDC digit collection of the called number digits. The previous method of digit collection is MDC digit collection only.

Activation and deactivation by the user

The end user can use three methods to activate account code ability. These methods are voluntary, flash, and compulsory.

Activating voluntary account code

Subscriber off-hook

1. Dial the feature access code for the account code. The operating company enters the data for the account code.

   Response: The DMS switch prompts with SDT.

2. Dial the account code.
3. Dial the DN.

   Response: The system generates an SMDR record.

Activating flash account code

Subscriber active on a call

1. Flash the switchhook.

   Response: The DMS switch prompts with SDT.

2. Dial the feature access code for account code. The operating company enters the data for this code.

   Response: The DMS switch prompts with SDT.

3. Dial the account code.
4. Flash the switchhook again.

   Response: The system returns you to the call in progress. The system generates an SMDR record. You can make a second call on the second leg. The system generates an SMDR record for the second leg.

Activating compulsory account code

Subscriber off-hook

1. Dial the required DN.

   Response: The DMS switch prompts with SDT.

2. Dial the account code.

   Response: The systems places a call and generates an SMDR record.

Account Codes (continued)

Billing

Account Codes does not affect billing.

Station Message Detail Recording

Account Codes forces the system to produce an SMDR record when the subscriber enters an account code for a call.

Datafilling office parameters used by Account Codes

Account Codes does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Account Codes appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Account Codes

Table	Purpose of table
CUSTHEAD	Customer Group Head. This table lists the names assigned to the blocks of data in table IBNXLA. These blocks of data store the data for the translation of digits.
IBNXLA	IBN Translation. This table stores data for the digit translation of calls from • an IBN station • attendant console • incoming IBN trunk group • incoming side of a two-way IBN trunk group

Datafill related to Account Codes for table CUSTHEAD

Table CUSTHEAD (Customer Group Head) lists the values and options assigned to customer groups.

Account Codes (continued)

The Account Codes datafill for table CUSTHEAD appears in the following table. The fields that apply to Account Codes appear in this table. Refer to table CUSTHEAD in the *Customer Data Schema Reference Manual*.

Datafill related to table CUSTHEAD

Field	Subfield	Entry	Explanation and action
OPTIONS		see subfield	Options. This field contains subfield OPTION.
	OPTION	ACCT	Option. This subfield specifies the account code ability option. Enter ACCT. Enter subfield DIGINACC.
	DIGINACC	2 -14	Digits in account code. This subfield specifies the number of digits in the account code. Enter a value from 2 to 14.
	NDTIMOUT	Y or N	Time-out. Enter Y if an octothorpe (#) or interdigit time-out is not required for routing to begin after the account code.
	STARACPT	Y or N	Star accept. The star accept subfield indicates if the asterisk is a valid digit for account code first or for reset dialing. Enter Y when the asterisk is a valid digit for the account code first. Enter N when the asterisk is for the reset dialing option.
	ACCTVAL	Y or N	Account code validation. Enter Y if the account code validation is for content, otherwise enter N. The validation of account code by content applies to Asia Pacific or CALA offices only.
	POTSDGT	Y or N	Plain old telephone service digit collection. Enter Y to use POTS digit collection to collect the called number digits. Enter N to use Meridian Digital Centrex (MDC) digit collection to collect the called number digits. The default value is N.

Datafill example for table CUSTHEAD

Sample datafill for table CUSTHEAD appears in the following example.

Account Codes (continued)

MAP example for table CUSTHEAD

```
CUSTNAME    CUSTXLA     DGCOLNM    IDIGCOL
                                                OPTIONS
_____________________________________________________

POTSDATA     POTSXLA       RES       NIL
              (VACTRMT 0) (EXTNCOS 0) (ACCT 2 N N N Y) $
```

Datafill related to Account Codes for table IBNXLA

The Account Codes datafill for table IBNXLA appears in the following table. The fields that apply to Account Codes appear in this table. Refer to table IBNXLA in the *Customer Data Schema Reference Manual.*

Datafill related to table IBNXLA

Field	Subfield	Entry	Explanation and action
RESULT		see subfield	Result. This field contains subfield TRSEL.
	TRSEL	FEAT	Translation selector. This field indicates the translation selector FEAT. Enter FEAT and enter data in subfields ACR, SMDR, and FEATURE.
	ACR	Y or N	Account code entry. This field indicates if the system requires an account code entry for calls to the special feature access code. Enter Y or N.
	SMDR	Y or N	Station Message Detail Recording. This subfield indicates if the system requires SMDR. Enter Y or N.
	FEATURE	ACCT	Feature. This field indicates the Account Code feature. Enter ACCT.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

KEY		RESULT
BNRXLA	17	FEAT N N N ACCT

Verification tools

Account Codes does not use tools that verify translations.

SERVORD

Account Codes does not use the Service Order System (SERVORD).

ANI Information in SMDR Output

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS27 and later versions

Requirements

To operate, ANI Information in SMDR Output has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The ANI Information in SMDR Output feature allows the system to record the calling number from trunks that have automatic identification of outward dialing (AIOD). The system records the calling number in the station message detail recording (SMDR) record. Before this feature, the SMDR record contained only the virtual facility group (VFG) identification.

A private branch exchange (PBX) uses voice and data links to communicate with the local DMS-100 office. The system transmits an outgoing call from a PBX over a voice link. The system sends billing information for the call as an AIOD message on a data link. An AIOD message contains the directory number (DN) of the station that originated the call. The local office uses the DN of the station to overwrite the last four digits of the special billing number. This information about the call originator is also called automatic number identification (ANI) information.

The system routes an incoming call on a PBX trunk to the VFG specified in table IBNRTE. The incoming call has the AIOD function to the MDC part of the local office. An SMDR record records call detail information during the second leg of the call from the VFG to the terminator.

Fields ORIGTYPE and ORIGID record information about the originator of the call in the SMDR record. Before this feature, the SMDR record contained only the VFG identification from table VIRTGRPS for the second leg of the call. The SMDR record did not contain the ANI information obtained from the AIOD on the PBX trunk.

When the AIOD provides line identification information for a PBX, this feature can record the caller information. This feature can record the caller

information instead of the VFG information. In this event, field ORIGID contains the calling number and not the VFG billing number. Field ORIGTYPE has a value of 8 to represent the originator type AIOD. Field ORIGTYPE does not have a value of 5 to represent the originator type VFG. The value of 8 in field ORIGTYPE improves call billing. This method of billing requires less work to cross-reference at the billing process center.

Operation

Office parameter ANI_IN_SMDR in table OFCVAR provides this feature. This parameter indicates if the system must record the ANI information or the VFG identification in SMDR records. When the value of this parameter is Y (yes), the system records ANI information. When the value is the default value of N (no), the system records VFG information.

Translations table flow

The ANI Information in SMDR Output does not affect translations table flow.

Limits

This feature operates on PBX trunks (PX or P2) or IBN trunks (IBNTI or IBNT2) equipped with the AIOD feature. The system uses this feature if the call is an operator-assisted call or a billable call.

The originator information recorded in the SMDR record and AMAB150 log report appears in the following table. This information appears for different conditions. This information assumes the trunk groups have option AIOD assigned. The fields in the table and the parameters for each field appear in the following table.

The ANI Information in SMDR Output does not have limits.

ANI Information in SMDR Output (continued)

Key to originator information table

Origination trunk type:	the trunk type that the originator of the call uses:
VFG special billing number (VFG SPB):	Y = The VFG in table VIRTGRPS has a billing number assigned. N =The VFG in table VIRTGRPS does not have a billing number assigned.
AIOD enabled/disabled:	E = AIOD data link is idle (enabled). D =AIOD data link is busied or not available for a reason. For example, hardware failure.
ANI_IN_SMDR:	Y = The office paramter in table OFCVAR is Y (yes). N =The office parameter is N (no).
Trunk billing number:	Y = The originating trunk type has a trunk billing number assigned. N =The originating trunk type does not have a trunk billling number assigned.
Results:	If the system displays “old fmt” as a result, the SMDR information for that field takes on the pre-BCS26 format. If “<stars>” appears as a result, the field contains asterisks. If “<zeros>” appears as a result, the field contains zeros.

ANI Information in SMDR Output (continued)

Originator information recorded in SMDR and AMAB150 records (Sheet 1 of 2)

Orig. trunk types	VFG SPB	AIOD (E)nabled (D)isabled	ANI_ IN_ SMDR	Trunk billing number	Results
PX, P2, IBNT1 IBNT2	Y	E	Y	Y	Log: ORIG_TYPE = “8" CALLING_no = VFG SPB Rcrd: ORIGTYPE = “8" ORIGID = VFG SPB
Same	Y	D	Y	Y	Log: ORIG_TYPE = “8" CALLING_no = VFG SPB Rcrd: ORIGTYPE = “8" ORIGID = VFG SPB
Same	N	E	Y	Y	Log: ORIG_TYPE = “8" CALLING_no = AN Rcrd: ORIGTYPE = “8" ORIGID = ANI
Same	N	D	Y	Y	Log: ORIG_TYPE = “8" CALLING_no = TRK no. Rcrd: ORIGTYPE = “8" ORIGID = TRK no.
Same	Y	E	N	Y	Log: ORIG_TYPE = “5" CALLING_no = VFG SPB Rcrd: ORIGTYPE = “5 ORIGID = old fmt
Same	Y	D	N	Y	Log: ORIG_TYPE = “5" CALLING_no = VFG SPB Rcrd: ORIGTYPE = “5" ORIGID = old fmt
Same	N	E	N	Y	Log: ORIG_TYPE = “5" CALLING_no = ANI Rcrd: ORIGTYPE = “5" ORIGID = old fmt
Same	N	D	N	Y	Log: ORIG_TYPE = “5" CALLING_no = TRK no Rcrd: ORIGTYPE = “5" ORIGID = old fmt
PX, P2, IBNT1 IBNT2	Y	E	Y	N	Log: ORIG_TYPE = “8" CALLING_no = VFG SPB Rcrd: ORIGTYPE = “8" ORIGID = VFG SPB

ANI Information in SMDR Output (continued)

Originator information recorded in SMDR and AMAB150 records (Sheet 2 of 2)

Orig. trunk types	VFG SPB	AIOD (E)nabled (D)isabled	ANI_ IN_ SMDR	Trunk billing number	Results
Same	Y	D	Y	N	Log: ORIG_TYPE = "8" CALLING_no = VFG SPB Rcrd: ORIGTYPE = "8" ORIGID = VFG SPB
IBN only	N	E	Y	N	Log: ORIG_TYPE = "8" CALLING_no = <stars> Rcrd: ORIGTYPE = "8" ORIGID = <zeros>
IBN only	N	D	Y	N	Log: ORIG_TYPE = "8" CALLING_no = <stars> Rcrd: ORIGTYPE = "8" ORIGID = <zeros>
PX, P2, IBNT1 IBNT2	Y	E	N	N	Log: ORIG_TYPE = "5" CALLING_no = VFG SPB Rcrd: ORIGTYPE = "5" ORIGID = old fmt
Same	Y	D	N	N	Log: ORIG_TYPE = "5" CALLING_no = VFG SPB Rcrd: ORIGTYPE = "5" ORIGID = old fmt
IBN only	N	E	N	N	Log: ORIG_TYPE = "5" CALLING_no = <stars> Rcrd: ORIGTYPE = "5" ORIGID = old fmt
IBN only	N	D	N	N	Log: ORIG_TYPE = "5" CALLING_no = <stars> Rcrd: ORIGTYPE = "5" ORIGID = old fmt

Interactions

The ANI Information in SMDR Output does not affect billing.

Activation/deactivation by the end user

The ANI Information in SMDR Output does not require activation or deactivation by the end user.

ANI Information in SMDR Output (continued)

Billing

The ANI Information in SMDR Output does not affect billing.

Station Message Detail Recording

When the AIOD provides line identification information for a PBX call, this feature can record caller information. This feature can record the calling number of the originator and originator type. This feature records type of originator and not the VFG identification number and type. This feature changes SMDR record codes D1, D2, D3, and D4. Fields ORIGTYPE and ORIGID have values corresponding to the ANI information instead of the VFG ID.

If trunk types PX, P2, IBNTI, and IBNT2 do not have option AIOD assigned, this feature is not active. If a call is not operator assisted or is a billable type of call, this feature is not active.

An SMDR record with the VFG billing number provided and AIOD enabled appears in the following example.

```
REC CODE:D1 CUSTGRP CLLI:008 ORIGTYPE:8
ORIGID:6135554800A
DATA CALL ID:A INFO DIGITS:40 CONS NO:FF SUBGRP:0 TRM
TYPE:0
TERM ID 6135556613A0 RTE INFO: 0 DAY=066 TIME: HR=17
MIN=11 ..
ELAPSED TIME=00005 ORIG FC:0 TERM FC:0 CLD
NO:26613AAAAAAA
```

An SMDR record with the VFG billing number not provided and AIOD enabled appears in the following example.

```
REC CODE:D1 CUSTGRP CLLI:008 ORIGTYPE:8
ORIGID:6135557007A
DATA CALL ID:A INFO DIGITS:40 CONS NO:FF SUBGRP:0 TRM
TYPE:0
TERM ID 6135556613A0 RTE INFO:0 DAY=066 TIME: HR=17
MIN=11 ..
ELAPSED TIME=00005 ORIG FC:0 TERM FC:0 CLD
NO:26613AAAAAAA
```

An SMDR record with the VFG billing number not provided and AIOD disabled appears in the following example.

ANI Information in SMDR Output (continued)

```
REC CODE:D1 CUSTGRP CLLI:008 ORIGTYPE:8
ORIGID:6135551235A
DATA CALL ID:A INFO DIGITS:40 CONS NO:FF SUBGRP:0 TRM
TYPE:0
TERM ID 6135556613A0 RTE INFO:0 DAY=066 TIME: HR=17
MIN=11 ..
ELAPSED TIME=00005 ORIG FC:0 TERM FC:0 CLD
NO:26613AAAAAAA
```

An SMDR record with ANI_IN_SMDR equal to N appears in the following example.

```
REC CODE:D1 CUSTGRP CLLI:008 ORIGTYPE:5
ORIGID:011A0000AAA
DATA CALL ID:A INFO DIGITS:40 CONS NO:FF SUBGRP:0 TRM
TYPE:0
TERM ID 6135556613A0 RTE INFO:0 DAY=066 TIME:HR=17 MIN=11
...
ELAPSED TIME=00005 ORIG FC:0 TERM FC:0 CLD
NO:26613AAAAAAA
```

Datafilling office parameters

The office parameter ANI_IN_SMDR in table OFCVAR provides this feature. This parameter indicates if the system must record ANI information or the VFG identification in SMDR records. If the value of this parameter is Y (yes), the system records ANI information. When the value is the default value N (no), the system records VFG information.

ANI Information in SMDR Output (continued)

The office parameters used by ANI Information in SMDR Output appear in the following table. Refer to the *Office Parameters Reference Manual* for additional information about office parameters.

Office parameters for ANI Information in SMDR Output

Table name	Parameter name	Explanation and action
OFCVAR	ANI_IN_SMDR	Specifies if the SMDR record has values that correspond to the ANI information instead of the VFG ID. Fields ORIGTYPE and ORIGID contain the VFG ID. The VFG ID applies only to incoming trunk calls where the trunk provides ANI. The trunk provides ANI and the call translates again through an IBN VGF. The second leg of the call generates a SMDR record. The VFG must have a separate billing number. Enter N as this billing number. For CAMA trunk calls, the first leg of the call must be a toll leg to receive ANI. Enter Y or N. The default is N.

Datafill sequence

The ANI Information in SMDR Output does not affect datafill.

Tools for verifying translations

The output when TRAVER verifies ANI Information in SMDR Output appears in the following example.

ANI Information in SMDR Output (continued)

TRAVER output example for ANI Information in SMDR Output

```
 TRAVER TR PXTDTIC 7226613 B
 TABLE TRKGRP
 PXTDTIC PX 10 ELO NCRT IC NIL MIDL
 Y P621 PBX1 613 LCL NON TSPS
 L613 Y BNRCAR 32 NIL 6211235 DIALTN
 Y MCI Y LATA1
 TABLE STDPRTCT
 P621 ( 1)  ( 0)
    .    SUBTABLE STDPRT
    .    722 722 N DD 0 NA
    .    SUBTABLE AMAPRT
    .    KEY NOT FOUND
    .    DEFAULT VALUE IS:  NONE  N
TABLE HNPACONT
613 128 1 ( 50)  ( 1)  ( 84)
   .    SUBTABLE HNPACODE
   .    722 722 LRTE 24
   .    SUBTABLE RTEREF
   .      24 T IBNRTE 5
   .    .  TABLE IBNRTE
   .    .   5 VFG N N N PXVFG 6
   .    .  .    TABLE DIGMAN
   .    .  .        6 (REM 2)
   .    .  .    EXIT TABLE DIGMAN
   .    .  EXIT TABLE IBNRTE
   . EXIT TABLE RTEREF
EXIT TABLE HNPACONT
TABLE LCASCRCN
613 L613 ( 12) MNDT N
   . SUBTABLE LCASCR
   . TUPLE NOT FOUND.  DEFAULT IS
NON-LOCAL
TABLE PFXTREAT
MNDT DD N DD UNDT
TABLE CLSVSCRC
KEY NOT FOUND
DEFAULT IS TO LEAVE XLA RESULT
UNCHANGED
OVERLAP CARRIER SELECTION (OCS)
APPLIES
```

ANI Information in SMDR Output (continued)

TRAVER output example for ANI Information in SMDR Output

```
TABLE OCCINFO
MCI 222 TRANS Y Y Y Y N N Y Y Y Y LONG 0 FGRPD N N N N N
TABLE EASAC
TUPLE NOT FOUND
TABLE LATAXLA
TUPLE NOT FOUND
ASSUMED TO BE DEFAULT INTRALATA, INTRASTATE, STD
TABLE VIRTGRPS
PXVFG SIZE 1 IBN N COMKODAK 0 0 0 Y Y N $
TABLE NCOS
COMKODAK 0 0 0 KDKO ( OHQ 0 TONE_OHQ) ( CBQ 0 3 N 2) $
TABLE CUSTHEAD: CUSTGRP, PRELIMXLA, CUSTXLA, FEATXLA, VACTRMT,
  AND DIGCOL
COMKODAK PXDK CXDK CUSTFEAT 0 KDK
TABLE DIGCOL
KDK 2 RPT
NCOS PRELIM XLA name is NIL.  Go to next XLA name.
TABLE IBNXLA: XLANAME PXDK
TUPLE NOT FOUND
Default is to go to next XLA name.
TABLE IBNXLA: XLANAME CXDK
CXDK 26 EXTN Y Y 613 722 5 $
TABLE THOUGRP
613 722 6 Y C
TABLE DN
613 722 6613 L HOST 01 0 00 03
TABLE DNATTRS
TUPLE NOT FOUND
TABLE DNGRPS
TUPLE NOT FOUND
+++ TRAVER: SUCCESSFUL CALL TRACE +++
DIGIT TRANSLATION ROUTES
1 LINE              6137226613
TREATMENT ROUTES.  TREATMENT IS: GNCT
1 *OFLO
2 LKOUT
+++ TRAVER: SUCCESSFUL CALL TRACE +++
+++TRAVER: SUCCESSFUL CALL TRACE +++
DIGIT TRANSLATION ROUTES
1 VFG: PXVFG             26613
TREATMENT ROUTES.  TREATMENT IS: GNCT
1 *OFLOTABLE VIRTGRPSPXVFG SIZE 1 IBN N COMKODAK 0 0 0 Y Y N $TABLE NCOS COMKODAK 0 0 0
KDKO ( OHQ 0 TONE_OHQ) ( CBQ 0 3 N 2) $TABLE CUSTHEAD: CUSTGRP, PRELIMXLA, CUSTXLA,
FEATXLA, VACTRMT,
  AND DIGCOLCOMKODAK PXDK CXDK CUSTFEAT 0 KDKTABLE DIGCOLKDK 2 RPTNCOS PRELIM XLA name is
NIL.  Go to next XLA name.TABLE IBNXLA: XLANAME PXDKTUPLE NOT FOUNDDefault is to go to
next XLA name.TABLE IBNXLA: XLANAME CXDKCXDK 26 EXTN Y Y 613 722 5 $TABLE THOUGRP613 722 6
Y CTABLE DN613 722 6613 L HOST 01 0 00 03TABLE DNATTRSTUPLE NOT FOUNDTABLE DNGRPSTUPLE NOT
FOUND+++ TRAVER: SUCCESSFUL CALL TRACE +++DIGIT TRANSLATION ROUTES1 LINE
6137226613TREATMENT ROUTES.  TREATMENT IS: GNCT1 *OFLO2 LKOUT+++ TRAVER: SUCCESSFUL CALL
TRACE +++
```

SERVORD

The ANI Information in SMDR Output does not use SERVORD.

ANI Information in SMDR Output (continued)

Log reports

This feature modifies the AMAB150 log report. The automatic message accounting buffer (AMAB) subsystem generates the AMAB150 log report to monitor generation of station message detail (SMDR) records. This feature adds a new value of 8 to the originator-type field.

When the value of office parameter ANI_IN_SMDR in table OFCVAR is Y, the originator-type field can have a value of 8. The originator-type field has a value of 8 when the originator type is AIOD.

Examples of AMAB150 log reports in different conditions appear in the following exhibit. Assume that AIOD is active.

Note: In the following log reports, the ANI information is 7221111. The VFG billing number is 7224800. The terminator number is 6215001. The VFG is orig_type 5. The AIOD is orig_type 8.

An example of an AMAB150 log report appears in the following example.

Note: In the following example, office parameter ANI_IN_SMDR is Y. Table VIRTGRPS (Virtual Facility Groups) does not contain a VFG billing number.

```
AMAB150 JAN01 14:33:57 5405 INFO SMDR_CALL_DATA
CUSTGRP =            COMKODAK
0 0 8 6137221111 ** 40 0 6136215001 ** 0 0 6215001
*********
                                        001 18 05 53 000005
ORIG = VFG: PXVFG, MEMBER:   0    TERM = LEN HOST 00 0 08
01
                                 DN  6215001 ANS = Y 0
DTO = ****************** AUTH = *************** ACC =
                                   **************
```

Note: In the following example, office parameter ANI_IN_SMDR is Y. Table VIRTGRPS (Virtual Facility Groups) does not contain a VFG billing number.

ANI Information in SMDR Output (continued)

```
AMAB150 JAN01 14:33:57 5405 INFO SMDR_CALL_DATA
CUSTGRP =            COMKODAK
0 0 8 6137221111AAAAAAAA ** 40 0 6136215001 ** 0 0 6215001
*********
                                        001 18 05 53 000005
ORIG = VFG: PXVFG, MEMBER:   0    TERM = LEN HOST 00 0 08 01
                               DN  6215001 ANS = Y 0
DTO = ****************** AUTH = *************** ACC =
                                 **************
```

An example of an AMAB150 log report appears in the following example.

Note: In the following example, office parameter ANI_IN_SMDR is N. Table VIRTGRPS does not contain a VFG billing number.

```
AMAB150 JAN01 14:33:57 5405 INFO SMDR_CALL_DATA
CUSTGRP =              COMKODAK
0 0 5 6137221111 ** 40 0 6136215001 ** 0  6215001
**********
                                          001 18 05 53
000005
ORIG = VFG: PXVFG, MEMBER:   0    TERM = LEN HOST 00 0 08
01
                                         DN 6215001 ANS = Y 0
DTO = ******************* AUTH = *********************
ACC =
                                  **************
```

Note: In the following example, office parameter ANI_IN_SMDR is N. Table VIRTGRPS does not contain a VFG billing number.

```
AMAB150 JAN01 14:33:57 5405 INFO SMDR_CALL_DATA
CUSTGRP =              COMKODAK
0 0 5 6137221111AAAAAAAA ** 40 0 6136215001 ** 0  6215001
**********
                                           001 18 05 53 000005
ORIG = VFG: PXVFG, MEMBER:   0    TERM = LEN HOST 00 0 08 01
                                  DN 6215001 ANS = Y 0
DTO = ******************* AUTH = ********************* ACC =
                                 **************
```

ANI Information in SMDR Output (end)

An example of an AMAB150 log report appears in the following example.

Note: In the following example, office parameter ANI_IN_SMDR is N. Table VIRTGRPS contains a VFG billing number.

```
AMAB150 JAN01 14:33:57 5405 INFO SMDR_CALL_DATA
CUSTGRP =        COMKODAK
0 0 5  6137224800 ** 40 0 6136215001 ** 0 0 6215001
*********
                                        001 18 05 53
000005
ORIG = VFG: PXVFG, MEMBER:   0    TERM = LEN HOST 00 0 08
01
                                      DN 6215001 ANS = Y 0
DTO = ****************** AUTH = ********************
ACC =
                                 **************
```

Note: In the following example, office parameter ANI_IN_SMDR is N. Table VIRTGRPS contains a VFG billing number.

```
AMAB150 JAN01 14:33:57 5405 INFO SMDR_CALL_DATA
CUSTGRP =        COMKODAK
0 0 5  6137224800AAAAAAAA ** 40 0 6136215001 ** 0 0 6215001
*********
                                         001 18 05 53 000005
ORIG = VFG: PXVFG, MEMBER:   0    TERM = LEN HOST 00 0 08 01
                                  DN 6215001 ANS = Y 0
DTO = ****************** AUTH = ******************** ACC =
                               **************
```

Attendant Call Detail Entry

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS10 and later versions

Requirements

To operate, Attendant Call Detail Entry has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

Attendant Call Detail Entry allows the attendant of a customer group that has Station Message Detail Recording (SMDR) to enter data. The attendant can enter the following cost-allocation information in the SMDR record:

- account number of calls extended for station users, or any incoming call
- account number of a call after the recipient answers a call and before the system offers dialing to a station
- account number of an answered call without extending the call
- account number of attendant-originated calls
- calling party number of answered incoming calls
- account number of each potential party of a conference call

Operation

Account code entry requires the assignment of one of the 42 Attendant Console (AC) keys and lamp to the Account Codes feature. The assignment of this lamp and key must be as the Account Code (ACC) key. Use the ACC key to enter data in all ACC and calling number entries. The assignment of a Wild Card key to the feature must occur. The operation is identical.

The attendant can use the ACC key to enter a number from 1 to 14 digits in the SMDR record. This number can be an account number or a calling number. If the attendant enters an account number and a calling number, an asterisk (*) must separate these numbers. The system can accept a maximum of 14 digits as ACC data. These digits include the asterisk.

Attendant Call Detail Entry (continued)

Translations table flow

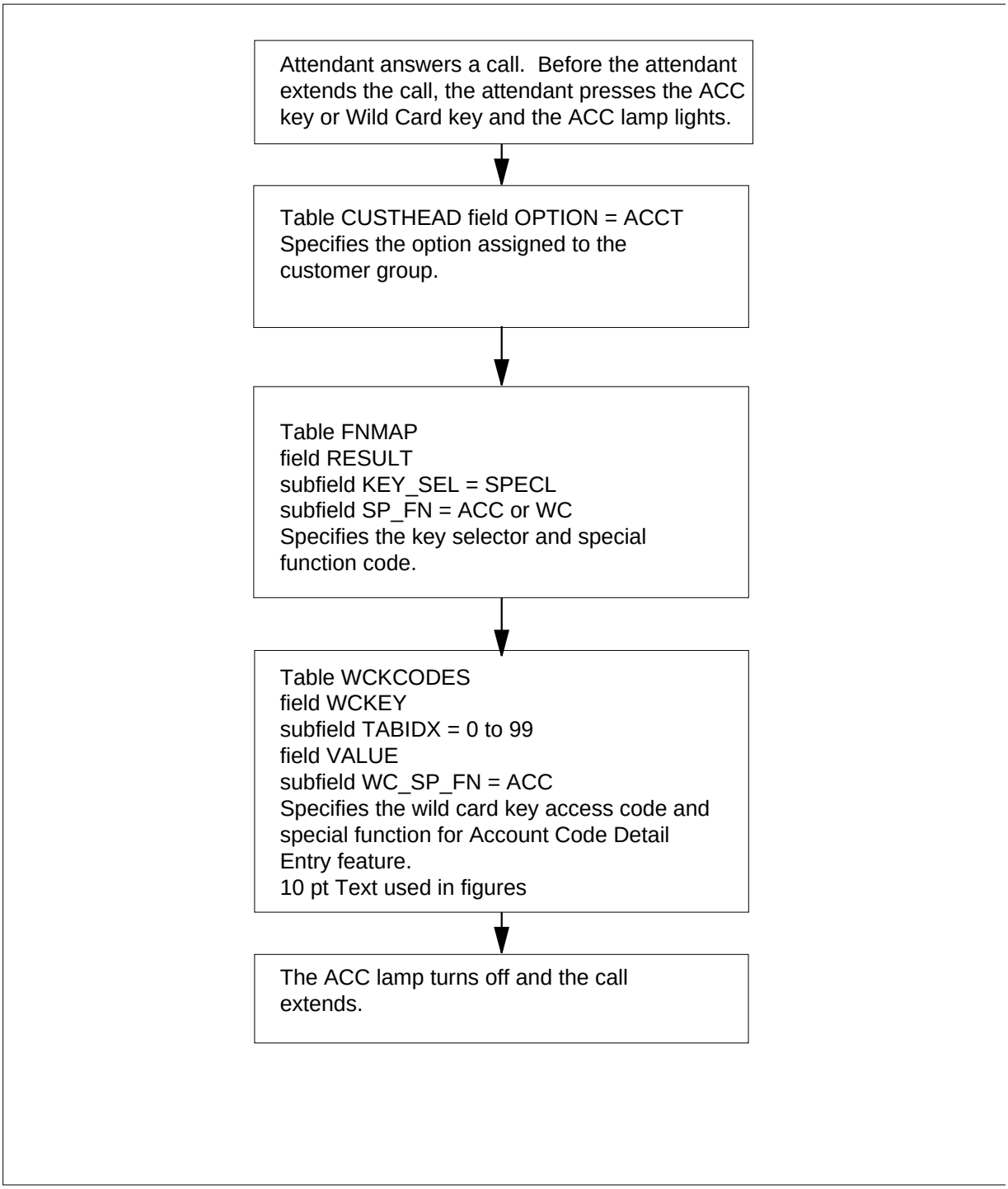
A description of the Attendant Call Detail Entry translations tables appears in the following list:

- Table CUSTHEAD (Customer Group Head) lists the values and options assigned to customer groups. Assign the customer group that belongs to the AC Account Codes before you can assign account codes to an AC. You must assign this group to one of the account features in table CUSTHEAD.
- Table FNMAP (Attendant Console Functional Key) assigns features to keys 2 through 43 on correct consoles. Enter data in table FNMAP to assign a dedicated incoming call identification (ICI) key and lamp for 3WC Dial 0 for 608 Cord Board.
- Table WCKCODES (Wild Card Key Codes) contains fields for assigning a Wild Card key access code to Account Codes. Enter data in this table if access to Account Codes occurs through Wild Card Key instead of a dedicated ACC key.

The Attendant Call Detail Entry translation process appears in the flowchart that follows.

Attendant Call Detail Entry (continued)

Table flow for Attendant Call Detail Entry



Attendant Call Detail Entry (continued)

The datafill content that the flowchart uses appears in the following table.

Datafill example for Attendant Call Detail Entry

Datafill table	Example data
CUSTHEAD	MDCGRP1 RNCR BNR1 NIL (ACCT 2 N N) $
FNMAP	IBNCON1 2 SPECL ACC
	IBNCON1 2 SPECL WC
WCKCODES	BNRMC 14 ACC

Limits

The following limits apply to Attendant Call Detail Entry:

- This feature requires that the customer group have SMDR to function correctly.
- This feature does not allow an attendant to enter an ACC or calling number to transmit to another switch.

Interactions

The description of the interactions between Attendant Call Detail Entry and other functionalities appear in the following paragraphs.

- Call Hold (CHD). The attendant can access a held call and enter an ACC number. If this event occurs when a source and a destination party are present for the held call this condition affects the destination side SMDR record. If only a source party is present for the held call this condition can affect the source SMDR record.
- Local Automatic Message Accounting/Central Automatic Message Accounting (LAMA/CAMA). This feature does not affect LAMA/CAMA operation.
- Position Busy (POS BY)/Night (NITE) Keys. If the attendant presses the POS BY or the NITE key during the entry of an ACC number, the system processes the key press. The attendant remains in the Account Codes feature and the system accepts additional ACC digits until the attendant exits the feature.
- Second Account Code Number: A second ACC number that an attendant enters for a call overwrites the original ACC number that the attendant entered for that call.
- Station Message Detail Recording (SMDR). If the attendant enters the correct ACC key sequence for a call, the system produces an SMDR

record. The eligibility of the call type for SMDR does not affect this process.

Activation/deactivation by the end user

Attendant keying and lamp states

The following steps apply to the use of the Wild Card and ACC key:

1. The attendant answers any call. This call can be of any type. The attendant must press the ACC key and the ACC lamp must light. Before the attendant extends the call. The attendant can enter the ACC digits and talk to the source if the Exclude Source (EXC SRC) key has not excluded the source. After the attendant enters ACC digits, the attendant presses the ACC key again. This process completes ACC digit entry and turns the ACC lamp off. The attendant can now extend the call.

   Note: If the call is an incoming collect call or an inward wide area telephone service (INWATS) call, the attendant can enter ACC digits. If this event occurs, the lamp states are the same as before. The attendant does not extend the call. The system records the incoming trunk group common language location identifier (CLLI), member number, console number, and ACC data.

2. The attendant dials the destination digits (call extension). The attendant can enter an account code and calling number. Lamp states, keying sequence and call handling are the same as in step 1. The attendant can talk to the source if the EXC SRC key or the Secrecy feature have not excluded the source. The attendant can talk to the destination if the destination answers.

3. The attendant establishes a conference call. Steps 1 or 2 apply before the attendant presses the Conference (CONF) key the first time. After the attendant presses the CONF key and gains access to the conference feature, the attendant can dial a new conference. The attendant can enter ACC information or enter ACC information. The attendant can key the new conferee. Access to secrecy occurs when the attendant begins to key. The attendant cannot enter ACC digits after the addition of a party to one of the ports of the conference bridge.

4. The attendant must press a Loop key to originate a call. The attendant must key any ACC digits before keying the called number. The attendant must use this keying sequence to associate, in the SMDR record, the ACC data with the called number. The keying sequence is a requirement for the correction of keying errors in ACC digit entry.

5. After the attendant places the call in step, the attendant can place a call to the destination number. The attendant can enter ACC digits after the attendant dials the destination number. The ACC data is associated with

Attendant Call Detail Entry (continued)

the destination number in another SMDR record. The system outputs two SMDR records when the attendant dials the source and the destination for an attendant-originated call.

6. The use of speed calling to enter ACC digits cannot occur in BCS10.

Correction of ACC keying errors and incorrect keying

After the attendant accesses the Account Codes feature, the attendant can clear ACC digits. To clear the ACC digits the attendant can press the Release Source (RLS SRC) or Release Destination (RLS DEST) key. The attendant can press the active Loop key to clear the ACC digits. The attendant enters ACC digits and exits the Account Codes feature. If the attendant determines that these digits are incorrect, the attendant can overwrite the ACC data. To overwrite the ACC data, the attendant must access the Account Codes feature again. The attendant must enter the correct ACC digits, following steps 1 through 6.

The correct ACC keying sequence is:

ACC key - ACC digits - ACC key

The attendant must follow this keying sequence in the context of steps 1 through 6 for the ACC digits to be correct.

The use of the following keys terminates the Accounts Code feature and processes that key. This process occurs if the attendant presses the key before, during, or after keying the ACC digits:

- HOLD
- Release (RLS)
- Signal Source (SIG SRC)
- Signal Destination (SIG DEST)
- PARK
- Do Not Disturb (DND)
- another Loop key
- Busy Verify (BY VERIFY) (line or trunk)
- CONF

If the attendant presses the console test during ACC entry, the action is not correct. If this event occurs, the system ignores the test. The attendant does not exit the Account Codes feature. If the attendant presses the ACC key twice and does not enter any ACC digits the system does not generate an SMDR record. The system does not generate an SMDR record if the attendant presses

the ACC key twice. The system does not exit the Account Codes feature after clearing any digits. If the attendant presses the ACC key when the key is not active on a loop, the action is not correct. If this event occurs, the system ignores the key. If the attendant enters more than 14 ACC digits, the Account Codes feature records the first 14 in the SMDR. The feature ignores the other digits. Incorrect keying does not cause the system to create an SMDR record. An SMDR record can be necessary because of the call type. If the same record is necessary, an ACC entry that is not correct does not create an ACC extension entry.

Billing

The Attendant Call Detail Entry does not affect billing.

Station Message Detail Recording

See Activation/deactivation in this feature description.

Datafilling office parameters

The Attendant Call Detail Entry does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Attendant Call Detail Entry appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Attendant Call Detail Entry

Table	Purpose of table
CUSTHEAD	Customer Group Head. The values and options assigned to customer groups appear in this table.
FNMAP	Attendant Console Functional Key. This table contains fields for setting up a dedicated key and lamp for Account Codes
WCKCODES	Wild Card Key Codes. This table contains fields for assigning a Wild Card key access code to Account Codes

Datafilling table CUSTHEAD

The value and option assignments for customer groups appear in table CUSTHEAD (Customer Group Head). You must assign the customer group that belongs to the AC Account Codes before you can assign an AC Account Codes. Assign the customer group to one of the account features in table CUSTHEAD.

Datafill for Attendant Call Detail Entry for table CUSTHEAD appears in the following table. The fields that apply to Attendant Call Detail Entry appear in

Attendant Call Detail Entry (continued)

this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTHEAD

Field	Subfield or refinement	Entry	Explanation and action
OPTION		ACCT	Option. This field specifies the option assigned to the customer group. Enter ACCT. ***Note:*** If OPTIONS is ACCT, subfields DIGINACC, NOTIMOUT, and ACCTVAL require datafill.
	DIGINACC	2 to 14	Digits in Account Code. This subfield specifies the number of digits in the account code. Enter a number from 2 to 14.
	NOTIMOUT	Y or N	Timeout. This subfield specifies if an octothorpe or interdigit timeout is a requirement. Enter Y if the system does not require an octothorpe or interdigit timeout to start routing after the entry of an account code. Enter N if the system cannot route the call until an interdigit timeout expires or the entry of an octothorpe occurs.
	ACCTVAL	N	Account Code Validation. The only valid entry for a DMS-100 is N.

Datafill example for table CUSTHEAD

Sample datafill for table CUSTHEAD appears in the following example.

MAP example for table CUSTHEAD

```
   CUSTNAME    CUSTXLA    DGCOLNM    IDIGCOL    OPTION
_____________________________________________________________
   MDCGRP1     RNCR       BNR1       NIL   ( ACCT 2 N N ) $
```

Datafilling table FNMAP for dedicated key/lamp assignment

Table FNMAP (Attendant Console Functional Key) contains fields for setting up a dedicated key and lamp for Account Codes.

Datafill for Attendant Call Detail Entry for table FNMAP appears in the following table. Only the fields that apply to Attendant Call Detail Entry

appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfields	Result. This field contains subfields KEY_SEL and SP_FN.
	KEY_SEL	SPECL	Key Selector. This subfield specifies the key selector. Enter SPECL for special.
	SP_FN	ACC	Special Function. This subfield specifies the special function code. Enter ACC.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

```
                    KEY
                                                    RESULT
______________________________________________________________
        IBNCON1        2
                                  SPECL     ACC
```

Datafilling table FNMAP for Wild Card key assignment

Table FNMAP (Attendant Console Functional Key) contains fields for setting up a dedicated key and lamp for the wild card function. Enter data in this table if access to Account Codes must occur through a Wild Card Key instead of a dedicated ACC key.

Datafill for Attendant Call Detail Entry for table FNMAP appears in the following table. The fields that apply to Attendant Call Detail Entry appear in

Attendant Call Detail Entry (continued)

this table. See the data schema section of this document for a description of the other fields.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfields	Result. This field contains subfields KEY_SEL and SP_FN.
	KEY_SEL	SPECL	Key Selector. This subfield specifies the key selector. Enter SPECL for special.
	SP_FN	WC	Special Function. This subfield specifies the special function code. Enter WC.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

```
                    KEY
                                                  RESULT
--------------------------------------------------------------
          IBNCON1        2
                                 SPECL     WC
```

Datafilling table WCKCODES

Table WCKCODES (Wild Card Key Codes) contains fields for assigning a Wild Card key access code to Account Codes. Enter data in this table if access to Account Codes must occur through a Wild Card key function instead of a dedicated ACC key.

Datafill for Attendant Call Detail Entry for table WCKCODES appears in the following table. The fields that apply to Attendant Call Detail Entry appear in

Attendant Call Detail Entry (end)

this table. See the data schema section of this document for a description of the other fields.

Datafilling table WCKCODES

Field	Subfield or refinement	Entry	Explanation and action
WCKEY		see subfields	Wild Card key. This field contains subfields CUSTGRP and TABIDX.
	CUSTGRP	alphanumeric	Customer group name. This subfield specifies the name assigned to the customer group. Enter a 1- to 16-character alphanumeric name.
	TABIDX	0 to 99	Table index. This subfield specifies the wild card key access code assigned to the Account Code Detail Entry feature. Enter a value from 0 to 99.
VALUE		see subfield	Value. This field contains subfield WC_SP_FN.
	WC_SP_FN	ACC	Wild Card Key Special Function. This field specifies the wild card key special function. Enter ACC.

Datafill example for table WCKCODES

Sample datafill for table WCKCODES appears in the following example.

MAP example for table WCKCODES

```
          WCKEY
                                        VALUE
------------------------------------------------------------
            BNRMC  14                     ACC
```

Tools for verifying translations

The Attendant Call Detail Entry does not use tools for verifying translations.

SERVORD

The Attendant Call Detail Entry does not use SERVORD.

Attendant Control of VFG

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS15 and later versions

Requirements

To operate, Attendant Control of VFG has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The Attendant Control of VFG allows the attendant to control the access of all stations and incoming trunks to virtual facility groups (VFG). The attendant can press a single key to control the access of stations and trunks. When the system activates attendant control, the attendant can provide a member of the customer group with access to controlled VFGs. The attendant can provide access to the VFGs through delayed or nondelayed operation.

If a VFG has a virtual facility group access control (VAC) applied and an alternate route is available, the DMS-100 switch uses the alternate route. If the VFG with VAC active is the last or only option in the route list, the system applies flexible intercept treatment.

Operation

The following methods provide Attendant Control of VFG:

- one dedicated VAC lamp and key for each VFG. This method functions like the Attendant Control of Trunk Group Access feature.
- VFG control through a special key
- the Wild Card key programmed to function as VAC access through a special key

See ``Activation/deactivation by the end user'' in this feature description for detailed actions to operate Attendant Control of VFG.

Attendant Control of VFG (continued)

The attendant can exit activation/deactivation of VAC without changing the central state of the VFG. The attendant can use one of the following methods:

- press the GVAC key a second time before entering digits
- press any key that is not a compatible key before entering digits or after entering digits.

These exit methods can cause the GVAC lamp to turn off.

The attendant can press the following keys during activation/deactivation of VAC access through special key. These keys do not affect the function of Attendant Control of VFG. The following keys are compatible:

- Wild Card (only compatible when the wild card activates/deactivates VAC through special key)
- Display Control
- Console Trouble
- Position Busy
- Query Time and Date
- Attendant Autodial. The key is compatible if the attendant is on an active loop.

Translations table flow

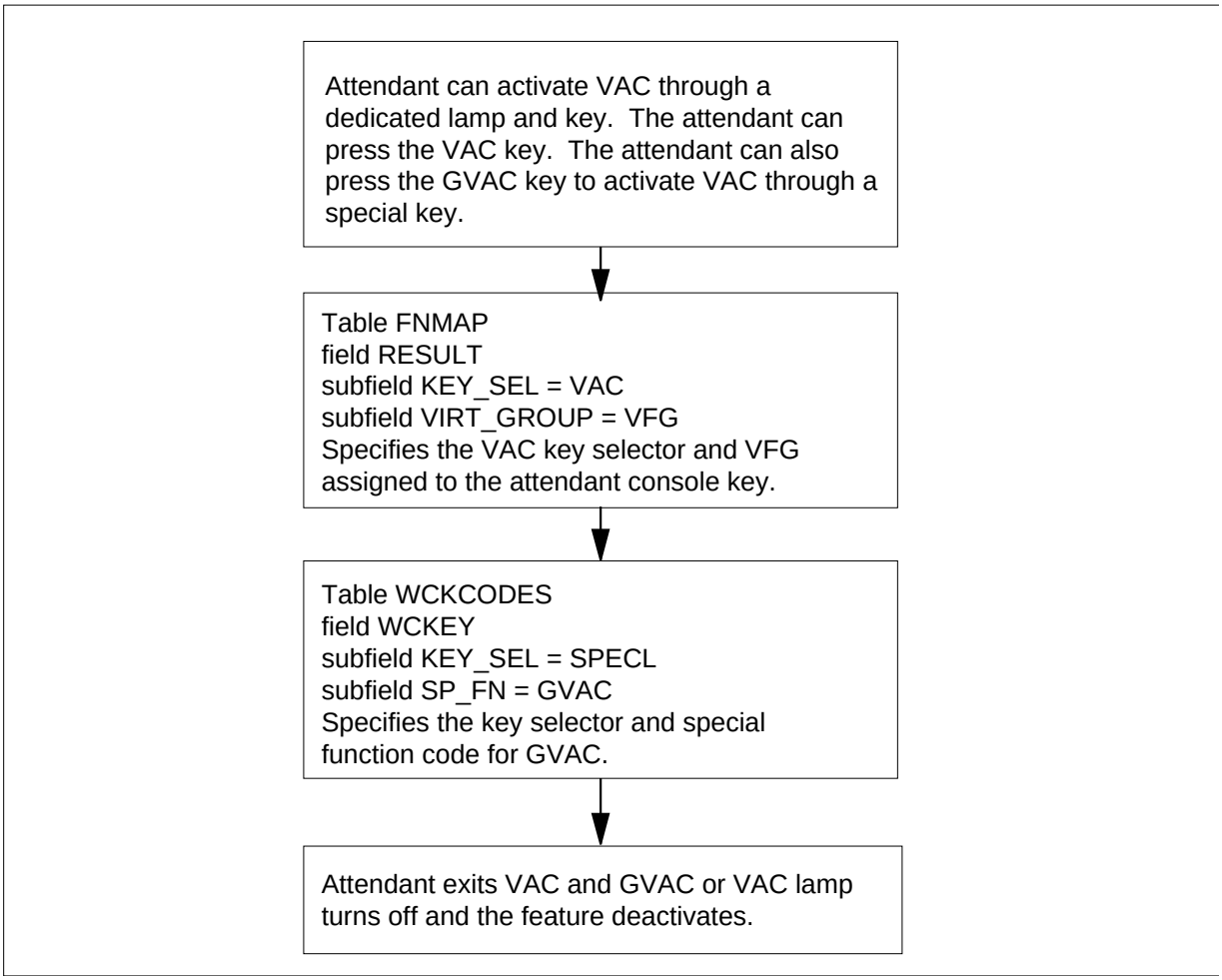
A description of Attendant Control of VFG translations tables appears in the following list:

- Table FNMAP (Attendant Console Functional Key) contains fields to assign a dedicated key and lamp for each VFG that AC controls.
- Table WCKCODES (Wild Card Key Codes) contains fields that allow the attendant to select any VFG. The attendant can control the access to a VFG through the use of a Wild Card key access code.

The Attendant Control of VFG translation process appears in the following flowchart.

Attendant Control of VFG (continued)

Table flow for Attendant Control of VFG



The datafill content used in the flowchart appears in the following table

Datafill example for Attendant Control of VFG

Datafill table	Example data
FNMAP	MDCGRP1 29 VAC
	ATTCONS 30 SPECL GVAC
WCKCODES	BNRMC 14 GVAC

Attendant Control of VFG (continued)

Limits

The following limits apply to Attendant Control of VFG:

- The system must assign the VFG to the customer group of the attendant console (AC).
- Only one console in the customer group can activate/deactivate control on a specified VFG. This controlling console has the VAC key assigned for the VFG.

Interactions

The following paragraphs describe the interactions between Attendant Control of VFG and other functionalities.

Call Back Queuing

A busy VFG allows Call Back Queuing and Off-hook Queuing when VAC is in effect. The line screening code (LSC) of the calling station must correspond to the alternate line screening code (ALSC) bit position of the VFG.

Night Service

The controls present when Night Service starts remain in effect. The VAC can start when Night Service is active. The attendant must plug a headset into the controlling console to activate VAC.

Off-hook Queuing

A busy VFG allows Off-hook Queuing and Call Back Queuing when VAC is in effect. The LSC of the calling station must correspond to the ALSC bit position of the VFG.

Activation/deactivation by the end user

The end user can use the following methods to activate Attendant Control of VFG:

- one dedicated VAC lamp and key for each VFG
- a special Global VFG Access Control (GVAC) key that controls all VFGs assigned to the customer group
- the Wild Card key programmed to function as VAC access

The attendant does not need to have an idle loop or to be active on a loop in order to start VAC. The method to start Attendant Control of VFG through a dedicated lamp and key for each VFG appears in the following procedure.

Attendant Control of VFG (continued)

Activation/deactivation of Attendant Control of VFG through a dedicated lamp and key by the end user

At your telephone

1 To activate virtual facility group access control (VAC) through a dedicated lamp and key, press the VAC key assigned to the virtual facility group (VFG).

Response:

If the VFG is available, the lamp flashes at 60 ipm. If the VFG is busy, the lamp flashes at 120 ipm.

2 To deactivate VAC, press the same key. The associated lamps turn off.

Response:

There is no response.

Activation/deactivation of Attendant Control of VFG through a special key by the end user

At yur telephone

1 To activate virtual facility group access control (VAC) through a special key, press the Global Virtual Facility Group Access Control (GVAC) key.

Response:

The associated lamp turns on and GVAC: INPUT appears at the console display.

2 Enter the four-digit virtual facility group (VFG) number. Use the leading zeros as required.

Response:

The digits appear on the console.

3 Press the GVAC key a second time to confirm the entry of the correct VFG number. If the VFG number is incorrect, terminate the feature. To terminate the feature, press an assigned key that is not compatible with the VAC. Enter a key other than wild card, position busy, console trouble, display control, query time and date or attendant autodial. If you press a key that is not assigned, the system ignores the key.

Response:

When you press the confirmation key, a message appears. The message indicates the new control state and the status of the VFG. The new control state is CNTL ON or NO CNTL. The state of the VFG is IDLE or Busy. If the VFG is idle, the system provides 1 s of dial tone. If the VFG is busy, the system provides 2 s of busy tone. The GVAC lamp turns off. The feature ends. If the number is not correct, the system displays INVALID GROUP. The system provides 2 s of reorder tone. The lamp turns off. The feature ends.

Note: To deactivate, use the same keying sequence as activation.

Attendant Control of VFG (continued)

Activation/deactivation of Attendant Control of VFG through the Wild Card key by the end user

At your telephone

1 To program the Wild Card key as the virtual facility group access control (VAC) access through a special key, press the Wild Card key.

Response:

The Wild Card lamp flashes at 60 ipm.

2 Enter the VAC function code.

Response:

The VAC feature starts like the first time you press the Global Virtual Facility Group Access Control (GVAC) key.

3 Press the Wild Card key a second time as confirmation after the virtual facility group (VFG) number is entered.

Response:

There is no response.

Billing

Attendant Control of VFG does not affect billing.

Station Message Detail Recording

Attendant Control of VFG does not affect Station Message Detail Recording.

Datafilling office parameters

Attendant Control of VFG does not affect office parameters.

Datafill sequence

The tables that require datafill for Attendant Control of VFG appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Attendant Control of VFG

Table	Purpose of table
FNMAP	Attendant Console Functional Key. This table contains fields to assign a dedicated key and lamp for each VFG that the AC controls.
WCKCODES	Wild Card Key Codes. This table contains fields that allow the attendant to select any VFG. The attendant can control access to the VFG with a Wild Card key access code.

Attendant Control of VFG (continued)

Datafilling table FNMAP

Datafill for Attendant Control of VFG for table FNMAP appears in the following table. The fields that apply to Attendant Control of VFG appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfield	Result. This field contains subfield KEY_SEL.
	KEY_SEL	VAC	Key Selector. This subfield specifies the Virtual Facility Group Access Control (VAC) key selector. Enter VAC.
If KEY_SEL is VAC, subfield VIRT_GROUP requires datafill.			
	VIRT_GROUP	alphanumeric	Virtual Facility Group. This subfield indicates the VFG assigned to the attendant console key. Enter VFG name.

Datafilling table FNMAP one key and one lamp dedicated

Enter data in table FNMAP. Use the following method to have one key and lamp dedicated for access and control of all VFGs. This option is option GVAC.

Datafilling table FNMAP one key and one lamp dedicated

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfields	Result. This field contains subfield KEY_SEL and SP_FN.
	KEY_SEL	SPECL	Key Selector. This subfield specifies the key selector. Enter SPECL for special.
	SP_FN	GVAC	Special Function. This subfield specifies the special function code for the Global Virtual Facility Group Access Control feature. Enter GVAC.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

```
 KEY                                                    RESULT
________________________________________________________________
MDCGRP1  29                                                VAC
ATTCONS  30                                       SPECL  GVAC
```

Datafilling table WCKCODES

Datafill for Attendant Control of VFG for table WCKCODES appears in the following table. The fields that apply to Attendant Control of VFG appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table WCKCODE

Field	Subfield or refinement	Entry	Explanation and action
WCKEY		see subfields	Wild Card Key. This field contains subfields CUSTGRP and TABIDX.
	CUSTGRP	alphanumeric (1-16 characters)	Customer Group. This subfield specifies the name assigned to the customer group. Enter a 1- to 16-alphanumeric character name.
	TABIDX	00 - 99	Table Index. This field indicates the Wild Card key access code assigned to the Conference Call feature. Enter a value from 00 to 99.
VALUE		see subfield	Value. This field contains subfield WILDCARD_SP_FN.
	WILDCARD_ SP_FN	GVAC	Wild Card Special Function. This field specifies the special function code for the Global Virtual Facility Group Access Control feature. Enter GVAC.

Datafill example for table WCKCODES

Sample datafill for table WCKCODES appears in the following example. Table WCKCODES with a Wild Card key assigned to Attendant Control of VFG appears in this example.

Attendant Control of VFG (end)

MAP example for table WCKCODES

WCKEY		VALUE
BNRMC	14	GVAC

Tools for verifying translations

The Attendant Control of VFG does not use tools for verifying translations.

SERVORD

The Attendant Control of VFG does not use SERVORD.

Attendant Message Waiting

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS15 and later versions

Requirements

To operate, Attendant Message Waiting has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001.

Description

The Attendant Message Waiting assigns a minimum of one console as message centers. The message center can perform the following tasks:

- receive and record messages for calls forwarded to the message center
- transfer messages to called stations on request
- activate or deactivate message waiting for user stations.

Two types of Attendant Message Waiting calls are available. The two types are indirect and direct. An indirect call is a call that is not answered that the system automatically forwards to the message center. To present a direct call to the message center, the attendant can perform any of the following actions:

- dial the directory number (DN)
- transfer the call
- extend the call from another attendant.

Operation

The Attendant Message Waiting requires the following key/lamp pairs:

- message waiting indication (MSG INDIC)
- message waiting direct incoming call indicator (message center direct incoming call identification [ICI])
- message waiting indirect incoming call indicator (message center indirect ICI).

Attendant Message Waiting (continued)

The system places indirect and direct message calls in separate attendant queues. The calls wait in arrival order with the other attendant calls. When the system presents a direct call, the source lamp flashes. The console buzzes. The Direct Message ICI lamp turns on.

Perform the following steps:

- Press the Loop key or Direct Message ICI key to answer the call.
- Check the MSG INDIC lamp state. The console displays the number or trunk group of the caller if the call is from the outside. If the MSG INDIC lamp is on, the calling party has messages in queue. The lamp blinks if the calling party does not have messages in queue.
- Ask the caller if this call is a message retrieval call for the DN that appears. If the answer is yes, give the message(s) to the caller.
- Press the octothorpe key (#). The console displays the # key.
- Press the MSG INDIC key. The lamp blinks to indicate that the DN does not have messages. The message `MW INACTIV DN` appears at the console.
- Release the call.

If the caller wants to retrieve messages against another DN, perform the following steps:

- Ask for the DN.
- Press the MSG INDIC key. The lamp blinks and the message MW INPUT: appears at the display.
- Enter the DN. The DN appears on the console.
- Press the MSG INDIC key. If a message for the DN is present, the message `MW ACTIV DN` appears at the console. If the DN does not have a message present, the message `MW INACTIV DN` appears at the console.
- To deactivate the message indication, press the octothorpe key (#), the MSG INDIC key, and the Release (RLS) key.

The caller can leave a message for the called number. Perform the following steps to allow the caller to leave a message:

- Press the asterisk key (*). The console displays * key.
- Press the MSG INDIC key. The lamp turns on to remind you that a message waits for the called number. The console displays the message `MW ACTIV DN`.

- Write down the message of the caller.
- Release the call.

The caller can leave a message for a different number than the number displayed on the console. Perform the following steps to allow the caller to leave a message for a different number:

- Press the MSG INDIC key. The lamp blinks and `MW INPUT`: appears at the display.
- Enter the DN. The DN appears at the console.
- Press the MSG INDIC key. Message waiting is now active for the desired DN.
- Write down the message of the caller.
- Release the call.

When the system presents an indirect call to an attendant, the source lamp flashes. The console buzzes. The indirect message ICI lamp turns on. Perform the following steps:

- Press the Loop key or Indirect Message ICI key to answer the call.
- Check the MSG INDIC lamp state. The console displays the number or trunk group of the caller if the call is from the outside. If the MSG INDIC lamp is on, the called party has messages in queue. The lamp blinks if the called party does not have messages in queue.
- Press the Display Control (DSPC) key. The called number appears at the console.
- Confirm with the caller that this call is a message request call for the displayed called number. If the caller answers yes, perform the following steps:
  - — Press the asterisk key (*). The console displays *.
  - — Press the MSG INDIC key. The lamp turns on to remind you that a message waits for the called number. The console displays MW ACTIV DN.
  - — Write down the message of the caller.
  - — Release the call.

Attendant Message Waiting (continued)

Translations table flow

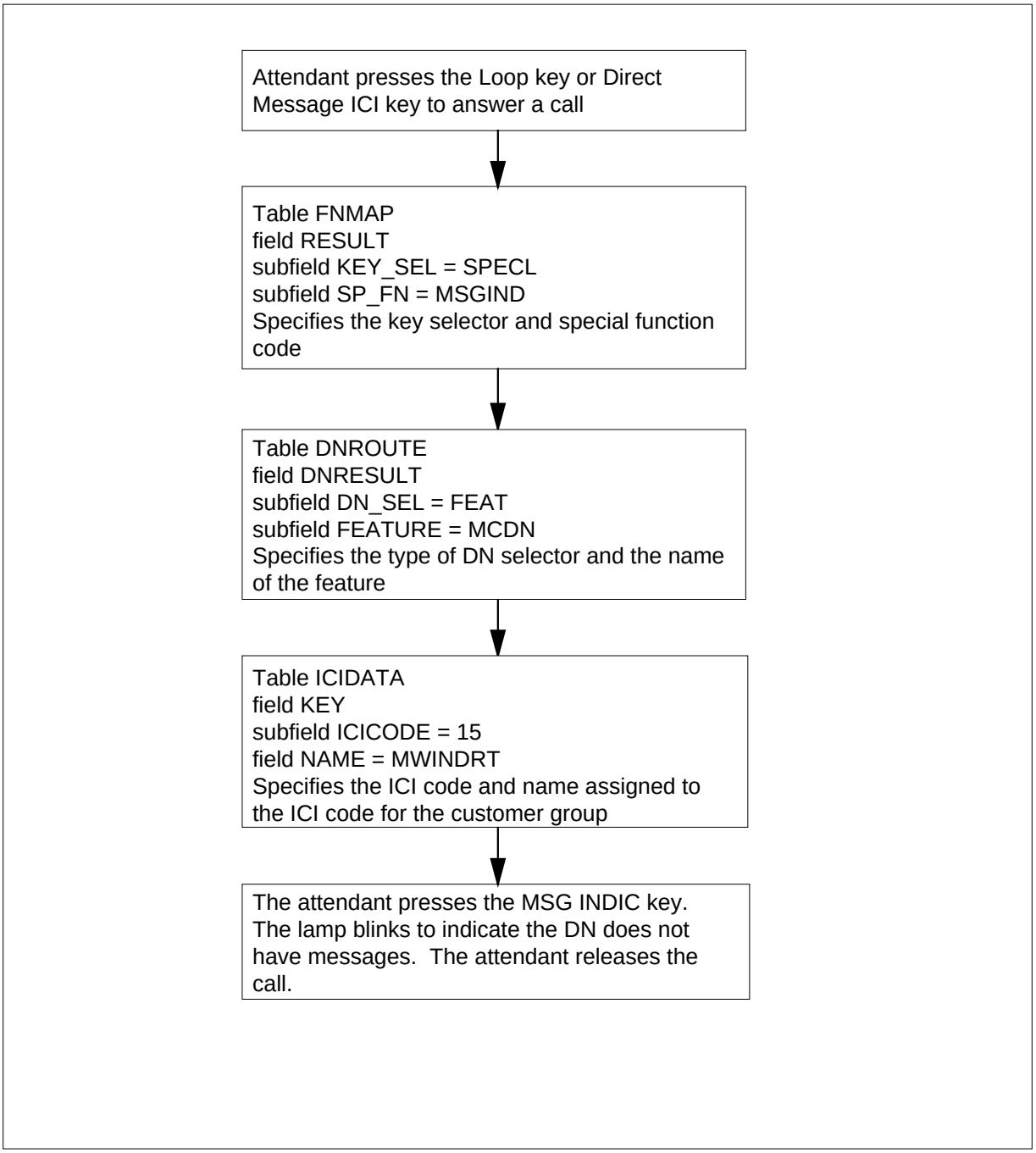
A description of the Attendant Message Waiting translations tables appear in the following list:

- Table FNMAP (Attendant Console Functional Key) contains fields to assign a key for the message waiting center. Use this key to activate, deactivate and query message indication for a station.
- Table DNROUTE (Directory Number Route) contains DNs in the switch. A DN that identifies a route is an example of a DN in the switch. Table DNROUTE does not contain a line equipment number (LEN). Table DNROUTE associates a DN with a specified trunk group member.
- Table ICIDATA (Incoming Call Identification Data) contains fields to assign an ICI key and lamp display. This table assigns key and lamp display for direct and indirect calls to the message center.

The Attendant Message Waiting translation process appears in the following flowchart.

Attendant Message Waiting (continued)

Table flow for Attendant Message Waiting



Attendant Message Waiting (continued)

The datafill content for the flowchart appears in the following table.

Datafill example for Attendant Message Waiting

Datafill table	Example data
FNMAP	IBNCON1 30 SPECL MSGIND
DNROUTE	613 621 1000 FEAT MCDN EXTCON Y CUST1 4
ICIDATA	NETWORK 15 MWINDRT $ NETWORK 16 MWDRCT $

Limits

Future releases of this document can include limits that do not apply to this release.

Interactions

The following paragraphs describe the interactions between Attendant Message Waiting and other functionalities.

Call Forwarding (CFW)

If the system forwards a call to another set, Attendant Message Waiting can start. Attendant Message Waiting can start if the second set forwards calls to the message center.

Hunt Groups

For hunt groups, Attendant Message Waiting can apply to the pilot DN for distributed line and multiline hunting. Attendant Message Waiting can apply to the original set for DN hunting.

The Attendant Message Waiting starts after hunting if the hunt group is busy, and the hunt group overflows to the message center.

Incoming Call Identification (ICI)

The ICIs defined before Attendant Message Waiting applies cannot be message waiting ICIs. Each subgroup has separate descriptions of direct and indirect ICIs.

Wild Card Key

The Wild Card key cannot have the functions of Attendant Message Waiting assigned.

Activation/deactivation by the end user

The system places indirect and direct message calls in separate attendant queues. The calls wait in arrival order with the other attendant calls. When the system presents a direct call, the source lamp flashes. The console buzzes. The Direct Message ICI lamp turns on. Perform the following steps.

Activation/deactivation of Attendant Message Waiting by the end user

At your telephone

1 Press the Loop key or direct message ICI key to answer the call.

2 Check the MSG INDIC lamp state.

Response:

The console displays the number or trunk group of the caller if the call is from outside. If the MSG INDIC lamp is on, the calling party has messages in queue. The lamp blinks if the calling party does not have messages in queue.

3 Ask the caller if this call is a message retrieval call for the displayed DN. If the callers answers yes, give the messages to the caller.

4 Press the octothorpe key (#).

Response:

The console displays #.

5 Press the MSG INDIC key.

Response:

The lamp blinks to indicate that the DN does not have messages. The console displays `MW INACTIV DN`.

6 Release the call.

The caller can retrieve messages against another DN. Perform the following steps to allow the caller to retrieve messages.

Activation/deactivation of Attendant Message Waiting by the end user

At your telephone

1 Ask for the DN.

2 Press the MSG INDIC key.

Response:

The lamp blinks and `MW INPUT:` appears at the display.

3 Enter the DN.

Response:

The number appears at the console.

4 Press the MSG INDIC key.

Response:

Attendant Message Waiting (continued)

If a message for the DN is present, `MW ACTIV DN` appears at the console. If the DN does not have a message, `MW INACTIV DN` appears at the console.

5 To deactivate message indication, press the octothorpe key (#), the MSG INDIC key, and the Release (RLS) key.

The caller can leave a message for the called number. Perform the following steps to allow the caller to leave a message.

Activation/deactivation of Attendant Message Waiting by the end user

At your telephone

1 Press the asterisk key (*).

Response:

The console displays *.

2 Press the MSG INDIC key.

Response:

The lamp turns on to remind you that a message waits for the called number. The console displays `MW ACTIV DN`.

3 Write down the message of the caller.

4 Release the call.

The caller can leave a message for a different number than the number displayed on the console. Perform the following steps to allow the caller to leave a message for a different number.

Activation/deactivation of Attendant Message Waiting by the end user

At your telephone

1 Press the MSG INDIC key.

Response:

The lamp blinks and `MW INPUT:` appears at the console.

2 Enter the DN.

Response:

The console displays the number.

3 Press the MSG INDIC key.

Response:

Message waiting is now active for the specified DN.

4 Write down the message of the caller.

5 Release the call.

When the system presents an indirect call, the source lamp flashes. The console buzzes. The indirect message ICI lamp turns on. Perform the following steps.

Activation/deactivation of Attendant Message Waiting by the end user

At your telephone

1 Press the Loop key or ICI key to answer the call.

2 Check the MSG INDIC lamp state.

Response:

The console displays the number or trunk group of caller if the call is from the outside. If the MSG INDIC lamp is on, the called party has messages in queue. The lamp blinks if the called party does not have messages.

3 Press the Display Control (DSPC) key.

Response:

The called number appears at the console.

4 Confirm with the caller that this call is a message request call for the displayed called number. If the caller answers yes, the attendant performs the following steps:

- Press the asterisk key (*).
- Press the MSG INDIC key.
- Record the message of the caller.
- Release the call.

Response:

The console displays `*`.

The lamp turns on to remind you that a message waits for the called number. The console displays `MW ACTIV DN`.

Billing

The Attendant Message Waiting does not affect billing.

Station Message Detail Recording

The Attendant Message Waiting does not affect Station Message Detail Recording.

Datafilling office parameters

The Attendant Message Waiting does not affect office parameters.

Attendant Message Waiting (continued)

Datafill sequence

The tables that require datafill to provide Attendant Message Waiting appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Attendant Message Waiting

Table	Purpose of table
FNMAP	Attendant Console Functional Key. This table contains fields that assign a key for the message waiting center.
DNROUTE	Directory Number Route. This table contains DNs in the switch, like a DN that identifies a route. The DNROUTE does not contain a LEN.
ICIDATA	Incoming Call Identification Data. This table contains fields to assign an ICI key and lamp display for direct and indirect calls to the message center.

Datafilling table FNMAP

Table FNMAP (Attendant Console Functional Key) contains fields for assigning a key for the message waiting center. Use this key to activate, deactivate and query message indication for a station.

Datafill for Attendant Message Waiting for table FNMAP appears in this table. The fields that apply to Attendant Message Waiting appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfields	Result. This field contains subfields KEYSEL and SPFN.
	KEYSEL	SPECL	Key Selector. This subfield specifies the key selector. Enter SPECL for special.
	SPFN	MSGIND	Special Function. This subfield specifies the special function code for the Message Waiting feature. Enter MSGIND.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

```
KEY                                                          RESULT
_____________________________________________________________________
IBNCON1  30                                          SPECL   MSGIND
```

Datafilling table DNROUTE

Table DNROUTE lists DNs in the switch, like a DN that identifies a route. Table DNROUTE does not list a LEN. Table DNROUTE associates a DN with a specified trunk group member.

When the DN is a message center directory number (MCDN), the DN selector FEAT must have subfield DNSEL set to MCDN. A station dials the MCDN to retrieve a message from storage or to forward a message to storage. The message center attendant stores the messages.

Datafill for Attendant Message Waiting for table DNROUTE appears in the following table. The fields that apply to Attendant Message Waiting appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table DNROUTE (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	Directory Number Results. This field contains subfields DNSEL, FEATURE, DEST, DIDORG, CUSTNAME, and SUBGRP. Subfields DNSEL and FEATURE apply to this feature.
	DN_SEL	FEAT	Directory Number Selector. This subfield specifies the type of DN selector. Enter FEAT.
	FEATURE	MCDN	Feature. This subfield specifies the name of the feature. Enter MCDN.
If the value of FEATURE is MCDN, subfields DEST and DIDORIG require datafill.			
	DEST		Destination. This subfield specifies destinations EXTCON and INTCON.
Note: You cannot change an LDN tuple in table DNROUTE. To change the tuple, delete the tuple and add the tuple again.			

Attendant Message Waiting (continued)

Datafilling table DNROUTE (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	DIDORIG	Y or N	DID Retrieve. This subfield specifies retrieval. If DEST is INTCON, enter N. If DEST is EXTCON, enter Y.
If the value of DIDORIG is Y, subfields CUSTNAME and SUBGRP require datafill.			
	CUSTNAME	alphanumeric	Customer Group Name. This subfield specifies the customer group name assigned to the message center. Enter an alphanumeric of 1 to 16 characters.
	SUBGRP	0 to 7	Subgroup. This subfield specifies the subgroup number of the customer group. Enter from 0 to 7.
Note: You cannot change an LDN tuple in table DNROUTE. To change the tuple, delete the tuple and add the tuple again.			

Datafill example for table DNROUTE

Sample datafill for table DNROUTE appears in the following example.

MAP example for table DNROUTE

```
AREACODE  OFCCODE  STNCODE                          DNRESULT
_____________________________________________________________
613       621     1000    FEAT  MCDN  EXTCON Y  CUST1  4
```

Datafilling table ICIDATA

Table ICIDATA contains fields that assign an ICI key and lamp display for direct and indirect calls to the message center. Enter data in this table twice.

The following table identifies the required datafill for table ICIDATA with MWINDRT and MWDRCT.

Datafill for Attendant Message Waiting for table ICIDATA appears in the following table. The fields that apply to Attendant Message Waiting appear in

this table. See the data schema section of this document for a description of the other fields.

Datafilling table ICIDATA

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	ICIDATA Key. This field contains subfields CUSTGRP and ICICODE.
	CUSTGRP	alphanumeric	Customer Group Name. This subfield specifies the customer group name. Enter the alphanumeric name of customer group.
	ICICODE	15	Incoming Call Identification Code. This subfield specifies the incoming call identification (ICI) code. Enter 15.
NAME		MWINDRT	KLD Name. This field specifies the 1- to 7-character name assigned to the specified ICI code in the specified customer group. This field applies to the key and lamp display at the console of the attendant. Enter MWINDRT.

Datafill example for table ICIDATA

Sample datafill for table ICIDATA appears in the following example.

MAP example for table ICIDATA

```
  KEY                        NAME                   OPTIONS
 ------------------------------------------------------------
    NETWORK  15                       MWINDRT             $
    NETWORK  16                       MWDRCT              $
```

Tools for verifying translations

The Attendant Message Waiting does not use tools for verifying translations.

SERVORD

The Attendant Message Waiting does not use SERVORD.

Attendant Set Up Conference: 10 or More Conferees

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS10 and later versions

Requirements

To operate, Attendant Set Up Conference: 10 or More Conferees has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

This feature increases the maximum number of conferees that can participate in an attendant conference call. This feature increases the maximum number of conferees from 6 to 30.

Operation

The operation of this feature is the same as the operation for BV0437, Attendant Conference (Maximum Six Conferees). For this feature, the maximum number of conferees that can participate in an attendant conference call is 30, and not 6. Refer to "Attendant Conference (Maximum Six Conferees)" for additional information.

Translations table flow

Descriptions of the Attendant Set Up Conference: 10 or More Conferees translations tables appear in the following list:

- Table CUSTHEAD (Customer Group Head) lists the values and options of customer groups. Enter data in table CUSTHEAD to allow a maximum 30 conferees to participate in an attendant conference call.
- Table FNMAP (Attendant Console Functional Key) assigns features to keys 2 through 43 on specified consoles. Enter data in table FNMAP. Enter data to assign a dedicated incoming call identification (ICI) key and lamp for Attendant Set Up Conference: 10 or More Conferees.
- Table WCKCODES (Wild Card Key Codes) contains fields to assign a Wild Card key access code to Attendant Set Up Conference: 10 or More

Attendant Set Up Conference: 10 or More Conferees (continued)

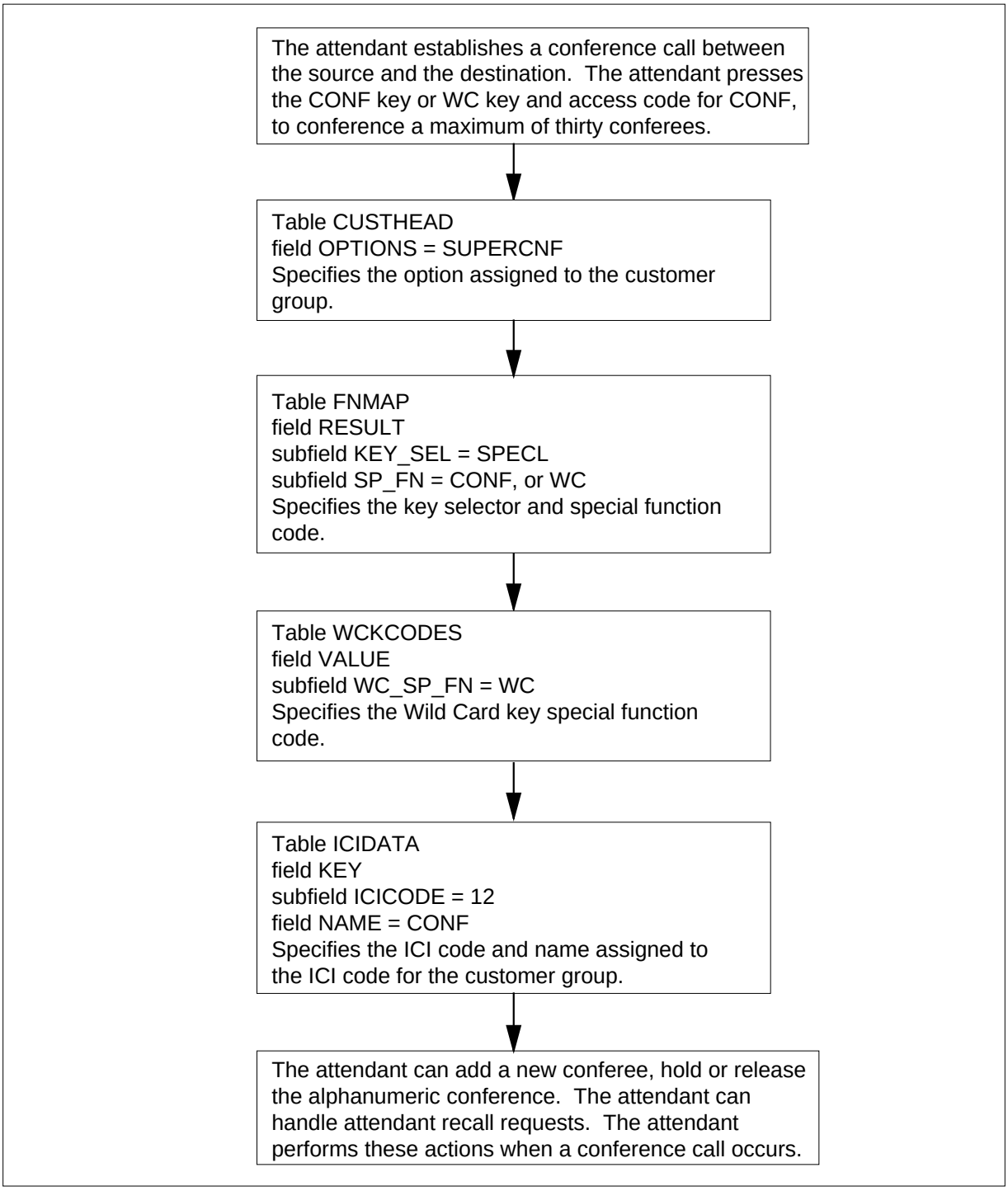
Conferees. Enter data in this table if you activate this feature from a Wild Card key and not a dedicated Conference (CONF) key.

- Table ICIDATA (Incoming Call Identification Data) contains the key and lamp display for each ICI number. If ICI is desired, enter data in table ICIDATA to assign Attendant Set Up Conference: 10 or More Conferees to ICI code number 12.

The Attendant Set Up Conference: 10 or More Conferees translation process appears in the following flowchart.

Attendant Set Up Conference: 10 or More Conferees (continued)

Table flow for Attendant Set Up Conference: 10 or More Conferees



Attendant Set Up Conference: 10 or More Conferees (continued)

The datafill content of the flowchart appears in the following table.

Datafill example for Attendant Set Up Conference: 10 or More Conferees

Datafill table	Example data
CUSTHEAD	MDCGRP1 BNRXLA NTIDIG NIL (SUPERCNF) $
FNMAP	IBNCON1 2 SPECL CONF
	IBNCON1 2 SPECL WC
	IBNCON1 2 ICICODE 12
WCKCODES	BNRMC 14 WC
ICIDATA	BNRMC 12 CONF $

Limits

The following features do not apply to an attendant conference call:

- Attendant Camp-On
- Attendant Locked Loop Operation
- Call Waiting
- Delayed Operation

Interactions

Descriptions of the interactions between Attendant Set Up Conference: 10 or More Conferees and other functionalities appear in the following paragraphs.

- **Meet-Me Conference** Two or more parties can participate in a meet-me conference and the conference can be locked. When this action occurs, the meet-me conference becomes the same as an attendant conference that the system releases from the attendant console (AC). The conference can expand to include a maximum of 30 conferees. The system recalls the attendant to add new conferees to the conference.
- **Station Message Detail Recording (SMDR)** If SMDR applies to a conferee that participates in the conference call, the system identifies this feature in the SMDR record. The system uses the terminating feature code to identify SMDR for Attendant Set Up Conference: 10 or More Conferees.

Activation/deactivation by the end user

The Attendant Set Up Conference: 10 or More Conferees does not require activation or deactivation by the end user.

Attendant Set Up Conference: 10 or More Conferees (continued)

Billing

The Attendant Set Up Conference: 10 or More Conferees does not affect billing.

Station Message Detail Recording

The Attendant Set Up Conference: 10 or More Conferees does not affect Station Message Detail Recording.

Datafilling office parameters

The Attendant Set Up Conference: 10 or More Conferees does not affect office parameters.

Datafill sequence

The following table lists the tables that require datafill to implement Attendant Set Up Conference: 10 or More Conferees. The tables appear in the correct entry order.

Datafill requirements for Attendant Set Up Conference: 10 or More Conferees

Table	Purpose of table
CUSTHEAD	Customer Group Head. This table lists the values and options of customer groups.
FNMAP	Attendant Console Functional Key. This table contains fields for the set up of a dedicated key and lamp.
WCKCODES	Wild Card Key Codes. This table contains fields for the assignment of a Wild Card key access code. The Wild Card key access code is assigned to the Attendant Set Up Conference: 10 or More Conferees feature.
ICIDATA	Incoming Call Identification Data. This table contains the key and lamp display for each ICI number.

Datafilling table CUSTHEAD

Table CUSTHEAD lists the values and options of customer groups. Enter data in table CUSTHEAD to allow a maximum of 30 conferees to participate in an attendant conference call.

Datafill for Attendant Set Up Conference: 10 or More Conferees for table CUSTHEAD appear in the following tables. The fields that apply to Attendant

Attendant Set Up Conference: 10 or More Conferees (continued)

Set Up Conference: 10 or More Conferees appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTHEAD

Field	Subfield or refinement	Entry	Description
OPTIONS		SUPERCNF	Options. This field specifies the option. Enter SUPERCNF for super conference.

Datafill example for table CUSTHEAD

Sample datafill for table CUSTHEAD appears in the following example.

MAP example for table CUSTHEAD

```
   CUSTNAME     CUSTXLA     DGCOLNM     IDIGCOL
                                                OPTIONS
_____________________________________________________________
   MDCGRP1      BNRXLA      NTIDIG       NIL
                                          (SUPERCNF )   $
```

Datafilling table FNMAP

Table FNMAP contains fields for the set up of a dedicated key and lamp. If ICI is desired, enter data in table FNMAP. Enter data to set up a dedicated key and lamp for a conference call recall ICI code.

Two options are available to set up the AC keys for this feature:

- assignment of this feature to a dedicated key and lamp on the AC
- assignment of this feature to a Wild Card key on the AC

Datafill for Attendant Set Up Conference: 10 or More Conferees for table FNMAP appears in the following table. The fields that apply to Attendant Set Up Conference: 10 or More Conferees appear in this table. See the data schema section of this document for a description of the other fields.

Attendant Set Up Conference: 10 or More Conferees (continued)

Option #1

Enter data in table FNMAP to set up a dedicated key and lamp for a Conference Call feature.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Description
RESULT		see subfields	Result. This field contains subfields KEY_SEL and SP_FN.
	KEY_SEL	SPECL	Key Selector. This subfield specifies the key selector. Enter SPECL for special.
	SP_FN	CONF	Special Function. This subfield specifies the special function code. Enter CONF.

Option #2

Enter data in table FNMAP to assign a Wild Card key for a Conference Call feature.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Description
RESULT		see subfields	Result. This field contains subfields KEY_SEL and SP_FN.
	KEY_SEL	SPECL	Key Selector. This subfield specifies the key selector. Enter SPECL for special.
	SP_FN	WC	Special Function. This subfield specifies the special function code. Enter WC.

Attendant Set Up Conference: 10 or More Conferees (continued)

If ICI is desired, enter data in table FNMAP. Enter data to set up a dedicated key and lamp for a conference call recall ICI code.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Description
RESULT		see subfields	Result. This field contains subfields KEY_SEL and ICI.
	KEY_SEL	ICICODE	Key Selector. This subfield specifies the key selector. Enter ICICODE for ICI code selector.
	ICI	12	Incoming Call Identification Code. This subfield specifies the ICI number of the AC key number that field ACKEY defines. Enter 12 for conference call recall.

Datafill examples for table FNMAP

Sample datafill for table FNMAP appear in the following example. In the first example, assign a dedicated key and lamp for Conference Call for table FNMAP.

MAP example for table FNMAP

```
   KEY                                    RESULT
_____________________________________________________________
   IBNCON1  2                             SPECL CONF
```

In this example, assign a dedicated key and lamp for the Wild Card function for table FNMAP.

MAP example for table FNMAP

```
   KEY                                    RESULT
_____________________________________________________________
   IBNCON1  2                             SPECL  WC
```

In this example, assign key 12 to conference call recall for table FNMAP.

Attendant Set Up Conference: 10 or More Conferees (continued)

MAP example for table FNMAP

```
KEY                                     RESULT
------------------------------------------------------------
IBNCON1  2                              ICICODE  12
```

Datafilling table WCKCODES

Table WCKCODES contains fields to assign a Wild Card key access code. The Wild Card key access code is assigned to Attendant Set Up Conference: 10 or More Conferees. Enter data in this table if activation of the Conference feature occurs from a Wild Card key and not a dedicated Conference (CONF) key.

Datafill for Attendant Set Up Conference: 10 or More Conferees for table WCKCODES appears in the following table. The fields that apply to Attendant Set Up Conference: 10 or More Conferees appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table WCKCODES

Field	Subfield or refinement	Entry	Description
VALUE		see subfield	Value. This field contains subfield WC_SP_FN.
	WC_SP_FN	WC	Wild Card Key Special Function. This subfield specifies the Wild Card key special function code. Enter WC.

Datafill example for table WCKCODES

Sample datafill for table WCKCODES appear in the following example.

MAP example for table WCKCODES

```
WCKEY                                      VALUE
------------------------------------------------------------
BNRMC                  14                  WC
```

Datafilling table ICIDATA

Table ICIDATA contains the key and lamp display for each ICI number. If ICI is desired, enter data in table ICIDATA. Enter data to assign Attendant Set Up Conference: 10 or More Conferees to ICI code number 12.

Attendant Set Up Conference: 10 or More Conferees (continued)

Datafill for Attendant Set Up Conference: 10 or More Conferees for table ICIDATA appears in the following table. The fields that apply to Attendant Set Up Conference: 10 or More Conferees appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table ICIDATA

Field	Subfield or refinement	Entry	Description
KEY		see subfields	ICIDATA Key. This field contains subfields CUSTGRP and ICICODE.
	CUSTGRP	alphanumeric	Customer Group Name. This subfield specifies the 1- to 16-character alphanumeric name of the customer group. Enter the customer group name.
	ICICODE	12	Incoming Call Identification Code. This subfield specifies the ICI code. Enter 12.
NAME		CONF	KLD Name. This field specifies the 1- to 7-character alphanumeric name of the specified ICI code in the specified customer group. This field specifies the alphanumeric name for the key and lamp display at the console of the attendant. Enter CONF.
OPTIONS		$	Options. This field specifies the option. Enter $.

Datafill example for table ICIDATA

Sample datafill for table ICIDATA appear in the following example.

MAP example for table ICIDATA

```
KEY                    NAME                OPTIONS
______________________________________________________
BNRMC    12            CONF                $
```

Tools for verifying translations

The Attendant Set Up Conference: 10 or More Conferees does not use tools for verifying translations.

Attendant Set Up Conference: 10 or More Conferees (end)

SERVORD

The Attendant Set Up Conference: 10 or More Conferees does not use SERVORD.

Authorization Codes

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS10 and later versions

Requirements

To operate, the Authorization Codes feature has the following requirements:

- BAS Generic, BAS00003
- MDC Standard, MDC00003
- MDC Minimum, MDC00001

Description

The customer group attendant uses the Authorization Codes feature to validate authorization codes. This feature uses the authorization code, that an end user dials, to perform the following functions:

- identify an authorized user of the network and exclude users that are not authorized
- record the authorization code in a Station Message Detail Recording (SMDR) record for billing purposes
- assign a class of service name

To validate authorization codes, the attendant must use attendant console keys and lamps for the feature. These lamps and keys are the authorization code validation key and lamp. The attendant uses the authorization code key and lamp to enter an authorization code when the attendant extends a call.

To conserve keys on the attendant console, the attendant can use the wild card key to start authorization codes. The attendant console is Authorization Codes Verification and Recording.

Operation

The attendant can make an error during the authorization code validation keying sequence. When this event occurs, the attendant can press the release source, release destination, or active loop key to clear digits. The authorization code validation code lamp continues to blink. The attendant can enter the correct digits, the authorization code.

Authorization Codes (continued)

Translations table flow

The Authorization Codes feature does not affect translations table flow.

Limits

See “ESN - Authorization Codes " for limits that are associated with this feature.

Interactions

See “ESN - Authorization Codes" for feature interactions associated with this feature.

Activation/deactivation by the end user

The Authorization Codes feature does not require activation or deactivation by the end user.

Billing

The Authorization Codes feature does not affect billing.

Station Message Detail Recording

The Authorization Codes feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Authorization Codes feature does not affect office parameters.

Datafill sequence

The tables that require datafill to implement the Authorization Codes feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Authorization Codes

Table	Purpose of table
FNMAP	Attendant Console Functional Key. This table assigns features to keys 2 through 43 on specified consoles.
WCKCODES	Wild Card Key Codes. This table contains the specifications for MDC lines that use the wild card key special function.

Datafilling table FNMAP

Datafill for the Authorization Codes feature for table FNMAP appear in the following table. The fields that apply to the Authorization Codes feature

appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Description
	KEY_SEL	SPECL	Key Selector. This subfield specifies the special key selector. Enter SPECL.
	SPFN	AUVAL	Special Function. This subfield specifies the special function code for the authorization code validation key. Enter AUVAL.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

```
FNMAP
      KEY                       RESULT
________________________________________________________
   BNRCON_1    6                SPECL          AUVAL
```

Datafilling table WCKCODES

Datafill for the Authorization Codes feature for table WCKCODES appears in the following table. The fields that apply to the Authorization Codes feature appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table WCKCODES

Field	Subfield or refinement	Entry	Description
	WC_SP_FN	AUTHVAL	Wild Card Key. Special Function. This subfield specifies the wild card key special function for the Authorization Codes feature. Enter AUTHVAL.

Datafill example for table WCKCODES

Sample datafill for table WCKCODES appear in the following example.

Authorization Codes (end)

MAP example for table WCKCODES

```
WCKCODES
        WCKEY                                   VALUE
_____________________________________________________________________
        BNR  0                                  ACC
```

Tools for verifying translations

The Authorization Codes feature does not use tools for verifying translations.

SERVORD

The Authorization Codes feature does not use SERVORD.

Automatic Routing System (Basic)

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS10 and later versions

Requirements

To operate, the Automatic Routing System - (Basic) feature has the following requirements:

- BAS Generic, BAS00003
- MDC Standard, MDC00003

Description

The ARS - (Basic) feature allows the system to complete an outgoing call by the least costly route available. If the primary route is busy, the ARS feature attempts alternate routes. The customer specifies the search order from the least expensive route to the most expensive route. The least expensive route is the first option. The most expensive route is the last option.

A trunk route list contains one to eight elements that link together. Each element normally contains the identity of a trunk group from which the system selects an idle outgoing trunk. In addition to the identity of a trunk group, a route list element can contain outpulsing control data. This data include the deletion of a maximum of 15 digits from the first digit string received. This data can include the prefixing of a maximum of 11 digits.

A difference in the route list element can accommodate a directory number (DN). The DN can be a maximum of 11 digits. The system routes this DN through digit translation to another route list or DN in the same office. The insertion of a special billing number can occur when this requirement applies.

The insertion of a special billing number in a DN can occur. The system routes this billing number through digit translation to another route list or DN in the same office. A note in the route list element can suppress charges that normally apply. You can add a billing number to the element when the operating company bills a person that is not the originator for the call. The billing number can be a maximum of 10 digits.

A note in the route list element can suppress normal charges that normally apply. The addition of a billing number to the element can occur when the

Automatic Routing System (Basic) (continued)

operating company bills a person that is not the originator for the call. The billing number can be a maximum of 10 digits.

A route list can contain an index number that identifies another route list. For this condition, the system searches the elements of the new route list according to the rules from the previous description. The name of this process is route list chaining.

Operation

When an idle outgoing trunk is available, the system processes the call in a normal method. When an idle outgoing trunk is not in the first element, the system advances to the next element in the trunk route list. When the system reaches the end of the trunk route list and cannot find an idle outgoing trunk, the system notifies the software. The system indicates to the software that an idle outgoing trunk is not available. The software gives a correct response to the call originator. The system normally gives a reorder tone to a line to local outgoing trunk call. The system normally gives a recorded announcement to an intertoll to intertoll group.

Translations table flow

The ARS - (Basic) feature does not affect translations table flow.

Limits

To chain more than four lists in this method is not recommended. This condition applies because of the real-time costs of chaining.

Interactions

The Automatic Routing System - (Basic) feature does not have functionality interactions.

Activation/deactivation by the end user

The Automatic Routing System - (Basic) feature does not require activation or deactivation by the end user.

Billing

The insertion of special billing number in a DN can occur. The system routes this number through digit translation to another route list or DN in the same office. A note in the route list element can suppress charges that normally apply. The addition of a billing number to the element can occur when the operating company bills a person that is not the originator of the call. The billing number can be a maximum of 10 digits.

Station Message Detail Recording

The Automatic Routing System - (Basic) feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Automatic Routing System - (Basic) feature does not affect office parameters.

Datafill sequence

The tables that require datafill to implement the Automatic Routing System - (Basic) feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Automatic Routing System - (Basic)

Table	Purpose of table
OFRT	Office Route. The system uses this table when the system translates an originating call and a previous stage identifies a route reference index.
IBNRTE	IBN Route. This table contains route lists that a route reference index number identifies.
DIGMAN	Digit Manipulation. This table allows the end user to adopt a dialing plan for the private network. The switching unit is a part of the private network. The destination code determines this dialing plan.
DNINV (Note)	Director Number Inventory.
Note: Table DNINV is a read-only table. A datafill procedure is not available.	

Datafilling table OFRT

The system uses table OFRT (Office Route) when the system translates an originating call. An earlier stage identifies a route reference index. Route selector QH determines expensive and not expensive route elements when these elements are a requirement in the route list. When the system uses route selector QH in Table OFRT, QH routes the call to treatment. The system must use route selector QH in table IBNRTE because of this routing action.

Datafill for the Automatic Routing System - (Basic) feature for table OFRT appear in the following table. The fields that apply to the Automatic Routing

Automatic Routing System (Basic) (continued)

System - (Basic) feature appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table OFRT

Field	Subfield or refinement	Entry	Description
RTE		1 -1023	Route Reference Index. This field specifies the route reference number of the route list. Enter a value from 1 to 1023.
RTELIST		see subfield	Route List. This field contains subfield RTESEL.
	RTESEL	QH	Route Selector. This subfield specifies the type of route selector. Enter QH.

Datafill example for table OFRT

Sample datafill for table OFRT appear in the following example.

MAP example for table OFRT

```
OFRT

 RTE                                  RESULT
________________________________________________________
  1                          (QH   T120)
```

Datafilling table IBNRTE

Table IBNRTE (IBN Route) contains route lists that a route reference index number identifies. The system uses route selector CND when the call proceeds if a specified condition occurs. If the condition does not occur, the system routes the call as specified in the next element of the route list. Condition ALWAYS indicates that the condition always occurs.

Datafill for the Automatic Routing System - (Basic) feature for table IBNRTE appear in the following table. The fields that apply to the Automatic Routing

System - (Basic) feature appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNRTE

Field	Subfield or refinement	Entry	Description
RTE		1 - 1023	Route Reference Index. This field contains a route reference number. Enter a value from 1 to 1023.
RTELIST		see subfields	Route List. This field contains several subfields. Subfields IBNRTSEL, and CLLI apply to this feature.
	IBNRTSEL	CND	IBN Route Selector. This subfield specifies the required route selector. Enter CND.
	CLLI	alphanumeric	Common Language Location Identifier. This subfield specifies the name of the trunk to route to complete the translations. Table CLLI must identify the name before this table references the name.

Datafill example for table IBNRTE

Sample datafill for table IBNRTE appear in the following example.

MAP example for table IBNRTE

```
IBNRTE

 RTE                                RTELIST
_____________________________________________________________________
2                    (CND  ALWAYS  ST  255)  $
```

Datafilling table DIGMAN

Table DIGMAN (Digit Manipulation) allows the end user to adopt a dialing plan for the private network. The destination code determines this dialing plan. The switching unit is a part of the private network. This condition allows the end user that the switch serves to dial a fixed number of digits. These digits allow the end user to reach a called party. The number of digits in the connection does not determine if the user can dial the digits. Enter data in table DIGMAN to include the necessary digit manipulation for INWATS calls.

Automatic Routing System (Basic) (continued)

Datafill for the Automatic Routing System - (Basic) feature for table DIGMAN appear in the following table. The fields that apply to the Automatic Routing System - (Basic) feature appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table DIGMAN

Field	Subfield or refinement	Entry	Description
DMIDATA		see subfields	Digit Manipulation Data. This field contains several subfields. Subfields DIGCOM, POSITION, DIGCOM and FIELD apply to this feature.
	DIGCOM	CL	Digit Command. This subfield specifies the digit command. Enter CL for position location.
If DIGCOM contains CL, subfield POSITION requires datafill.			
	POSITION	BEG	Position. This subfield specifies the position to set the cursor. Enter BEG to set the cursor at the beginning of the digit string.
	DIGCOM	FLD	Digit Command. This subfield specifies the digit command. Enter FLD for field digit command.
If DIGCOM contains FLD, subfield FIELD requires datafill.			
	FIELD	COS	Field. This subfield specifies the field name. Enter COS.

Datafill example for table DIGMAN

Sample datafill for table DIGMAN appear in the following example.

MAP example for table DIGMAN

```
DIGMAN

DMIKEY                    DMIDATA
________________________________________________________
10                  (CL  BEG)  (FLD  COS)  $
```

Tools for verifying translations

The Automatic Routing System - (Basic) feature does not use tools for verifying translations.

Automatic Routing System (Basic) (end)

SERVORD

The Automatic Routing System - (Basic) feature does not use SERVORD.

Call Back Queuing (Basic)

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS10 and later versions

Requirements

To operate, the Call Back Queuing (Basic) feature has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The Call Back Queuing (Basic) feature allows a station user that encounters an all-trunks-busy condition to receive notification. The station user receives notification when a trunk becomes idle. The system can connect the user to the called number through the Call Back Queuing (Basic) feature. An IBN station can activate the Call Back Queuing (Basic) feature under the following conditions:

- The outgoing trunk group is an IBN customer group trunk group with call back queuing (CBQ) allowed. An idle trunk is not available. The no-circuit condition must occur at the DMS-100 outgoing end. Remote switch no-circuit conditions do not apply to CBQ.
- The caller places the call by direct outward dialing (DOD). The same switch serves the called busy line. The called busy line can be a plain old telephone service (POTS) line or an IBN line in another customer group.
- The caller places this call from station-to-station with a DMS-100 switch that serves the two stations. The called busy station is an IBN line that belongs to another customer group.
- The system gives the user expensive route warning tone (ERWT).
- The Call Back Queuing (Basic) feature does not apply when the following conditions occur:
- The system lists the DOD call to the directory number (LDN) of another customer group. A CBQ is not available for attendant queues.
- The station user listens to reorder tone that an NCOS problem or a feature problem causes.

Call Back Queuing (Basic) (continued)

Operation

The following list describes operation:

- To activate the Call Back Queuing (Basic) feature, the user performs the following steps:
- receives busy tone (called station busy) or no-circuit treatment (no idle trunks)
- flashes the hookswitch
- hears distinctive dial tone. This tone is three short bursts of tone and a steady dial tone.
- dials the Call Back Queuing (Basic) access code. This code is the same as the ring again (RAG) access code.

  Note: A station can have a ring again or a CBQ request active. The ring again and CBQ request cannot be active at the same time.

- hears confirmation tone. This tone is two short bursts of tone and a steady dial tone.
- goes on-hook

Several CBQ parameters are associated with each CBQ request. Some of these parameters are customer group assigned, and some parameters are station assigned. These parameters include the following:

- CBQ start priority—a station-assigned parameter that specifies the level at which a CBQ request enters the queue. Zero is the lowest priority. Three is the highest priority.
- CBQ maximum priority—a station-assigned parameter that specifies the highest level to which the system can promote a CBQ request. This request is in the queue. The maximum priority of a station must be greater than or equal to the start priority.
- CBQ priority promotion timer—a customer group-assigned parameter that indicates the length of time a CBQ request stays in the queue. The request stays in the queue for this length of time before the system promotes the request to the next level. The CBQ maximum can allow the system to promote the request. The process is in 1 min intervals, to a maximum of 15 min intervals. This process can be infinite. Infinite means that this process does not apply.

Call Back Queuing (Basic) (continued)

- CBQ route advance—a station-assigned parameter that specifies the CBQ-allowed routes available to the station. The routes are not expensive and/or expensive routes.
- CBQ route advance timer—a customer group-assigned parameter that indicates the length of time before a CBQ request can use expensive routes. A CBQ request can use expensive routes if the route advance allows this condition. This process is in 1 min intervals, to a maximum of 15 min. This process can be infinite. Infinite means that this process does not apply.

When you activate the Call Back Queuing (Basic) feature, the system places the CBQ request in a priority-ordered queue. The system places the request in the queue according to the station start priority. The system places the request at the bottom of the specified priority. If the station maximum priority is greater than the start priority, the priority promotion timer begins. If the switch does not serve the call during timer expiration, the system promotes the request to the next priority level. If maximum priority remains greater than the current priority, the timer begins again. During this time, the system checks the station route advance level. The route advance timer can expire before the switch serves the call. When this condition occurs, the system makes every CBQ allowed route available to the call.

When the station against which activation of the CBQ request occurs is idle, ring again ringing notifies the station user. The station user has a specified amount of time to answer the call. The ring timer determines the specified amount of time. To answer the CBQ recall, the station user goes off-hook, and the system rings the called station. The station user hears audible ringback tone.

When the trunk against which activation of the CBQ request occurs is idle, ring again ringing notifies the station user. The station user can go off-hook to answer the CBQ recall. When this condition occurs, the DMS-100 switch makes a network connection to the trunk and outpulses the called number. When the system completes outpulsing, a voice connection occurs, and the user hears a tone. The user can hear the audible ringback tone, busy tone, reorder tone, or a no-circuit announcement.

The station user can cancel a CBQ request. To cancel a CBQ request, the station user goes off-hook, or flashes the hookswitch, and dials the CBQ activation code.

Note: The station user can make and receive calls when Call Back Queuing (Basic) is active.

Translations table flow

The Call Back Queuing (Basic) feature does not use table flow.

Limits

The following limits apply to the Call Back Queuing (Basic) feature:

- A line can activate the Call Back Queuing (Basic) feature if you assign the two features to the line. These features are ring again and the Call Back Queuing (Basic) feature.
- While trunk access control is active for a trunk group, the trunk group is not qualified for CBQ.
- The system allows CBQ on one-way outgoing trunk groups because of the following conditions:
  - — When a trunk becomes available, an office reserves and does not seize the trunk.
  - — The station has a maximum of 30 s to respond. A large window is present in which the other office can seize the trunk
  - — Delays occur in receiving a dual-tone multi-frequency (DTMF) transmitter.
- Overlap transmission is not compatible with the Call Back Queuing (Basic) feature.
- In BCS15 and later versions, CBQ follows the virtual facility group (VFG) if the original call transferred through a VFG.
- If a trunk that allows off-hook queuing and CBQ becomes idle, the off-hook queue has priority.
- Activation of the Call Back Queuing (Basic) feature overwrites the ring again request when a ring again request is pending. Activation of the ring again feature overwrites the CBQ request when a CBQ request is not ready.
- You cannot assign the Call Back Queuing (Basic) feature to manual or automatic lines. You cannot assign this feature to lines to which the system denies originating or terminating service.
- You cannot assign the Call Back Queuing (Basic) feature to hunt groups.
- You cannot assign the Call Back Queuing (Basic) feature to a feature key on the attendant console. The Call Back Queuing (Basic) feature is a station feature.
- The system cannot pick up CBQ recalls through the call pickup feature.

Call Back Queuing (Basic) (continued)

- If activation of the call forward universal or call forward intragroup occurs, the switch serves the CBQ request. The CBQ recall does not follow the call forward feature.
- The system does not give the expensive route warning tone to CBQ requests that the system recalls. The warning tone does not appear even if the call completes through the use of expensive facilities.

Interactions

The Call Back Queuing (Basic) feature does not have functionality interactions.

Activation/deactivation by the end user

Activation/deactivation of Call Back Queuing (Basic) by the end user

At your telephone

1 Call a station.

Response: End user receives busy tone (called station busy) or no-circuit treatment (no idle trunks).

2 Flash the hookswitch.

Response: End user hears distinctive dial tone. This tone is three short bursts of tone and a steady dial tone.

3 Dial the Call Back Queuing (Basic) access code. This code is the same as the RAG access code.

Response: End user hears confirmation tone and goes on-hook. The confirmation tone is two short bursts of tone and a steady dial tone.

Billing

The Call Back Queuing (Basic) feature does not affect billing.

Station Message Detail Recording

The Call Back Queuing (Basic) feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Call Back Queuing (Basic) feature does not affect office parameters.

Datafill sequence

Tables that require datafill to implement the Call Back Queuing (Basic) feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Call Back Queuing (Basic)

Table	Purpose of table
CUSTSTN	Customer Group Station Option Table. This table is a requirement for a switching unit. This switching unit has North American translations and the Integrated Business Network (IBN) or the Residential Enhanced Services (RES).
NCOS	Network Class of Service Table. This table contains network class of service (NCOS) numbers. These numbers are assigned to attendant consoles (AC), IBN or RES stations. Assign these numbers to the incoming or incoming side of two-way IBN trunk groups, authorization codes, and customer groups.

Datafilling table CUSTSTN

Table CUSTSTN (Customer Group Station Option) contains the station options for each customer group. Enter data in table CUSTSTN to assign the CBQ and ring again timer options.

Datafill for the Call Back Queuing (Basic) feature for table CUSTSTN appears in the following table. The fields that apply to the Call Back Queuing (Basic) feature appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTSTN

Field	Subfield or refinement	Entry	Description
OPTION		see subfield	Option: This field contains subfield OPTION.
	OPTION	CBQ	Option: This subfield specifies the name of the option. Enter CBQ. ***Note:*** If OPTION contains CBQ, subfield CBQNUM requires datafill.
	CBQNUMN	1	Number Enqueued. This subfield specifies the number enqueued. Enter 1.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

Call Back Queuing (Basic) (continued)

MAP example for table CUSTSTN

```
CUSTSTN

 CUSTNAME     OPTNAME                          OPTION
-------------------------------------------------------
 MDCGRP1      CBQ                       CBQ    1
```

Datafilling table NCOS

Table NCOS (Network Class of Service) contains NCOS numbers for the following:

- attendant consoles
- IBN or Residential Enhanced Services (RES) stations
- incoming IBN trunk groups or the incoming side of two-way IBN trunk groups
- authorization codes
- customer groups

Enter data in table NCOS to assign the CBQ option.

Datafill for the Call Back Queuing (Basic) feature for table NCOS appears in the following example. The fields that apply to the Call Back Queuing (Basic) feature appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table NCOS (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description
NCOSOPTN		CBQ	Network Class of Service Options. This field specifies a vector of a maximum of 17 option entries for the NCOS number. Enter CBQ for call back queuing. ***Note:*** If NCOSOPTN contains CBQ, subfields CBQSP, CBQMP, CBQRA, and CBQOPTS require datafill.
	CBQSP	0 to 3	Call Back Queue Starting Priority. This subfield specifies the CBQ starting priority level for the NCOS number. Enter a value from 0 to 3.

Datafilling table NCOS (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Description
	CBQMP	0 to 3	Call Back Queue Maximum Priority Level. This subfield specifies the CBQ maximum priority level for the NCOS number. Enter a value from 0 to 3.
	CBQRA	Y or N	Call Back Queue Route Advance. This subfield specifies if the station can route advance to expensive route after call back route advance time-out. Enter Y or N.
	CBQOPTS	1 or 2	Call Back Queuing Option. This subfield specifies the CBQ option. Enter 1 if before you activate Call Back Queuing (Basic), the system searches routes that are not expensive. Enter 2 if the system must search expensive and not expensive routes.

Datafill example for table NCOS

Sample datafill for table NCOS appears in the following example.

MAP example for table NCOS

```
NCOS

 CUSTGRP  NCOS  NCOSNAME  LSC  TRAFSNO
OPTIONS
_____________________________________________________________________
 POSTDATA  0      PDATA    0      0          (CBQ 1 1 N
1)  $
```

Tools for verifying translations

The Call Back Queuing (Basic) feature does not use tools for verifying translations.

SERVORD

The Call Back Queuing (Basic) feature does not use SERVORD.

Call Forward Busy - Inhibit Make Busy and Inhibit Line Busy

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS31 and later versions

Requirements

To operate, Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy requires MDC Minimum, MDC00001.

Description

The Call Forward Busy - Inhibit Make & Inhibit Line Busy introduces three line options. You can assign these options to plain old telephone service (POTS), MDC, Subscriber Services (SS) lines, and members of a hunt group. The members of a hunt group have feature NC0200, CFBL Inhibit Line Busy/Inhibit MB Enhancements. The line options this feature introduces are the following three options:

- MBK
- IMB
- ILB

Operation

Use options MBK, IMB, and ILB with options Call Forward Busy (CFB) and Call Forward Busy Line (CFBL). The line class codes that support options CFB and CFBL appear in the following table.

Line class codes supporting options CFB and CFBL

Option	Line class code
CFB	IBN, PSET, DATA, PDATA, M2009, M2112, M2018, MADO, M2317, M2008, M2616, M2016S, M2216A, M2216B, MPDA
CFBL	1FR, 1MR, PBX, PDM, ZMD, ZMZPA, RES

The three options that this feature provides appear in the following section.

Call Forward Busy - Inhibit Make Busy and Inhibit Line Busy (continued)

Make busy key (MBK)

When this feature is active, the system forwards all incoming calls. The state of the line does not affect this call forwarding. The state of the line can be busy or idle.

When feature MBK is not active, the system only forwards calls when the line is busy. This condition is the normal operation of feature CFB or CFBL.

Feature MBK uses scan points to determine the state of the line. You must enter these scan points in Table SCGRP (Scan Group). Line option MBK is a new type of data feature. Enter line option MBK in the following tables:

- Table LENFEAT (Line Feature) for POTS lines
- Table IBNFEAT (IBN Line Feature) for SS and MDC lines
- Table KSETFEAT (Business Set and Data Unit Feature) for business set lines

Inhibit make busy (IMB)

Assign option IMB to a line with option MBK. When options MBK and IMB are active on a line, the system does not forward an incoming call to the line. The incoming call receives a busy tone or another treatment that the end user defines.

If option MBK is not active, the system forwards all incoming calls because option IMB only works with option MBK. The system forwards all incoming calls according to normal CFB or CFBL operation.

Enter line option IMB in the following tables:

- Table LENLINES (Line Assignment) for POTS lines
- Table IBNLINES (IBN Line Assignment) for SS lines
- Table KSETLINE (Business Set and Data Unit Line Assignment) for MDC lines

Inhibit line busy (ILB)

The ILB feature causes a line to function like a line that does not have options CFB or CFBL activated. When incoming calls arrive and the line is busy, the system does not forward calls. The system can give calls busy tone or an attempt to connect calls to another line in the hunt group occurs. These conditions only apply when the line is busy. These conditions do not apply when option MBK makes the line appear busy. Option ILB is normally in use with option MBK.

Call Forward Busy - Inhibit Make Busy and Inhibit Line Busy (continued)

Enter option ILB in the following tables:

- Table LENLINES for POTS lines
- Table IBNLINES for SS lines
- Table KSETLINE for MDC lines

Translations table flow

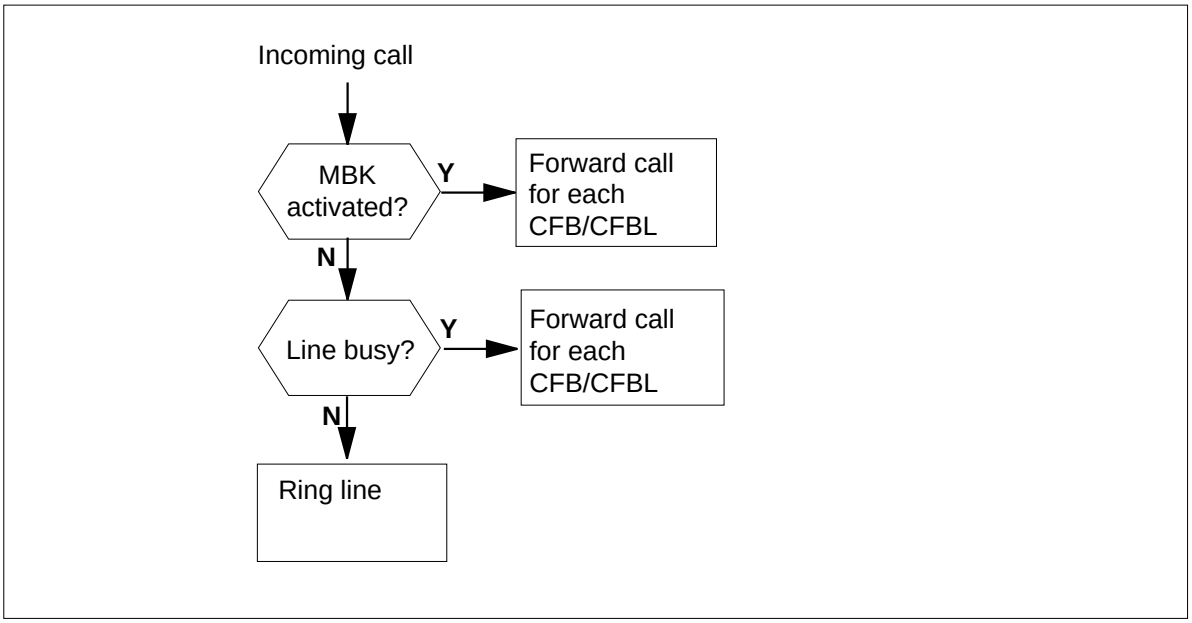
The Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy translations tables appear in the following list:

- Table LENLINES (Line Equipment Number Line Assignment) contains line assignments for each POTS line. Call Forward Busy - Inhibit Make & Inhibit Line Busy requires you to set field OPTLIST to option ILB with option Call Forward Busy (CFB). You can set field OPTLIST to option IMB with option MBK.
- Table LENFEAT (Line Feature) contains the features for a specified line in table LENLINES. Fields DF and FEATURE contain MBK.
- Table IBNLINES (IBN Line Assignment) contains line assignments for each 500/2500 set with an MDC or SS station number. Call Forward Busy - Inhibit Make & Inhibit Line Busy requires you to set field OPTLIST to option ILB with option CFB. You can set field OPTLIST to option IMB with option MBK.
- Table IBNFEAT (IBN Line Feature) contains the features for MDC lines that appear in table IBNLINES. You can set fields DF and FEATURE to MBK.
- Table KSETLINE (Business Set and Data Unit Line Assignment) contains data of DN appearances on MBSs and data units. Call Forward Busy - Inhibit Make & Inhibit Line Busy requires you to set field OPTLIST to option ILB with option CFB. You can set field OPTLIST to option IMB with option MBK.
- Table KSETFEAT (Business Set and Data Unit Feature) contains the features for MBS lines in table KSETLINE. You can set fields DF and FEATURE to MBK.

The new DMS call processing for a call to a line that has option MBK appears in the following figure. In the following figure, the line has option CFB or option CFBL.

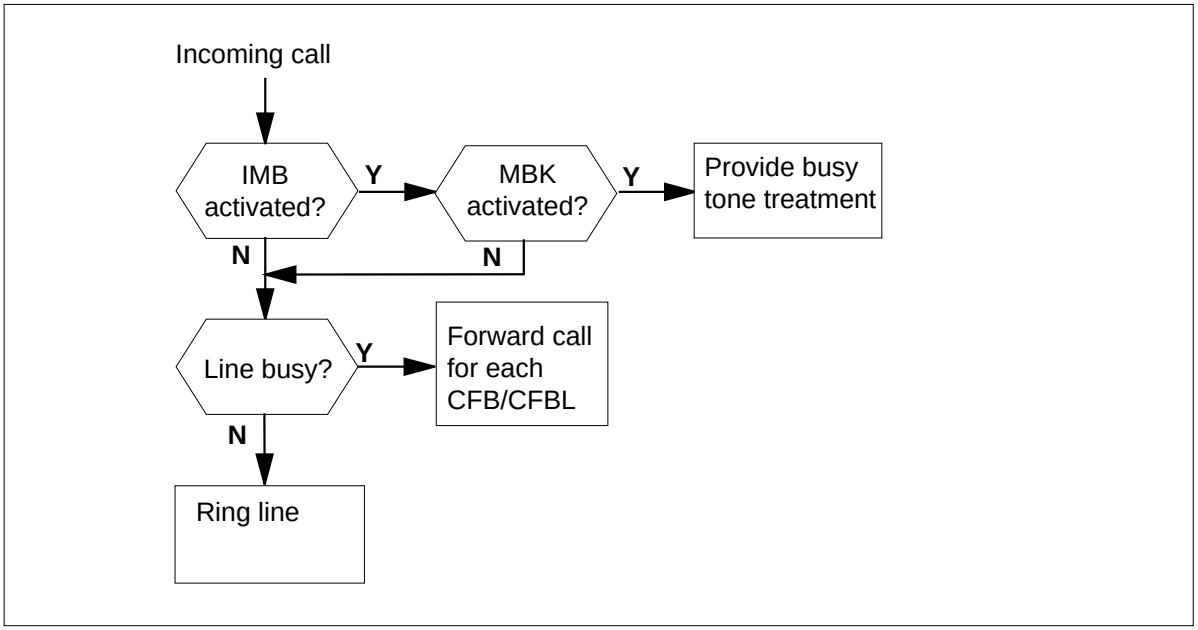
Call Forward Busy - Inhibit Make Busy and Inhibit Line Busy (continued)

Call flow example for option MBK



The new DMS call processing for a call to a line that has option IMB appears in the following figure. In this figure the line has option MBK and option CFB or option CFBL.

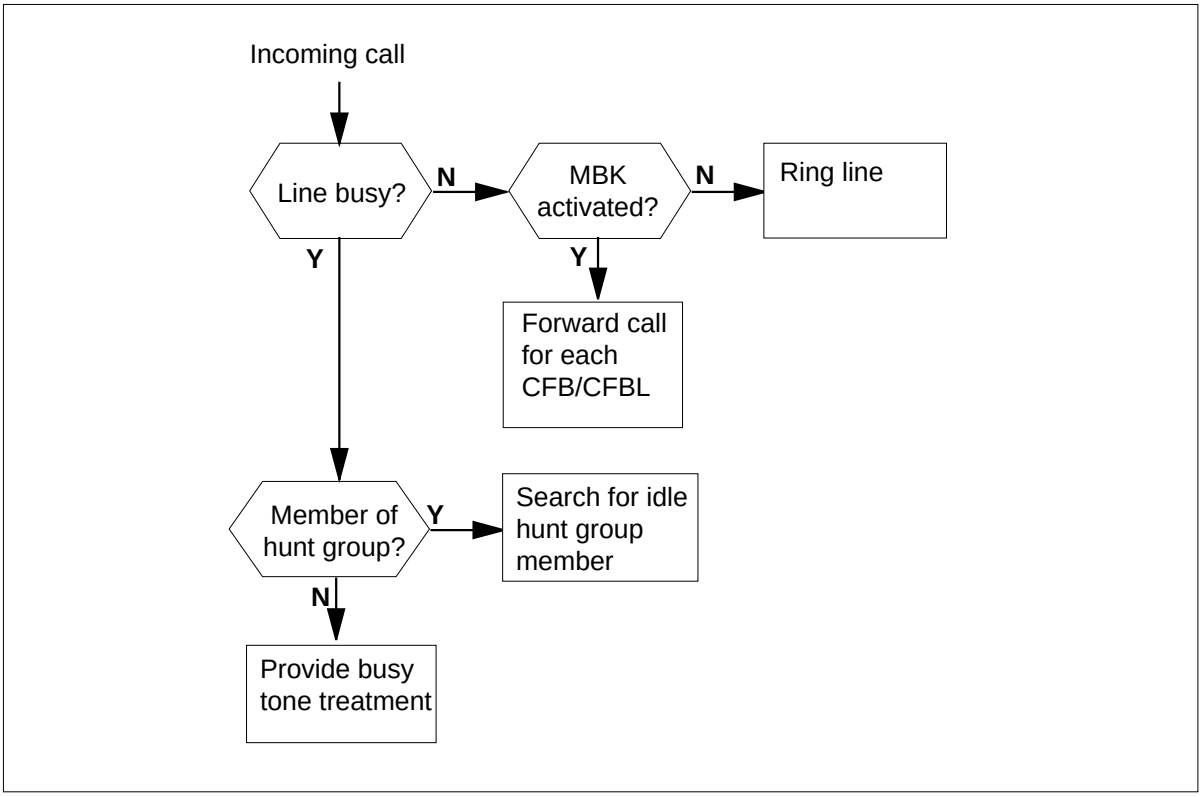
Call flow example for option IMB



Call Forward Busy - Inhibit Make Busy and Inhibit Line Busy (continued)

The new DMS call processing for a call to a line that has option ILB appears in the following figure. In this figure the line has option CFB or option CFBL.

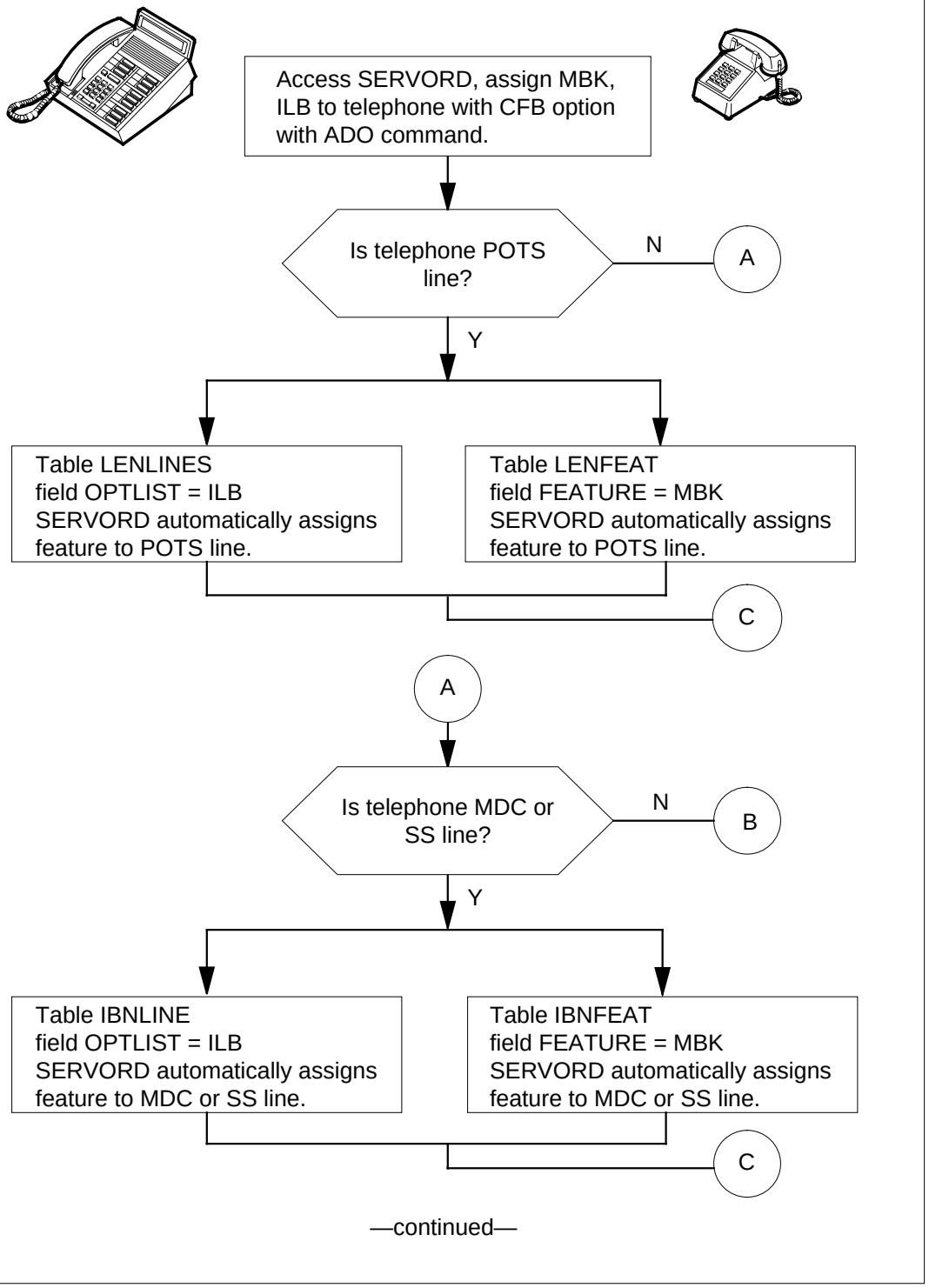
Call flow example for option ILB



The Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy translation process appears in the following flowchart.

Call Forward Busy - Inhibit Make Busy and Inhibit Line Busy (continued)

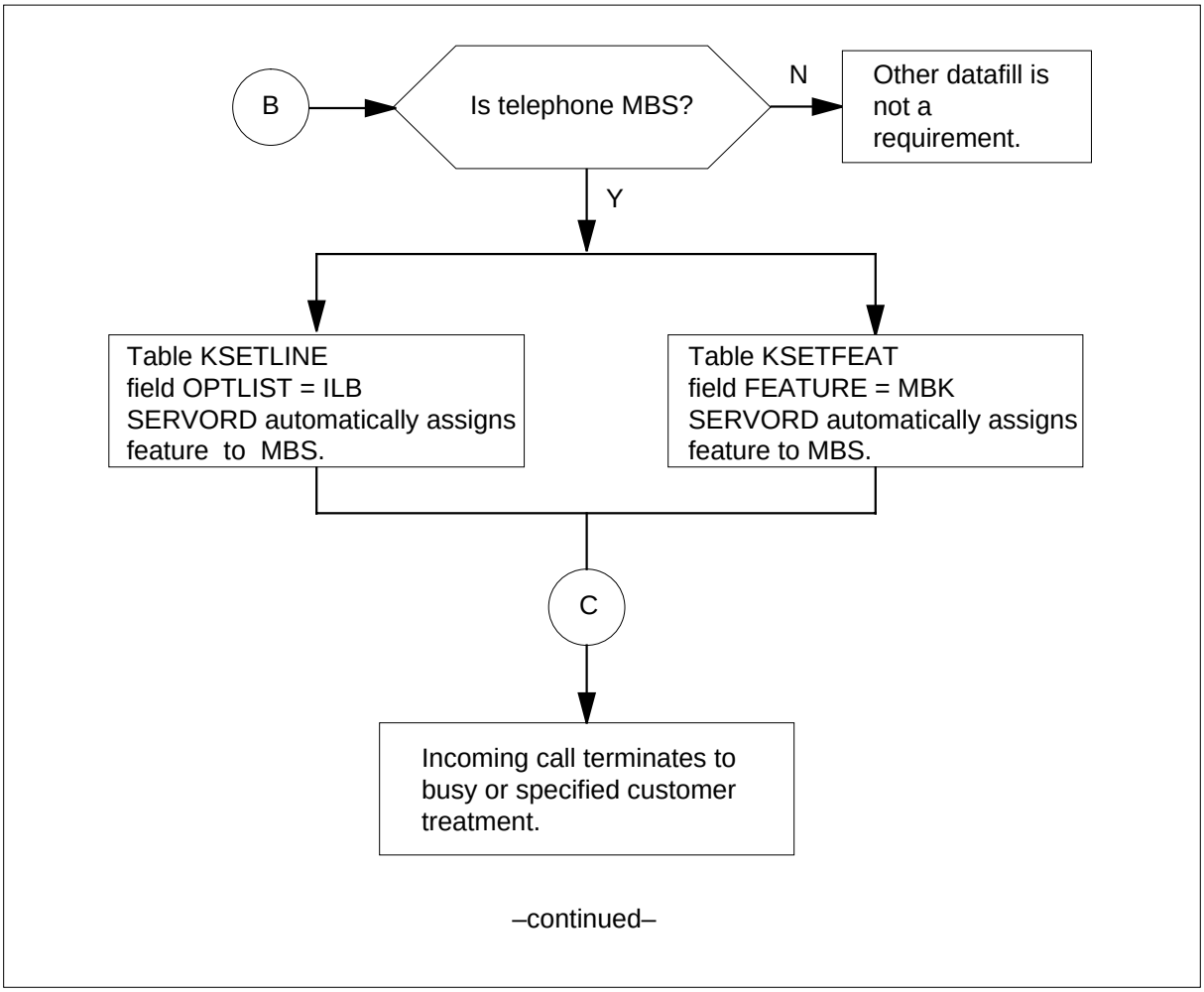
Table flow for Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy



—continued—

Call Forward Busy - Inhibit Make Busy and Inhibit Line Busy (continued)

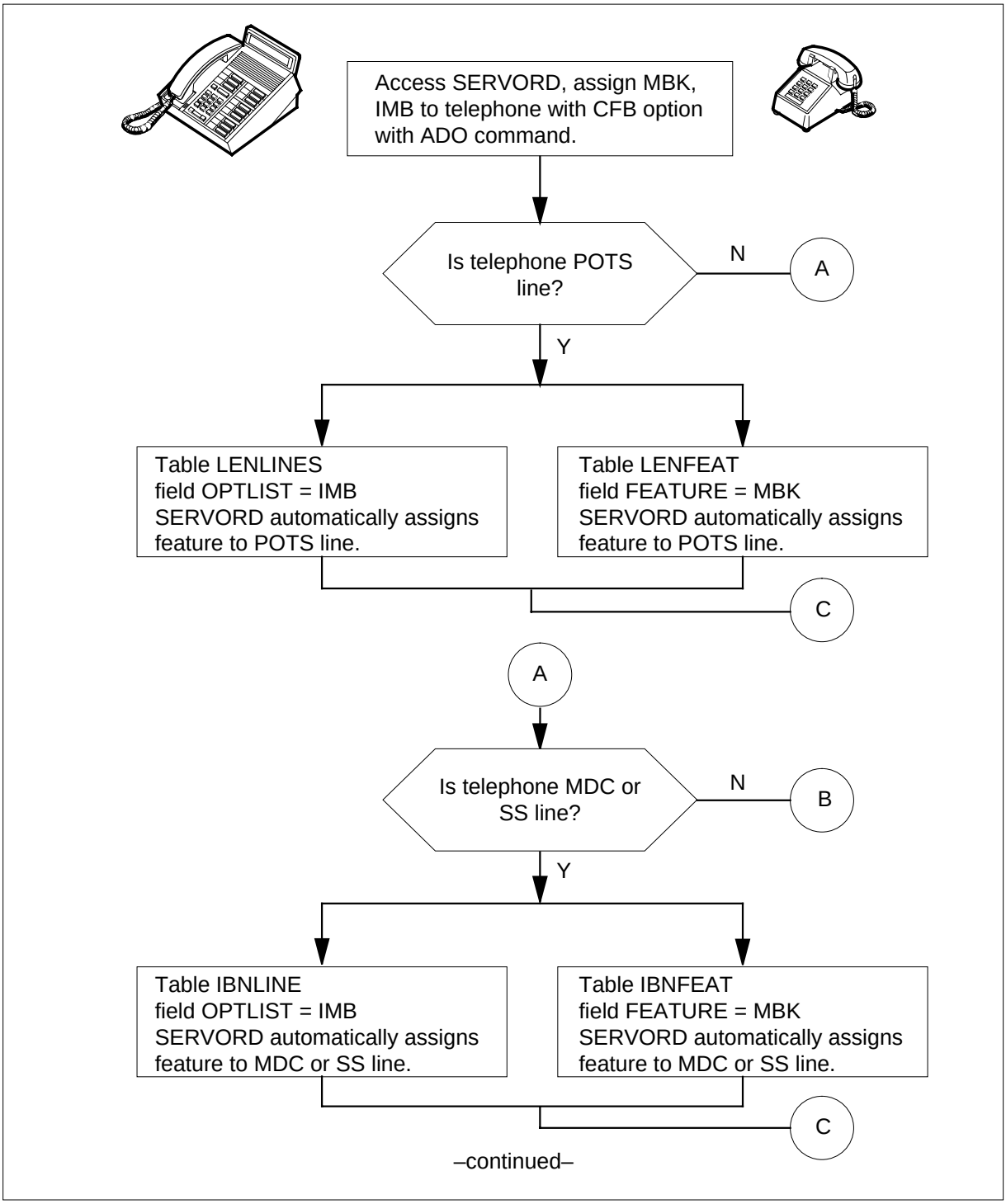
Table flow for Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy



–continued–

Call Forward Busy - Inhibit Make Busy and Inhibit Line Busy (continued)

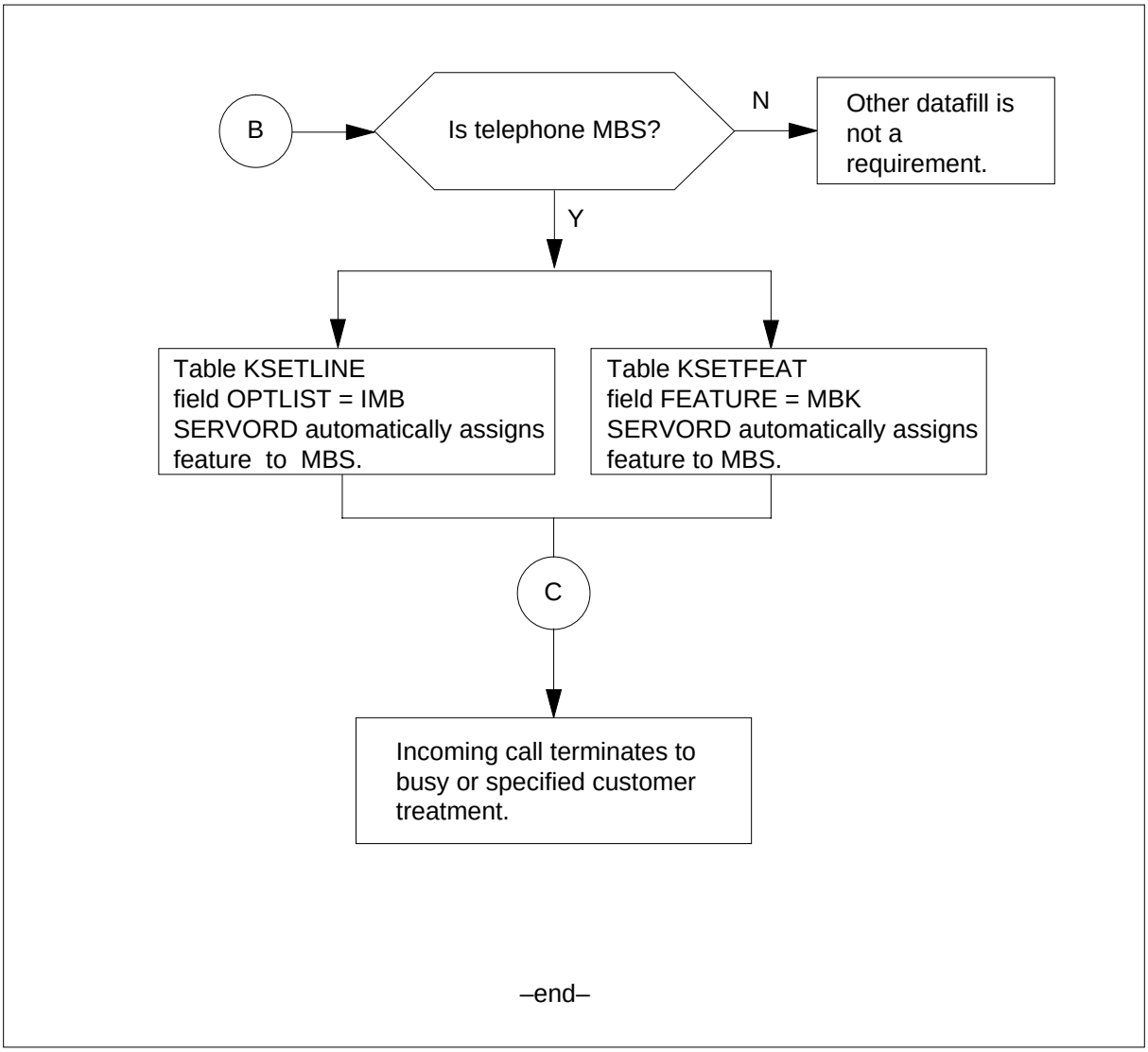
Table flow for Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy



–continued–

Call Forward Busy - Inhibit Make Busy and Inhibit Line Busy (continued)

Table flow for Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy



The datafill content in flowchart appears in the following table.

Datafill example for Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy (Sheet 1 of 2)

Datafill table	Example data
LENLINES	HOST 00 0 19 06 S 0 6210000 DT 0 (IMB)$
LENFEAT	HOST 00 0 19 06 S MBK MBK MTM 0 15 1 0
IBNLINES	HOST 00 0 19 06 DT STN RES 6211234 0 (IMB)$

Call Forward Busy - Inhibit Make Busy and Inhibit Line Busy (continued)

Datafill example for Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy (Sheet 2 of 2)

Datafill table	Example data
IBNFEAT	HOST 00 0 19 06 MBK MBK MTM 0 15 1 0
KSETLINE	HOST 00 0 19 06 DN Y 6210001 (ILB)$
KSETFEAT	HOST 00 0 19 06 2 MBK MBK MTM 0 15 1 0

Limits

The following limits apply to Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy:

- Call Forward Busy—Inhibit Make Busy & Inhibit Line Busy provides options MBK, IMB, and ILB. These options only perform functions if a line has options CFB or CFBL.
- Option IMB does not provide functionality unless you assign option MBK.
- Option IMB and option ILB are not compatible. You cannot assign these options to the same line.
- Option MBK and option RMB are not compatible. You cannot assign these options to the same line.
- You cannot use the Service Order System (SERVORD) command CHF (change feature information for known feature) to change the scan point circuit assignment for option MBK.
- The following limits apply because options MBK, IMB, and ILB apply to lines with option CFBL or CFB:
  - — You can only assign option CFBL to lines that are members of directory number hunt (DNH) or preferential hunt (PRH) groups.
  - — You cannot assign option CFB to a line that is a member of any type of hunt group.
- The Call Pickup (CPU) type of hunt group has MDC or SS lines. You can only assign MBK, ILB, and IMB to SS lines because you cannot assign CFB to MDC lines.

Interactions

Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy does not have functionality interactions.

Activation/deactivation by the end user

The end user performs the following steps to activate and deactivate Call Forward Busy - Inhibit Make & Inhibit Line Busy.

Call Forward Busy - Inhibit Make Busy and Inhibit Line Busy (continued)

Activation/deactivation of Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy by the end user

At your telephone

1 Activate MBK key.

- Response:
- Called party appears busy to calling party if set to busy or idle. The system sends the calling party to the next idle member in a hunt group or to a busy signal. The system can also send the calling party to a treatment that an end user defines if all members are busy.

2 Deactivate MBK key.

Note: The MBK key is an external key at or near the set. This key connects directly to a scan point.

- Response:
- The set of the called party rings if the line is idle.

Billing

Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy does not affect billing.

Station Message Detail Recording

Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy does not affect Station Message Detail Recording.

Datafilling office parameters

Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy (Sheet 1 of 2)

Table	Purpose of table
LENLINES	Line Assignment. This table contains data for each line that contains data.
LENFEAT	Line Feature. This table contains the features for a specified line in table LENLINES.
Note: Enter data in these tables through SERVORD. A datafill procedure or example is not available. See “SERVORD" for an example of how to use SERVORD to enter data in this table.	

Call Forward Busy - Inhibit Make Busy and Inhibit Line Busy (continued)

Datafill requirements for Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy (Sheet 2 of 2)

Table	Purpose of table
IBNLINES	IBN Line Assignments. This table contains the line assignments for data channel links for the Bulk Calling Line Identification (BCLI) feature. The BCI feature is under the format name of BL.
IBNFEAT	IBN Line Feature. This table specifies the options for a single-line MDC station.
KSETLINE	Business Set And Data-Unit Line Assignment. This table contains the directory number (DN) appearances for business sets and data units.
KSETFEAT	Business Set and Data Unit Feature. This table specifies the line features for business sets and data units.
Note: Enter data in these tables through SERVORD. A datafill procedure or example is not available. See “SERVORD" for an example of how to use SERVORD to enter data in this table.	

Tools for verifying translations

The Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy does not use tools for verifying translations.

SERVORD

The Call Forward Busy - Inhibit Make & Inhibit Line Busy does not introduce any new options that service orders must handle. When you assign options MBK, IMB, and ILB to lines of a hunt group, new limits apply. These limits create new messages that appear when you use SERVORD.

SERVORD limits

The Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts that add Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy to a current line appear in the following table.

SERVORD prompts for Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy (Sheet 1 of 2)

Prompt	Valid input	Explanation
DN_OR_LEN	7-digit DN or LEN	Specifies the 7-digit DN or LEN of the line to change. Enter the DN or LEN.
OPTION	MBK, IMB, ILB	Specifies the option to assign. Enter MBK, IMB, or ILB.

Call Forward Busy - Inhibit Make Busy and Inhibit Line Busy (continued)

SERVORD prompts for Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy (Sheet 2 of 2)

Prompt	Valid input	Explanation
LCC	1FR, 1MR, RES, IBN, PBX, ZMD, ZMZPA	Specifies the line class code of the service to establish, modify, or delete.
LTG	0-255	Calculates the line attribute index when the DN and LCC cannot find an appropriate index.
LEN_OR_LTID	Valid input format: <site> ffu dd cc	The LEN or logical terminal identifier of the DN to change.
SCRNCL	NSCR	Indicates screening by class of service.
NUMCALLS	0-1024	The number of calls that the system can forward at the same time.
FDN	1-24 digits	Number to which the system forwards calls.
SC		Identifies the scan point circuit for MBK.
TMNO	0 to 2047	Identifies the trunk module number for the trunk module on which the scan point circuit card sits.
TMCKTNO	0 to 29	Identifies the trunk module circuit number to which the scan point circuit belongs.
POINT	0 to 6	Identifies the scan point in the circuit that associates with the MBK functionality.
NORMAL_STATE	0 or 1	Identifies the normal state of the scan point.

When you assign Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy with SERVORD, the system enters data in the following tables:

- LENLINES
- LENFEAT
- IBNLINES
- IBNFEAT

Call Forward Busy - Inhibit Make Busy and Inhibit Line Busy (continued)

- KSETLINE
- KSETFEAT

SERVORD example for adding Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy

Specify options MBK, IMB, and ILB as part of the following service order commands. The only exception is that the SERVORD command CHF cannot change MBK.

- ADO (add option)
- DEO (delete option)
- NEW (establish service)
- CHF (change feature information for preexisting feature)

The addition of MBK to a current line with the ADO command appears in the following SERVORD example.

SERVORD example for Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy in prompt mode

```
> ADO
SONUMBER: NOW 87 11 13 AM
>
DN_OR_LEN:
> 6215000
OPTION:
> MBK
SC:
> MTM
TMNO:
> 3
TMCKTNO:
> 15
POINT:
> 0
NORMALST:
> 0
OPTION:
> $
```

Call Forward Busy - Inhibit Make Busy and Inhibit Line Busy (continued)

SERVORD example for Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy in no-prompt mode

```
>ADO $ 6215000 MBK MTM 3 15 0 0 $
```

The deletion of option IMB from a current line with the DEO command appears in the following SERVORD example.

SERVORD example for Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy in prompt mode

```
> DEO
SONUMBER: NOW 87 11 13 AM
>
DN_OR_LEN:
> 6215000
OPTION:
> IMB
OPTION:
> $
```

SERVORD example for Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy in no-prompt mode

```
>DEO $ 6215000  IMB $
```

The addition of a new line with option ILB with the new command appears in the following SERVORD example.

Call Forward Busy - Inhibit Make Busy and Inhibit Line Busy (end)

SERVORD example for Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy in prompt mode

```
> NEW
SONUMBER: NOW 89 10 3 AM
>
DN_OR_LEN:
> 6211944
LCC:
> 1FR
LTG:
> 0
LEN_OR_LTID:
> 0 0 8 5
OPTION:
> CFBL
SCRNCL:
> NSCR
NUMCALLS:
> 1
FDN:
> 6211901
OPTION:
> ILB
OPTION:
> $
```

SERVORD example for Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy in no-prompt mode

```
>NEW $ 6211944 1FR 0 0 0 8 5 CFBL NSCR 1 6211901 ILB $
```

Call Forward Busy/Don’t Answer - Internal/External

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS27 and later versions

Requirements

To operate, the Call Forward Busy/Don't Answer - Internal/External feature has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The Call Forward Busy/Don't Answer - Internal/External feature enhances the current Station Activation of CFB/CFD feature. The Call Forward Busy/Don't Answer - Internal/External feature allows the 500/2500 set and Meridian business set (MBS) end user to perform several activities.

The end user can forward an incoming call that originates from a directory number (DN) in the customer group of a base station. A call from a DN inside the customer group is an internal call. The end user forwards the incoming call to a DN in the same customer group.

The end user can forward an incoming call that originates from a DN outside the customer group of the base station. A call from a DN outside the customer group is an external call. The end user forwards this call to a DN outside the customer group of a base station.

The type of the incoming call to the base station determines the remote station to which the end user forwards the call. In each event, the base station can forward to remote stations in or out of the customer group.

Before this feature, each call forward type was assigned to the same keylist. A keylist is DN keys on an MBS. This feature allows the establishment of separate keylists in software datafill. This ability applies to the following features:

- Call Forward Busy (CFB)
- Call Forward Don't Answer (CFD)

- Call Forward Fixed (CFF)
- Call Forward Intragroup (CFI)
- Call Forward Universal (CFU)

On an MBS, the end user can assign a separate keylist to each type of CFB and CFD. On an MBS, the end user can assign a separate keylist to CFF, CFI, and CFU. The type of CFB or CFD can be default, fixed, or programmable.

Note: The Call Forward Busy/Don't Answer - Internal/External feature provides the internal/external call forwarding ability and the separate keylist ability. These abilities are separate and compatible.

The Call Forward Busy/Don't Answer - Internal/External feature provides greater call forwarding flexibility. This feature optimizes DMS-100 switch central controller real time.

Operation

Internal/external calls

An internal call is an incoming call to a base station. An internal call originates internally from a DN in the same customer group as the base station. The forward DN for an internal call is the internal DN.

The Call Forward Busy/Don't Answer - Internal/External feature provides for separate internal and external DNs. This feature provides for these DNs through the Service Order System (SERVORD) options IECFB and IECFD.

Three activation/deactivation methods are available for the Call Forward Busy/Don't Answer - Internal/External feature. These methods can be default, fixed, and programmable. See “Activation/deactivation by the end user" in this feature description for additional information on the methods of activation/deactivation.

Keylists for MBS

The Call Forward Busy/Don't Answer - Internal/External feature allows for separate keylists for call forward types. The call forward types are CFB, CFD, CFF, CFI, and CFU. Three options provide this ability. These options are CFB, CFD, and CFUIF. To activate separate keylists for an MBS, set parameter CFX_SEPARATE_KEYLIST_FEATURE in table OFCENG (Office Engineering) to Y. See “Office parameters" in this feature description for additional information.

The end user must use table control or SERVORD to establish datafill for separate keylists. The SERVORD is the default method. For each type of call

Call Forward Busy/Don’t Answer - Internal/External (continued)

forwarding, the end user must specify the forwarding DN. The end user must specify this DN according to the call forward type, and the required DN keys on the MBS.

Note: Call forwarding types can share the DN keys that support the MBS keylist. This feature does not support a different forward DN for each DN key on the keylist.

Translations table flow

Descriptions of the Call Forward Busy/Don't Answer - Internal/External translations tables appear in the following list:

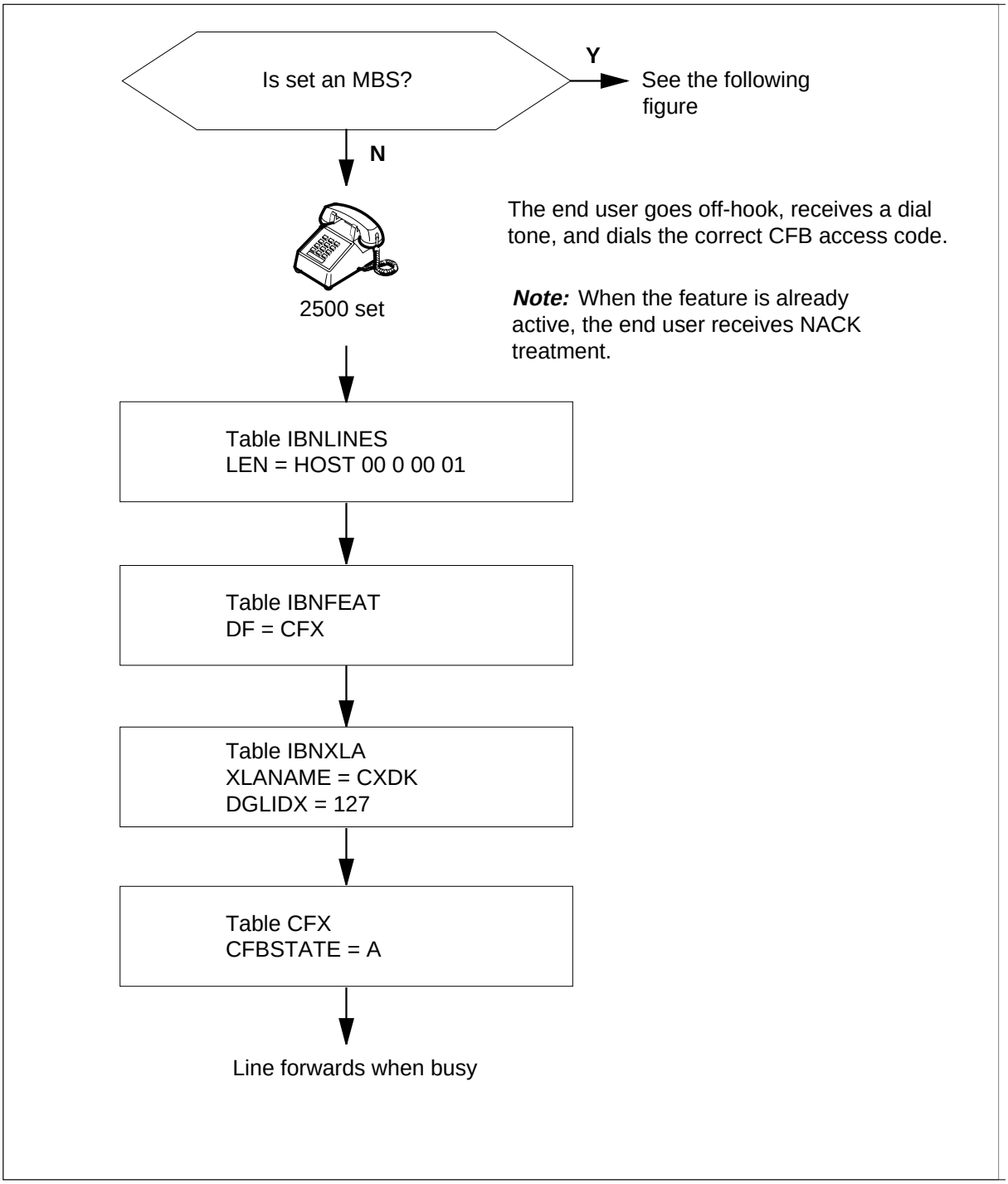
- Table IBNLINES (IBN Line Assignment) defines the MDC station numbers, attendant consoles, and multiple appearance directory numbers (MADN) that the switch supports. This table defines the hardware options for each part. The system enters data in this table when the end user assigns the line in SERVORD.
- Table IBNFEAT (IBN Line Feature) contains the line features for the MDC lines that appear in table IBNLINES. The feature present determines tuple datafill. The datafill changes from feature to feature. The system enters data in this table when the end user assigns features to the line in SERVORD.
- Table IBNXLA (IBN Translation) stores the digits of the MDC access codes and the options or features to which the digits belong.
- Table CFX (Call Forwarding) formats and displays call forwarding information to the end user. This table displays the information according to separate line equipment numbers (LEN) and keys. For 500/2500 sets, the key is always 0. Table CFX indicates when the call forwarding feature on a line is active or not active. This table indicates the DN to which the system forwards the feature.

These tables are for an internal call to a 2500 set with fixed activation of CFB.

The Call Forward Busy/Don't Answer - Internal/External translation process appears in the following flowcharts. The flow of translations appears in the following flowcharts. The translation flow for an internal call to a 2500 set with fixed activation of CFB appears in the first flowchart. The translations flow for an internal call to an MBS with fixed activation of CFB appears in the second flowchart.

Call Forward Busy/Don’t Answer - Internal/External (continued)

Table flow for Call Forward Busy/Don't Answer - Internal/External-(internal call to 2500 set with fixed activation of CFB)



Call Forward Busy/Don’t Answer - Internal/External (continued)

The datafill content of the flowchart appears in the following table. The CF activation code is 127. The LEN of the end user is HOST 00 0 00 01.

Datafill example for Call Forward Busy/Don't Answer - Internal/External (internal call to 2500 set with fixed activation of CFB)

Datafill table	Example data
IBNLINES	HOST 00 0 00 01 0 DT STN IBN 5554667 MDCGRP1 0 0 919 $
IBNFEAT	HOST 00 0 00 01 0 CFX CFX N CFBD F IECFB 54706 54686 F
	IECFD 54706 54686 N
IBNXLA	CXDK 127 FEAT N N N CFBIP
CFX	HOST 00 0 00 01 0 N N A 54706

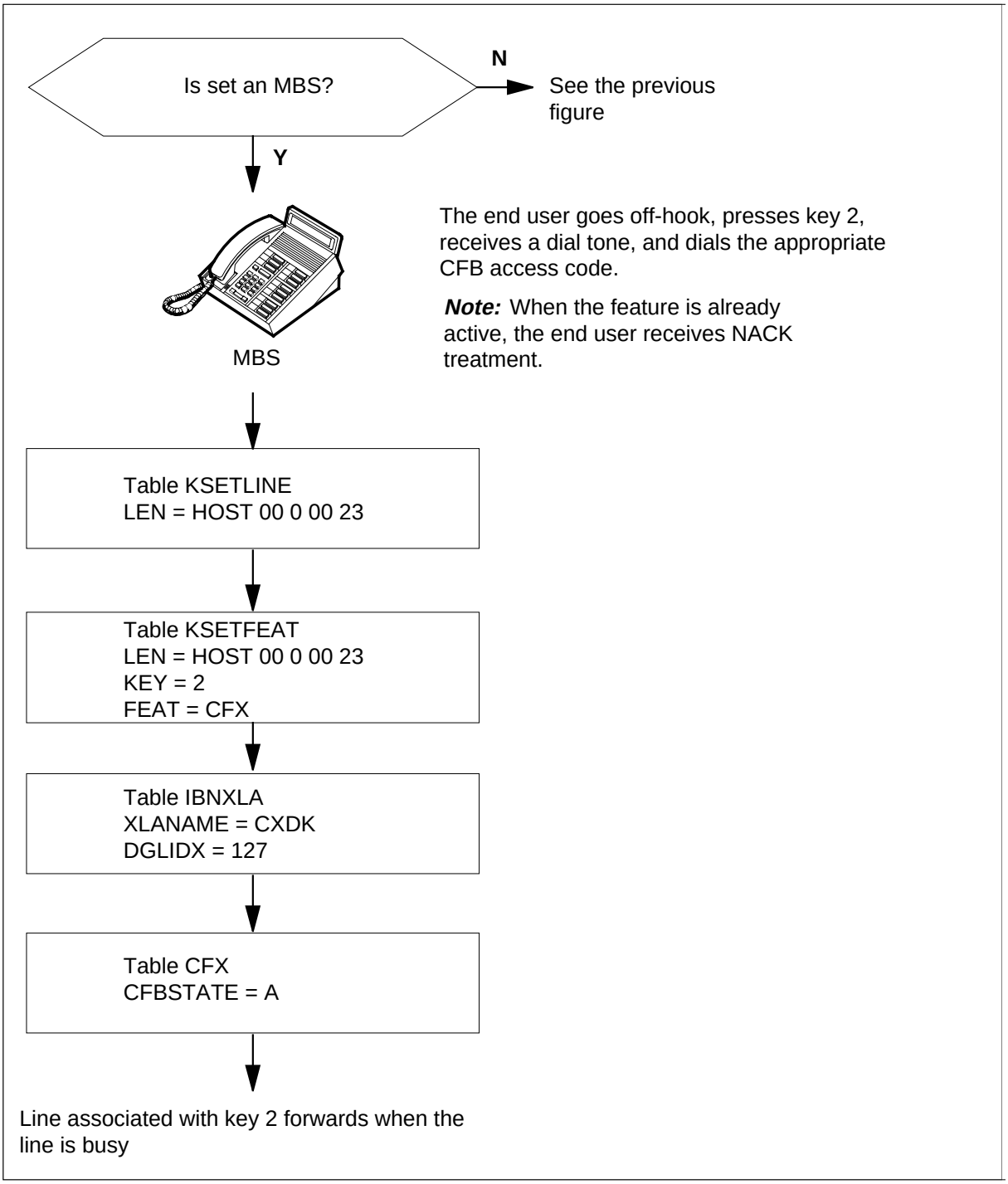
Descriptions of the Call Forward Busy/Don't Answer - Internal/External translations tables appear in the following list:

- Table KSETLINE (Business Set and Data Unit Line Assignment) defines the business set and data unit numbers. The switch and the assigned hardware options support the business set and data unit numbers. The system enters data in this table when the end user assigns the line in SERVORD.
- Table KSETFEAT (Business Set and Data Unit Feature) lists the line features of the MBSs that appear in table KSETLINE. The system requires one entry for each feature that the end user assigns to an MBS line. The system enters data in this table when the end user assigns features to the line in SERVORD.
- Table IBNXLA (IBN Translation) stores the digits of the MDC access codes and the options or features to which the digits belong.
- Table CFX (Call Forwarding) formats and displays call forwarding information to the end user according to separate LEN and keys. For 500/2500 sets, the key is always 0. Table CFX indicates when the call forwarding feature on a line is active or not active. Table CFX indicates the DN to which the system forwards the call.

These tables are for an internal call to an MBS with fixed activation of CFB.

Call Forward Busy/Don't Answer - Internal/External (continued)

Table flow for Call Forward Busy/Don't Answer - Internal/External



Call Forward Busy/Don’t Answer - Internal/External (continued)

The datafill content of the flowchart appears in the following example. The CFX activation code is 127. The LEN of the end user is HOST 00 0 0023.

Datafill example for Call Forward Busy/Don't Answer - Internal/External

Datafill table	Example data
KSETLINE	HOST 00 0 00 23 2 DN Y 5556879 MDCGRP2 0 0 919 $
KSETFEAT	HOST 00 0 00 23 2 CFX CFX N N 24000 CFB F IECFB 24000 5554647 F IECFD 24000 5554647 N
IBNXLA	CXDK 127 FEAT N N N CFBIP
CFX	HOST 00 0 00 23 0 N N A 2400

Limits

The following limits apply to the Call Forward Busy/Don't Answer - Internal/External feature:

- The separate keylist option does not support a different forward DN for each DN key on a keylist. This option does not support a different forward DN when you set parameter CFX_SEPARATE_KEYLIST_FEATURE in table OFCENG to N.
- The separate keylist option does not support a separate keylist for each internal and external forward DN. Internal and external DNs share the same keylist.
- Options CFU, CFI, and CFF are exclusive.
- Default, fixed, and programmable activation/deactivation of CFB are exclusive.
- Default, fixed, and programmable activation/deactivation of CFD are exclusive.
- The end user uses option CFUIF to enter data in Call Forward Remote Access (CFRA) and Call Forward Screen and Simultaneous (CFS). After the end user enters the data, CFS applies to every DN that has CFU, CFI, or CFF on the line.
- The system does not support Internal and external DNs for CFU, CFI, and CFF.
- This feature provides end user activation and deactivation of the CFB/CFD internal and external DNs through feature access codes. Activation and deactivation of the feature through MBS feature keys are not available.
- The end user cannot assign this feature to a feature key on an MBS.

Call Forward Busy/Don’t Answer - Internal/External (continued)

Interactions

Descriptions of the interactions between this feature and other functionalities appear in the following paragraphs.

Attendant Console

An attendant console (AC) can extend a call to a station with the Call Forward Busy/Don't Answer - Internal/External feature. When this condition occurs, the system initiates one of the following actions:

- The system forwards the call to the CFB/CFD internal DN.
- The system forwards the call is to the CFB/CFD external DN.

The system initiates the actions according to the location of the call. The call can be in the same group or a different group.

Call Forward Don't Answer for DNH Groups

The Call Forward Don't Answer for DNH Groups feature is a line option. This line option allows the assignment of CFD to separate members of a DN hunt group.

Call Forward Screen and Simultaneous (CFS)

The CFS feature limits the number of calls that the system can forward for lines with call forwarding options. This feature is available for each line.

Call Transfer/Three Way Call (CXR/3WC)

The end user that transfers calls to a station with CFB/CFD must release the call before forwarding occurs. When the end user does not release the call in time, the system forwards the call. The system forwards the call according to the internal or external status of the line of the end user. When the end user disconnects before forwarding occurs, the system forwards the call. The system forwards the call according to the internal or external status of the line of the caller.

Call Forward Validation (CFWVAL)

This feature allows call forwarding features, like CFU and CFI, to validate the DN entered as the forward-to DN. The forwarding features validate the DN when an MDC station activates call forwarding.

Multiple Appearance Directory Number (MADN)

The primary member of a MADN group can program, activate, or use CFB/CFD internal and external DNs for the group.

Call Forward Busy/Don’t Answer - Internal/External (continued)

Multiple Call Forward Busy/Multiple Call Forward Don't Answer

The Multiple Call Forward Busy/Multiple Call Forward Don't Answer (MULTICFB/MULTICFD) feature allows the system to forward more than one call. The system can forward more than one call when the station has option CFB/CFD. This feature is available for each customer group. When you set MULTICFB to N, the system can forward one internal or external call. When you set MULTICFB to Y, the system can forward multiple internal and external calls. For MULTICFD, the procedures are the same as MULTICFB.

Speed Call

The system does not support entry of a speed call code number as the DN of the remote station for CFB/CFD. The system does not support this entry when the end user uses the fixed or programmable method of activation/deactivation. The system supports the DN of the remote station for CFB/CFD when the end user uses the default method of activation/deactivation.

Activation/deactivation by the end user

Three methods of activating/deactivating the Call Forward Busy/Don't Answer - Internal/External feature are available. These methods are default, fixed, and programmable. Default activation of the Call Forward Busy/Don't Answer - Internal/External feature can occur. default activation of this feature occurs after the end user uses SERVORD to assign the feature to an MBS. To deactivate the feature, use SERVORD to remove the feature from an MBS.

The end user can use feature access codes to activate and deactivate the Call Forward Busy/Don't Answer - Internal/External feature. The operating company can enter forwarding DNs (fixed activation/deactivation). The end user can program forwarding DNs (programmable activation/deactivation).

Table IBNXLA defines the following activation/deactivation codes:

- CFBIP: call forward busy internal program
- CFBIC: call forward busy internal cancel
- CFBEP: call forward busy external program
- CFBEC: call forward busy external cancel
- CFDIP: call forward don't answer internal program
- CFDIC: call forward don't answer internal cancel
- CFDEP: call forward don't answer external program
- CFDEC: call forward don't answer external cancel

Call Forward Busy/Don’t Answer - Internal/External (continued)

Fixed activation/deactivation

In fixed activation of the Call Forward Busy/Don't Answer - Internal/External feature, the operating company must perform two actions. The operating company must assign the type of call forwarding to the MBS and enter the CFB/CFD DNs. The end user can activate or deactivate CFB/CFD. Deactivated is the default status. The activation and deactivation sequences for the end user appear in the following sections.

Activation of Call Forward Busy/Don't Answer - Internal/External by the end user (fixed)

At the telephone, perform the following actions:

1. Go off-hook

   Response:

   You dear dial tone

2. Dial the correct feature access code

   Response:

   You hear confirmation tone - The CFB/CFD is active.

   Note: The system gives negative acknowledgment (NACK) treatment when you attempt to activate CFB/CFD when the feature is already active.

Deactivation of Call Forward Busy/Don't Answer - Internal/External by the end user (fixed)

At the telephone, perform the following actions:

1. Go off-hook

   Response:

   You hear dial tone

2. Dial the appropriate feature access code

   Response:

   You hear confirmation tone. The CFB/CFD is no active.

Programmable activation/deactivation

Programmable activation of the Call Forward Busy/Don't Answer - Internal/External feature allows the end user to program the CFB/CFD DNs. Programmable activation allows the end user to activate and deactivate CFB/CFD. Programming occurs during end user activation. The activation and deactivation sequences for the end user appear in the following sections.

Call Forward Busy/Don’t Answer - Internal/External (continued)

Activation of Call Forward Busy/Don't Answer - Internal/External by the end user (programmable)

At the telephone, perform the following actions

1. Go off-hook

   Response:

   You hear dial tone

2. Dial the correct feature access code

   Response:

   You hear special dial tone

3. Dial the correct forward DN (internal or external)

   Response:

   You hear confirmation tone - The CFB/CFD is activated.

   Note: The system gives NACK treatment when you attempt to activate CFB/CFD when the feature is already active.

Deactivation of Call Forward Busy/Don't Answer - Internal/External by the end user (programmable)

At the telephone, perform the following actions:

1. Go off-hook

   Response:

   You hear dial tone

2. Dial the correct feature access code

   Response:

   You hear confirmation tone - The CFB/CFD is not active.

Billing

The Call Forward Busy/Don't Answer - Internal/External feature does not affect billing.

Station Message Detail Recording

The Call Forward Busy/Don't Answer - Internal/External feature does not affect Station Message Detail Recording.

Call Forward Busy/Don’t Answer - Internal/External (continued)

Datafilling office parameters

Datafill procedure for CFX_SEPARATE_KEYLIST_FEATURE

The addition of parameter CFX_SEPARATE_KEYLIST_FEATURE to table OFCENG allows use of this feature. When the end user sets the parameter to Y, the end user must not reset the parameter to N. This action can cause false representation of CFX tuples in table KSETFEAT.

The office parameters for the Call Forward Busy/Don't Answer - Internal/External feature appear in the following table. Refer to *Office Parameters Reference Manual* for additional information about office parameters.

Office parameters for Call Forward Busy/Don't Answer - Internal/External

Table name	Parameter name	Description
OFCENG	CFX_SEPARATE_KEYLIST_ FEATURE	This parameter allows CFB/CFD and separate keylist abilities. Enter Y. The default value is N.

Note: The CFX_SEPARATE_KEYLIST_FEATURE moved from table OFCOPT (Office Option) to table OFCENG in BCS34.

Call Forward Busy/Don’t Answer - Internal/External (continued)

Datafill sequence

Datafill for the Call Forward Busy/Don't Answer - Internal/External feature appears in the following tables. The tables appear in the correct entry order.

Datafill requirements for Call Forward Busy/Don't Answer - Internal/External

Table	Purpose of table
OFCENG	Office Engineering. This table contains data on engineering parameters for the office. See “Datafilling office parameters" for how the Call Forward Busy/Don't Answer - Internal/External feature affects office parameters.
CFX	Call Forwarding. This table formats and displays call forwarding information to the end user according to individual line equipment numbers (LEN) and keys. ***Note:*** The switch enters data in this table because of feature use by the end user. A datafill procedure is not available.
IBNFEAT (Note)	IBN Line Feature. This table contains the line features assigned to the MDC lines that appear in table IBNLINES.
IBNXLA	IBN Translation. This table stores the digits of the MDC access codes and the options or features to which the digits belong.
KSETFEAT (Note)	Business Set and Data Unit Feature. The line features assigned to the MBSs that appear in table KSETLINE appear in this table.
Note: Use SERVORD to enter data in this table. A datafill procedure is not available. See “SERVORD" for an example of how to use SERVORD to enter data in this table.	

Datafilling table IBNXLA

Table IBNXLA stores the digits of the MDC access codes and the options or features to which the digits belong.

Datafill for the Call Forward Busy/Don't Answer - Internal/External feature for table IBNXLA appears in the following table. Fields that apply to the Call Forward Busy/Don't Answer - Internal/External feature appear in this table.

Call Forward Busy/Don’t Answer - Internal/External (continued)

See the data design section of this document for a description of the other fields.

Datafilling table IBNXLA

Field	Subfield or refinement	Entry	Description
KEY		see subfields	Key. This field has subfields XLANAME and DGLIDX.
	XLANAME	alphanumeric	Translator Name. This subfield specifies the name assigned to the translator. Enter the 1- to 8-character translator name.
	DGLIDX	vector of a maximum of 18 digits	Digilator Index. This subfield specifies the digit or digits assigned as the access code for the feature. Enter the access code.
RESULT		see subfield	Result. This field has subfield TRSEL.
	TRSEL	FEAT	Translation Selector. This subfield specifies the translation selector. Enter FEAT.
When you set TRSEL to FEAT, subfields ACR, SMDR, and FEATURE require datafill.			
	ACR	Y or N	Account Code Entry. This subfield specifies when an account code is required. Enter Y or N.
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if the SMDR records calls. Enter Y or N.
	FEATURE	CFBEP, CFBEC, CFBIP, CFBIC, CFDEP, CFDEC, CFDIP, CFDIC	Feature. This subfield specifies the feature for activation or deactivation. Enter CFBEP, CFBEC, CFBIP, CFBIC, CFDEP, CFDEC, CFDIP, or CFDIC. See “Activation/deactivation by the end user" in this feature description for definitions of these Call Forward Busy/Don't Answer - Internal/External feature selectors.

Call Forward Busy/Don’t Answer - Internal/External (continued)

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

Example of MAP for table IBNXLA

```
 TABLE: IBNXLA

KEY                                  RESULT
-------------------------------------------------------------
CXDK    127                  FEAT   N  N  N  CFBIP
```

Tools for verifying translations

Output from TRAVER (translation verification) appears in the following example. The system produces this output when TRAVER traces the forwarding of an internal call from a 2500 set. This set has fixed activation of CFB.

TRAVER output example for Call Forward Busy/Don't Answer - Internal/External (2500 set)

```
>TRAVER L 5556987 5556879 T
TABLE IBNLINES
HOST 00 0 00 02 0 DT STN IBN 5556987 MDCGRP1 0 0 919 $
TABLE DNATTRS
TUPLE NOT FOUND
TABLE DNGRPS
TUPLE NOT FOUND
TABLE NCOS
MDCGRP1 0 0 0 UNREST (XLAS MDCUREST MDCDIG MDCDIG) (CBQ 3 3 Y 2)
TABLE CUSTHEAD: CUSTGRP, PRELIMXLA, CUSTXLA, FEATXLA, VACTRMT, AND
DIGCOL MDCGRP1 NXLA MDCXLA MDCFEAT 0 MDCDIG
TABLE DIGCOL
MDCDIG 5 COL L 4
TABLE IBNXLA: XLANAME MDCUREST
TUPLE NOT FOUND
Default is to go to next XLA name.
CUST PRELIM XLA name is NIL.  Go to next XLA name.
TABLE IBNXLA: XLANAME MDCXLA
TUPLE NOT FOUND
Default is to use Trmt VACTREAT from CUSTHEAD
TABLE IBNTREAT
TUPLE NOT FOUND
```

Call Forward Busy/Don’t Answer - Internal/External (continued)

Output from TRAVER appears in the following example. The system produces this output when TRAVER traces the forwarding of an internal call from an MBS. This MBS has fixed activation of CFB.

TRAVER output example for Call Forward Busy/Don't Answer - Internal/External (MBS)

```
>TRAVER L 5556879 5554667 T
TABLE KSETLINE
HOST 00 0 00 23 2 DN Y 5556879 MDCGRP2 0 0 919 $
TABLE DNATTRS
TUPLE NOT FOUND
TABLE DNGRPS
TUPLE NOT FOUND
TABLE NCOS
MDCGRP2 0 0 0 UNREST (XLAS MDCUREST MDCDIG MDCDIG) (CBQ 3 3 Y 2)
TABLE CUSTHEAD: CUSTGRP, PRELIMXLA, CUSTXLA, FEATXLA, VACTRMT, AND
DIGCOL MDCGRP2 NXLA MDCXLA MDCFEAT 0 MDCDIG
TABLE DIGCOL
MDCDIG 7 RTP
TABLE IBNXLA: XLANAME MDCUREST
TUPLE NOT FOUND
Default is to go to next XLA name.
CUST PRELIM XLA name is NIL.  Go to next XLA name.
TABLE IBNXLA: XLANAME MDCXLA
TUPLE NOT FOUND
Default is to use Trmt VACTREAT from CUSTHEAD
TABLE IBNTREAT
TUPLE NOT FOUNDcc
```

SERVORD

The end user uses SEVORD to enter the Call Forward Busy/Don't Answer - Internal/External feature.

The system can enter data in tables IBNFEAT and KSETFEAT. The system enters data in these tables when the end user uses SERVORD to assign this feature.

Table IBNFEAT contains the line features assigned to the MDC lines that appear in table IBNLINES.

Table KSETFEAT lists the line features assigned to the MBSs that appear in table KSETLINE.

Call Forward Busy/Don’t Answer - Internal/External (continued)

SERVORD prompts

The SERVORD prompts that the end user uses to assign this Call Forward Busy/Don't Answer - Internal/External feature to a line appear in the following table.

SERVORD prompts for Call Forward Busy/Don't Answer - Internal/External (Sheet 1 of 2)

Prompt	Correct input	Description
OPTION	CFB, CFD, CFU, IECFB, IECFD	Specifies the option to assign. Enter CFB for Call Forwarding Busy, CFD for Call Forwarding Don't Answer, and CFU for Call Forwarding Universal. Enter IECFB for internal/external call forwarding for CFB, or IECFD for internal/external call forwarding for CFD.
OPTKEY	Correct MBS key (1 to 69)	Identifies the key on the MBS to which you assign an option. Enter a value between 1 and 69.
CFBCNTL	F, N, P	Assigns CFB control. Enter F for fixed, N for normal, or P for programmable.
CFBDN	Correct DN (a maximum of 24 digits)	Specifies the call forwarding DN for option CFB. Enter a correct DN. This DN is a maximum of 24 digits.
CFDCNTL	F , N, P	Assigns CFD control. Enter F for fixed, N for normal, or P for programmable.
CFDDN	Correct DN (a maximum of 24 digits)	Specifies the call forwarding DN for option CFD. Enter a correct DN. This DN is a maximum of 24 digits.
KEYLIST	Correct key number (1 to 69)	Identifies the MBS key number. Enter a value from 1 to 69.
INCFBDN	Correct DN (a maximum of 24 digits)	Assigns the internal CFB DN. Enter a correct DN. This DN is a maximum of 24 digits.
EXCFBDN	Correct DN (a maximum of 24 digits)	Assigns the external CFB DN. Enter a correct DN. This DN is a maximum of 24 digits.

Call Forward Busy/Don’t Answer - Internal/External (continued)

SERVORD prompts for Call Forward Busy/Don't Answer - Internal/External (Sheet 2 of 2)

Prompt	Correct input	Description
INCFDDN	Correct DN (a maximum of 24 digits)	Assigns the internal CFD DN. Enter a correct DN This DN is a maximum of 24 digits.
EXCFDDN	Correct DN (a maximum of 24 digits)	Assigns the external CFD DN. Enter a correct DN is a maximum of 24 digits.

Note: The system can enter data in tables IBNFEAT and KSETFEAT. The system enters data in these tables when the end user uses SERVORD to assign this feature.

The Call Forward Busy/Don't Answer - Internal/External feature is compatible with line class codes IBN, KEYSET, DATA, LATA, PDATA, MADO, and MPDA.

SERVORD examples for adding Call Forward Busy/Don't Answer - Internal/External to a line

The addition of the Call Forward Busy/Don't Answer - Internal/External feature to a current line appears in the following example. The end user uses the ADO (add option) command to add this feature. In this example, CFB control is set to fixed (F).

Adding the CFB to a current line through SERVORD (2500 set) in prompt mode

```
>ADO
SONUMBER:     NOW  92 09 10 PM
>
DN_OR_LEN:
> 5554667
OPTION:
> CFB
CFBCNTL:
> F
CFBDN:
> 5554706
OPTION:
> $
```

Call Forward Busy/Don't Answer - Internal/External (continued)

Adding the CFB to a current line through SERVORD (2500 set) in no-prompt mode

```
> ADO $ 5554667 CFB F 5554706 $
```

The addition of the CFD to a current line appears in the following SERVORD example. The end user uses the ADO command to add the CFD. In this example, CFD control is set to normal (N).

Adding the CFD to a current line through SERVORD (MBS) in prompt mode

```
>ADO
SONUMBER:     NOW  93 08 17 PM
>
DN_OR_LEN:
> 5556879
OPTKEY:
> 1
OPTION:
> CFD
CFDCNTL:
> N
CFDDN:
> 5554000
KEYLIST:
> 2
KEYLIST:
> $
OPTKEY:
> $
```

Adding the CFD to a current line through SERVORD (MBS) in no-prompt mode

```
> ADO $ 5556879 1 CFD N 5554000 2 $ $
```

Adding the IECFB to a current line appears in the following SERVORD example. The end user uses the ADO command to add the IECFB.

Call Forward Busy/Don't Answer - Internal/External (end)

Adding the IECFB to a current line through SERVORD (2500 set) in prompt mode

```
>ADO
SONUMBER:     NOW  93 12 16 PM
>
DN_OR_LEN:
>5551001
OPTION:
> IECFB
INCFBDN:
>5554705
EXCFBDN:
> 5551002
OPTION:
> $
```

Adding the IECFB to a current line through SERVORD (2500 set) in no-prompt mode

```
>ADO $ 5551001 IECFB 5554705 5551002 $
```

Adding the IECFD to a current line appears in the following SERVORD example. The end user uses the ADO command to add the IECFD.

Adding the IECFD to a current line through SERVORD (2500 set) in prompt mode

```
>ADO
SONUMBER:     NOW  93  4 14 PM
>
DN_OR_LEN:
> 5555878
OPTION:
> IECFD
INCFDDN:
> 5558080
EXCFDDN:
> 5550103
OPTION:
> $
```

Adding the IECFD to a current line through SERVORD (2500 set) in no-prompt mode

```
> ADO $ 5555878 IECFD 5558080 5550103 $
```

Call Forward Don’t Answer and Call Waiting Interaction

Ordering codes

Operating group ordering code: MDC00003

Operating ordering code: does not apply

Release applicability

BCS32 and later versions

Requirements

The Call Forward Don't Answer and Call Waiting Interaction has the following requirements to operate:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The Call Forward Don't Answer and Call Waiting Interaction activates the DMS-100 switch to function like the feature interactions of a 1AESS switch. This condition affects the link of Call Waiting (CWT) with the following types of Call Forwarding Don't Answer (CFD):

- Call Forward Don't Answer for plain old telephone service (POTS) and Subscriber Services (SS) lines (CFDA)
- Call Forward Don't Answer (CFD) for MDC lines
- Call Forward Group Don't Answer for MDC hunt groups (CFGD)
- Call Forward Group Don't Answer for POTS and SS hunt groups (CFGDA)

Note: In this feature description, another name for the different Call Forwarding Don't Answer options is the CFD options.

The Call Forward Don't Answer and Call Waiting Interaction activates CWT to connect to the pilot directory number (DN) of a multiline hunt (MLH) group.

Operation

The Call Forward Don't Answer forwards a call the recipient does not answer to another specified station in a specified time period. Before Call Forward Don't Answer and Call Waiting Interaction, the DMS-100 switch forwards a “do not answer" call to a busy remote station. This process occurs if the station has CWT. The 1AESS switch does not forward a “do not answer" call when the same condition occurs.

Call Forward Don’t Answer and Call Waiting Interaction (continued)

Current installation

The Call Forward Don't Answer and Call Waiting Interaction does not allow the DMS-100 switch to forward a call to a busy remote station with CWT. This condition allows the DMS-100 switch to function like the 1AESS switch. The office parameter POTS_SIMULATE_1A accesses this option for POTS lines.

The Call Forward Don't Answer and Call Waiting Interaction allows the addition of CWT to the pilot DN of an MLH group. Only the last member of the hunt group receives CWT.

CFD and CWT interaction

With option CFD, the DMS-100 switch forwards a call the recipient does not answer to a busy remote station if the station has CWT. The 1AESS switch does not forward a call the recipient does not answer to a busy remote station. Call Forward Don't Answer and Call Waiting Interaction provides the end user with an option. This option is to determine if lines with option CFD function like the DMS-100 switch or the 1AESS switch.

For POTS lines, Call Forward Don't Answer and Call Waiting Interaction creates office parameter POTS_SIMULATE_1A in table OFCVAR (Variable Office). When this parameter contains Y, the DMS-100 switch functions like a 1AESS switch. The DMS-100 switch does not forward a call the recipient does not answer to a busy remote station with CWT. When office parameter POTS_SIMULATE_1A contains N, the DMS-100 switch allows the system to forward calls the recipient does not answer. The default value is N. These calls travel to a busy remote station with CWT.

For MDC and SS lines, a new customer group option functions like the 1AESS switch feature interaction. Table CUSTENG (Customer Group Engineering) contains option SIM1A. The addition of this option to a customer group can occur. When this condition occurs, all MDC and SS lines in the group that have option CFD functions like the 1AESS switch.

The following options are available on MDC lines with CFD:

- Option CDE does not allow the system to forward calls when the intergroup originates.
- Option CDI does not allow the system to forward calls the intragroup originates.
- Option IECFD allows the system to forward calls that originated internally and externally to different remote stations in the customer group.

Call Forward Don't Answer and Call Waiting Interaction (continued)

- Option CDU allows the system to forward intergroup and intragroup calls outside the customer group.
- Option CFDVT allows the end user to override the don't answer time-out the customer group data specifies.

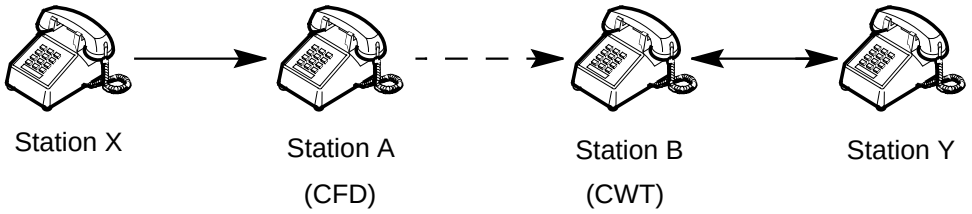
When the same line has options CDE and CDU, the options make sure the system cannot forward intergroup-originated calls. Options CDE and CDU allows the system to forward calls the intergroup originated outside the customer group.

When the same line has options CDI and CDU, the options make sure the system cannot forward calls the intragroup originated. Options CDI and CDU allow the system to forward calls the intergroup originated outside the customer group.

When the same line can have options IECFD and CDU. When this event occurs, these options allow the system to forward internally and externally originated calls to different remote stations. These remote stations are outside the customer group.

An example of the feature interactions of the DMS-100 switch and the feature interactions of the 1AESS switch appears in the following figure.

CFD and CWT call plans



Station B has CWT. Station B is in a call with station Y. Station X places a call to station A. Station A has option CFD. Station A does not answer. With the DMS interaction, the system forwards the call to station B. The system handles the call according to the active features. Active features are CWT. With the 1AESS interaction, the system does not forward the call to station B. Station A continues ringing.

The Call Forward Don't Answer and Call Waiting Interaction only affects the interaction between CFDA or CFD and CWT. The Call Forward Don't Answer

and Call Waiting Interaction maintains all other interactions and compatibilities with the CFDA or CFD feature for POTS, MDC, and SS lines.

MLH and CWT interaction

Before the release of Call Forward Don't Answer and Call Waiting Interaction, MLH members had different DNs. Calls terminated to individual members of the group, like in DN hunt groups. This condition allowed hunting to start from positions in the group other than from the pilot DN. For CWT. The last member of the group receives the CWT tone if CWT is present and active.

To accommodate the addition of CWT to MLH groups, read-only Table OPTOPT (Incompatible Option) makes CWT and MLH compatible. For CWT to work with MLH, the last MLH member must have the capability of flashing.

With Call Forward Don't Answer and Call Waiting Interaction, the addition of CWT to the pilot DN of an MLH group can occur. When the addition of option CWT to the pilot DN occurs, the last member in the group receives a CWT tone. Without CWT, callers to an MLH group in which all lines are busy receive a busy tone.

The system allows Call Waiting with options LOR and LOD. The LOR and LOD can be present with CWT. When this event occurs, the first call to arrive after all members of the group are busy activates CWT. The calls that follow overflow according to which overflow option is present.

The system does not apply CWT if options MSB or RMB are active on the last member of the hunt group. When option SHU is active before the system reaches the last member, the system does not activate CWT. This method is for activating or deactivating CWT on the group. A system output is not present to indicate the system activates or deactivates CWT by these other options. The end user must know these interactions. Line failure or manually busying the last member also negates CWT. Output does not appear to indicate this condition.

Translations table flow

The Call Forward Don't Answer and Call Waiting Interaction translations tables appear in the following paragraphs.

- The system requires table CUSTENG (Customer Group Engineering) for a switching unit with North American translations and IBN and SS features. The addition of customer group option SIM1A to table CUSTENG occurs to control MDC and SS lines. The addition of option SIM1A to a customer group can occur. When this addition occurs, all

Call Forward Don’t Answer and Call Waiting Interaction (continued)

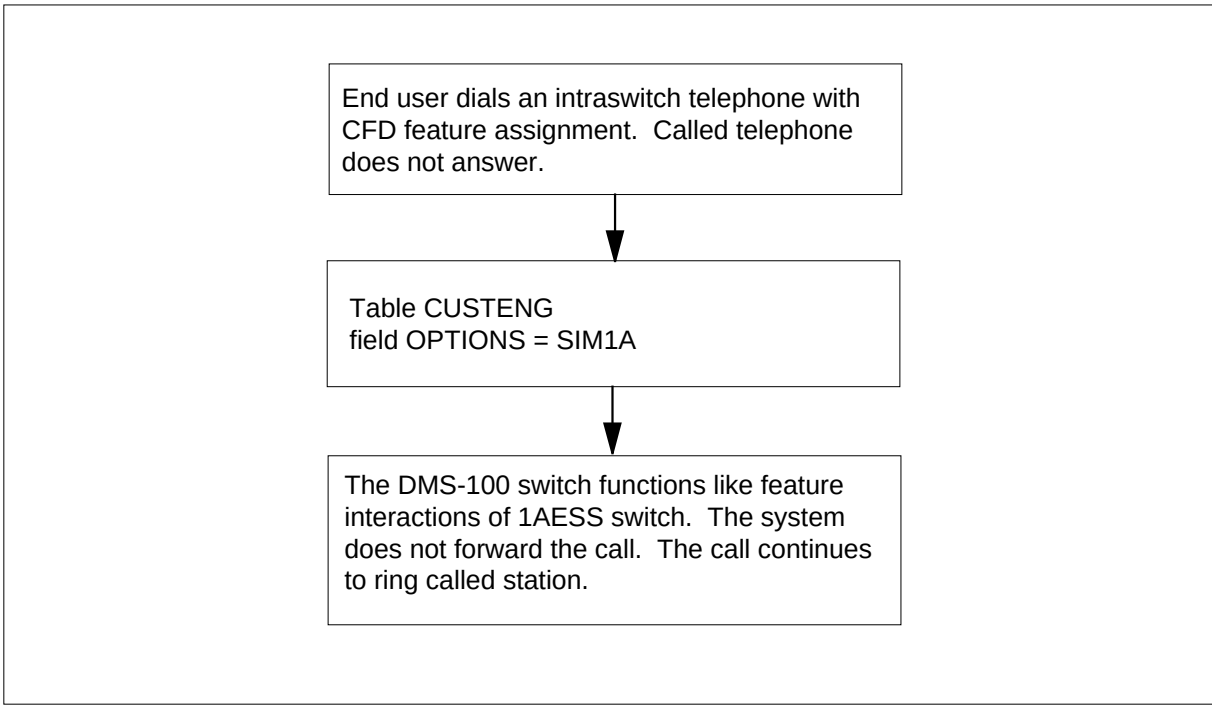
MDC and SS lines in the group with option CFD function like the 1AESS switch.

- Table OPTOPT (Incompatible Option) contains incompatible line options for each line option. With Call Forward Don't Answer and Call Waiting Interaction, table OPTOPT allows the assignment of CWT and MLH to the same line.

  Note: Table OPTOPT is a read-only table. The end user cannot modify this table.

The Call Forward Don't Answer and Call Waiting Interaction translations process appears in the flowcharts in the following figures. The call processing for Call Forward Don't Answer and Call Waiting Interaction with option CFD appears in the first flowchart and data. The call processing for Call Forward Don't Answer and Call Waiting Interaction with option CWT appears in the second flowchart and data.

Table flow for Call Forward Don't Answer and Call Waiting Interaction with option CFD



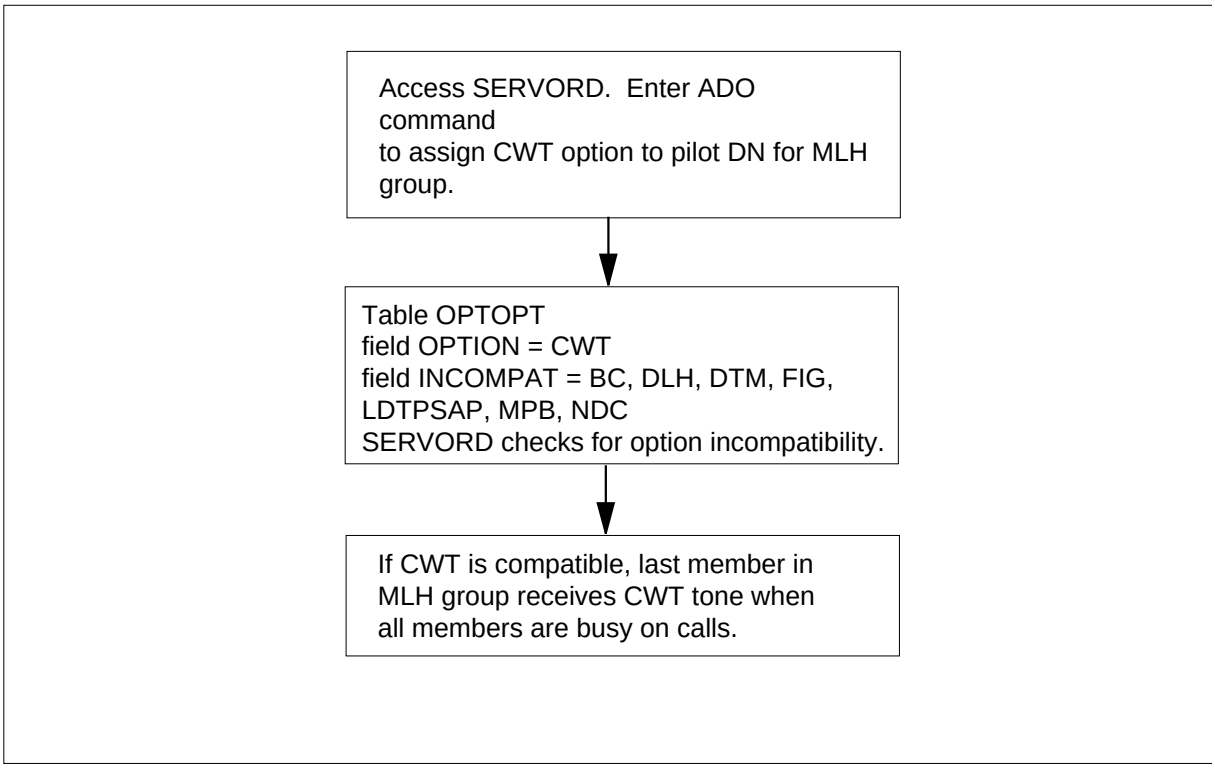
Call Forward Don’t Answer and Call Waiting Interaction (continued)

Datafill content in the flowchart appears in the following table.

Datafill example for Call Forward Don't Answer and Call Waiting Interaction

Datafill table	Example data
CUSTENG	50BCON 10 10 N N PUBLIC 0 (SIM1A) $

Table flow for Call Forward Don't Answer and Call Waiting Interaction with option CWT



The datafill content in the flowchart appears in the following table.

Datafill example for Call Forward Don't Answer and Call Waiting Interaction

Datafill table	Example data
OPTOPT	CWT BC DLH DTM FIG LDTPSAP MPB NDC $

Call Forward Don't Answer and Call Waiting Interaction (continued)

Limits

The following limits apply to Call Forward Don't Answer and Call Waiting Interaction:

- Call Waiting does not apply to attendant console-originated calls. Call Waiting does not apply to attendant console-extended calls to a busy MLH group with CWT.
- The ability to make sure the DMS-100 switch cannot forward calls the recipient does not answer to a remote station with CWT has limits. This condition only applies to calls that the system forwards on the same switch. The office parameter POTS_SIMULATE_1A in Table OFCVAR can contain Y. When this event occurs, POTS lines that have CFD function like 1AESS lines. The assignment of this type of interaction does not occur for each line. The separation and configuration of a line, or group of lines, requires the placement of the line in an SS group. This SS group does not have the customer group option SIM1A. This condition can occur because the setting of the new parameter in table OFCVAR does not affect SS lines.
- This limit applies to MDC and SS lines. Adding option SIM1A to a customer group can occur. When this event occurs, all MDC and SS lines in the group that have CFD function like the 1AESS switch. When the operation of a line must change, the system moves that line to another MDC group that do not have customer group option SIM1A.
- The addition of Call Waiting to the pilot DN of an MLH group occurs. The last member of the group receives CWT. The datafill sequence in table HUNTMEM [Hunt Group Member] determines the last member. The CWT is active on the pilot DN of the group and all members are busy. When this event occurs, the next call generates a tone to the last member with the design of CWT. The calls to the group that follow receive a busy tone. The system can process only one call through CWT at a time. This process occurs according to the method CWT functions in other conditions.
- Adding Call Waiting to the pilot DN with the Service Order System (SERVORD) command ADO (add option) occurs. Commands EST (establish a hunt or call pickup group) and ADD (add line to a hunt group) generate an error message.

Interactions

The interactions between Call Forward Don't Answer and Call Waiting Interaction and other functionalities appear in the following paragraph.

Cancel Call Waiting

Cancel Call Waiting (CCW) interacts with Call Forward Don't Answer and Call Waiting Interaction. The system does not allow Cancel Call Waiting.

This condition applies because the pilot DN must activate CCW after every call to the group if the system allows Cancel Call Waiting.

Repeated Alert for MBS

The system can present calls on an MBS that has both Repeated Alert (RPA) for MBS and Call Forward Don't Answer active. These calls have the RPA tones stop as the CFD timer expires. The system forwards the calls.

Activation/deactivation by the end user

The Call Forward Don't Answer and Call Waiting Interaction does not require activation or deactivation by the end user.

Billing

The Call Forward Don't Answer and Call Waiting Interaction does not affect billing.

Station Message Detail Recording

The Call Forward Don't Answer and Call Waiting Interaction does not affect Station Message Detail Recording.

Datafilling office parameters

Datafill procedure for POTS_SIMULATE_1A

Office parameter POTS_SIMULATE_1A in Table OFCVAR forces central office POTS lines to function like 1AESS lines.

When office parameter POTS_SIMULATE_1A in table OFCVAR contains Y, the DMS-100 switch functions like a 1AESS switch. The DMS-100 does not forward calls the recipient does not answer to a busy remote station. When office parameter POTS_SIMULATE_1A contains N, the DMS-100 switch allows the system to forward calls the recipient does not answer to a busy remote station with CWT. The default value is N. For MDC and SS lines, the changes in table CUSTENG allow the assignment of option SIM1A to a customer group.

Call Forward Don’t Answer and Call Waiting Interaction (continued)

The office parameters the Call Forward Don't Answer and Call Waiting Interaction uses appear in the following table. Refer to the *Office Parameters Reference Manual* for additional information about office parameters.

Office parameters that are used by Call Forward Don't Answer and Call Waiting Interaction

Table name	Parameter name	Explanation and action
OFCVAR	POTS_SIMULATE_1A	Specifies if POTS lines with CFDA function like 1AESS lines with CFDA. Enter Y or N. The default value is N.

Datafill sequence

The tables that require datafill to implement Call Forward Don't Answer and Call Waiting Interaction appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Call Forward Don't Answer and Call Waiting Interaction

Table	Purpose of table
OFCVAR	Variable Office Parameter. This table contains data on variable office parameters for the office. Refer to *Office Parameters Reference Manual* for how Call Forward Don't Answer and Call Waiting Interaction affects office parameters.
CUSTENG	Customer Group Engineering. The system requires this table for a switching unit with North American translations and IBN and SS features.
OPTOPT (Note)	Incompatible Options Table. This table is a read-only table. This table contains the other line options that are not compatible for each line option.
Note: Northern Telecom (Nortel) performs data entry in this table. A datafill procedure is not available.	

Datafilling table CUSTENG

The system requires table CUSTENG (Customer Group Engineering) for a switching unit with North American translations and IBN and SS features.

The addition of customer group option SIM1A to table CUSTENG occurs to control MDC and SS lines. The addition of option SIM1A to a customer group

can occur. When this event occurs, all MDC and SS lines in the group with CFD function like the 1AESS switch.

Datafill for Call Forward Don't Answer and Call Waiting Interaction for table CUSTENG appears in the following table. The fields that apply to Call Forward Don't Answer and Call Waiting Interaction appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTENG

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		SIM1A	Options This field specifies the options and the associated subfields for the customer group. Enter SIM1A to allow the DMS-100 switch to function like the 1AESS switch.

Datafill example for table CUSTENG

Sample datafill for table CUSTENG appears in the following example.

MAP example for table CUSTENG

```
CUSTNAME NONCOS NOIBNTMT CONSOLES MASCON  DOMAIN
   GROUPID  OPTIONS
_____________________________________________________
50BCON    10    10    N          N      PUBLIC
   0         (SIM1A) $
```

Tools for verifying translations

The Call Forward Don't Answer and Call Waiting Interaction does not use tools for verifying translations.

SERVORD

The SERVORD enters data in table OPTOPT.

The Call Forward Don't Answer and Call Waiting Interaction does not affect the interaction of CFD with CWT for SERVORD. The Call Forward Don't Answer and Call Waiting Interaction affects the addition of line option CWT to MLH groups. Adding line option CWT can only occur to the pilot DN of an established hunt group. An end user attempts to add CWT when an end user establishes an MLH group. When an end user attempts to add CWT to another member of an MLH group, the following error message appears:

Call Forward Don’t Answer and Call Waiting Interaction (continued)

```
USE ADO TO ASSIGN CWT TO MLH GROUP PILOT.
CWT           DID NOT PASS CHECKING
***           ERROR - INCONSISTENT DATA    ***
```

Add and delete Call Waiting from an MLH pilot DN with SERVORD commands ADO and DEO (delete option). The assignment of line option to new lines with SERVORD command EST occurs.

The Call Forward Don't Answer and Call Waiting Interaction does not introduce any line class codes (LCC). The Call Forward Don't Answer and Call Waiting Interaction does not introduce any options.

SERVORD limits

The Call Forward Don't Answer and Call Waiting Interaction does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts that add Call Forward Don't Answer and Call Waiting Interaction to a current line with ADO command appear in the following table.

SERVORD prompts for Call Forward Don't Answer and Call Waiting Interaction

Prompt	Valid input	Explanation
OPTION	CWT	Specifies the option to add to or delete from the group. Enter CWT.

SERVORD example for adding Call Forward Don't Answer and Call Waiting Interaction

Adding line option CWT to an MLH pilot DN with the ADO command appears in the following service order example.

Call Forward Don’t Answer and Call Waiting Interaction (continued)

SERVORD example for Call Forward Don't Answer and Call Waiting Interaction in prompt mode

```
SO:
> ADO
SONUMBER:     NOW  90  3  9 AM
>
DN_OR_LEN:
> 6212011
LEN:
> 1 0 12 7
OPTION:
> CWT
OPTION:
> $
```

SERVORD example for Call Forward Don't Answer and Call Waiting Interaction in no-prompt mode

```
> ADO $ 6212011 1 0 12 7 CWT $
```

Note: For an MDN line or MLH/DLH members, the system prompts the end user for the LEN. This event occurs when the specification of a DN occurs. When the system enters the LEN, the end user is not prompted for the DN.

The deletion of line option CWT from an MLH group with the DEO command appears in the following service order example.

SERVORD example for Call Forward Don't Answer and Call Waiting Interaction in prompt mode

```
SO:
> DEO
SONUMBER:     NOW  90  3  9 AM
>
DN_OR_LEN:
> 6212011
LEN:
> 1 0 12 7
OPTION:
> CWT
OPTION:
> $
```

Call Forward Don’t Answer and Call Waiting Interaction (end)

SERVORD example for Call Forward Don't Answer and Call Waiting Interaction in no-prompt mode

```
> DEO $ 6212011 1 0 12 7 CWT $
```

Call Forward Prevention Enhancements

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: MDC00061

Release applicability

NA009 and up

Call Forward Prevention Enhancements was introduced in NA009.

Prerequisites

To operate, Call Forward Prevention Enhancements requires the functionality ordering code RES00074.

Description

Call Forward Prevention Enhancements (CFPE) decreases occurrence of fraudulent calls involving call forwarding (CFW). CFPE enhances the Call Forward Fraud Prevention (CFFP) feature (AJ4192) for Residential Enhanced Services (RES). CFPE supports RES agents and adds CFFP functionality to centrex and POTS agents.

For centrex agents, CFPE functionalities are available with the following subscriber-programmable CFW types:

- Call Forwarding Don't Answer (CFDA)
- Call Forwarding Remote Access (CFRA)
- Call Forward Universal (CFU)
- Call Forward Busy (CFB)
- Call Forward Universal per Key (CFK)
- Selective Call Forwarding (SCF)

For POTS agents, CFPE functionalities are available with the following subscriber-programmable call forwarding types:

- Call Forward All Calls/Customer (CFW/C)
- Usage-Sensitive Call Forwarding (UCFW)

Operation

NA008 introduced the CFFP feature to correct billing fraud. CFFP blocks programming attempts to international phone numbers that originate from RES agents.

Call Forward Prevention Enhancements (continued)

CFPE supports centrex and Plain Ordinary Telephone Service (POTS) agents. It also supports all the RES programmable CFW types. These types include CFW/C, UCFW, Call Forward Busy Line (CFBL), Call Forwarding Don't Answer (CFDA), CFRA, and SCF.

CFPE fraud prevention

CFPE provides fraud prevention capabilities for an operating company. These capabilities include dial plan restrictions, override line option, and limits for call forwarding programming.

Dial plan restrictions

Dial plan restrictions enable the operating company to restrict the programming of a forward-to DN on an office-wide basis. These restrictions apply for each or all of the RES, centrex and POTS programmable Call Forwarding (CFW) features. Tables CFFPDPLN and CFFPTYPE implement dial plan restrictions.

The following table provides the dial plan codes and dial plans that an operating company can restrict with the feature CFPE active.

xDial plan codes and their associated dial plans (Sheet 1 of 2)

Dial plan code	Dial plan
IDDD	international 011+
FGB	1+950+WXXX
INTERTOL	interLATA toll calls
INTRATOL	intraLATA toll calls

Note 1: All programming attempts with an operator assisted-type dial plan fail when the CFPE feature activates through SOC. SCF, also, does not block all operator assisted calls.

Note 2: The switch performs CFPE screening on the NPA for dial plan codes I500, I700, I800, and I900.

Note 3: The NPANXX dial plan code allows the operating company to specify NPAs or NPANXX combinations. The NPA portion of NPANXX allows for a wild card value of XXX. When XXX replaces the NPA, CFPE screens the calls based on the NXX value. With an XXX for the NPA and 555 for the NXX, CFPE screens all DNs containing an NXX of 555.

Note 4: CFPE validates DNs with dial plans entered in field NPANXX for toll and local calls. With a 7-digit toll call, reverse translations determine the NPA.

Call Forward Prevention Enhancements (continued)

xDial plan codes and their associated dial plans (Sheet 2 of 2)

Dial plan code	Dial plan
COIN	Any dial plans used in a forward-to DN corresponding to a coin line on the same switch as the CFFP feature. These dial plans may have one of the following LCCs: CCF, CDF, CSP, CFD, ZMD, or ZMZPA
I500	1+5XY(for example, 500)-NXX-XXXX
I700	1+7XY-NXX-XXXX (for example, 700)
I800	1+8XY-NXX-XXXX (for example, 800 and 888)
I900	1+9XY-NXX-XXXX (for example, 900)
N11	N11 (for example, 411, 611, and 911)
NPANXX	NPA, NPANXX

Note 1: All programming attempts with an operator assisted-type dial plan fail when the CFPE feature activates through SOC. SCF, also, does not block all operator assisted calls.

Note 2: The switch performs CFPE screening on the NPA for dial plan codes I500, I700, I800, and I900.

Note 3: The NPANXX dial plan code allows the operating company to specify NPAs or NPANXX combinations. The NPA portion of NPANXX allows for a wild card value of XXX. When XXX replaces the NPA, CFPE screens the calls based on the NXX value. With an XXX for the NPA and 555 for the NXX, CFPE screens all DNs containing an NXX of 555.

Note 4: CFPE validates DNs with dial plans entered in field NPANXX for toll and local calls. With a 7-digit toll call, reverse translations determine the NPA.

Additional key operating company capabilities with CFPE follow.

Override line option

The CFFP feature in NA008 introduced the Call Forward Fraud Prevention Override (CFFPOVR) line option. CFPE lets an operating company use the CFFPOVR line option to override the dial plan restrictions on a per-line basis. With CFPE, CFFPOVR applies to all of the RES, centrex, and POTS agents programmable CFW types. The CFFPOVR line option overrides all or some of the dial plan codes.

Limits for call forwarding programming

An operating company can limit the number of times a subscriber programs a forward-to DN. The operating company prompts for this limit when it adds

Call Forward Prevention Enhancements (continued)

the CFFPOVR option to a line. The limit can range between 0 and 30 changes within a programmable period of time.

CFPE activation

CFPE activates through the software optionality control (SOC) utility. CFPE validates any forward-to DNs programmed by the end-user following the translation stage in call processing. Tables CFFPDPLN and CFFPTYPE implement this validation process. The following list describes the acceptance or rejection of a request to program the forward-to DN.

- When the CFFP tables restrict the forward-to DN, the switch rejects the request to program the forward-to DN.
- When the subscriber exceeds the limit for changing the forward-to DN, the switch rejects the request to program the forward-to DN.
- If a restricted dial plan has CFFPOVR on the line, the switch accepts the request to program the forward-to DN.
- If the dial plan is not restricted in the CFFP tables, the switch accepts the request to program the forward-to DN.

Centrex agents

When the switch rejects a request to program, the operating company provides a NACK tone. CFU, CFB, CFD, and CFK end users receive this NACK tone. An operating company provides an announcement to the end user for CFRAC and SCFC when the switch rejects a request to program.

POTS agents

When the switch rejects a request to program, the operating company provides a VACANT_CODE treatment to the end user for CFW/C and UCFW.

Log reports

When a restricted dial plan prevents a programming attempt, the switch generates log report CFFP600. When the subscriber exceeds the limit for changing the forward-to DN, the switch generates log report CFFP601.

Translations table flow

Centrex agents

The following list includes the Call Forward Prevention Enhancements translations tables for centrex agents:

- Table CFFPTYPE specifies the programmable CFW types with restricted dial plans. Each CFW type has an entry pointing to a tuple in table

Call Forward Prevention Enhancements (continued)

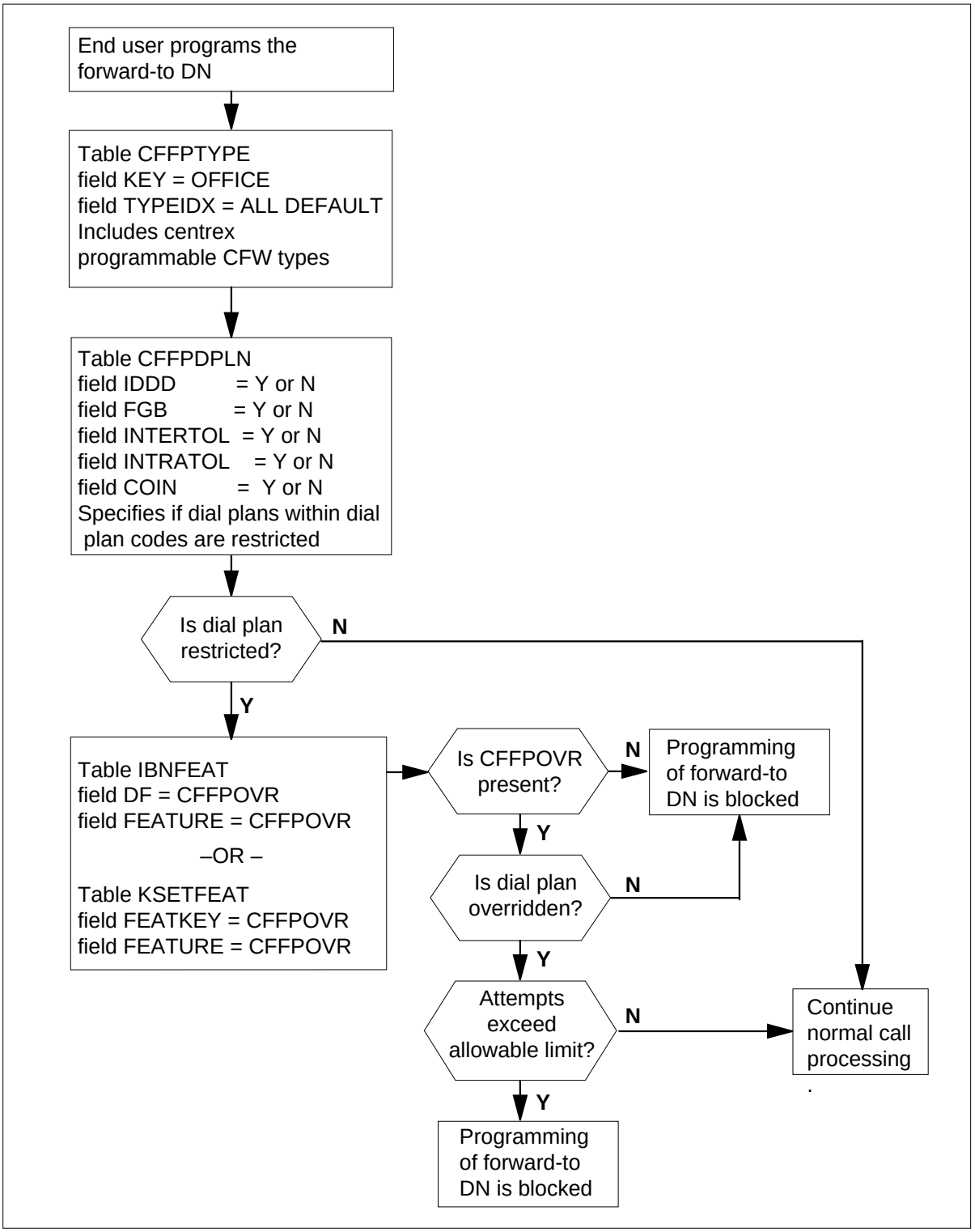
CFFPDPLN. For CFPE, table CFFPTYPE supports additional CFW types for RES, centrex, and POTS.

- Table CFFPDPLN allows the operating company to specify restricted dial plans on an office-wide basis. CFPE increases the number of tuples in table CFFPDPLN to accommodate the additional CFW types.
- Table IBNFEAT contains information that defines IBN line features for centrex agents. CFPE adds line option CFFPOVR to fields DF and FEATURE for IBN lines.
- Table KSETFEAT contains information that defines centrex line features. CFPE adds line option CFFPOVR to fields FEATKEY and FEATURE.

The following flowchart shows the Call Forward Prevention Enhancements translation process for centrex agents.

Call Forward Prevention Enhancements (continued)

Table flow for Call Forward Prevention Enhancements with centrex agents



Call Forward Prevention Enhancements (continued)

The following table lists the datafill content used in the flowchart.

Datafill example for Call Forward Prevention Enhancements

Datafill table	Example data
CFFPTYPE	OFFICE (ALL 2) (CFW DEFAULT) (CFRA DEFAULT) $
CFFPDPLN	DEFAULT Y Y N N Y $ $ $ $ $ $
	2 Y Y N N Y (500) $ (700) $ (800) (888) $ (900) $ (911) (411) $ (613625) $
IBNFEAT	HOST 00 0 03 03 0 CFFPOVR CFFPOVR IDDD 20 15
KSETFEAT	CFFPOVR CFFPOVR IDDD 20 15

POTS agents

The following list describes the Call Forward Prevention Enhancements translations tables for POTS agents:

- Table CFFPTYPE specifies the programmable CFW types with restricted dial plans. Each CFW type has an entry pointing to a tuple in table CFFPDPLN. For CFPE, table CFFPTYPE supports additional CFW types for RES, centrex, and POTS.
- Table CFFPDPLN allows the operating company to specify restricted dial plans on an office-wide basis. CFPE increases the number of tuples in table CFFPDPLN to accommodate the additional CFW types.
- Table LENFEAT contains information that defines POTS line features. CFPE adds, CFFPOVR to fields DF and FEATURE in table LENFEAT.

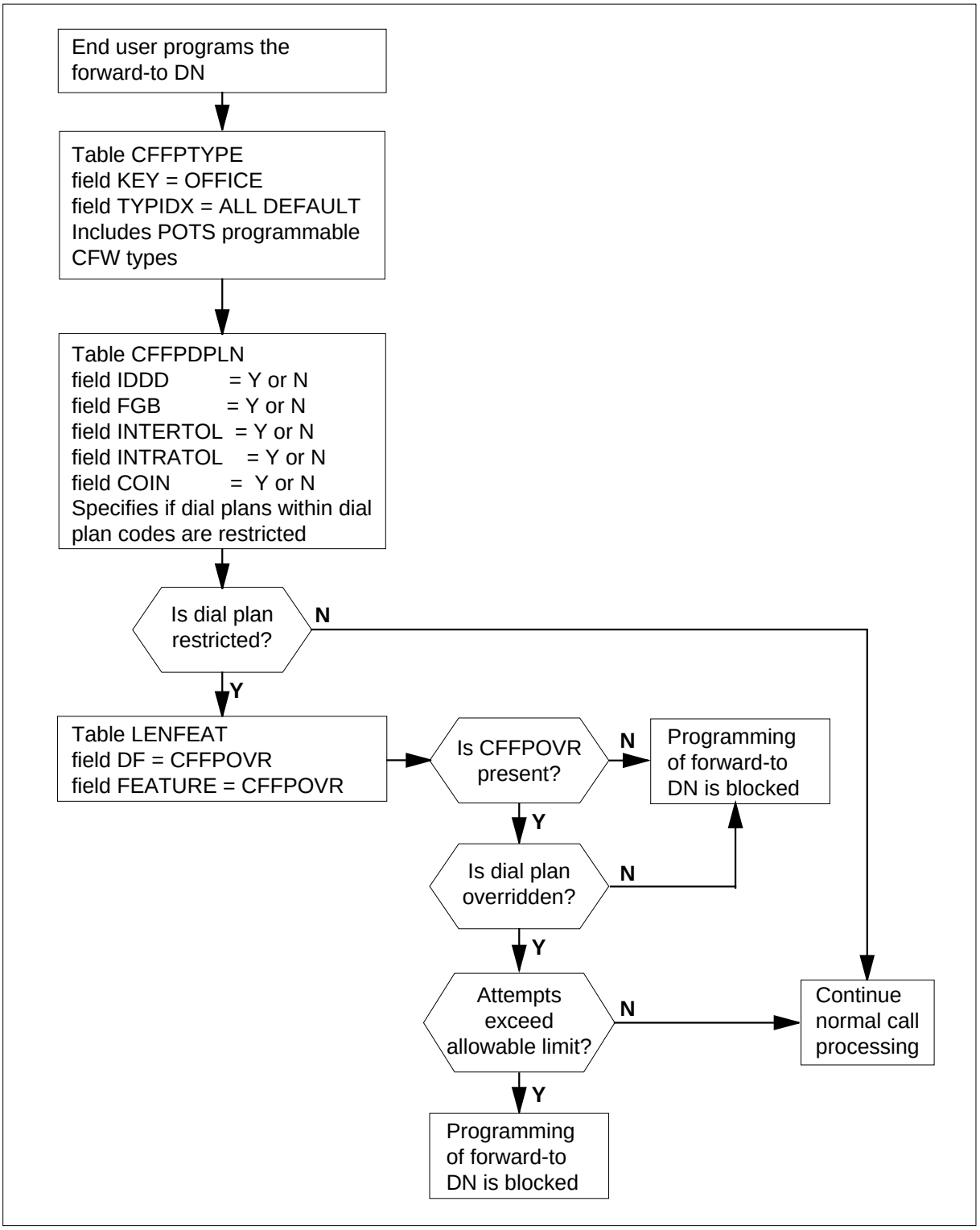
RES agents

The following list describes the Call Forward Prevention Enhancements translations tables for RES agents:

- Table CFFPTYPE specifies the programmable CFW types with restricted dial plans. Each CFW type has an entry pointing to a tuple in table CFFPDPLN. For CFPE, table CFFPTYPE supports additional CFW types for RES, centrex, and POTS.
- Table CFFPDPLN allows the operating company to specify restricted dial plans on an office-wide basis. CFPE increases the number of tuples in table CFFPDPLN to accommodate the additional CFW types.
- Table IBNFEAT contains information that defines IBN line features for centrex agents. CFPE adds line option CFFPOVR to fields DF and FEATURE for IBN lines.

Call Forward Prevention Enhancements (continued)

Table flow for Call Forward Prevention Enhancements with POTS Agents



Call Forward Prevention Enhancements (continued)

The following table lists the datafill content used in the flowchart.

Datafill example for Call Forward Prevention Enhancements

Datafill table	Example data
CFFPTYPE	OFFICE (ALL 2) (CFW DEFAULT) (CFRA DEFAULT) $
CFFPDPLN	DEFAULT Y Y N N Y $ $ $ $ $ $
	2 Y Y N N Y (500) $ (700) $ (800) (888) $ (900) $ (911) (411) $ (613625) $
LENFEAT	HOST 00 0 03 03 S CFFPOVR CFFPOVR IDDD 20 15

Limitations and restrictions

The following limitations and restrictions apply to Call Forward Prevention Enhancements:

- This feature supports the following line class codes with POTS agents: 1FR and 1MR.
- For centrex agents, ISDN is not supported.
- The CFPE feature activates upon the programming of a forward-to DN. Programmed forward-to DNs existing prior to CFPE activation using SOC are not screened.
- Only lines terminating to a COIN station within the same switch can be screened with centrex and POTS agents.
- Coin lines are unrestricted with POTS agents. Reverse translations looks for a 10-digit DN which is used to get the line class code (LCC) of the DN. When the calling party or the base party is a POTS agent, there will be no customer group for reverse translations. The forward-to COIN DN will not be restricted even if the COIN field in the table CFFPDPLN is set to Y.
- The number of times the forward-to DN can be changed can reach at most (2*LIMIT) -1. LIMIT is what the operating company allows for a particular line.
- If the forward-to DN is a 3-digit N11 extension number that extends to a 7-digit DN, then the CFPE feature finds the selector in table IBNXLA. If the selector is extn_sel, bypass the N11 checking. Also, the CFPE feature does not perform NPANXX validation if the forward-to DN is an extension number (1-7) and the selector in table IBNXLA is extn_sel.

Interactions

The following paragraphs describe the interactions between Call Forward Prevention Enhancements and other functionalities.

Call Forward Prevention Enhancements (continued)

Advanced Intelligent Network

The Advanced Intelligent Network (AIN) enables call processing to use centralized service logic programs at the Service Control Point (SCP). Service logic programs determine how AIN calls proceed for further call processing. Queries and responses are sent between the DMS SuperNode end office and the SCP using Common Channel Signaling 7 (CCS7).

AIN 0.0

When a call hits an AIN trigger, the switch sends a query to an off-board processor. The off-board processor responds and the call becomes active. The off-board processor redirects the call to another destination.

The CFPE feature screens the digits programmed by the end user. If call redirection occurs, CFPE cannot block the destination digits supplied by the off-board processor.

AIN 0.1

The interaction between CFPE and AIN 0.1 is the same as the interaction between CFPE and AIN 0.0 described above.

Call forwarding

The basic functionality of call forwarding (CFW) is to redirect the calling party to another line.

CFPE becomes active when a subscriber attempts to program a forward-to DN. The subscriber uses one of the centrex or POTS-programmable CFW types supported by CFPE.

Call Forwarding Remote Access

The Call Forwarding Remote Access (CFRA) CFW option lets end users activate or deactivate feature packages from a line other than their own. Call Forward Universal (CFU), Call Forward Intragroup (CFI), Call Forwarding Fixed (CFF), or Call Forward All Calls/Customer (CFW/C) can be activated from another line.

CFPE may be active when the end user has CFW/C and CFRA assigned to a line. In this case, CFPE validates any programming attempts made remotely through CFRA.

Carrier Toll Denied

Carrier Toll Denied (CTD) lets an operating company deny an end-user access to 21 carriers for direct dialed (DD) and 1+NPA+555 calls.

Call Forward Prevention Enhancements (continued)

End users with the CTD feature cannot program a toll number with a carrier specified in the list. Line option CFFPOVR does not override dial plans when the CTD option defines DN restrictions.

Equal Access and E800

The Equal Access (EA) software blocks all 800 and 8xx-type calls, where xx are two identical digits.

With casual dialing (10XXX) active, this existing restriction takes over any restriction overrides defined by line option CFFPOVR.

Enhanced Secondary Directory Number

Enhanced Secondary Directory Number (ESDN) lets an operating company add a set of options to each secondary directory number (SDN) with a primary directory number (PDN). ESDN also allows the end user to originate calls from an SDN.

CFW/C, CFBL, and CFDA can be assigned to an SDN and CFPE screens programmed forward-to DNs. The CFFPOVR line option can also be assigned to an SDN.

Full Carrier Toll Denied

Full Carrier Toll Denied (FCTD) lets an operating company deny an end-user access to 21 carriers for direct dialed (DD) and 1+NPA+555 calls.

A subscriber with the FCTD feature cannot program a toll number with a carrier specified in the list. Line option CFFPOVR does not override dial plans when the FCTD option defines DN restrictions.

Hunt groups

A hunt group consists of several lines or members in an end user group. The pilot DN accesses the hunt group Several types of hunt groups exist, including:

- Directory Number Hunt (DNH)
- Hunt (PRH)
- Multiline Hunt (MLH)
- Distributed Line Hunt (DLH)

The switch assigns the CFFPOVR line option to any member of a DNH or PRH type of hunt group. The system assigns CFFPOVR to the pilot DN of an MLH or DLH type of hunt group.

Call Forward Prevention Enhancements (continued)

Multiple Appearance Directory Number

The Multiple Appearance Directory Number (MADN) feature allows a single directory number (DN) for multiple lines.

The switch assigns CFFPOVR to the primary member of a MADN group configured with an extension bridging (EXB) arrangement.

Account code required and override call forward on account code

Account code required (ACR) requires the user to enter an access code and account code when originating calls. Programming attempts fail when an originator programs a DN that requires an account code with a call forwarding type.

The DN can be programmed with option OCFA (override call forward on account code) assigned to the line. CFPE screening applies to this DN.

Speed Calling

Speed calling (SC1, SC2, and SC3) enables the end user to define a speed call code (usually one digit) for a DN. The end user dials the speed call code and not the whole DN.

CFPE screens speed calls when the centrex or POTS agents programmable CFW type supports the speed calling feature.

Subscriber Activated Call Blocking

Subscriber Activated Call Blocking (SACB) lets end users activate and deactivate call blocking and restrict or allow specific types of calls.

SACB can block a DN after CFPE screens a DN. CFPE blocks a DN when CFPE and SACB restrict the DN. CFFPOVR does not override SACB DN restrictions.

Toll denied

Option TDN (toll denied) prevents an end user from originating toll calls.

TDN overrides restrictions defined by CFPE. If the DN is not blocked by TDN, it is subject to CFPE screening.

Virtual facility group

A virtual facility group (VFG) is a software structure that emulates a trunk. CFPE cannot screen a new set of digits when a call passes through VFG routing.

Call Forward Prevention Enhancements (continued)

Activation/deactivation by the end user

Call Forward Prevention Enhancements requires no activation or deactivation by the end user.

Billing

Call Forward Prevention Enhancements does not affect billing.

Station Message Detail Recording

Call Forward Prevention Enhancements does not affect Station Message Detail Recording.

Datafilling office parameters

Call Forward Prevention Enhancements does not affect office parameters.

Datafill sequence

The following table lists the tables that require datafill to implement Call Forward Prevention Enhancements. The tables are listed in the order in which they are to be datafilled.

Datafill tables required for Call Forward Prevention Enhancements

Table	Purpose of table
CFFPDPLN	Call Forward Fraud Prevention Dial Plan contains the dial plan restrictions.
CFFPTYPE	Call Forward Fraud Prevention Type contains the centrex and POTS programmable CFW types with restricted dial plans. Each CFW type in this table points to a tuple in table CFFPDPLN.
IBNFEAT (Note)	IBNFEAT contains the CFFPOVR option when the operating company assigns it to an IBN line.
KSETFEA (Note)	KSETFEAT contains the CFFPOVR option when the operating company assigns it to a business set line.
LENFEAT (Note)	LENFEAT contains the CFFPOVR option when the operating company assigns it to a POTS line.
Note: Since this table is datafilled through the Service Order System (SERVORD), no datafill procedure or example is provided. Refer to "SERVORD" for an example of using SERVORD to datafill this table.	

Call Forward Prevention Enhancements (continued)

Datafilling table CFFPDPLN

The following table shows the datafill specific to Call Forward Prevention Enhancements for table CFFPDPLN.

Datafilling table CFFPDPLN (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
DPLNIDX		1 through 15 alphanumeric characters	*Dial plan index* Enter the index entry that relates to the dial plan code restrictions. This entry determines the restrictions that apply to the CFW types specified in table CFFPTYPE. ***Note:*** Attempts to delete a tuple in table CFFPDPLN may cause an error message to be displayed. This would occur when table CFFPTYPE references table CFFPDPLN. ***Note:*** Avoid using special characters such as !, @, #, $, %, &, and * for the dial plan index. This may cause positioning problems on a tuple, unless these characters are between single quotes.
IDDD		Y or N	*International Direct Distance Dialing* Enter Y or N to indicate whether international 011+ type dial plans are to be restricted. When N is entered, these dial plans are not restricted. The default value is Y, which indicates these dial plans are restricted.
FGB		Y or N	*Feature Group B* Enter Y or N to indicate if 1+950+WXXX type dial plans are to be restricted. When N is entered, these dial plans are not restricted. The default value is Y, which indicates these dial plans are restricted.
INTERTOL		Y or N	*InterLATA toll* Enter Y or N to indicate iinterLATA toll type dial plan restrictions. A Y value indicates dial plan restrictions.The default value is N, which indicates these dial plans are not restricted.

Call Forward Prevention Enhancements (continued)

Datafilling table CFFPDPLN (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
INTRATOL		Y or N	*IntraLATA toll* Enter Y or N to indicate intraLATA toll type dial plan restrictions. Y indicates dial plan restrictions. The default value is N, which indicates these dial plans are not restricted.
COIN		Y or N	*Coin* Y or N indicate if intraswitch calls terminating at coin lines with an LCC of CCF, CDF, CSP, CFD, ZMD, or ZMZPA are restricted. N indicates these calls are not restricted. Restricted calls are indicated by the default value Y.
I500		500 through 599	*Information 500* The 500 range includes the restricted NPAs with a maximum of 15 entries. The default value is $, which indicates an empty list.
I700		700 through 799	*Information 700* The 700 range includes the restricted NPAs with a maximum of 15 entries. The default value is $, which indicates an empty list.
I800		800 through 899	*Information 800* The 800 range includes the restricted NPAs with a maximum of 15 entries. The default value is $, which indicates an empty list.
I900		900 through 999	*Information 900* The 900 range includes the restricted NPAs with a maximum of 15 entries. The default value is $, which indicates an empty list.

Call Forward Prevention Enhancements (continued)

Datafilling table CFFPDPLN (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
N11		Vector of 3 digits with the last two digits as 11 (X11)	*N11* Enter the restricted N11-type dial plans. . The default value is $, which indicates an empty list. ***Note:*** If the forward-to DN is a 3-digit N11 extension number that extends to a 7-digit DN, then the CFPE feature finds the selector in table IBNXLA. If the selector is extn_sel, bypass the N11 checking.
NPANXX		Vector of 3 or 6 digits; 000-999, 000000-999999, or XXX000, XXX999	*NPANXX* Enter the restricted NPAs or NPANXX combination dial plans with a maximum of 15 entries. The default value is $, which indicates an empty list. The NPA portion of NPANXX allows for a wild card value of XXX. With XXX specified, CFPE screens the calls based on the NXX value and ignores the NPA portion. When XXX is the NPA and the NXX is 555, CFPE screens all 555 DNs. CFPE validates DNs with dial plans entered in field NPANXX for toll and local calls. With a 7-digit toll call, reverse translations determines the NPA. ***Note 1:*** If the forward-to DN is an extension number and the selector in table IBNXLA is extn_sel, the CFPE feature does not perform NPANXX validation. ***Note 2:*** To block 7- and 10-digit local calls, enter XXXNXX. The switch blocks local calls using NPA-624-XXXX or 624-XXXX when a subscriber enters XXX624 in field NPANXX.

Datafill example for table CFFPDPLN

The following example shows sample datafill for table CFFPDPLN.

Call Forward Prevention Enhancements (continued)

MAP display example for table CFFPDPLN

```
DPLNIDX IDDD FGB INTERTOL INTRATOL COIN
                                                    I500
                                                    I700
                                                    I800
                                                    1900
                                                     N11
                                                  NPANXX
-------------------------------------------------------
DEFAULT    Y  Y         N        N  Y                 $
                                                      $
                                                      $
                                                      $
                                                      $
                                                      $
2          Y  Y         N        N  Y
                                                (500) $
                                                (700) $
                                           (800) (888) $
                                                (900) $
                                           (911) (411) $
                                              (613625) $
```

Error messages for table CFFPDPLN

The following error messages apply to table CFFPDPLN.

Error messages for table CFFPDPLN (Sheet 1 of 2)

Error message	Explanation and action
MEMORY ALLOCATION PROBLEM	This message appears with insufficient memory to implement an addition or modification to a tuple.
TUPLE NOT UPDATED - MULTIPLY DEFINED DNS	This message appears with an attempt to enter the same value in one or two fields.
TUPLE NOT DELETED - INDEX IS REFERENCED BY TABLE CFFPTYPE	This message appears with an attempt to delete a tuple referenced table CFFPTYPE.
VECTOR OF 3 OR 6 DIGITS: 000-999, 000000-999999, XXX000-XXX999	This message appears with an attempt to enter an unacceptable value in field NPANXX.
TUPLE NOT FOUND - UNABLE TO ACCESS TABLE CFFPDPLN DUE TO UNDEFINED INDEX	This message appears with an attempt to position on a tuple that does not exist.

Call Forward Prevention Enhancements (continued)

Error messages for table CFFPDPLN (Sheet 2 of 2)

Error message	Explanation and action
TUPLE NOT UPDATED - FIELD NPANXX MUST BE 3 OR 6 DIGITS	This message appears with an attempt to enter an unacceptable value in field NPANXX.
TUPLE NOT UPDATED - ILLEGAL DN IN NPANXX FIELD	This message appears with an attempt to enter an unacceptable value in field NPANXX.

Datafilling table CFFPTYPE

The following table shows the datafill specific to Call Forward Prevention Enhancements for table CFFPTYPE.

Datafilling table CFFPTYPE

Field	Subfield or refinement	Entry	Explanation and action
KEY		OFFICE	*Key* Office-wide dial plan restrictions allow for this field to be set to OFFICE. Operating company personnel cannot delete the OFFICE tuple. Attempts to delete this tuple cause an error message to be displayed.
TYPEIDX		List of call forward types and associated entry. The valid CFW types for CFPE with centrex are CFU, CFB, CFD, CFK, and CFRA. For POTS, the valid CFW types are CFW/C and UCFW with CFPE. The value of the entry associated with the call forward type is dependent on the datafill in table CFFPDPLN.	*Type index* Operating company personnel use this field to specify one or more RES, centrex, or POTS programmable CFW types. The default value is (ALL DEFAULT). Attempts to delete this value cause an error message to be displayed. Entry (ALL DEFAULT) indicates all centrex and POTS CFW types have restrictions defined in table CFFPDPLN. ALL refers to an index entry in table CFFPDPLN.

Datafill example for table CFFPTYPE

The following example shows sample datafill for table CFFPTYPE.

Call Forward Prevention Enhancements (continued)

MAP display example for table CFFPTYPE

```
CFFPTYPE

KEY     TYPEIDX
_____________________________________________________________
OFFICE (ALL2) (CFW DEFAULT) (CFRA DEFAULT) $
```

Error messages for table CFFPTYPE

The following error messages apply to table CFFPTYPE.

Error messages for table CFFPTYPE

Error message	Explanation and action
TUPLE NOT UPDATED - MULTIPLY-DEFINED CFW TYPE	This message appears with an attempt to enter a CFW type more than one time in the tuple.
CANNOT ADD TUPLE - NOT PERMITTED	This message appears with an attempt to add another tuple.
CANNOT PERFORM OPERATION	This message appears with an unrecognizable command.
TUPLE NOT DELETED - OFFICE TUPLE IS MANDATORY	This message appears with an attempt to delete the OFFICE tuple.
TUPLE NOT UPDATED - DEFAULT TYPE ALL IS MANDATORY	This message appears with an attempt to delete entry ALL.

Special datafill requirements for tables CFFPTYPE and CFFPDPLN

Table CFFPTYPE can be datafilled for RES lines, POTS and centrex lines, or all of these agents. In addition, table CFFPTYPE can be datafilled to implement a scenario without dial plan restrictions.

This flexibility is possible because table CFFPTYPE allows datafilling restrictions on a CFW type basis. There are separate CFW types for RES, POTS, and centrex agents. Restrictions before the CFFP feature, with Nortel (Northern Telecom) order code RES00074 SOC idle, are emulated for RES, POTS and centrex agents.

Table CFPDPLN is also datafilled to implement these flexible restriction scenarios. The four scenarios are described below.

Call Forward Prevention Enhancements (continued)

Dial plan restrictions for RES agents only

In this first scenario, dial plan restrictions are only required for RES agents. Nortel order code RES00074 SOC is IDLE. These dial plan restrictions are implemented with a tuple in table CFFPDPLN. Any N11 numbers are restricted in this tuple. The N11 field in table CFFPDPLN includes all combinations of N11 with a value of 1 through 9 for N.

Default behaviors for the centrex and POTS CFW flavors are datafilled in table CFFPTYPE. The CFW entries in table CFFPTYPE point to a tuple in table CFFPDPLN.

The ALL DEFAULT entry in table CFFPTYPE points to the DEFAULT tuple in table CFFPDPLN. Datafill for this DEFAULT tuple includes the following values.

Field DPLNIDX is set to the DEFAULT value. While fields IDDD and FGB are set to Y, fields INTERTOL, INTRATOL, and COIN are set to N. Fields 1500, 1700, 1800, 1900, and NPANXX are set to dollar sign ($). Field N11 includes all combinations of N11 with a value of 1 through 9 for N.

Examples of datafill for tables CFFPDPLN and CFFPTYPE are shown below. These two tables together implement dial plan restrictions for RES agents.

Call Forward Prevention Enhancements (continued)

MAP display example for table CFFPDPLN

```
DPLNIDX IDDD FGB INTERTOL INTRATOL COIN
                                                    I500
                                                    I700
                                                    I800
                                                    1900
                                                     N11
                                                   NPANXX
-------------------------------------------------------
NORESTRICT  Y   N      N      N     N
                                                      $
                                                      $
                                                      $
                                                      $
                                                      $
                                                      $
$          $    $       $    111 211    $
                            311 411
                            511 611
                            711 811
                              911
```

MAP display example for table CFFPTYPE

```
CFFPTYPE

KEY                                                TYPEIDX
_____________________________________________________________
OFFICE (ALL DEFAULT) (CFU NORESTRICT) (CFB NORESTRICT)
     (CFD NORESTRICT) (CFK NORESTRICT) (CFRAC NORESTRICT)
   (SCFC NORESTRICT) (CFWP NORESTRICT) (UCFWP NORESTRICT)
```

Dial plan restrictions for POTS and centrex agents only

In this second scenario, dial plan restrictions are required for POTS and centrex agents. Nortel order code RES00074 SOC is IDLE. These dial plan restrictions are implemented with a tuple in table CFFPDPLN. Any N11 numbers are restricted in this tuple. The N11 field in table CFFPDPLN includes all combinations of N11 with a value of 1 through 9 for N.

Default behaviors for the RES CFW flavors are datafilled in table CFFPTYPE. The CFW entries in table CFFPTYPE point to a tuple in table CFFPDPLN.

Call Forward Prevention Enhancements (continued)

The ALL DEFAULT entry in table CFFPTYPE points to the DEFAULT tuple in table CFFPDPLN. Datafill for this DEFAULT tuple includes the following values.

Field DPLNIDX is set to the DEFAULT value and field IDDD is set to Y. Fields FGB, INTERTOL, INTRATOL, and COIN are set to `N'. Fields 1500, 1700, 1800, 1900, and NPANXX are set to $. Field N11 includes all combinations of N11 with a value of 1 through 9 for N.

Examples of datafill for tables CFFPDPLN and CFFPTYPE are shown below. These two tables together implement dial plan restrictions for POTS and centrex agents.

MAP display example for table CFFPDPLN

```
DPLNIDX IDDD FGB INTERTOL INTRATOL COIN
                                                    I500
                                                    I700
                                                    I800
                                                    1900
                                                     N11
                                                   NPANXX
-------------------------------------------------------
NORESTRICT  Y   N      N      N     N
                                                      $
                                                      $
                                                      $
                                                      $
                                                      $
                                                      $
$           $   $      $     111 211   $
                             311 411
                             511 611
                             711 811
                               911
```

Call Forward Prevention Enhancements (continued)

MAP display example for table CFFPTYPE

```
CFFPTYPE

KEY                                                    TYPEIDX
_____________________________________________________________
OFFICE (ALL DEFAULT) (CFW NORESTRICT) (UCFW NORESTRICT)
    (CFBL NORESTRICT) (CFDA NORESTRICT) (CFRA NORESTRICT)
                (SCF NORESTRICT)
```

Dial plan restrictions for RES, POTS, and centrex agents

In this third scenario, dial plan restrictions are required for RES, POTs, and centrex agents. Examples of datafill for tables CFFPDPLN and CFFPTYPE are shown below. These two tables together implement dial plan restrictions for RES, POTS, and centrex agents.

MAP display example for table CFFPDPLN

```
DPLNIDX IDDD FGB INTERTOL INTRATOL COIN
                                                      I500
                                                      I700
                                                      I800
                                                      1900
                                                       N11
                                                    NPANXX
-------------------------------------------------------------
DEFAULT     Y   Y      N      N    Y
                                                        $
                                                        $
                                                        $
                                                        $
                                                        $
                                                        $
$           $  $       $      $    $
                                                        $
                                                        $
                                                        $
                                                        $
```

MAP display example for table CFFPTYPE

```
CFFPTYPE

KEY                                                    TYPEIDX
_____________________________________________________________
OFFICE                                              (ALL DEFAULT)
```

Dial plan restrictions not required

In this fourth scenario, dial plan restrictions are not required. The Nortel order code RES00074 SOC is IDLE. A tuple with restricted N11 numbers can be added in table CFFPDPLN. The N11 field in table CFFPDPLN includes all combinations of N11 with a value of 1 through 9 for N.

Default behaviors for the RES, POTS and centrex CFW flavors are datafilled in table CFFPTYPE. The CFW entries in table CFFPTYPE point to a tuple in table CFFPDPLN.

The ALL DEFAULT entry in table CFFPTYPE points to the DEFAULT tuple in table CFFPDPLN. Datafill for this DEFAULT tuple includes the following values.

Field DPLNIDX is set to the DEFAULT value. Fields IDDD, FGB, and COIN are set to Y. Fields INTERTOL and INTRATOL are set to N. Fields 1500, 1700, 1800, 1900, N11 and NPANXX are set to $.

Examples of datafill for tables CFFPDPLN and CFFPTYPE are shown below. These two tables together implement a scenario without dial plan restrictions.

Call Forward Prevention Enhancements (continued)

MAP display example for table CFFPDPLN

```
DPLNIDX IDDD FGB INTERTOL INTRATOL COIN
                                                    I500
                                                    I700
                                                    I800
                                                    1900
                                                     N11
                                                   NPANXX
-------------------------------------------------------
NORESTRICT  N   N      N      N    N
                                                      $
                                                      $
                                                      $
                                                      $
                                                      $
                                                      $
$           $  $       $      111 211    $
                              311 411
                              511 611
                              711 811
                                911
```

MAP display example for table CFFPTYPE

```
CFFPTYPE

KEY                                                TYPEIDX
_____________________________________________________________
OFFICE (ALL DEFAULT) (CFU NORESTRICT) (CFB NORESTRICT)
     (CFD NORESTRICT)(CFK NORESTRICT)(CFRAC NORESTRICT)
    (SCFC NORESTRICT)(CFWP NORESTRICT)(UCFWP NORESTRICT)
             (CFW NORESTRICT) (UCFW NORESTRICT)
     (CFBL NORESTRICT)(CFDA NORESTRICT)(CFRA NORESTRICT)
                    (SCF NORESTRICT
```

SERVORD

Line option CFFPOVR is assigned with the SERVORD add option (ADO) command. The delete option (DEO) command removes CFFPOVR. CFFPOVR overrides dial plan restrictions for each line. This override applies to all of the RES, centrex, and POTS agents programmable CFW types.

Call Forward Prevention Enhancements (continued)

Table IBNFEAT

Table IBNFEAT defines IBN and RES line features. CFPE adds CFFPOVR as a valid value in fields DF and FEATURE for IBN lines. The CFFPOVR feature and datafill for this table are assigned through SERVORD.

Table KSETFEAT

Table KSETFEAT defines centrex line features. CFPE adds CFFPOVR as a valid value in fields FEATKEY and FEATURE for centrex lines. The CFFPOVR feature and datafill for this table are assigned through SERVORD.

Table LENFEAT

Table LENFEAT defines POTS line features. CFPE adds CFFPOVR as a valid value in fields DF and FEATURE for POTS lines. The CFFPOVR feature and datafill for this table are assigned through SERVORD.

SERVORD limitations and restrictions

The following SERVORD limitations and restrictions apply to Call Forward Prevention Enhancements: Operating company personnel cannot add the CFFPOVR option to a line with the ADD or EST commands.

Call Forward Prevention Enhancements (continued)

SERVORD prompts

The following table shows the SERVORD prompts used to assign the CFFPOVR option to a centrex or POTS line.

SERVORD prompts for CFFPOVR

Prompt	Valid input	Explanation
DIAL_PLAN_CODE	ALL, IDDD, FGB, INTERTOL, INTRATOL, COIN, I500, I700, I800, I900, N11, NPANXX	At this prompt, enter one or more dial plan codes, or ALL. The dial plan codes entered override the dial plan code restrictions in table CFFPDPLN. CFFPOVR overrides all restricted dial plan codes with the ALL option.
LIMIT: OFFICE_DEFAULT	0 through 30 or OFFICE_DEFAULT	Enter the number of times an end user can program a restricted forward-to DN. Line option CFFPOVR overrides this dial plan. Field TIME_PERIOD of office parameter CFFP_CONTROL specifies the time period. An end user can program a forward-to DN an unlimited number of times with a value of 0. ***Note:*** To obtain the value OFFICE_DEFAULT, either press Enter at the prompt or type it in. The operating company uses the office-wide value in field DEFAULT_LIMIT of office parameter CFFP_CONTROL.

SERVORD example for adding CFFPOVR to a centrex or POTS line

The following SERVORD example shows how CFFPOVR is added to a centrex or POTS line.

SERVORD example for CFFPOVR in prompt mode

```
>ADO  $ 6246112
OPTION:
> CFFPOVR
DIAL_PLAN_CODE:
> IDDD INTERTOL $
LIMIT: OFFICE_DEFAULT
> 15
OPTION:
> $
```

Call Forward Prevention Enhancements (end)

SERVORD example for CFFPOVR in no-prompt mode

```
> ADO $ 6246112 CFFPOVR IDDD INTERTOL $ 15 $
```

Call Forward Timed

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: MDC00042

Release applicability

The Call Forward Timed feature was introduced in NA006.

Requirements

This document contains the datafill information for this functionality. This functionality can require software or hardware for complete installation.

Description

The Call Forward Timed (CFT) feature is an enhancement for the Call Forward Busy (CFB) feature and Call Forward Don't Answer (CFD) feature for Meridian Digital Centrex (MDC) lines. After a predetermined timeout period, the CFT routes forwarded calls that have not been answered to treatment. Treatment can be a tone or an announcement.

If a caller receives continuous ringing, the caller can assume that the subscriber is not present on the line. The CFD and CFB subscribers use Call Forwarding (CF) to increase call cover. The subscribers do not want callers to assume the subscriber is not present on the line. The CFT feature notifies callers that the subscriber cannot answer the call and the caller must call back later.

Note: Subscribers of Call Forward Universal (CFU) and Call Forward Intragroup (CFI) do not require this feature. These subscribes do not require this feature because CFU and CFI use CF to deflect calls.

Operation

The CFT starts when a subscriber forwards a call to an idle line in the same customer group and switch. The subscriber must have the CFB and Call Forward Timed for CFB (CFTB) or the CFD and Call Forward Timed for CFD (CFTD) line options. The CFT starts when the forwarded call does not receive an answer. A timer monitors the line for a predetermined time-out period. If the call does not receive an answer in the specified time, the system routes the call to treatment. The caller hears an announcement or a tone. The announcement or tone indicates the line is busy or the subscriber is not present on the line.

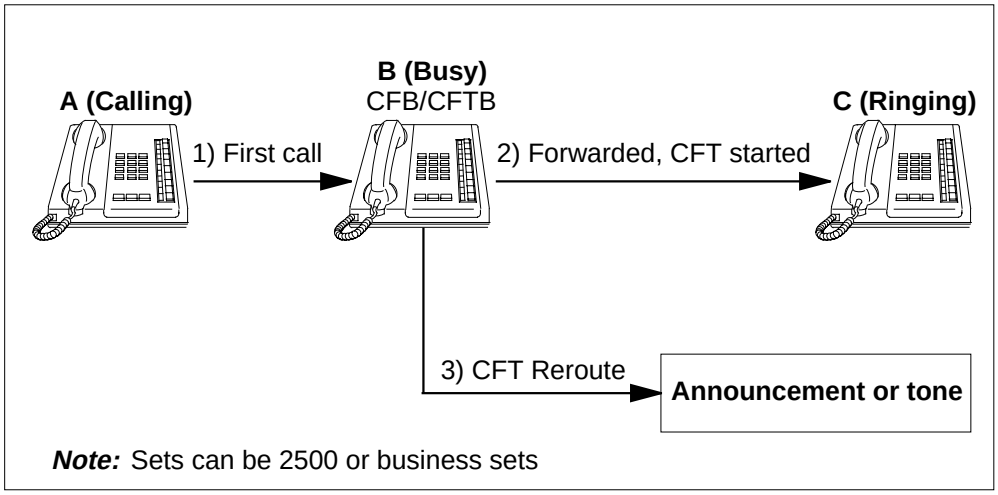
The CFT also starts when the CFD does not forward a call. The CFD does not forward a call when the forward-to directory number (DN) is not allowed or

busy. With this feature, the call does not receive continuous ringing at the CFD base station when the CFTD option is present.

Call Forward Timed for CFB

Call Forward Timed for CFB (CFTB) delivers the CFT functionality for MDC lines that have the CFB feature assigned. See figure Call Forward Timed for Call Forward Busy (CFTB). This option allows the subscriber to set a time-out period and a treatment for calls forwarded through CFB. The CFB forwards calls through CFB from the set of the subscriber. If CFB does not forward a call to an idle station, the CFT feature does not start.

Call Forward Timed for Call Forward Busy (CFTB)

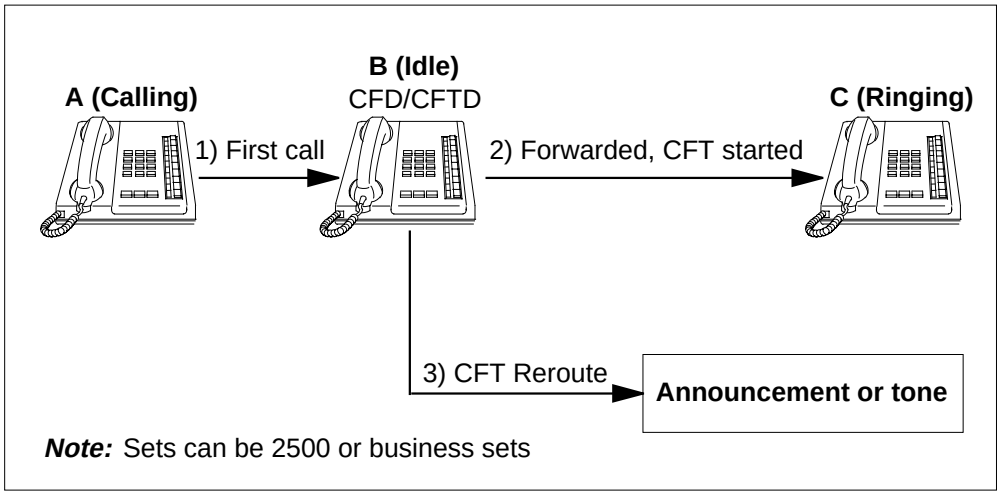


Call Forward Timed for CFD

Call Forward Timed for CFD (CFTD) delivers the CFT functionality for MDC lines that have the CFD feature assigned. See figure Call Forward Timed for Call Forward Don't Answer (CFTD). The CFTD line option allows the subscriber to define a time-out period and a treatment for calls that CFD forwards. The CFT starts when a call does not forward through CFD and continues to ring to the CFD base station. This event occurs when the forward-to DN is not allowed or is busy. The CFT does not allow the call to continue to ring at the CFD base station.

Call Forward Timed (continued)

Call Forward Timed for Call Forward Don't Answer (CFTD)



Translations table flow

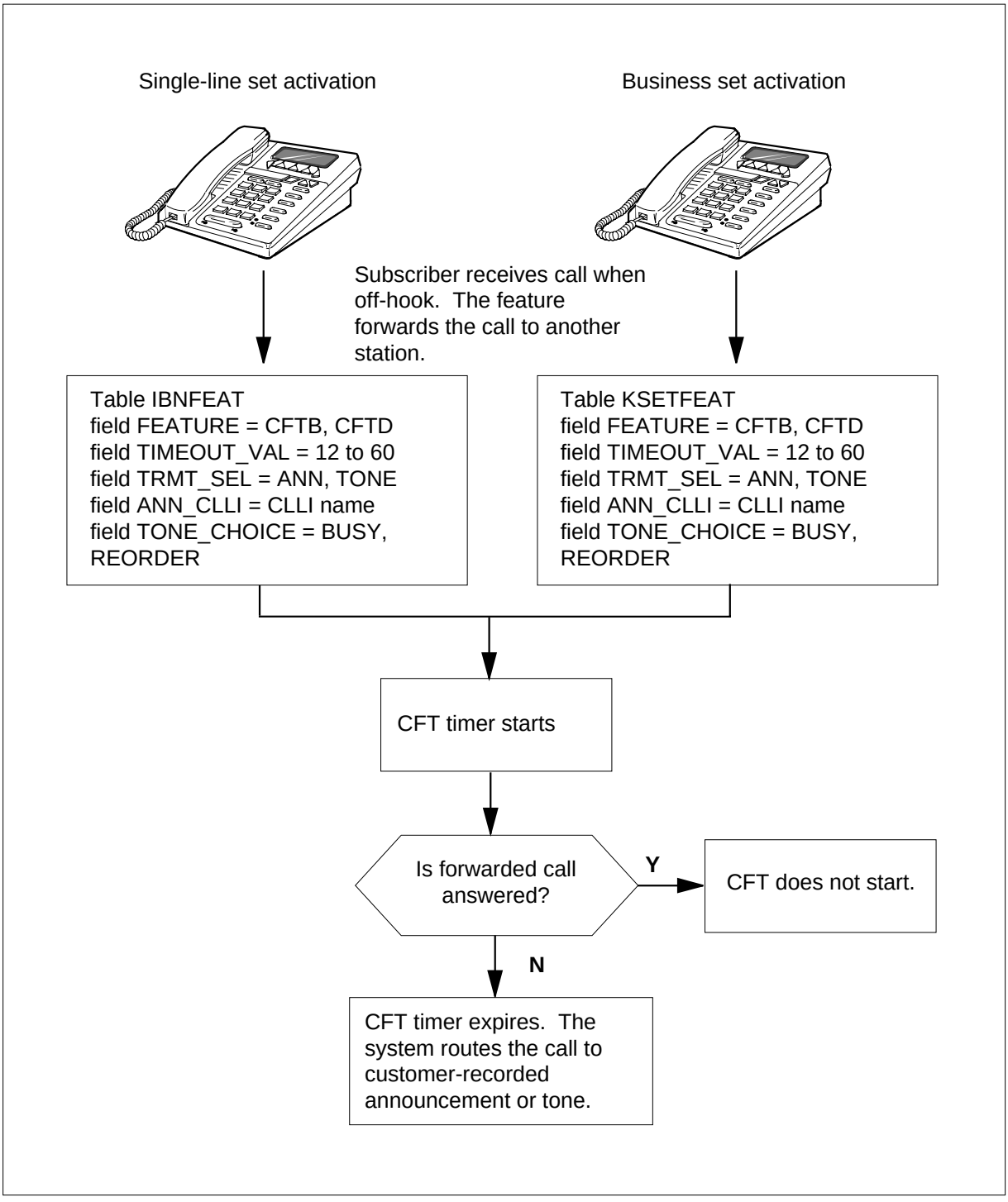
A description of the Call Forward Timed translations tables appear in the following list:

- Line features assigned to MDC single-line sets appear in table IBNFEAT (IBN Line Feature). Use SERVORD to enter data for the CFTB and CFTD options in table IBNFEAT.
- Line features assigned to business sets in table KSETLINE appear in table KSETFEAT (Business Set Feature). The Meridian business sets (MBS) in table KSETLINE appear in table IVDINV. Use SERVORD to enter data for the CFTB and CFTD options in tables KSETFEAT.

The Call Forward Timed translation process appears in the following flowchart.

Call Forward Timed (continued)

Table flow for Call Forward Timed



Call Forward Timed (continued)

The datafill content in the flowchart appears in the following table.

Datafill example for Call Forward Timed

Datafill table	Example data
IBNFEAT	HOST 00 1 01 01 0 CFTB CFTB 12 ANN CFTB_ANN
KSETFEAT	HOST 00 1 01 01 4 CFTB CFTB 12 ANN CFTB_ANN

Limits

The following limits apply to Call Forward Timed:

- This feature is for MDC lines with the CFD or CFB feature. The RES or POTS lines cannot have this feature assigned. The CFT is not compatible with the Call Forward Don't Answer (CFDA) and the Call Forward Busy Line (CFBL) features.
- The CFT only applies to calls forwarded in the same group. The customer group types and translations determine if the system forwards a call.
  - — The forward-from station and the forward-to station can belong to the same private customer group or private group. In this condition, the system forwards the call to a station in the group. This condition also applies when the forward-to station is in a public customer group or public series. The Customer Group Transparency feature must enter the translations from the forward-from station to the forward-to station as in the group.
  - — The CFT feature does not apply if the system does not forward the call to another station in the group. This event occurs if the CF base station does not have the CFD Unrestricted (CDU) or CFB Unrestricted (CFB) options assigned.
  - — The CFT feature does not apply if the system does not forward the call to another station in the group. This event occurs if the CF base station does not have the CFD Internal/External Split (IECFD) or CFB INternal/External Split (IECFB) systems assigned.
- This feature only applies to calls that forward and terminate in the same switch. The CFT does not apply to Calls that involve IBN trunks or Multi-location Business Groups (MBG) in the same group.
- The CFT does not operate with data units.
- This feature does not apply to calls in which the terminating agent is not a line. A trunk, attendant console, and Meet-Me Conference port are examples of terminating agents that are not a line. This feature does not

apply if the terminating agent is a queued feature. The following are examples of terminating agents that are queued features:

— Automatic Call Distribution (ACD) group

— Uniform Call Distribution (UCD) group,

— Hunt Group or a line with the Single Line Queuing (SLQ) feature

This feature applies to calls that terminated on a member of a Multiple Appearance Directory Number (MADN) group. This feature applies to calls that terminated on a member of a Key Short Hunt (KSH) group. This feature applies to a line with the SLQ feature that does not queue calls.

- The CFT starts when the system first forwards a call. The CFT cannot start when a call is in progress after the system first forwards a call. This limit applies to calls that the system transfers and routes again, like overflow routes.
- The system cancels this feature when the terminating line has CFD and the CFD timer expires before the CFT timer. If the CFT timer expires before the CFD timer, the system cancels the CFD feature. The system starts the CFT feature. If the CFT timer and CFD timer are the same, the system cancels the CFD feature and starts the CFT feature.
- The range of the time-out period is from 12 s to 60 s.
- Assigned treatments are busy tone, reorder tone, or announcements entered in table ANNS. The subscriber can record an announcement with a Digital Recorded Announcement Machine (DRAM).
- A CFD call does not activate the CFT feature if the call is forwarded again by the CFU or CFI features.

Interactions

This several interactions between CFT and other features appear in the following section. The following principles apply for all interactions, including interactions that do not appear in this section.

- The CFT works where the CFB and CFD features are active. The CFT does not work in the conditions that appear in the “Limits" section.
- This feature does not affect call forwarding. The CFT feature only applies after the system forwards a call to an idle station.
- The CFT is the last option for forwarded calls that do not receive an answer. Other features that aid call services have priority over CFT.

Advanced Intelligent Network

An advanced intelligent network (AIN) trigger starts the CFT feature for a forwarded call. The AIN trigger starts the CFT if the limits referred to earlier

Call Forward Timed (continued)

do not apply. A call that an AIN trigger directs to a line with CFT also starts the CFT feature. The CFT starts because the DMS forwarding features do not record AIN redirection as a type of forwarding.

Call Forward

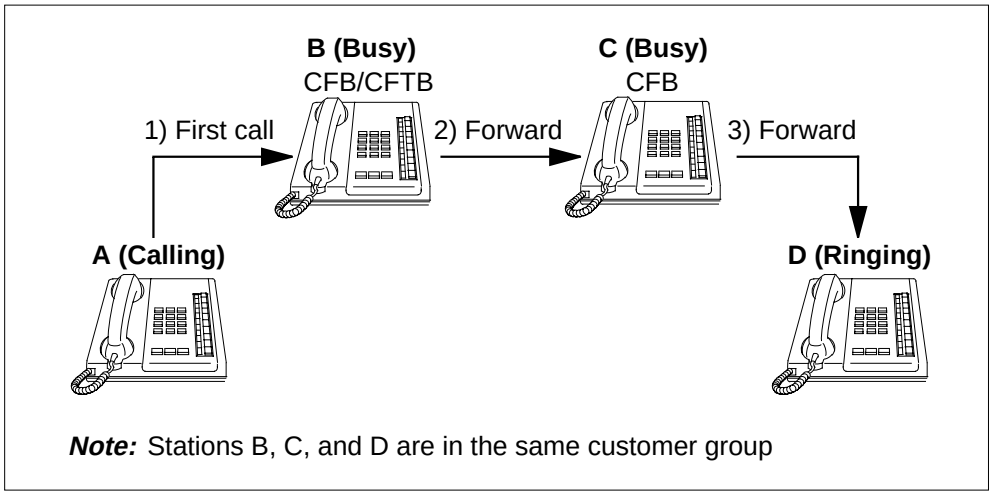
If the forward-to station has the CFD feature assigned, the CFT feature has priority over the CFD feature. This condition applies if the CFT time-out period is less than or equal to the CFD time-out period of the forward-to station. In all other conditions, the CFD feature has priority and the system cancels the CFT feature.

Call Forwarding chain

The CFT starts when the system first forwards a call. In a CF chain, the first CF base station can start the CFT feature. A CF chain is a series of CF base stations forwarded from one station to the next station.

The announcement that the CFT feature provides, applies to the station with CFT. This condition limits the CFT to the first CF base station. If CFT starts for the second station, the caller can assume the CFT applies to the first station in the chain. An example of how the CFT works in a call forwarding chain appears in Figure CF chain scenario where CFT is invoked..

CF chain scenario where CFT is invoked



Note: In the above condition, if station C has CFTB instead of B, CFT does not start.

Each leg of the CF chain must be an intragroup call for the CFT to start.

Call Waiting and Call Waiting Intragroup

The CFT starts if the system forwards a call to a busy line with the Call Waiting (CWT) and CWI options assigned.

Table OFCENG can contain Office Parameter POTS_SIMULATE_1A for the customer group. If this table contains this parameter, the system cannot forward the call to a busy line with CWT. The CFT starts if the base station has CFD. The call continues to ring on the base station after the CFD time-out period.

The CFT feature starts when the forward-to line has the following features assigned to the customer group:

- Call Forwarding of Call Waiting Calls (CFCW)
- the CWT
- the CWI
- the CFD

The CFT operates like the forward-to line is idle. The CFT has only the CFD assigned. See the CFT interaction with Call Forward section of this document.

Conference

The Conference (CNF) feature starts the CFT during the consult state. The system routes the consult call to treatment if the call does not receive an answer in the CFT time-out period. The CFT only interacts with the CNF feature during the consult phase. This condition occurs because the CNF feature does not allow conferencing of a consult call before the recipient answers the call.

Display features

Before the CFT time-out period ends, the CFT does not affect the display that appears on the set of the caller. After the time-out period ends, the system routes the call to treatment. The display must remain like the display that appears when the call rings the forward-to station.

Multiple Call Forwarding

If the customer group has Multiple Call Forwarding (MultiCFB/D) activate the CFT can start more than one time from the same CF station. The CFTs can run at the same time.

Overflow routes

Calls that arrive at a CF base station with the CFT feature by an overflow route start the CFT feature. These calls arrive from features like ACD, UCD and KSH. These calls start the CFT feature like direct calls to the CF base station

Call Forward Timed (continued)

start the CFT. The CFT feature does not start if the system forwards the call before the system routes the call to the overflow route. When the call forwards before the overflow route the CFT feature does not start.

Calls that forward to ACD, UCD, SLQ or a hunt group through an overflow route start the CFT feature. These calls start the CFT feature if the CFT limits do not apply to the calls. The CFT works the same way for a call that forwards over an ACD overflow route to a line as it does for a call that forwards directly to that line.

Recall features

If the transferred-to/extended-to station has call forwarding, the Call Transfer (CXR) Recall and the Attendant Console Recall features do not start. The CFT does not interact with these features.

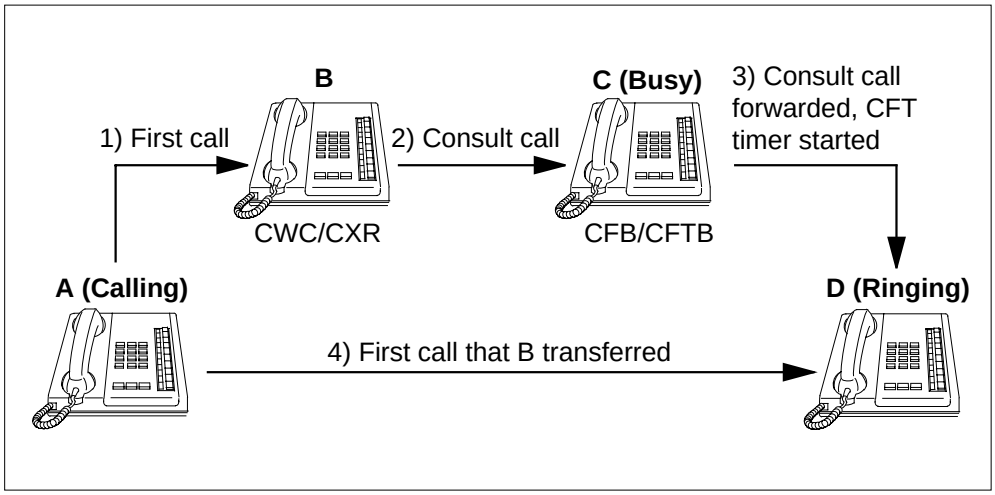
The Camp-On and Call Park Recall features start when the called station is busy. The CFT does not interact with these features.

Automatic Call Back (ACB) and Automatic Recall (AR) do not follow forwarded calls. The CFT does not interact with these features.

Three-way Calling and Call Transfer

Three-Way Calling (3WC) or CXR can start the CFT during the consult state. See steps 2 and 3 in figure Transfer after call is forwarded by CFB. The system does not cancel the CFT if the system transfers the call. See step 4 in figure Transfer after call is forwarded by CFB. The system routes telephone A to treatment if telephone D does not answer in the CFT time-out period. If telephone B does not transfer the call, the system routes the call to treatment. The system routes the call to treatment if telephone D does not answer in the CFT timeout-period. If telephone B conferences all parties together, telephones A and B can hear the treatment. Telephones A and B hear the treatment if telephone D does not answer in the CFT time limit.

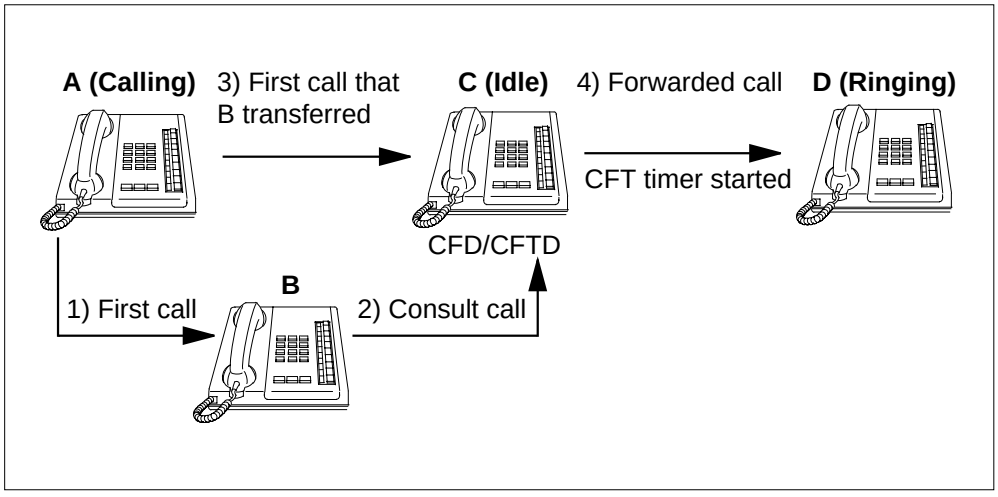
Transfer after call is forwarded by CFB



Note: This condition applies to the CFD feature if telephone C is idle and has features CFD and CFTD assigned.

When a call transfers to a station with the CFD feature before the CFD time-out period ends, the CFT feature starts. See step 3 in figure Transfer before the CFD forwards the consult call. The CFT starts when the system forwards the transferred call. See step 4 in figure Transfer before the CFD forwards the consult call. If the system transfers the call to telephone B, the CFT feature does not start. In this event, the feature does not start because the CFT only starts when the system first forwards the call. In figure Transfer after call is forwarded by CFD, the consult call is different than the first call. If the first call forwarded to telephone B, the CFT feature started.

Transfer before the CFD forwards the consult call



Call Forward Timed (continued)

Activation/deactivation by the end user

The Call Forward Timed does not require activation or deactivation by the end user.

Billing

The Call Forward Timed does not affect billing.

Station Message Detail Recording

The Call Forward Timed does not affect Station Message Detail Recording (SMDR).

Datafilling office parameters

The Call Forward Timed does not affect office parameters.

Datafill sequence

To assign announcements for the CFT, tables ANNS, DRAMS, and ANNMEMS require data entry and a recorded announcement. The subscriber can record announcements with the DRAM commands at the MAP terminal. For additional information, refer to the *Digital Recorded Announcement Machine DRAM and EDRAM Guide*.

The tables that require datafill to implement Call Forward Timed appear in the following table. Single-set lines use table IBNFEAT. The MBS lines use table KSETFEAT.

Note: Enter data in tables IBNFEAT and KSETFEAT through SERVORD. See “SERVORD" for an example of how to use SERVORD to enter data into these tables.

Datafill requirements for Call Forward Timed

Table	Purpose of table
IBNFEAT	IBN Line Feature. Line features assigned to the IBN lines in table IBNLINES appear in this table.
KSETFEAT	Business Set and Data-Unit Feature. Line features assigned to the business sets and data units (DU) in table KSETLINE appear in this table. The Meridian digital telephone sets and DUs listed in table IVDINV also appear in this table.

Tools for verifying translations

The Call Forward Timed does not use tools for verifying translations.

SERVORD

The operating company uses the ADO (add option) command to assign the CFT to a line. The operating company can add the CFTB or CFTD line option to a line. The operating company can also add a time-out period and a treatment for each line. The SERVORD stores this information in tables IBNFFEAT and KSETFEAT. The CFTB and CFTD line options work with compatible line options for CFB and CFD line options.

The operating company can change (CHF) and delete (DEO) the CFTB and CFTD line options. The QDN, QLEN or QLT commands can display the CFTB and CFTD line options.

SERVORD limits

The following SERVORD limits apply to Call Forward Timed:

- a RES or POTS line cannot have CFT assigned
- a data unit cannot have CFT assigned
- only lines with CFB assigned can have the CFTB added
- only lines with CFD assigned can have the CFTD added

SERVORD prompts

The SERVORD prompts that assign Call Forward Timed to an MDC line with CFB or CFD appear in the following table.

Note: When SERVORD assigns CFTB and CFTD, the system automatically updates tables IBNFEAT and KSETFEAT.

SERVORD prompts for Call Forward Timed (Sheet 1 of 2)

Prompt	Valid input	Explanation
DN_OR_LEN	numeric	Indicates the DN or line equipment number (LEN) of the line.
OPTION	CFTB or CFTD	Indicates the option to add. Enter CFBT if the line has CFB. Enter CFTD if the line has CFD.
TIMEOUT_VAL	12 to 60	Time-out value that states how long the call rings before the system routes the call to treatment.

Call Forward Timed (end)

SERVORD prompts for Call Forward Timed (Sheet 2 of 2)

Prompt	Valid input	Explanation
TRMT_SEL	ANN or TONE	Select an announcement or a tone for treatment. If you select ANN, enter the ANN_CLLI. If you select TONE, enter the TONE_CHOICE.
ANN_CLLI	CLLI name	The common language local identifier (CLLI) name in table ANNS.
TONE_CHOICE	BUSY or REORDER	Selection of a busy or reorder tone.

SERVORD example for adding Call Forward Timed

How the ADO command adds Call Forward Timed to a line appears in the following SERVORD example.

SERVORD example for Call Forward Timed in prompt mode

```
SO:
> ADO
SONUMBER:   NOW 96 3 27 AM
>
DN_OR_LEN:
> 2463002
OPTION:
> CFTB
TIMEOUT_VAL:
> 30
TRMT_SEL:
> ANN
ANN_CLLI:
> CFTB_ANN
OPTION:
> $
```

SERVORD example for Call Forward Timed in no-prompt mode

```
> ADO $ 2463002  CFTB  30  ANN  CFTB_ANN  $
```

Call Forwarding of Call Waiting Calls

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS31 and later versions. Modified for NA017 (LET0017).

Requirements

To operate, the Call Forwarding of Call Waiting Calls feature has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The Call Forwarding of Call Waiting Calls feature allows the system to forward call waiting calls. The system forwards calls if the called party does not answer in a specified time frame. This feature can be assigned to MDC and Subscriber Services customer groups. The end user must have the Call Waiting (CWT) and Call Forward Don't Answer (CFD) features on a line for this feature to work.

Operation

This feature creates customer group option CFCW. If option CFCW is assigned to the customer group, every end user in a customer group can allow call waiting calls to forward. These end users must have the CWT and CFD features. The system forwards the calls to another line after a time-out period.

Definition of the time-out period occurs through the current CFD timers. The CFD timers are CFDATIM in Table CUSTSTN (Customer Group Station Option) for customer group. The CFD timers are CFDVT in Tables IBNFEAT (IBN Line Feature) and KSETFEAT (Business Set and Data Unit Feature) for separate lines. The end user must answer a call waiting call before the timer expires. If the end user does not answer the call in time the system forwards the call according to the CFD feature.

Several differences of the CWT and CFD features are available. The operation and limits that apply to the CWT and CFD features apply to the Call Forwarding of Call Waiting Calls feature. For example, if a line has option CWT, and does not have option CWI, the system call waits the intergroup calls.

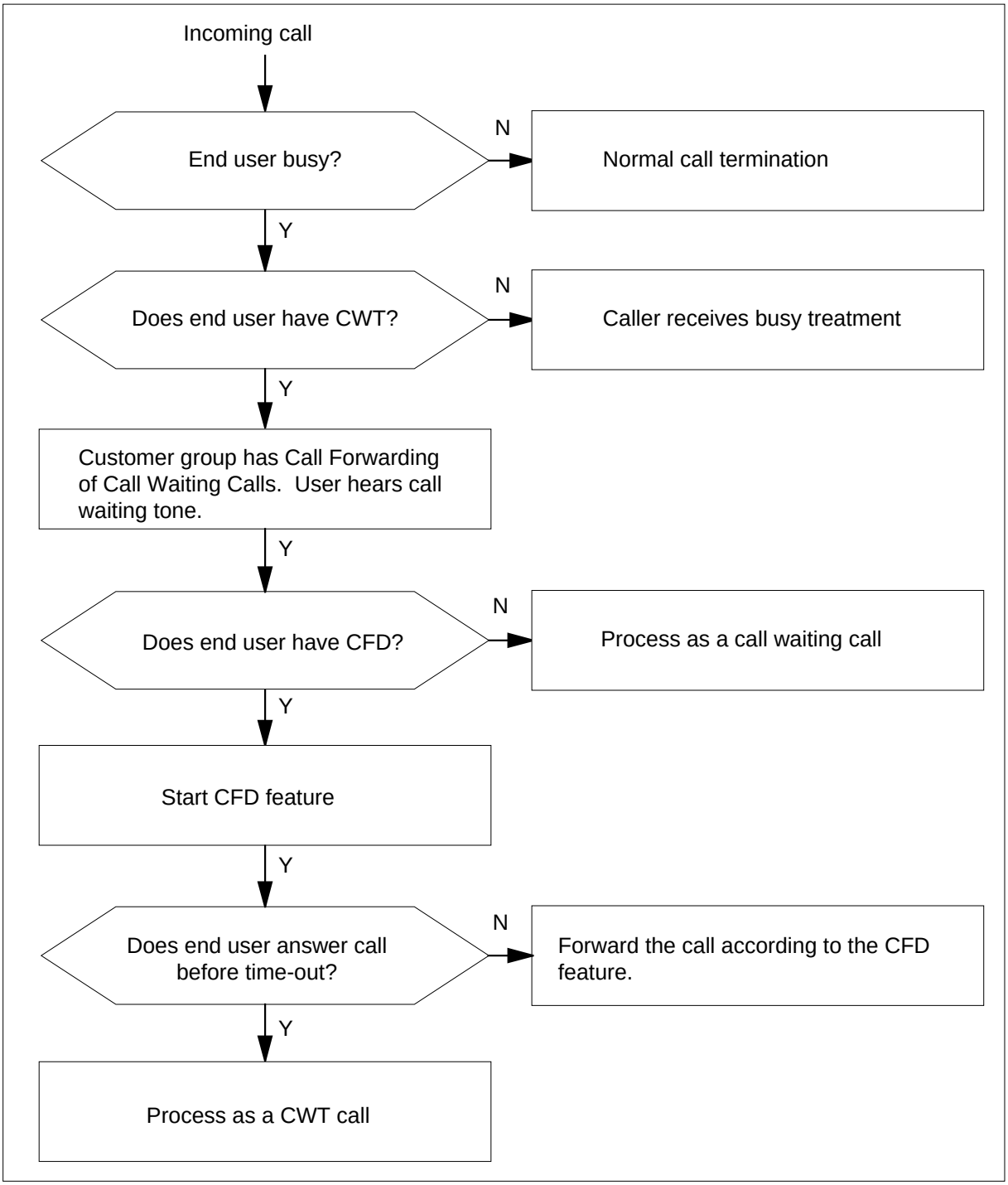
Call Forwarding of Call Waiting Calls (continued)

Feature operation flow

The operation of the Call Forwarding of Call Waiting Calls feature appears in the following figure.

Call Forwarding of Call Waiting Calls (continued)

Call Forwarding of Call Waiting Calls operation flow



Call Forwarding of Call Waiting Calls (continued)

Translations table flow

Descriptions of the Call Forwarding of Call Waiting Calls translations tables appear in the following list:

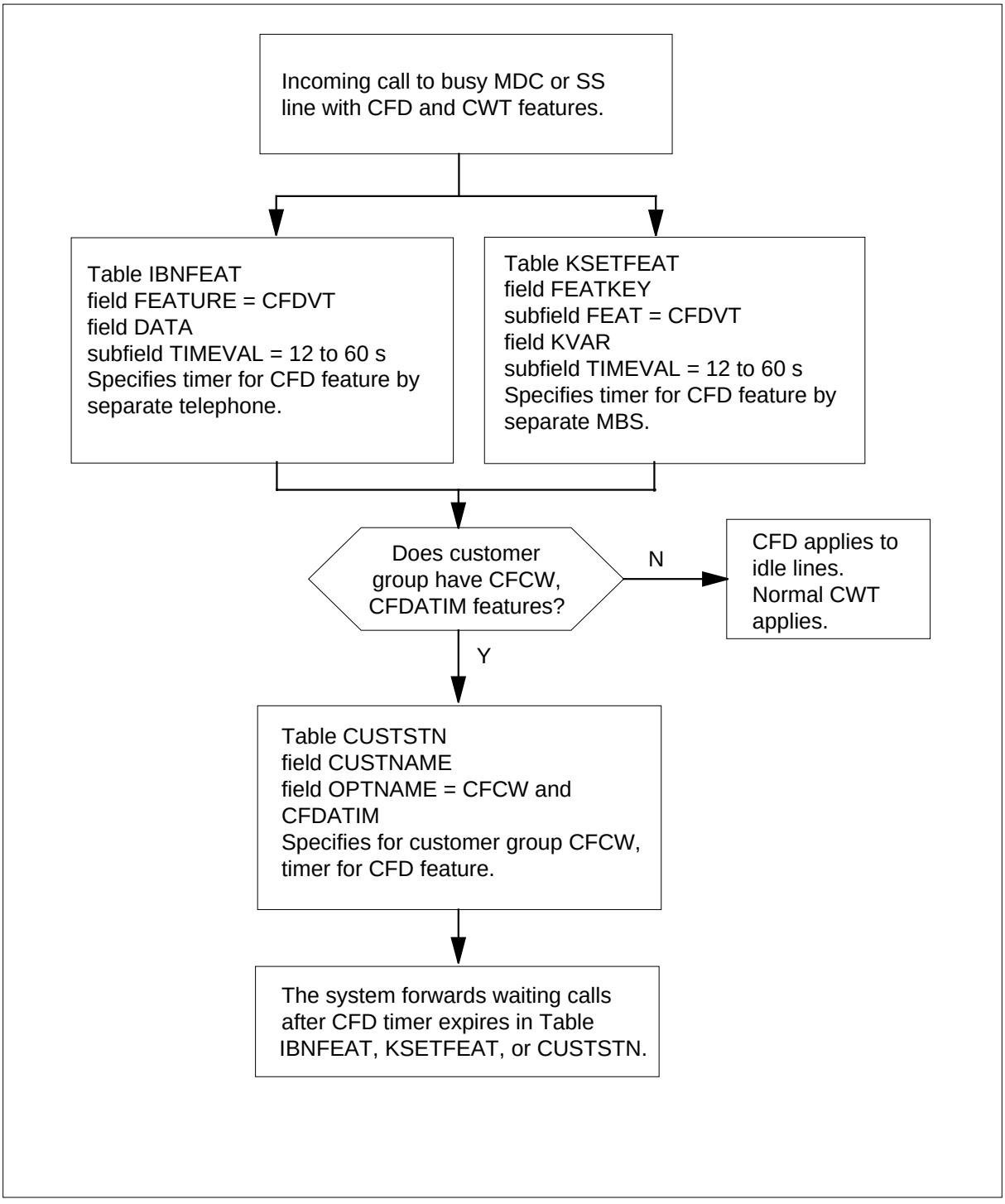
- Table IBNFEAT provides the Call Forward Don't Answer Variable Timer (CFDVT) feature assignment. This table provides CFDVT feature assignment for separate single-line telephones in a customer group. Assignment of this feature occurs through the Service Order System (SERVORD). Field FEATURE identifies the CFDVT feature. The time-out value in subfield TIMEVAL is 12 s to 60 s. For the Call Forwarding of Call Waiting Calls feature, the end user must answer a call waiting call before timer expiration. If the end user does not answer a call waiting call before the timer expires, the system forwards the call. The system forwards the call according to the CFD feature.
- Table KSETFEAT provides the CFDVT feature assignment for MBSs in a customer group. Assignment of this feature occurs through SERVORD. Field FEATKEY identifies the CFDVT feature. The time-out value in subfield TIMEVAL is 12 s to 60 s. For the Call Forwarding of Call Waiting Calls feature, the end user must answer a call waiting call before timer expiration. If the end user does not answer a call waiting call before the timer expires, the system forwards the call. The system forwards the call according to the CFD feature.
- Table CUSTSTN provides the Call Forwarding of Call Waiting Calls and Call Forward Don't Answer Timeout (CFDATIM) feature assignment. This table provides CFDATIM feature assignment for telephones for each customer group. Customer group (field CUSTNAME) in field OPTNAME identifies the Call Forwarding of Call Waiting Calls and CFDATIM features. The time-out value in subfield CFDATO is 12 s to 60 s. For the Call Forwarding of Call Waiting Calls feature, the end user must answer a call waiting call before timer expiration. If the end user does not answer a call waiting call before the timer expires, the system forwards the call. The system forwards the call according to the CFD feature.

  Note: The timer for the CFDVT feature in tables IBNFEAT and KSETFEAT has priority over the customer group timer that Table CUSTSTN specifies.

The Call Forwarding of Call Waiting Calls translation process appears in the following flowchart.

Call Forwarding of Call Waiting Calls (continued)

Table flow for Call Forwarding of Call Waiting Calls



Call Forwarding of Call Waiting Calls (continued)

The datafill content of the flowchart appears in the following table.

Datafill example for Call Forwarding of Call Waiting Calls

Datafill table	Example data
IBNFEAT	HOST 00 0 00 01 0 CFDVT CFDVT 20
KSETFEAT	HOST 00 0 00 23 2 CFDVT CFDVT 20
CUSTSTN	MDCGRP1 CFCW CFDATIM 20

Limits

The following limits apply to the Call Forwarding of Call Waiting Calls feature:

- This feature can be assigned to MDC and SS customer groups. This feature does not apply to plain old telephone service (POTS) lines.
- For this feature to work, the end user must have the CWT and CFD features. These features must be active on the line of the end user. The end user must have option CFCW for the customer group of the end user.
- The caller can wait one call at a time. If other features are active, the system does not give busy treatment to subsequent incoming calls.
- Several differences of the CWT and CFD features are available. The operation and limits that apply to the CWT and CFD features also apply to Call Forwarding of Call Waiting. For example, if a line has option CWT and does not have option CWI, call waiting applies only to intergroup calls.
- The Call Forwarding of Call Waiting feature does not forward calls that originate or extend from an attendant console.
- The Call Forwarding of Call Waiting feature does not forward calls placed to the pilot number of a directory number hunt group.

Interactions

Descriptions of the interactions between the Call Forwarding of Call Waiting Calls feature and other functionalities appear in the following paragraphs.

Call Forward Busy

The CFD feature has priority over the Call Forward Busy (CFB) feature. The system provides CWT treatment to an incoming call to a busy CFCW line, with CWT, CFD and CFB active. This incoming call starts the CFD functionality of CFCW. The system provides CFB treatment to subsequent calls.

Call Forward Universal and Call Forward Intragroup

The Call Forward Universal (CFU) and Call Forward Intragroup (CFI) features have priority over other call forwarding features. These other features include the Call Forwarding of Call Waiting feature.

Distinctive Call Waiting Ringback

The Distinctive Call Waiting Ringback (CWR) feature allows callers to hear distinctive ringback during call waiting. If the CFD timer expires and the system transfers the caller to another station, the caller hears normal ringback.

Activation/deactivation by the end user

The Call Forwarding of Call Waiting Calls feature does not require activation or deactivation by the end user.

Billing

The Call Forwarding of Call Waiting Calls feature does not affect billing.

Station Message Detail Recording

The Call Forwarding of Call Waiting Calls feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Call Forwarding of Call Waiting Calls feature does not affect office parameters.

Datafill sequence

The tables that require datafill to implement the Call Forwarding of Call Waiting Calls feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Call Forwarding of Call Waiting Calls

Table	Purpose of table
CUSTSTN	Customer Group Station Option. This table defines the options assigned to a customer group.

Datafilling table CUSTSTN

Table CUSTSTN defines the options assigned to a customer group. Enter data in this table to assign the Call Forwarding of Call Waiting Calls feature to the customer group.

Call Forwarding of Call Waiting Calls (continued)

Datafill for the Call Forwarding of Call Waiting Calls feature for table CUSTSTN appears in the following table. This table includes the addition of option CFCW and option CFDATIM. The fields that apply to the Call Forwarding of Call Waiting Calls feature appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTSTN

Field	Subfield or refinement	Entry	Description
CUSTNAME		name of the customer group	Customer Group Name This field specifies the customer group name. Enter the name of the customer group.
OPTNAME		CFCW	Option Name This field specifies the options assigned to the customer group. Enter CFCW to assign the Call Forward Call Waiting option.
OPTION		CFCW	Option This field specifies the option you must assign. Enter CFCW.
Note: You can assign option CFCW to a customer group. In this occurrence, each line in the group that has the CWT and CFD features receives Call Forwarding of Call Waiting Calls.			

Datafill example for table CUSTSTN with option CFCW

Sample datafill for table CUSTSTN appear in the following example.

MAP example for table CUSTSTN with option CFCW

```
CUSTNAME   OPTNAME      OPTION
-------------------------------------------------------------
MDCGRP1    CFCW         CFCW  12 N  AUDIO1 5 5 N
```

Datafilling table CUSTSTN

Field	Subfield or refinement	Entry	Description
CUSTNAME		name of the customer group	Customer Group Name This field specifies the customer group name. Enter the name of the customer group.
OPTNAME		CFDATIM	Option Name This field specifies the options assigned the customer group. Enter CFDATIM to assign the call forward call waiting option.
OPTION		CFDATIM	Option This field specifies the option you must assign. Enter CFDATIM.
	CFDATO	12 to 60 s	This subfield specifies the timeout increase for the feature. Enter a value from 12 to 60 s.

Datafill example for table CUSTSTN with option CFDATIM

Sample datafill for table CUSTSTN appear in the following example.

MAP example for table CUSTSTN

```
  CUSTNAME   OPTNAME     OPTION
-------------------------------------------------------------
MDCGRP1     CFDATIM     CFDATIM      20
```

Tools for verifying translations

The Call Forwarding of Call Waiting Calls feature does not use tools for verifying translations.

SERVORD

The Call Forwarding of Call Waiting Calls feature does not use SERVORD.

Call Request Call Processing Enhancements

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS29 and later versions

Requirements

To operate, the Call Request Call Processing Enhancements feature has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The Call Request Call Processing Enhancements feature allows end users to leave messages on a Meridian business set (MBS) with display during a cold restart. The system now maintains messages that the system earlier deleted. The system deleted these messages after the introduction of a new BCS load or when a cold restart occurs. The Call Request Call Processing Enhancements feature enhances the following features to allow the messages to be left on the station of an end user:

- Station Message Waiting
- Attendant Message Waiting
- Electronic Business Set as a Message Center
- Voice Message Exchange (VMX)
- Simplified Message Desk Interface (SMDI)

Note: In this document, Station Message Waiting, Attendant Message Waiting, and Electronic Business Set as a Message Center are message waiting (MWT) features.

The Call Request Call Processing Enhancements feature allows the MWT features to maintain messages in queue. The system leaves these messages against a station of an end user during a BCS upgrade or cold restart. This feature allows VMX and SMDI to maintain messages during a cold restart. The VMX and SMDI cannot maintain messages during a BCS upgrade.

Call Request Call Processing Enhancements (continued)

Operation

The MWT, VMX, and SMDI features use feature queuing (FTRQ) blocks. These features use the FTRQ blocks to maintain the messages that the system queues against the station of an end user. Before Call Request Call Processing Enhancements, the system did not maintain these blocks over cold restarts or BCS upgrades. This limit caused the deletion of the messages. To maintain messages over cold restarts and BCS upgrades, the Call Request Call Processing Enhancements feature creates a new set of FTRQ blocks. These new FTRQ blocks provide the same functions as the current blocks. These blocks also provide and maintain additional data. This data permits the FTRQ software to preserve the blocks over cold restarts and BCS upgrades.

During a cold restart, the system initializes current FTRQ blocks again according to the original specification. The system queues the new FTRQ blocks again on the appropriate agent. The system creates the FTRQ structure again. The system makes sure that possible corruptions of the queue do not occur again after the cold restart.

A BCS upgrade requires the replacement of the current BCS software system with a new BCS load. The central control (CC) switch of activity (SWACT) command controls the process. In the SWACT process, the system transfers the new FTRQ blocks to the new BCS side from the old BCS side. The system queues the blocks on the correct agent. From the beginning of the CC SWACT process to the end of the restart, the system disables the MWT features. The system disables the MWT features so that the data is not corrupted. The data can become corrupt when the system transfers the data from the active side to the inactive side.

Translations table flow

The Call Request Call Processing Enhancements feature does not affect translations table flow.

Limits

The following limits apply to the Call Request Call Processing Enhancements feature:

- The Call Request Call Processing Enhancements feature maintains FTRQ blocks on upgrades from BCS29 and later versions.
- The Call Request Call Processing Enhancements feature does not support retrogrades from a higher BCS to a lower BCS.
- The Call Request Call Processing Enhancements feature allows the MWT, VMX, and SMDI features to maintain messages during a cold restart. The

Call Request Call Processing Enhancements (end)

feature does not allow these features to maintain messages during a reload restart.

- The system maintains messages that the MWT, VMX, and SMDI features leave during cold restarts. The system maintains only MWT messages during BCS upgrades. The system does not disable voice messages. The system loses MWT indication.
- In a BCS upgrade, the system disables the MWT, VMX, and SMDI features. The system disables these features when the SWACT sequence starts but the system does not stop call processing.

Interactions

The Call Request Call Processing Enhancements feature does not have functionality interactions.

Activation/deactivation by the end user

The Call Request Call Processing Enhancements feature does not require activation or deactivation by the end user.

Billing

The Call Request Call Processing Enhancements feature does not affect billing.

Station Message Detail Recording

The Call Request Call Processing Enhancements feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Call Request Call Processing Enhancements feature does not affect office parameters.

Datafill sequence

The Call Request Call Processing Enhancements feature does not affect datafill.

Tools for verifying translations

The Call Request Call Processing Enhancements feature does not use tools for verifying translations.

SERVORD

The Call Request Call Processing Enhancements feature does not use SERVORD.

Call Request Retrieve/Key Short Hunt Interaction Control

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS31 and later versions

Requirements

To operate, Call Request Retrieve/Key Short Hunt Interaction Control has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The NSS DT Immediate is a customer group option. This option allows the operating company to control the interaction of the Call Request Retrieve (CRR) feature with the Keyset Short Hunt (KSH) feature.

The CRR feature allows the system to return calls to calling parties that queued call back requests against a busy station. Calling parties queue requests against a station through a call request activation (CRA) code.

The KSH feature allows incoming calls to search a Meridian business set (MBS) for an idle line if the original called directory number (DN) is busy.

Before the NSS DT Immediate feature, a CRR call to a busy DN with the KSH feature initiated a keyset short hunt. With the NSS DT Immediate feature, the customer group can designate the KSH feature that the system must disable for CRR calls. This feature does not affect on-CRR calls.

Operation

The called party returns call back request calls. To return these calls, the called back party activates the CRR feature and enters a CRA code. The system places the calls in the queue in first in, first out (FIFO) order.

Calls to a busy line can activate the KSH feature. Datafill determines if a busy line activates the KSH feature. If table Customer Group Station Option (CUSTSTN) contains CRRNOKSH, a CRR call to a busy line receives a busy signal. These calls do not hunt for an idle line. If option CRRNOKSH is not entered, a CRR call to a busy DN in an MBS activates the KSH feature. The CRR call follows the hunting sequence. If the system exhausts the hunt list and

Call Request Retrieve/Key Short Hunt Interaction Control (continued)

does not find an idle DN, the CRR call receives busy treatment. The CRR call receives busy treatment even while an overflow DN is specified and the overflow DN is idle.

Translations table flow

The NSS DT Immediate feature does not affect translations table flow.

Limits

The following limits apply to the Call Request Retrieve/Key Short Hunt Interaction Control feature:

- When the assignment of the NSS DT Immediate feature to a customer group occurs, CRR calls do not follow the hunting sequence. The KSH feature defines the hunting sequence.
- When the NSS DT Immediate feature is not assigned to a customer group, CRR calls follow the hunting sequence. The KSH feature defines the hunting sequence.
- When hunting is acceptable, and the system exhausts the hunt and does not find an idle DN, the CRR call receives busy treatment. The call receives the treatment even while an overflow DN for the KSH group is specified and the overflow DN is idle.
- The NSS DT Immediate feature affects CRR calls that terminate on an MBS with KSH. This feature does not affect other calls.

Interactions

Descriptions of the interactions between the Call Request Retrieve/Key Short Hunt Interaction Control features and other functionalities appear in the following paragraphs.

- Call Forward Busy. The KSH has priority over Call Forward Busy (CFB). The system passes over a busy DN in an MBS, even if the activation the CFB feature for that DN occurs.
- Call Forward Don't Answer. If a DN in an MBS has Call Forward Don't Answer (CFD) active and that DN is the next idle DN, the system forwards CRR calls. These CRR calls terminate on that DN. The system forwards the calls after the specified number of rings. This process occurs if the timer does not expire.
- Call Forward Universal, Call Forward Intragroup. The CRR calls follow the forwarding of the assigned Call Forwarding feature. The CRR calls follow this forwarding of this feature if the CRR CFW value is ALL or DISPLAY. The CRR CFW value is set for the MWT feature assigned to the MBS that makes the call request.

Call Request Retrieve/Key Short Hunt Interaction Control (continued)

- Call Waiting. The system does not queue CRR calls for CWT. The CRR calls receive busy treatment.
- Do Not Disturb. The CRR calls to a DN that has Do Not Disturb (DND) active receive busy treatment.
- Make Set Busy. The CRR calls to a DN that has Make Set Busy (MSB) active receive busy treatment.
- MSB as Message Center. The NSS DT Immediate does not have an effect if a station with the MSB as Message Center (MC) feature places the call back request. For these CRR calls, the system always initiates a keyset short hunt when the primary DN is busy.
- Multiple Appearance Directory Number. If a line in an MBS is a multiple appearance directory number (MADN) line, a CRR call can terminate on the primary MADN line. The primary MADN member answers the call. This restriction applies to MADN single-call arrangement (SCA) and multiple-call arrangement (MCA).

Activation/deactivation by the end user

The Call Request Retrieve/Key Short Hunt Interaction Control feature does not require activation or deactivation by the end user.

Billing

The Call Request Retrieve/Key Short Hunt Interaction Control feature does not affect billing.

Station Message Detail Recording

The Call Request Retrieve/Key Short Hunt Interaction Control feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Call Request Retrieve/Key Short Hunt Interaction Control feature does not affect office parameters.

Call Request Retrieve/Key Short Hunt Interaction Control (continued)

Datafill sequence

The tables that require datafill to implement the Call Request Retrieve/Key Short Hunt Interaction Control feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Call Request Retrieve/Key Short Hunt Interaction Control

Table	Purpose of table
CUSTSTN	Customer Group Station Option Table. A switching unit with North American translations and the Integrated Business Network (IBN) or the Residential Enhanced Services (RES) requires this table.

Datafilling table CUSTSTN

You can enter customer group option CRRNOKSH in table Customer Group Station Option (CUSTSTN). This option provides the ability to control the interaction between CRR and KSH. If you enter CRRNOKSH in fields OPTNAME and OPTION, the KSH feature is not active for CRR calls. The CRR calls to a busy line receive busy treatment. If you do not enter CRRNOKSH in fields OPTNAME and OPTION, the KSH feature is active for CRR calls. The CRR calls to a busy line hunt for an idle DN on the MBS.

Datafill for the Call Request Retrieve/Key Short Hunt Interaction Control feature for table CUSTSTN appear in the following table. The fields that apply to the Call Request Retrieve/Key Short Hunt Interaction Control feature appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTSTN

Field	Subfield or refinement	Entry	Description
CUSTNAME			Customer Group Name. This field specifies the customer group name assigned to an MBS. Enter a 1-character to 16-character name.
OPTNAME			Option Name. This field specifies the option name. Enter CRRNOKSH to suppress the KSH feature on CRR calls.
OPTION			Option. This field specifies the name of the option. Enter CRRNOKSH to suppress the KSH feature on CRR calls.

Call Request Retrieve/Key Short Hunt Interaction Control (end)

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

MAP example for table CUSTSTN

```
TABLE: CUSTSTN
CUSTNAME        OPTNAME         OPTION
_____________________________________________________________________
MDCGRP1         CRRNOKSH        CRRNOKSH
```

Tools for verifying translations

The Call Request Retrieve/Key Short Hunt Interaction Control feature does not use tools for verifying translations.

SERVORD

The Call Request Retrieve/Key Short Hunt Interaction Control feature does not use SERVORD.

Call Waiting 1a Transparency Issues

Functionality code

MDC00003

Release applicability

TL03 and later versions

The Call Waiting 1a Transparency Issues was introduced in BCS32.

Requirements

To operate on POTS lines, Call Waiting 1a Transparency Issues requires the BAS Generic functional group.

To operate on the following types of lines, Call Waiting 1a Transparency Issues requires the MDC MDC Minimum functional group:

- Meridian Digital Centrex (MDC)
- Residential Enhanced Services (RES)

Description

This functionality is one of many functionalities that give the DMS-100 switch the ability to act as a 1AESS. This functionality affects the interaction of call waiting (CWT) and call forwarding don't answer options. Examples of these options are CFDA for POTS and RES, CFD for MDC.

The DMS-100 switch that does not have this functionality. The CFDA or CFD option has the following ability. The switch can forward an unanswered call to a busy remote switch if the remote switch has the CWT option. The 1AESS cannot perform this action.

Call Waiting 1a Transparency Issues provides the ability to stop the DMS-100 switch from forwarding to a busy remote with CWT. This ability imitates the 1AESS. This functionality allows the addition of CWT to the pilot of a multiple line hunt (MLH) group.

Operation

CFDA or CFD and CWT interaction

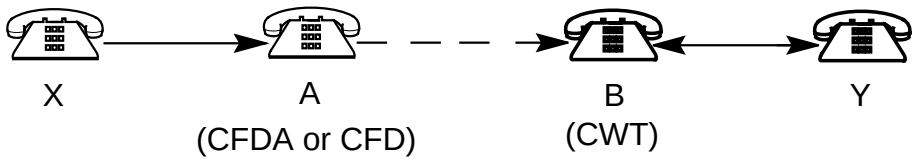
For POTS lines, this functionality creates the parameter POTS_SIMULATE_1A in table OFCVAR. This parameter contains a single boolean field. When the field setting is Y, the DMS-100 switch behaves like a 1AESS. The switch does not forward unanswered calls to a busy remote switch. With the field setting at the default value of N, the DMS-100 switch

Call Waiting 1a Transparency Issues (continued)

allows the system to forward unanswered calls. The system forwards these calls to a busy remote switch with the CWT option.

For MDC and RES lines, a new customer group option serves to duplicate the 1AESS option. The group option SIM1A is part of table CUSTENG (customer engineering). This option added to the customer group causes specified lines in the group to have the 1AESS functionality interaction. All of the affected lines have the CFDA or CFD functionality. An example of functionality interactions differences between the DMS-100 switch and those of the 1AESS appears in the following figure.

CFDA or CFD and CWT call configuration



Station B is involved in a stable state call with Station Y (the stations are both busy). Station X places a call to Station A which has the option CFDA or CFD. Station A does not provide an answer.

DMS-100 switch interaction – The call forwards to Station B and is handled according to the active functionalities in Station B. In this occurrence, CWT.

1AESS interaction – The call is not forwarded to Station B. Station A continues to ring.

MLH and CWT interaction

This functionality allows the pilot of an MLH group to have a CWT added. With the addition of the CWT to the pilot, the last member in the group receives the CWT tones. Without this option, callers to an all line busy group receive a busy tone.

The parameters POTS_SIMULATE_1A and SIM1A are part of the same functionality. These parameters do not affect this change to CWT.

Call Waiting 1a Transparency Issues (continued)

Translations table flow

The Call Waiting 1a Transparency Issues functionality does not affect translations tables.

Limits

The following limits apply to Call Waiting 1a Transparency Issues.

CFDA or CFD and CWT interaction

This functionality allows the operating company to determine if the interaction lines with the CFDA or CFD option have. The interactions can be the DMS-100 switch interaction or the 1AESS interaction. The operating company can prevent the DMS-100 switch from forwarding unanswered calls to a remote switch with call waiting. The ability applies to calls forwarded in the same switch only.

The POTS lines allow the parameter in table OFCVAR to have a Y setting. In this event, all POTS lines having the option CFDA or CFD have the 1AESS functionality interaction. Assignment of this type of interaction does not occur line by line. You can separate a specified line, or group of lines, and configure the line to act in a different way. To perform this action you must place the line in a specified RES group. This RES group does not have the customer group option set for 1AESS interaction. This action is possible because the setting of the new parameter in table OFCVAR does not affect RES lines.

This functionality provides the ability to prevent the DMS-100 switch from forwarding unanswered calls to a remote switch with call waiting. This ability applies to MDC and RES lines. The addition of new group option SIM1A to a customer group causes specified lines in the group to have the 1AESS functionality interaction. All of the affected lines have the CFDA or CFD functionality. If the operation of a specified line must change, that line must migrate. The line must move into another MDC group without customer group option SIM1A.

This functionality affects all options that interact differently on the DMS-100 switch than on the 1AESS. Options on a line can behave like options on a DMS-100 switch. Options can behave like options on a 1AESS. This functionality provides the type of modification of which assignment cannot occur line by line.

MLH and CWT interaction

The pilot of a MLH group has call waiting added to the pilot of a MLH group. The functionality applies to the last member of the group. The datafill sequence in table HUNTMEM (hunt group member) determines the last member. Use the add option (ADO) command in SERVORD pilot to add

CWT to the pilot. The Establish (EST) and Add (ADD) command generate an error message. A member of the group cannot have CWT added.

The CWT can be active on the pilot of the group when all the members are busy. In this event, the next call generates a tone to the last member in accordance with the design of CWT. Following calls to the group receive a busy tone. The system can process one call through CWT at a time only.

Interactions

The interactions between Call Waiting 1a Transparency Issues and other functionalities appear in the following paragraphs.

CFDA or CFD and CWT interaction

This functionality only affects the interaction between CFDA or CFD and CWT. All other interactions and compatibilities with the CFDA or CFD functionality are maintained for POTS, MDC, and RES.

MLH and CWT interaction

The CWT interaction with Line Overflow to Route (LOR) and Line Overflow to Directory Number (LOD) are allowed. The LOR and LOD can be present with CWT. In this event, the first call to arrive after all the members of the group are busy activates CWT. Subsequent calls overflow according to the overflow option that is present.

If Make Set Busy (MSB) or remote make busy (RMB) is active on the last member of the hunt group, CWT is not applied. If Stop Hunt (SHU) is active on any member encountered before reaching the last member, CWT is not activated. This method activates or deactivates the CWT option on the group. The system does not generates output to indicate that these other options activated or deactivated CWT. The user must be aware of these interactions. Line failure or manually busying the last member negates CWT, but output does not indicate the negation.

Cancel Call Waiting (CCW) is not allowed. To allow CCW, the pilot must activate CCW after every call to the group.

If the MLH members have different directory numbers (DN) associated with the members, calls terminate directly to each member of the group. An example of each member of the group is Directory Number Hunt (DNH) groups. This condition allows the hunting to start from positions in the group other than the pilot. For CWT, the last member of the group receives the CWT tone if the functionality is present and active. The starting position of the hunting does not affect this condition. Table HUNTMEM indicates the last group member.

Call Waiting 1a Transparency Issues (continued)

Activation/deactivation by the end user

The Call Waiting 1a Transparency Issues does not require activation or deactivation by the end user.

Billing

The Call Waiting 1a Transparency Issues does not affect billing.

Datafilling office parameters

The Call Waiting 1a Transparency Issues does not affect office parameters. Note the affected tables.

CFDA or CFD and CWT interaction

For POTS lines, the system introduces parameter POTS_SIMULATE_1A to table OFCVAR. For MDC and RES lines, table CUSTENG changes to allow the assignment of the SIM1A option to a customer group.

MLH and CWT interaction

To accommodate the addition of CWT to MLH groups, table OPTOPT (options-options) changed to make CWT and MLH compatible. Other than this change, CWT retains normal interactions with other functionalities except for CFDA or CFD.

Datafill sequence

The Call Waiting 1a Transparency Issues does not affect datafill.

Tools for verifying translations

The Call Waiting 1a Transparency Issues does not use tools for verifying translations.

SERVORD

The Call Waiting 1a Transparency Issues does not affect the basic functioning of CFD, CFDA, and CWT. This functionality does affect the addition of CWT to hunt groups. The addition of CWT to the pilot of an established hunt group can occur only if this functionality is present.

Call Waiting 1a Transparency Issues (continued)

SERVORD limits

The following SERVORD limits apply to Call Waiting 1a Transparency Issues:

- If an attempt occurs to add CWT when establishing a hunt group, in this example MLH, the following error message appears:

```
USE ADO TO ASSIGN CWT TO MLH GROUP PILOT.
CWT                  DID NOT PASS CHECKING
***        ERROR - INCONSISTENT DATA       ***
```

- If an attempt occurs to add CWT to a member of a hunt group the following error message appears. The hunt group MLH appears in this example:

```
USE ADO TO ASSIGN CWT TO GROUP PILOT.
CWT               DID NOT PASS CHECKING
***      ERROR - INCONSISTENT DATA      ***
```

SERVORD prompts

The SERVORD prompt used to assign Call Waiting 1a Transparency Issues to a line appears in the following table.

SERVORD prompts for Call Waiting 1a Transparency Issues

Prompt	Correct input	Explanation
OPTION	CWT	Assigns CWT to a line.

SERVORD example for adding CWT to an established DNH group

You can use the ADO command to add CWT to an established Directory Number Hunt (DNH) group. This procedure appears in the following SERVORD example.

Call Waiting 1a Transparency Issues (end)

SERVORD example for adding CWT to a DNH group in prompt mode

```
>SERVORD
SO:
> ADO
SONUMBER:    NOW  90  3  9  AM
> (CR)
DN_OR_LEN:
> 6212011
OPTION:
> CWT
OPTION:
> $
COMMAND AS ENTERED:
ADO NOW 90 3 9 AM 6212011 (CWT) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
> Y
```

SERVORD example for adding CWT to a DNH group in no-prompt mode

```
> ADO $ 6212011 (CWT) $ Y
```

CFBL Inhibit Line Busy/Inhibit MB Enhancements

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS32 and later versions

Requirements

To operate, the CFBL Inhibit Line Busy/Inhibit MB Enhancements feature has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The CFBL Inhibit Line Busy/Inhibit MB Enhancements feature allows the assignment of line options make busy key (MBK), inhibit make busy (IMB), and inhibit line busy (ILB) to members of hunt groups. This feature package affects the Line Overflow to Directory Number (LOD) hunt group feature as LOD relates to MBK, ILB, and IMB.

Operation

Use the Service Order System (SERVORD) commands to assign options MBK, IMB, and ILB to hunt groups. Use the ADO command to add an option. Use the EST command to create a hunt or call pickup group. Use the ADD command to add a line to a hunt group.

Use the CFBL Inhibit Line Busy/Inhibit MB Enhancements feature to add MBK, IMB, and ILB to hunt groups. This feature interacts with the hunt group option LOD. The LOD specifies a directory number (DN) to which the system forwards incoming calls when every line in the group is busy.

The CFBL Inhibit Line Busy/Inhibit MB Enhancements feature modifies the operation of option LOD. This modification allows hunt groups to have options MBK/IMB or MBK/ILB. This modification applies to different types of hunt groups. The following paragraphs describe this modification.

Hunts in directory number hunt (DNH), bridged night number (BNN) hunt, and preferential hunt (PRH) groups start with the dialed DN. Hunts search through the group for an idle line. These hunt groups can have option CIR assigned. If the hunt groups have option (CIR) assigned, the DN dialed does not affect the hunt process.

CFBL Inhibit Line Busy/Inhibit MB Enhancements (continued)

The pilot in a multiline hunt (MLH) group has a group DN assigned. Hunts start with the pilot and move in sequence through the group until the hunt finds an idle line. With feature package NTXJ82AA, the MLH group members can have different DNs and the group can have the CIR option assigned.

The pilot of a distributed line hunt (DLH) group has a group DN assigned. The system distributes the hunts over the group. Hunts start at the next idle line after the last completed call.

Note: Options MBK, IMB, and ILB interact on lines that are not part of a hunt group. These lines are lines with call forward busy or call forward busy line. Refer to the feature description, “Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy", for infomation on these interactions.

Make busy key (MBK) option

With option MBK, a hunt group member does not receive calls for a short time. Option MBK makes the line appear busy. An external key that operates a scan point circuit, indicates a busy state to the system. Option MBK does not affect the hunt pattern of the hunt group. Option MBK affects only attempts to terminate on a line with option MBK active. Option MBK works with hunt groups that have option LOD. See the following figure for a call flow diagram.

Inhibit make busy (IMB) option

Option IMB affects a hunt group if option MBK is present. Members of DNH, BNN, and PRH hunt groups can have option IMB assigned. Pilots of DLH and MLH hunt groups can have option IMB assigned. If a caller dials a hunt group member or pilot with options MBK and IMB assigned, the system hunts for another line. The system records the line as busy because MBK is active. The system records all lines in the group as busy and assigns the LOD option. Without IMB, the system sends the call to the overflow DN. With IMB, the system sends the call to a busy tone or end-user-treatment. See the following figure for a call flow diagram.

Inhibit line busy (ILB) option

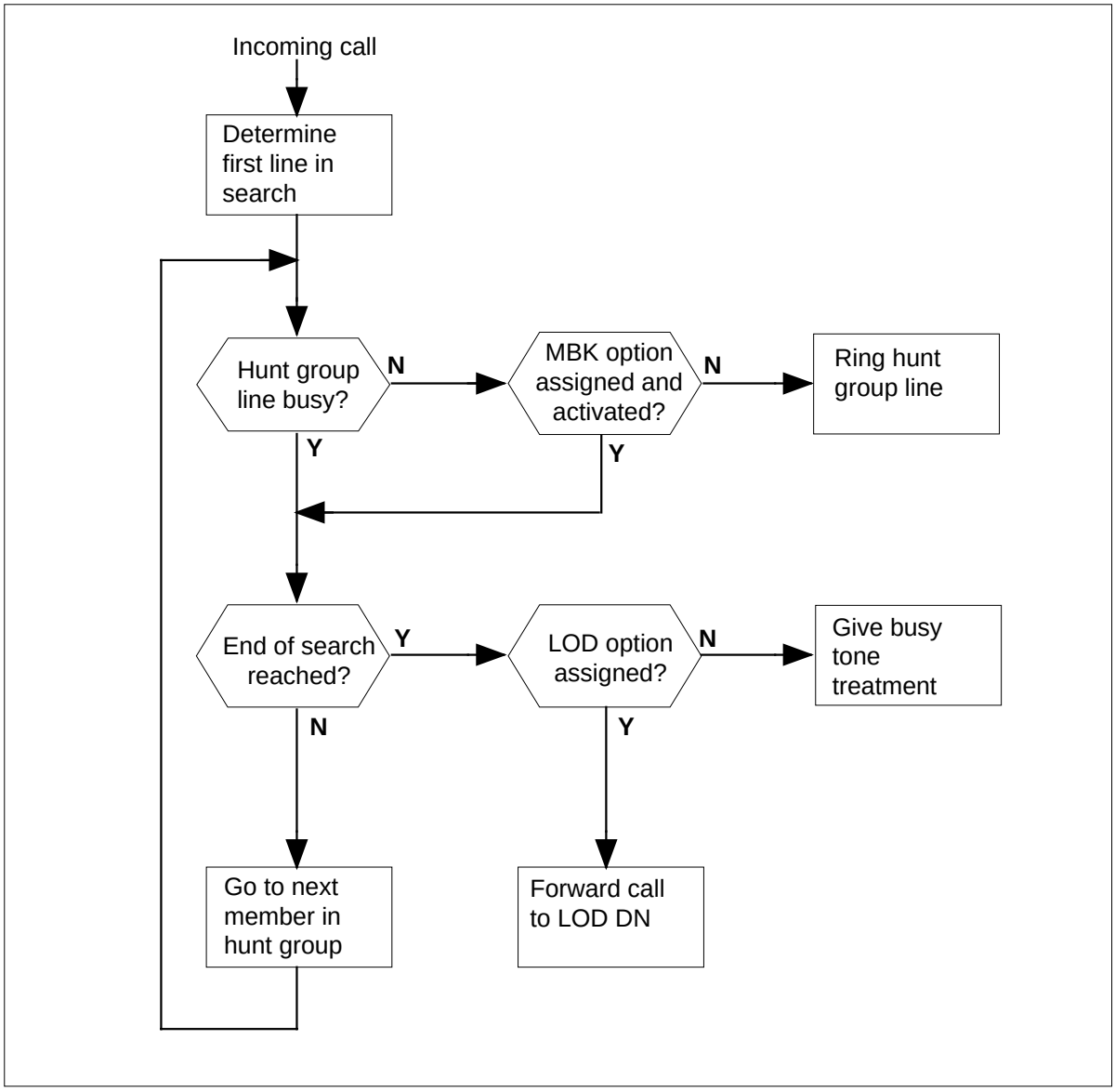
Add option ILB only when option MBK is present. Members of DNH, BNN and PRH hunt groups can have ILB assigned. Pilots of DLH and MLH hunt groups can have ILB assigned. If a caller dials a hunt group member or pilot with options MBK and ILB assigned, the system hunts for another line. The dialed line does not have MBK active but the member uses the telephone. The system records all lines in the group as busy and assigns the LOD option. With option LOD, the system sends the call to a busy tone or end user-defined treatment. The system performs this action when the line is busy. With option

CFBL Inhibit Line Busy/Inhibit MB Enhancements (continued)

ILB assigned and option MBK active, option LOD is active. See the following figure for a call-flow diagram.

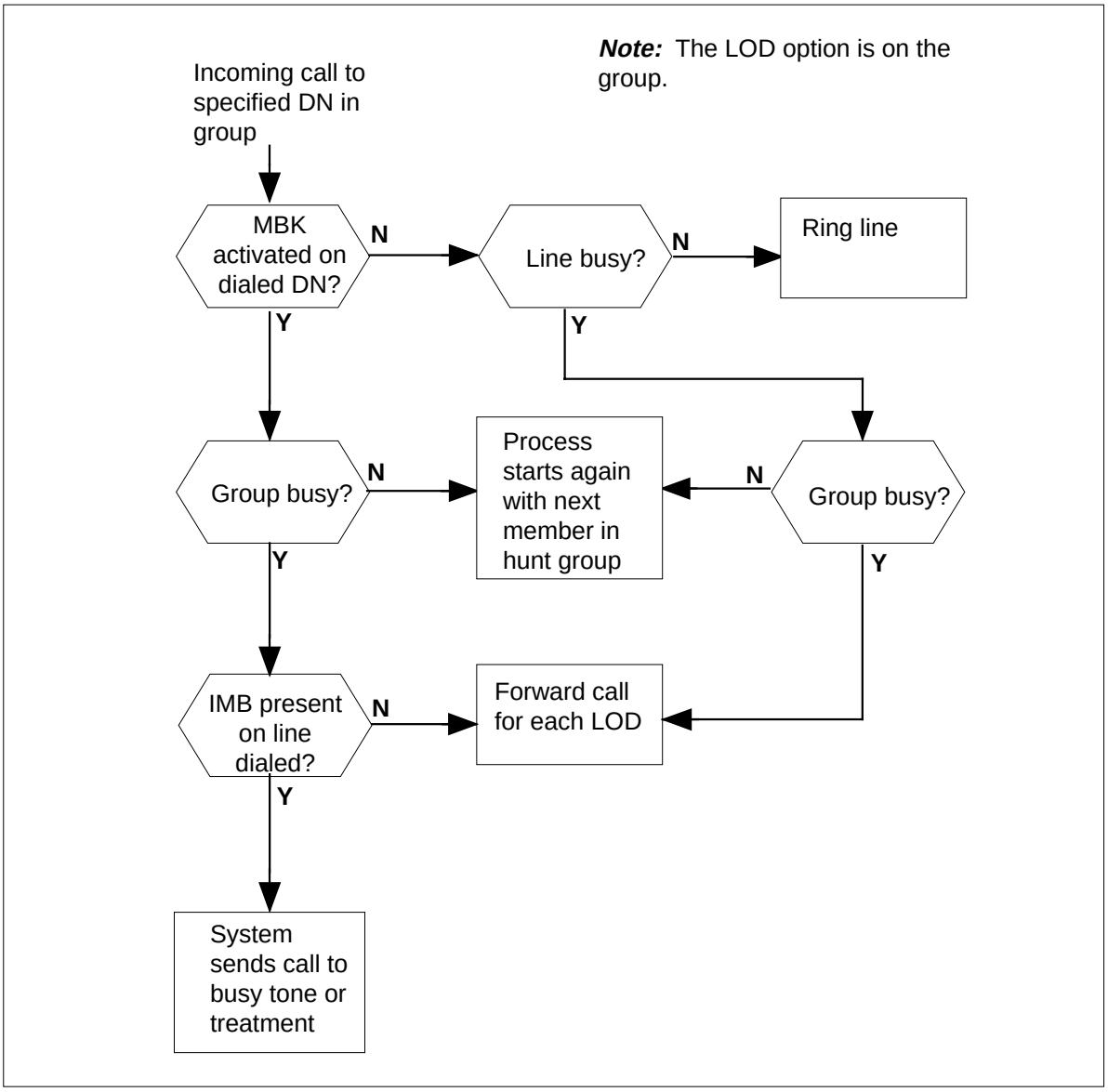
Note: For options IMB and ILB, the system applies line options of the dialed member of the hunt group. The system applies these options when each member of the hunt group is busy and the group has option LOD assigned.

Call flow example for option MBK



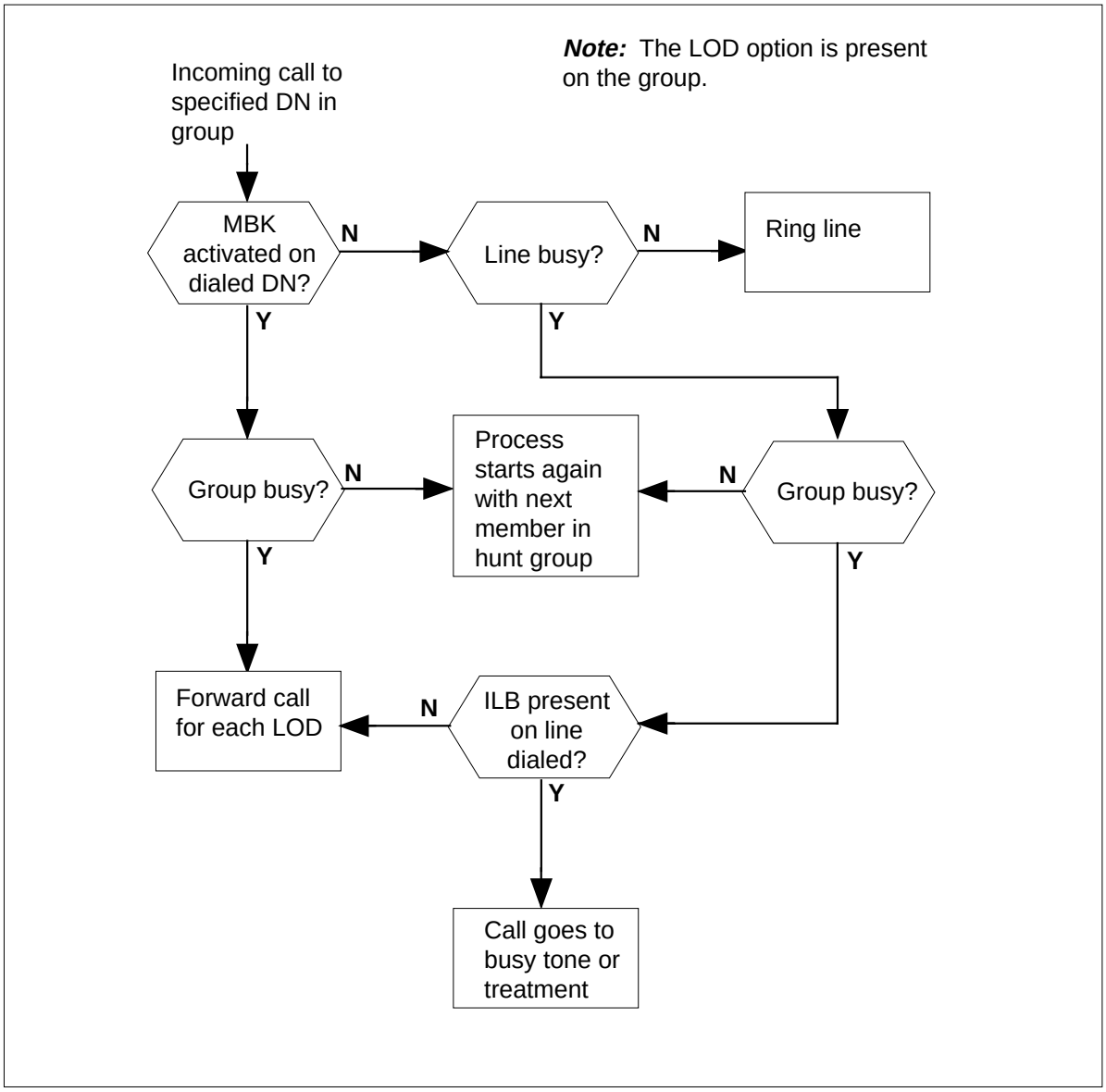
CFBL Inhibit Line Busy/Inhibit MB Enhancements (continued)

Call flow example for option IMB



CFBL Inhibit Line Busy/Inhibit MB Enhancements (continued)

Call flow example for option ILB



CFBL Inhibit Line Busy/Inhibit MB Enhancements (continued)

Translations table flow

Descriptions of the CFBL Inhibit Line Busy/Inhibit MB Enhancements translations tables appear in the following list:

- Table HUNTGRP (Hunt Group) contains the data for each hunt group in the DMS-100 switching unit. If the value of field LOD is Y, enter the DN to which the system routes the call in subfield LODDN.
- Table HUNTMEM (Hunt Group Member) lists the members that you assign to hunt groups in table HUNTGRP.

Descriptions of the translation process for the MBK. IMB, and ILB line options appear in the following paragraphs.

Make Busy Key

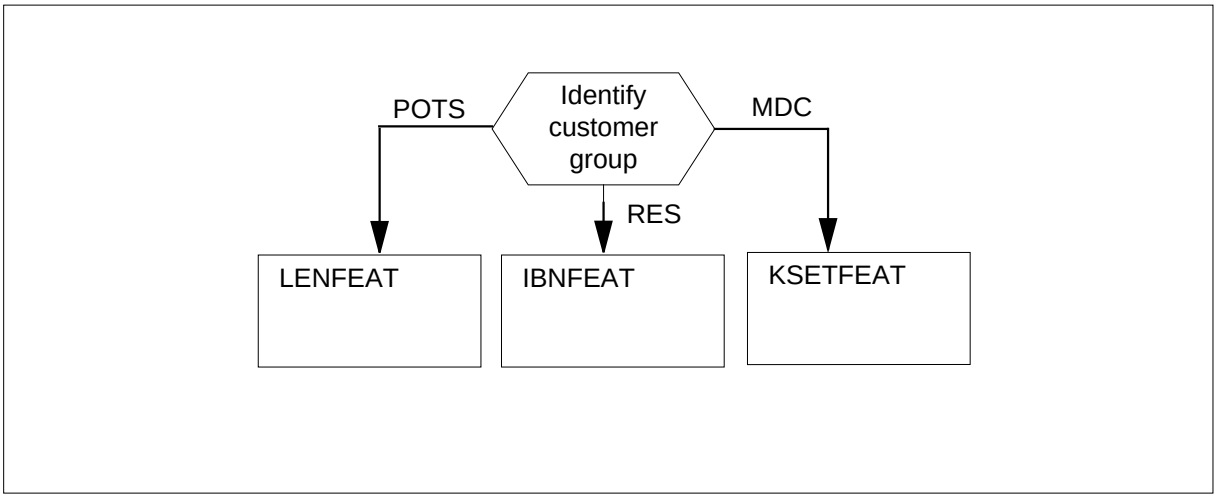
Descriptions of the MBK translations tables appear in the following list:

- Table LENFEAT (Line Feature) defines the functionality assignments for plain ordinary telephone service (POTS) lines. The features assigned to a specified line in table LENLINES appear in this table. Fields DF and FEATURE contain MBK.
- Table IBNFEAT (IBN Line Feature) defines the functionality assignments for Residential Enhanced Services (RES) lines. The features assigned to the Meridian Digital Centrex (MDC) lines appear in table IBNLINES. Fields DF and FEATURE contain MBK.
- Table KSETFEAT (Business Set and Data Unit Feature) defines the functionality assignments for MDC lines. The features assigned to MBS lines in table KSETLINE appear in this table. Fields DF and FEATURE contain MBK.

The MBK translation process appears in the following flowchart.

CFBL Inhibit Line Busy/Inhibit MB Enhancements (continued)

Table flow for the MBK option of CFBL Inhibit Line Busy/Inhibit MB Enhancements



The datafill content used in the flowchart appears in the following table.

Datafill example for the MBK option of CFBL Inhibit Line Busy/Inhibit MB Enhancements

Datafill table	Example data
LENFEAT	HOST 00 0 19 06 S MBK MBK MTM 0 15 1 0
IBNFEAT	HOST 00 0 19 06 0 MBK MBK MTM 0 15 1 0
KSETFEAT	HOST 00 0 19 06 2 MBK MBK MTM 0 15 1 0

Inhibit Make Busy

Descriptions of the IMB translations tables appear in the following list:

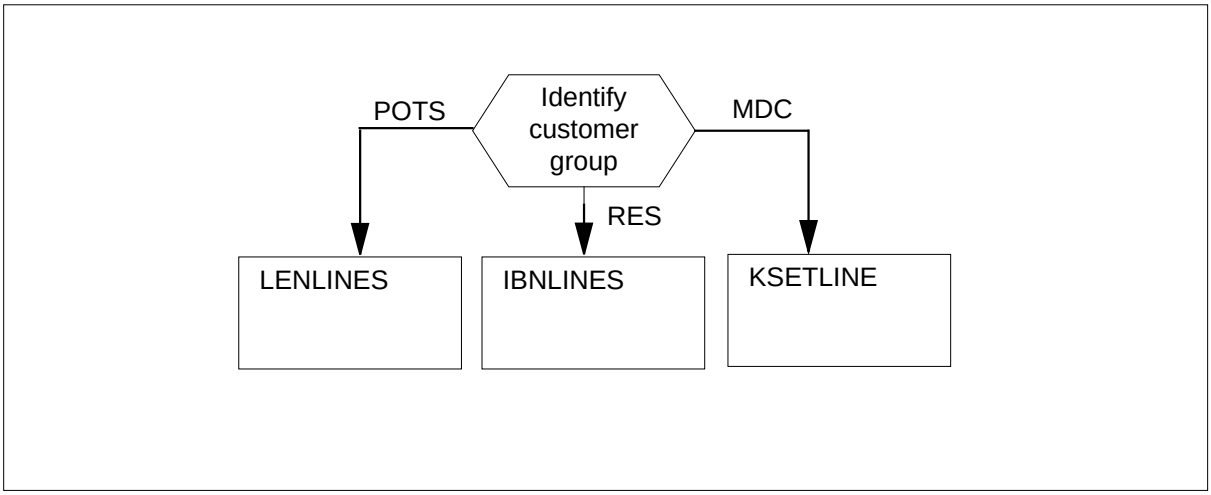
- Table LENLINES (Line Assignment) lists the line data for each POTS line that contains data. The CFBL Inhibit Line Busy/Inhibit MB Enhancements feature requires that you set field OPTLIST to option ILB with option call forward busy (CFB). You can set field OPTLIST to option IMB with option MBK
- Table IBNLINES (IBN Line Assignment) lists the line assignments for each 500/2500 set that you assign to an MDC or RES station number. The CFBL Inhibit Line Busy/Inhibit MB Enhancements feature requires that you set field OPTLIST to option ILB with option CFB. You can set field OPTLIST to option IMB with option MBK.
- Table KSETLINE (Business Set and Data Unit Line Assignment) lists the line data for each PSET line that contains data. This table contains data of DN appearances on MBSs and data units. The CFBL Inhibit Line Busy/Inhibit MB Enhancements feature requires that you set field

CFBL Inhibit Line Busy/Inhibit MB Enhancements (continued)

OPTLIST to option ILB with option CFB. You can set field OPTLIST to option IMB with option MBK.

The IMB translation process appears in the following flowchart.

Table flow for the IMB option of CFBL Inhibit Line Busy/Inhibit MB Enhancements



The datafill content of the flowchart appears in the following table.

Datafill example for the IMB options of CFBL Inhibit Line Busy/Inhibit MB Enhancements

Datafill table	Example data
LENLINES	HOST 00 0 19 06 S O 6211000 DT O (IMB) $
IBNLINES	HOST 00 0 19 06 DN Y 6211234 O (IMB) $
KSETLINE	HOST 00 0 19 06 DN Y 6210001 (ILB) $

Inhibit Line Busy

Descriptions of the ILB translations tables appear in the following list:

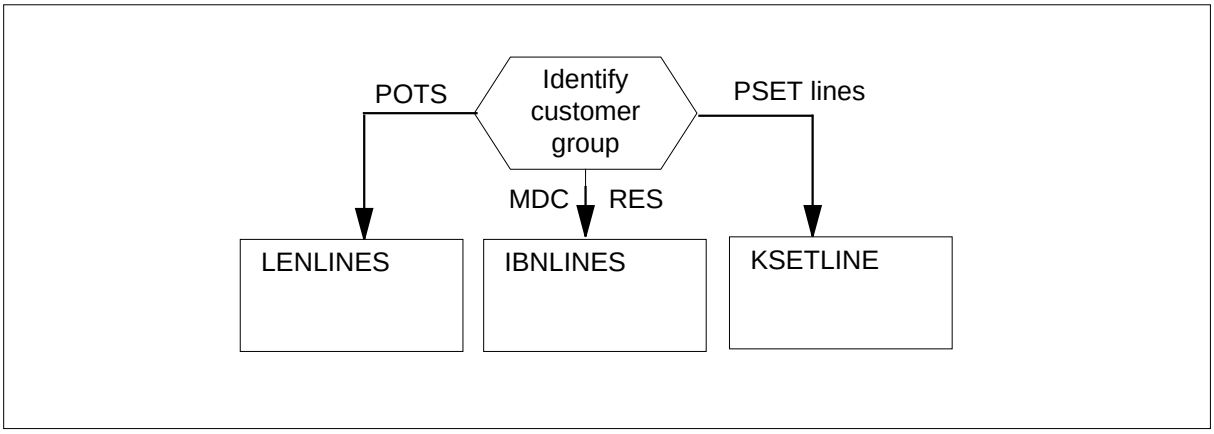
- Table LENLINES (Line Assignment) lists the line data for each POTS line that contains data. The CFBL Inhibit Line Busy/Inhibit MB Enhancements requires that you set field OPTLIST to option ILB with option CFB. You can set field OPTLIST to option IMB with option MBK.
- Table IBNLINES (IBN Line Assignment) lists line assignments for each 500/2500 set that you assign to an MDC or RES station number. The CFBL Inhibit Line Busy/Inhibit MB Enhancements feature requires that

you set field OPTLIST to option ILB with option CFB. You can set field OPTLIST to option IMB with option MBK.

- Table KSETLINE (Business Set and Data Unit Line Assignment) lists the line data for each PSET line that contains data. This table contains data of DN appearances on MBSs and data units. The CFBL Inhibit Line Busy/Inhibit MB Enhancements feature requires that you set field OPTLIST to option ILB with option CFB. You can set field OPTLIST to option IMB with option MBK.

The ILB translation process appears in the following flowchart.

Table flow for the ILB option of CFBL Inhibit Line Busy/Inhibit MB Enhancements



The datafill content of the flowchart appears in the following table.

Datafill example for the ILB option of CFBL Inhibit Line Busy/Inhibit MB Enhancements

Datafill table	Example data
LENLINES	HOST 00 0 19 06 S O 6211000 DT O (IMB) $
IBNLINES	HOST 00 0 19 06 DN Y 6211234 O (IMB) $
KSETLINE	HOST 00 0 19 06 DN Y 6210001 (ILB) $

Limits

The following limits apply to the CFBL Inhibit Line Busy/Inhibit MB Enhancements feature:

- You can assign options MBK, IMB, and ILB to a member line of a DNH, BNN, or PRH hunt group. In each of these hunt group types, each member

CFBL Inhibit Line Busy/Inhibit MB Enhancements (continued)

line equipment number (LEN) has a different DN. You can assign options MBK, ILB, and IMB to the pilot LEN of a DLH or MLH hunt group.

- This limit applies to members of MLH hunt groups with different DNs. The SERVORD restricts the assignment of non-RES options to MLH members with different DNs. You cannot use SERVORD to assign option MBK, IMB, or ILB to nonpilot members. You can add option RMB to nonpilot members. With option RMS, a member cannot receive incoming calls to the group.
- Use the ADO (add option) command to add option MBK, IMB, or ILB to a hunt group member. This process makes sure that assignment limits apply. The SERVORD does not allow you to use the EST (establish a hunt or call pickup group) command. The SERVORD does not allow you to use the ADD (add line to a hunt group) command. You cannot use EST or ADD to add these options to hunt group members.
- Options MBK, IMB, and ILB apply when each member of the hunt group is busy. These options apply when the dialed number is the group member with the correct option or options. Option IMB does not function unless assigned to a line with option MBK.

  Note: Option RMB functions like option MBK. Option IMB does not work with option RMB. You cannot assign options IMB and ILB to the same line at the same time. You cannot assign options remote make busy (RMB) and MBK to the same line at the same time.

Interactions

Descriptions of the interactions between the CFBL Inhibit Line Busy/Inhibit MB Enhancements feature and other functionalities appear in the following paragraphs.

The CFBL Inhibit Line Busy/Inhibit MB Enhancements feature affects the hunt group interactions between the LOD hunt group feature and options MBK, IMB, and ILB. This feature does not affect the interaction of LOD with other features.

The CFBL Inhibit Line Busy/Inhibit MB Enhancements feature interacts with the options added in feature package NC0084. This feature requires a scan point circuit assigned in table SCGRP (Scan Group). This feature also requires a scan point circuit card 0X10AA, and a switch to operate the scan point circuit. See “Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy" for additional information.

CFBL Inhibit Line Busy/Inhibit MB Enhancements (continued)

Activation/deactivation by the end user

The end user performs the following steps to activate and deactivate the CFBL Inhibit Line Busy/Inhibit MB Enhancements feature.

Activation/deactivation of CFBL Inhibit Line Busy/Inhibit MB Enhancements by the end user

At your telephone:

1 Activate the MBK key

Response:

The called party appears busy to calling party if the set is busy or idle. The system sends the calling party to the next idle member in a hunt group. The system can send the calling party to a busy signal or a treatment if every member is busy. The end user defines the treatment.

2 Deactivate the MBK key

Note 1: The MBK key is an external key the set at or near the set. This key is wired to a scan point.

Note 2: Response:

Note 3: The set of the called party rings if the line is idle.

Billing

The CFBL Inhibit Line Busy/Inhibit MB Enhancements feature does not affect billing.

Station Message Detail Recording

The CFBL Inhibit Line Busy/Inhibit MB Enhancements feature does not affect Station Message Detail Recording.

Datafilling office parameters

The CFBL Inhibit Line Busy/Inhibit MB Enhancements feature does not affect office parameters.

Datafill sequence

The end user adds the CFBL Inhibit Line Busy/Inhibit MB Enhancements feature through SERVORD. The end user does not use the table editor to add this feature.

CFBL Inhibit Line Busy/Inhibit MB Enhancements (continued)

The tables that require datafill to implement the CFBL Inhibit Line Busy/Inhibit MB Enhancements feature appear in the following table. The tables appear in the correct entry order.

Datafill tables required for CFBL Inhibit Line Busy/Inhibit MB Enhancements

Table	Purpose of table
LENFEAT	Line Feature. This table lists the features assigned to a specified line in table LENLINES.
LENLINES	Line Assignment. This table contains data for each line that contains data.
IBNFEAT	IBN Line Feature. This table specifies the options for a single-line MDC station.
IBNLINES	IBN Line Assignments. This table contains the line assignments for data channel links for the Bulk Calling Line Identification (BCLI) feature under the format name of BL.
KSETFEAT	Business Set and Data Unit Feature. This table specifies the line features assigned to business sets and data units.
KSETLINE	Business Set And Data-Unit Line Assignment. This table contains the directory number appearances for business sets and data units.
HUNTMEM	Hunt Group Member Table
HUNTGRP	Hunt Group Table
Note: Use SERVORD to enter data in these tables. A datafill procedure or example is not available. See “SERVORD" for an example of how to use SERVORD to enter data in this table.	

Tools for verifying translations

The CFBL Inhibit Line Busy/Inhibit MB Enhancements feature does not use tools for verifying translations.

SERVORD

The CFBL Inhibit Line Busy/Inhibit MB Enhancements feature does not introduce new options that SERVORD must handle.

SERVORD limits

During SERVORD, the system screens POTS options CFW F and CFBL. The system screens these options for codes like 911, 611, 411, 0+, 0-, 010, and 011. The system screens these options to prevent the assignment of these codes as valid forward-to directory numbers. The system does not screen the MDC options CFF (Call Forwarding Fixed) and CFB (Call Forwarding Busy) for these codes. You can assign these codes as correct forward-to DNs.

CFBL Inhibit Line Busy/Inhibit MB Enhancements (continued)

The following SERVORD limits apply when you assign the MBK, IMB, and ILB line options to lines that are part of a hunt group:

- Assign options MBK, IMB, and ILB to members of DNH, BNN, and PRH hunt groups. Assign these option to pilots of DLH and MLH hunt groups. Use SERVORD to add these options to a member of a DLH or MLH hunt group produces one of the following messages:

```
MBK IS INVALID FOR NONPILOTS WITHOUT A UNIQUE DN.
IMB IS INVALID FOR NONPILOTS WITHOUT A UNIQUE DN.
ILB IS INVALID FOR NONPILOTS WITHOUT A UNIQUE DN.
```

- Assign options MBK, IMB, and ILB to hunt group members. The earlier limits of the ADO command apply to these hunt group members. The SERVORD restricts the assignment of these options through other commands like ADD and EST. This limit produces the following error messages if you attempt to use one of these commands:

```
MBK MUST BE ADDED TO HUNT MEMBERS USING ADO.
IMB MUST BE ADDED TO HUNT MEMBERS USING ADO.
ILB MUST BE ADDED TO HUNT MEMBERS USING ADO.
```

SERVORD prompts

The SERVORD prompts that assign the CFBL Inhibit Line Busy/Inhibit MB Enhancements feature to a line appear in the following table.

SERVORD prompts for CFBL Inhibit Line Busy/Inhibit MB Enhancements (Sheet 1 of 2)

Prompt	Valid input	Description
OPTION	MBK, IMB, ILB	Specifies the option to assign. Enter MBK, IMB, or ILB.
DN_OR_LEN	7-digit DN or LEN	Specifies the 7-digit DN or LEN of the line to change. Enter the DN or LEN.
SC	MTM	Identifies the scan point for the MBK option
TMNO	0 to 2047	Identifies the trunk module number that you assign to the trunk module that contains the scan point circuit card.
TMCKTNO	0 to 29	Identifies the trunk module circuit number to which the scan point circuit belongs.

CFBL Inhibit Line Busy/Inhibit MB Enhancements (continued)

SERVORD prompts for CFBL Inhibit Line Busy/Inhibit MB Enhancements (Sheet 2 of 2)

Prompt	Valid input	Description
POINT	0 to 6	Identifies the scan point in the circuit associated with the MBK functionality.
NORMAL_ STATE	0 to 1	Identifies the normal state of the scan point.

Note: The system automatically enters data in tables LENLINES, IBNLINES, IBNFEAT, KSETLINE, HUNTGRP, and HUNTME. The system enters the data when you use SERVORD to assign the CFBL Inhibit Line Busy/Inhibit MB Enhancements feature.

SERVORD example for adding CFBL Inhibit Line Busy/Inhibit MB Enhancements

The assignment of CFBL Inhibit Line Busy/Inhibit MB Enhancements feature to a hunt group appears in the following SERVORD example. This example uses the ADO command to add this feature.

CFBL Inhibit Line Busy/Inhibit MB Enhancements (end)

SERVORD example for CFBL Inhibit Line Busy/Inhibit MB Enhancements in prompt mode

```
> ADO
SONUMBER: NOW 87 11 13 AM
>
DN_OR_LEN:
> 6215000
OPTION:
> MBK
SC:
> MTM
TMNO:
> 3
TMCKTNO:
> 15
POINT:
> 0
NORMAL_STATE:
> 0
OPTION:
> $
COMMAND AS ENTERED:
ADO NOW 87 11 13 AM 6215000 (MBK MTM 3 15 0 0) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
> Y
```

SERVORD example for CFBL Inhibit Line Busy/Inhibit MB Enhancements in no-prompt mode

```
>ADO $ 6215000 MBK MTM 3 15 0 0 $
```

Change EBS Features During Talking State

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS28 and later versions

Requirements

To operate, Change EBS Features During Talking State has the following requirements:

- BAS Generic, BAS00003
- MDC Standard, MDC00001

Description

The Change EBS Features During Talking State feature allows the operating company to add, change, rearrange, and delete features. These features are on a Meridian business set (MBS).

Operation

Change EBS Features During Talking State allows the operating company to process work orders for these changes. The operating company must not wait for an all-idle state of lines on an MBS to process work orders. The operating company can continue to comply with the service order system (SERVORD).

Translations table flow

Change EBS Features During Talking State does not affect translations table flow.

Limits

Change EBS Features During Talking State does not have limits.

Interactions

Change EBS Features During Talking State does not have functionality interactions.

Activation/deactivation by the end user

Change EBS Features During Talking State does not require activation or deactivation by the end user.

Change EBS Features During Talking State (continued)

Billing

Change EBS Features During Talking State does not affect billing.

Station Message Detail Recording

Change EBS Features During Talking State does not affect Station Message Detail Recording.

Datafilling office parameters

Change EBS Features During Talking State does not affect office parameters.

Datafill sequence

Change EBS Features During Talking State does not affect datafill.

Tools for verifying translations

Change EBS Features During Talking State does not use tools for verifying translations.

SERVORD

The SERVORD commands determine the categories of the MBS features. Documentation of these commands follows. Refer to *SERVORD Reference Manual* for additional information about the commands.

- ADO add option
- CHF change feature information
- DEO delete option
- CDN change directory number (DN)
- SUS suspend service
- ABNN add bridged night number
- DBNN delete bridged night number
- ADD add member to hunt group or CPU group
- DEL delete member from hunt group or CPU group

ADO, CHF, and DEO commands

The features that are present for MBSs appear in the following table. Use the commands to add, change, or delete the features as the table indicates.

Change EBS Features During Talking State (continued)

The letter *X* indicates the feature can change when the set is in a talking state. Where the table indicates, see the notes for limits. A blank indicates that the command does not apply to the feature.

MBS feature changes during talking state (Sheet 1 of 6)

Feature name	ADO	CHF	DEO
AAB Auto Answer Back	X		X
ATC Automatic Time and Charges	X		X
AUD Automatic Dial	X		X
AUL Automatic Line	X		X
CBE Exclude External Calls from CFB	X		X
CBI Exclude Intragroup Calls from CFB	X		X
CBU Call Forwarding Busy Unrestricted	X		X
CDC Customer Data Change	X		X
CDE Exclude External Calls from CFD	X		X
CDI Exclude Intragroup Calls from CFD Recording	X		X
CDU Call Forwarding Don't Answer Unrestricted	X		X
CFB Call Forwarding Busy	X	X	X
CFD Call Forwarding Don't Answer	X	X	X
CFDVT Call Forwarding Don't Answer Variable Timer	X	X	X
CFF Call Forwarding Fixed	X	X	X
CFGD Call Forward Group Don't Answer	X	X	X
CFI Call Forward Intragroup	X	X	X

Note 1: You can change the MDNTYPE for a MADN group when the group is idle.

Note 2: You can delete option MDN from a member if that member is idle.

Note 3: You can add, change, or delete option SEC when the DN of the option assigned is idle.

Change EBS Features During Talking State (continued)

MBS feature changes during talking state (Sheet 2 of 6)

Feature name	ADO	CHF	DEO
CFMDN Call Forward for MADN Secondary Members	X		X
CFRA Call Forward Remote Access	X	X	X
CFS Call Forwarding Simultaneous/Screening	X	X	X
CFU Call Forwarding Universal	X	X	X
CIR Circular Hunt	X		X
CLI Calling Line Identification	X		X
CNF Station Controlled Conference	X	X	X
CPU Call Pickup	X	X	X
CTD Call Toll Denied	X	X	X
CTW Confidential Alert on Call Transfer	X		X
CWD Dial Call Waiting	X		X
CWI Call Waiting Intragroup	X		X
CWO Call Waiting Origination	X		X
CWR Call Waiting Ringback	X		X
CWT Call Waiting	X	X	X
CWX Call Waiting Exempt	X		X
CXR Call Transfer	X	X	X
DCBI Directed Call Pickup Barge-In	X		X
DCBX Directed Call Pickup Barge-In Exempt	X		X

Note 1: You can change the MDNTYPE for a MADN group when the group is idle.

Note 2: You can delete option MDN from a member if that member is idle.

Note 3: You can add, change, or delete option SEC when the DN of the option assigned is idle.

Change EBS Features During Talking State (continued)

MBS feature changes during talking state (Sheet 3 of 6)

Feature name	ADO	CHF	DEO
DCF Denied Call Forwarding	X		X
DCPK Directed Call Park	X		X
DCPU Directed Call Pickup Non Barge-In	X		X
DCPX Directed Call Pickup Exempt	X		X
DIN Denied Incoming Calls	X	X	X
DISP Display	X		X
DND Do Not Disturb	X		X
DNH Directory Number Hunt	X		X
DOR Denied Origination	X		X
DTM Denied Termination	X		X
EBO Executive Busy Override—Originator	X		X
EBX Executive Busy Override—Exempted	X		X
ELN Essential Line	X		X
EXT Assign Ass-On Set to Business Set	X		X
FNT Free Number Terminating	X		X
GIC Group Intercom	X		X
ICM Intercom	X	X	X
IECFB Internal/External CFB	X	X	X
IECFD Internal/External CFD	X	X	X

Note 1: You can change the MDNTYPE for a MADN group when the group is idle.

Note 2: You can delete option MDN from a member if that member is idle.

Note 3: You can add, change, or delete option SEC when the DN of the option assigned is idle.

Change EBS Features During Talking State (continued)

MBS feature changes during talking state (Sheet 4 of 6)

Feature name	ADO	CHF	DEO
KSH Key Short Hunt	X	X	X
KSMOH Keyset Music On Hold	X		X
LCDR Local Call Detail	X		X
LNR Last Number Redial	X		X
LNRA Last Number Redial on a Business Set	X		X
LOD Line Hunt Overflow to a DN	X	X	X
LOR Line Hunt Overflow to a Route	X	X	X
MCH Malicious Call Hold	X		X
MDN Multiple Appearance Directory Number	X	see notes 1 & 2	X
MDNNAME MDN Name	X	X	X
MEMDISP MDN Member Display	X		X
MRF MDN Ring Forward	X	X	X
MRFM MDN Ring Forward Manual	X	X	X
MSB Make Set Busy	X	X	X
MSBI Make Set Busy Intragroup	X		X
MWIDC Message Waiting Indication	X		X
MWQRY Message Waiting Query	X		X
MWT Message Waiting	X	X	X
NAME Name Displayed on MBS	X		X
NDC No Double Connect	X		X

Note 1: You can change the MDNTYPE for a MADN group when the group is idle.

Note 2: You can delete option MDN from a member if that member is idle.

Note 3: You can add, change, or delete option SEC when the DN of the option assigned is idle.

Change EBS Features During Talking State (continued)

MBS feature changes during talking state (Sheet 5 of 6)

Feature name	ADO	CHF	DEO
NOH No Receiver Off-Hook Tone	X		X
OLS Origination Line Selector	X	X	X
ONI Operator Number Identification	X		X
PBL Private Business Line	X		X
PIC Primary Inter/Intra-LATA Carrier	X	X	X
PILOT Billing to Pilot Directory Number	X		X
PRK Call Park	X		X
PRL Privacy Release	X		X
PRV Privacy	X		X
QBS Query Business Station	X		X
QTD Query Time and Date	X		X
RAG Ring Again	X		X
RMB Random Make Busy	X		X
RSP Restricted Sent Paid	X		X
RSUS Requested Suspension	X	X	X
SCL Speed Calling Long List	X	X	X
SCS Speed Calling Short List	X		X
SCU Speed Calling User	X	X	X
SDY Study Line	X	X	X
SEC Security	X	see note 3	X
SHU Stop Hunt	X		X

Note 1: You can change the MDNTYPE for a MADN group when the group is idle.

Note 2: You can delete option MDN from a member if that member is idle.

Note 3: You can add, change, or delete option SEC when the DN of the option assigned is idle.

Change EBS Features During Talking State (continued)

MBS feature changes during talking state (Sheet 6 of 6)

Feature name	ADO	CHF	DEO
SL Subscriber Line	X		X
SLU Subscriber Line Usage	X		X
SMDR Station Message Detail Recording	X		X
SPB Special Billing	X	X	X
SSAC Station Specific Authorization Codes	X	X	X
SUPPRESS DN Network Attributes Suppression	X		X
TERM Billing to the DN of the Line on which the Call Terminated	X		
TES Toll Essential Service	X		X
TFO Terminating Fault Option	X		X
TLS Terminating Line Selector	X		X
3WC Three-Way Calling	X		X

Note 1: You can change the MDNTYPE for a MADN group when the group is idle.

Note 2: You can delete option MDN from a member if that member is idle.

Note 3: You can add, change, or delete option SEC when the DN of the option assigned is idle.

CDN command

Use this command to change a DN on an MBS when the line is in a stable talking state. You can change the DN of a DN hunt (DNH) member when the line is in a stable talking state.

SUS command

Use this command to suspend the DNs on an MBS when the line is in a talking state. You can suspend the line when release of the line occurs. You can suspend the pilot of a DNH, distributed line hunt (DLH), or multiline hunt (MLH) group. This condition applies when the DNH, DLH or MLA is in a stable talking state.

Change EBS Features During Talking State (end)

ABNN command

Use this command to add a bridged night number (BNN) to a DLH, DNH, or MLH hunt group. This addition can occur when the link DN or line equipment number (LEN) is in a stable talking state.

DBNN command

Use this command to delete a BNN from a DLH, DNH, or MLH group. This deletion can occur when the BNN or hunt group member is in a stable talking state.

ADD command

You can add members to call pickup (CPU) groups when the link LEN is in a stable talking state.

You can add members to BNN, DLH, DNH, MLH, and preferential hunt (PRH) groups. These additions can occur when the host or pilot LEN/DN is in a stable talking state.

DEL command

Deletion of members from CPU groups can occur when any DN key on the MBS is in a stable talking state. This condition includes a CPU key or CPU that you entered on a DN key.

You can delete members of DNH, DLH, or MLH hunt groups when the members are idle. This condition applies because the DEL command removes the line from service.

Deletion of a member from a BNN and PRH group can occur when the member is in a stable talking state. This condition applies because this action does not affect the host hunt group.

SERVORD limits

Change EBS Features During Talking State does not have SERVORD limits.

SERVORD prompts

Change EBS Features During Talking State does not introduce any new SERVORD prompts. Refer to *SERVORD Reference Manual* for additional information about the prompts.

Change Line CLASS Codes via SERVORD

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: not applicable

Release applicability

BCS25 and up

Prerequisites

To operate, Change Line Class Codes via SERVORD requires the following functional groups:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

Change Line Class Codes via SERVORD is an enhancement to the Service Order System (SERVORD) and expands the SERVORD CHG (change translation/routing information) and DSP (display translation/routing information) commands. These SERVORD commands are intended for use by operating companies or customer data change (CDC) users to display and change the line class code (LCC) of any line.

Operation

An end user is considered to be a CDC user if the user name entered at logon time appears in table CDCLOGON (Customer Data Change Logon). When CDC users log on to SERVORD, they are prevented from using commands that disrupt system operation. Existing DMS-100 switch features allow the operating company to control which commands are available to particular end users.

CDC users can use the SERVORD DSP command to display the LCC of any line. The expanded CHG command can change any LCC in the following list to any other LCC in the list:

- 1FR (one party flat rate)
- 1MR (one party message rate)
- PBX (private branch exchange)
- PBM (PBX message register)
- IBN (integrated business network)
- RES (Residential Enhanced Services)

Change Line CLASS Codes via SERVORD (continued)

The input for the CHG command is the LINE selector followed by the DN_OR_LEN selector. The LCC selector is entered, followed by the new LCC assigned to the set. The end user is then prompted for more information, depending on the old LCC and new LCC combination. The following table indicates the additional prompts to change LCCs.

Additional SERVORD prompts to change LCCs

LCC change	Additional prompts provided
POTS to POTS (Note 1)	LATANAME (LATA name) LTG (line treatment group)
IBN/RES to POTS (Note 2)	LATANAME (LATA name) LTG (line treatment group)
POTS to IBN/RES	GROUP (customer group) SUBGRP (subgroup) NCOS (network class of service) SNPA (serving numbering plan area)
IBN/RES to IBN/RES	GROUP (customer group) SUBGRP (subgroup) NCOS (network class of service) SNPA (serving numbering plan area)
Note 1: Throughout this feature description, the term POTS refers to the following subset of LCCs: 1FR, 1MR, PBX, and PBM.	
Note 2: Throughout this feature description, the term IBN/RES refers to IBN or RES LCCs.	

The CHG command provides additional prompts in other situations, such as changing an IBN line with the call forwarding option to a plain old telephone service (POTS) line with the call forwarding option.

Anytime the LCC of a line is changed, the existing option list for the old LCC is checked for options that are compatible with the new LCC. Table LCCOPT (Line Class Code Option) is referenced for this check. All compatible options remain on the line. All incompatible options (with the exception of call forwarding, speed calling, and call waiting) are deleted from the line. If any options are deleted, the end user is informed with a list of these deleted options and must either accept or abort the CHG command.

If a line has call forwarding, speed calling, or call waiting intragroup options, these options are deleted from the line, and equivalent options corresponding to the new LCC are assigned to the line.

Change Line CLASS Codes via SERVORD (continued)

Mapping call forwarding between POTS, IBN, and RES

Note: The options and tables listed refer to the internal representation of the data and cannot be used to datafill call forwarding from the SERVORD tool.

When the LCC of a line with call forwarding options is changed to another type of LCC, the line must be mapped from one type of call forwarding option to another. This mapping is necessary because the sets of POTS, IBN, and RES call forwarding options are not identical. The datafill is different, so the SERVORD end user may be prompted for additional fields to complete the change. In most cases, prompting for additional fields is unnecessary since the data can be mapped directly from one type of call forwarding to another.

The POTS call forwarding options follow:

- CFW C call forwarding (customer programmable)
- CFW F call forwarding (fixed)
- CFW U call forwarding (usage sensitive pricing)
- CFBL call forwarding busy line
- CFDA call forwarding don't answer

The IBN call forwarding options follow:

- CFU call forwarding universal
- CFI call forwarding intragroup
- CFF call forwarding fixed
- CFB call forwarding busy
- CFD call forwarding don't answer
- CFS call forwarding simultaneous/screening
- CBE CFB exclude external originated calls
- CBI CFB exclude intragroup originated calls
- CDE CFD exclude external originated calls
- CDI CFD exclude intragroup originated calls
- CBU call forwarding busy unrestricted
- CDU call forwarding don't answer unrestricted
- CBICBU CFB exclude intragroup originators/unrestricted forwarding
- CBECBU CFB exclude external originators/unrestricted forwarding

Change Line CLASS Codes via SERVORD (continued)

- CDICDU CFD exclude intragroup originators/unrestricted forwarding
- CDECDU CFD exclude external originators/unrestricted forwarding
- CFDVT call forwarding don't answer variable timer

The following tables show how the mapping between different types of call forwarding options is performed when the LCC of a line is changed in the following cases:

- POTS to IBN or RES
- IBN or RES to POTS
- IBN to RES
- RES to IBN

As explained in the following list, there are four possible ways in which the call forwarding options can be mapped. These methods are represented as mapping codes in the last column of each of the following four tables.

- Mapping code 1 indicates that the option is valid for both the old LCC and the new LCC, and that direct mapping of the option from the old LCC to the new LCC can take place.
- Mapping code 2 indicates that there are one or more options that form the equivalent of this option. In this case, the old LCC is deleted from the line, and the new LCC is assigned to the line.
- Mapping code 3 indicates that there are one or more options that form the equivalent of this option and that additional information is required to datafill these options on the line. The old LCC is deleted from the line, and the new LCC, along with the acquired information, is assigned to the line. This additional information is obtained through SERVORD.
- Mapping code 4 indicates that no new LCCs exist. Therefore, the old LCC is deleted from the line, and no new LCC is assigned to the line.

Change Line CLASS Codes via SERVORD (continued)

The following table shows how the mapping between different types of call forwarding options is performed when the LCC of a line is changed from POTS to IBN or RES.

POTS to IBN/RES call forwarding map

POTS option	IBN/RES equivalent option	Additional SERVORD prompts	Mapping code
CFW C	CFU+CFS	SCREEN and CFXNCOS	3
CFW F	CFF+CFS	SCREEN and CFXNCOS	3
CFW U	None	None	4
CFBL	CFB+CFS+CBU	SCREEN and CFXNCOS	3
CFDA	CFD+CFS+CDU+ CFDVT (Note)	SCREEN and CFXNCOS	3
Note: This option is not a RES option, but an IBN option. All IBN call forwarding options except for CBI, CBE, CDI, CDE, CBICBU, CBECBU, CDICDU, CDECDU, CFDVT, and CFI apply to RES.			

The following table shows how the mapping between different types of call forwarding options is performed when the LCC of a line is changed from IBN or RES to POTS.

IBN/RES to POTS call forwarding map (Sheet 1 of 4)

IBN/RES option	POTS equivalent option	Additional SERVORD prompts	Mapping code
CFU+CFS	CFW C	SCRNCL	3
CFU	CFW C	SCRNCL and NUMCFW	3
CFI+CFS	CFW C	SCRNCL	3
CFI	CFW C	SCRNCL and NUMCFW	3
CFF+CFS	CFW F	SCRNCL	3
Note: This option is not a RES option, but an IBN option. All IBN call forwarding options except for CBI, CBE, CDI, CDE, CBICBU, CBECBU, CDICDU, CDECDU, CFDVT, and CFI apply to RES.			

Change Line CLASS Codes via SERVORD (continued)

IBN/RES to POTS call forwarding map (Sheet 2 of 4)

IBN/RES option	POTS equivalent option	Additional SERVORD prompts	Mapping code
CFF	CFW F	SCRNCL and NUMCFW	3
CFB+CFS	CFBL	SCRNCL	3
CFB	CFBL	SCRNCL and NUMCFBL	3
CFB+CFS +CBU	CFBL	SCRNCL	3
CFB+CBU	CFBL	SCRNCL and NUMCFBL	3
CFB+CFS +CBI (Note)	CFBL	SCRNCL	3
CFB+CBI (Note)	CFBL	SCRNCL and NUMCFBL	3
CFB+CFS +CBE (Note)	CFBL	SCRNCL	3
CFB+CBE (Note)	CFBL	SCRNCL and NUMCFBL	3
CFB+CFS +CBECU (Note)	CFBL	SCRNCL	3
CFB+CBE CBU (Note)	CFBL	SCRNCL and NUMCFBL	3
CFB+CFS +CBICBU (Note)	CFBL	SCRNCL	3
CFB+CBIC BU (Note)	CFBL	SCRNCL and NUMCFBL	3

Note: This option is not a RES option, but an IBN option. All IBN call forwarding options except for CBI, CBE, CDI, CDE, CBICBU, CBECBU, CDICDU, CDECDU, CFDVT, and CFI apply to RES.

Change Line CLASS Codes via SERVORD (continued)

IBN/RES to POTS call forwarding map (Sheet 3 of 4)

IBN/RES option	POTS equivalent option	Additional SERVORD prompts	Mapping code
CFD+CFS	CFDA	SCRNCL	3
CFD	CFDA	SCRNCL and NUMCFDA	3
CFD+CFS + CFDVT (Note)	CFDA	SCRNCL	3
CFD+CFD VT (Note)	CFDA	SCRNCL and NUMCFDA	3
CFD+CFS +CDU	CFDA	SCRNCL	3
CFD+ CDU	CFDA	SCRNCL and NUMCFDA	3
CFD+CFS +CDI (Note)	CFDA	SCRNCL	3
CFD+CDI (Note)	CFDA	SCRNCL and NUMCFDA	3
CFD+CFS +CDE (Note)	CFDA	SCRNCL	3
CFD+ CDE (Note)	CFDA	SCRNCL and NUMCFDA	3
CFD+CFS +CDICDU (Note)	CFDA	SCRNCL	3
CFD+ CDICDU (Note)	CFDA	SCRNCL and NUMCFDA	3

Note: This option is not a RES option, but an IBN option. All IBN call forwarding options except for CBI, CBE, CDI, CDE, CBICBU, CBECBU, CDICDU, CDECDU, CFDVT, and CFI apply to RES.

Change Line CLASS Codes via SERVORD (continued)

IBN/RES to POTS call forwarding map (Sheet 4 of 4)

IBN/RES option	POTS equivalent option	Additional SERVORD prompts	Mapping code
CFD+CFS + CDECDU (Note)	CFDA	SCRNCL	3
CFD+ CDECDU (Note)	CFDA	SCRNCL and NUMCFDA	3
Note: This option is not a RES option, but an IBN option. All IBN call forwarding options except for CBI, CBE, CDI, CDE, CBICBU, CBECBU, CDICDU, CDECDU, CFDVT, and CFI apply to RES.			

The following table shows how the mapping between different types of call forwarding options is performed when the LCC of a line is changed from IBN to RES.

IBN to RES call forwarding map (Sheet 1 of 2)

IBN option	RES equivalent option	Additional SERVORD prompts	Mapping code
CFU	CFU	None	1
CFU+CFS	CFU+CFS	None	1
CFI (Note)	CFU	None	2
CFI (Note)+ CFS	CFU+CFS	None	2
CFF	CFF	None	1
CFF+CFS	CFF+CFS	None	1
CFB	CFB+CBU	None	2
CFB+CFS	CFB+CBU+CFS	None	2
CFB+CFS+CBU	CFB+CFS+CBU	None	1
Note: This option is not a RES option, but an IBN option. All IBN call forwarding options except for CBI, CBE, CDI, CDE, CBICBU, CBECBU, CDICDU, CDECDU, CFDVT, and CFI apply to RES.			

IBN to RES call forwarding map (Sheet 2 of 2)

IBN option	RES equivalent option	Additional SERVORD prompts	Mapping code
CFB+CBE (Note)	CFB+CBU	None	2
CFB+CBI (Note)	CFB+CBU	None	2
CFB+ CBECBU (Note)	CFB+CBU	None	2
CFB+ CBICBU (Note)	CFB+CBU	None	2
CFD	CFD+CDU	None	2
CFD+CFS	CFD+CDU+CFS	None	2
CFD+CFS+ CDU	CFD+CFS+CDU	None	1
CFD+CDE (Note)	CFD+CDU	None	2
CFD+CDI (Note)	CFD+CDU	None	2
CFD+ CDICDU (Note)	CFD+CDU	None	2
CFD+ CFDVT (Note) +CFS	CFD+CDU	None	2
CFD+ CFDVT (Note) +CFS	CFD+CDU+CFS	None	2
CFD+ CFDVT (Note) +CFS	CFD+CDU+CFS	None	2

Note: This option is not a RES option, but an IBN option. All IBN call forwarding options except for CBI, CBE, CDI, CDE, CBICBU, CBECBU, CDICDU, CDECDU, CFDVT, and CFI apply to RES.

Change Line CLASS Codes via SERVORD (continued)

The following table shows how the mapping between different types of call forwarding options is performed when the LCC of a line is changed from RES to IBN.

RES to IBN call forwarding map

RES option	IBN equivalent option	Additional SERVORD prompts	Mapping code
CFU	CFU	None	1
CFU+CFS	CFU+CFS	None	1
CFF	CFF	None	1
CFF+CFS	CFF+CFS	None	1
CFB+CBU	CFB+CBU	None	1
CFB+CBU +CFS	CFB+CBU+CFS	None	1
CFD+CFU	CFD+CDU	None	1
CFD+CDU +CFS	CFD+CDU+CFS	None	1

Note: This option is not a RES option, but an IBN option. All IBN call forwarding options except for CBI, CBE, CDI, CDE, CBICBU, CBECBU, CDICDU, CDECDU, CFDVT, and CFI apply to RES.

When call forwarding options are mapped between LCCs, most of the old option's datafill is copied to the new option's datafill. This datafill consists of the call forwarded directory number (DN), call forward state, screening data, number of simultaneous calls, and call forward don't answer timer value. The following paragraphs describe how call forwarding datafill is copied between equivalent options.

Call forwarded DN and call forward state

When CFI to CFU (IBN to RES) are mapped to CFU and CFI (RES to IBN) or CFW C (IBN or RES to POTS), the datafill is not copied to the new option's datafill because this is user-programmable data. The call forwarded DN is initialized to a NIL DN, and the call forward state is initialized to inactive.

The same applies when CFW C is mapped to CFW C or CFU. However, when the CFF, CFB, or CFD options are mapped from POTS to IBN/RES, from IBN/RES to POTS, or from IBN/RES to IBN/RES, the call forwarded DN and call forward state (if applicable) are copied to the new option's datafill.

Change Line CLASS Codes via SERVORD (continued)

Call forward screening and number of simultaneous calls

The IBN/RES option CFS (call forwarding simultaneous/screening) consists of two suboptions: call forwarding simultaneous and call forwarding screening. When changing an LCC from POTS to IBN/RES, the number of simultaneous calls is mapped directly from POTS call forwarding to IBN/RES call forwarding. Therefore, option CFS is required in all cases of POTS to IBN/RES call forwarding option mapping. However, the screening suboption can be selected through SERVORD by entering a Y response to the SCREEN prompt. When Y is entered, a prompt for CFXNCOS (call forwarding NCOS) is given and is datafilled in option CFS.

When changing an LCC from POTS to IBN/RES, the number of simultaneous calls values for the POTS call forwarding options are copied to the following fields of option CFS in table IBNFEAT (IBN Line Feature). All remaining fields are set to a default of 1.

- Field NCFUIF specifies the number of simultaneous CFU intragroup fixed calls.
- Field NCFB specifies the number of simultaneous CFB calls.
- Field NCFD specifies the number of simultaneous CFD calls.

When changing an LCC from IBN/RES to POTS, the number of simultaneous calls is mapped directly from IBN datafill to POTS datafill. The number of simultaneous calls is mapped only if option CFS is present on the line. If an IBN line is datafilled with only CFU and is changed to 1FR, only the NUMCFW (maximum number of calls forwarded for CFW option) prompt appears.

There are three different entries for simultaneous calls in option CFS. Therefore, only entries applicable to the existing call forwarding options are datafilled in table CFW (Regular and Remote Call Forwarding). For example, on an IBN line, options CFU and CFS are datafilled, but options CFD and CFB are not datafilled.

When changing an LCC from IBN to 1FR, options CFU and CFS are mapped to CFW C with only field NCFUIF in option CFS being datafilled in table CFW. Since CFBL and CFDA are not datafilled, option CFS entries NCFB and NCFD need not be copied to table CFW.

If an LCC is changed from IBN/RES to POTS and there is a call forwarding option on the line and option CFS is not on the line, a SERVORD prompt is given for the number of simultaneous calls. Only required fields in table CFW datafill are requested by a prompt.

Change Line CLASS Codes via SERVORD (continued)

When changing an LCC from IBN to RES or from RES to IBN, the number of simultaneous calls and screening class are copied directly from the old datafill to the new datafill.

Call forward don't answer timer

In the POTS to IBN/RES map table, POTS CFDA is mapped to IBN/RES CFD + CFS + CDU + CFDVT. The CFDVT timer value is mapped directly from the timer value for option CFDA.

In the IBN/RES to POTS map table, when IBN/RES CFD is mapped to POTS CFDA, the CFDA timer value is copied directly from the timer value in table CUSTSTN (Customer Group Station Option) entered for the corresponding customer group. However, when option CFDVT is present, the datafilled timer value is used instead of the value found in table CUSTSTN.

In the IBN to RES map table, when the IBN option CFD + CFDVT is mapped to the RES option CFD + CDU, the timer value used is the timer entry in table CUSTSTN for the RES customer group.

Mapping speed calling between POTS, IBN, and RES

When the LCC of a line with option SC (speed calling) is changed to another type of LCC, the line must be mapped from one type of SC option to another. This mapping is necessary because the sets of POTS, IBN, and RES SC options are not identical. The datafill is different, so the SERVORD end user may be prompted for additional fields to complete the change. In most cases, prompting for additional fields is unnecessary since the data can be mapped directly from one type of SC to another.

Following is a list of all POTS and IBN/RES SC options:

- POTS SC options
  - SC1 speed call short
  - SC2 speed call long
- IBN/RES SC options
  - SCS speed call short
  - SCL speed call long
  - SCU speed call user

Note: An SCL list on a set can be used (linked) by another set without the SCL list. The set without the list can be linked by assigning option SCU to a line. Several SCU end users can be linked to a single SCL list.

Change Line CLASS Codes via SERVORD (continued)

The SC abbreviated dialing code range depends on what SC option is assigned to the line and how option AMBISC is datafilled in table CUSTSTN. For IBN and RES, option AMBISC in table CUSTSTN gives POTS-like abbreviated dialing codes to IBN or RES SC end users. Option AMBISC has two LISTTYPE refinements for SCS: L6 and L8. The following table lists all SC abbreviated dialing codes for each possible configuration of the LCCs. The IBN/RES SC configuration is used to classify the type of SC datafill when referencing the following table.

Speed calling abbreviated dialing codes

LCC	Speed call type	Table CUSTSTN AMBISC option	SCLoption	SC abbreviated dialing code range	IBN/RES SC configuration
POTS	SC1	N/A	N/A	2-9	N/A
POTS	SCS	N/A	N/A	20-49	N/A
IBN/ RES	SCS	N	N/A	0-9	SCS-A
IBN/ RES	SCS	Y-L6	N/A	2-7	SCS-B
IBN/ RES	SCS	Y-L8	N/A	2-9	SCS-C
IBN /RES	SCL	N	SC30	00-29	SCL-A
IBN /RES	SCL	N	SC50	00-49	SCL-B
IBN/ RES	SCL	N	SC70 (Note)	00-69	SCL-C
IBN/ RES	SCL	Y	SC30	20-49	SCL-D
IBN/ RES	SCL	Y	SC50	20-69	SCL-E
IBN/ RES	SCL	Y	SC70 (Note)	20-69	SCL-F

Note: RES does not support a speed calling list (SCL) size of 70.

Change Line CLASS Codes via SERVORD (continued)

When an SC option is changed with the SERVORD CHG command, all SC cells are retained. However, the SC cells may have to be deleted or re-mapped to a new set of abbreviated dialing codes.

The following tables show how the mapping between different types of SC LCC options is performed when the LCC of a line is changed in the following cases:

- IBN or RES to POTS
- POTS to IBN or RES
- IBN to RES
- RES to IBN

As explained in the following list, there are five possible ways in which the SC LCC options can be mapped. These methods are represented as mapping codes in the last column of each of the following three tables.

- Mapping code 1 indicates that mapping is direct from the old LCC to the new LCC. The SC list of abbreviated dialing codes is not changed.
- Mapping code 2 indicates that mapping is direct from the old LCC to the new LCC. However, the SC list of abbreviated dialing codes is truncated or remapped to a different set of SC codes.
- Mapping code 3 indicates that the old LCC is deleted from the line, and the new LCC is assigned to the line.
- Mapping code 4 indicates that additional information is obtained through SERVORD. The old LCC is then deleted from the line, and the new LCC, along with the acquired information, is assigned to the line.
- Mapping code 5 indicates that the LCC option is changed to its equivalent. However, the SC list is truncated or remapped to a different set of SC codes.

  Note: The SERVORD end user is given a warning anytime the SC list is to be truncated or re-mapped.

Change Line CLASS Codes via SERVORD (continued)

The following table shows how the mapping between different types of SC LCC options is performed when the LCC of a line is changed from IBN or RES to POTS.

IBN/RES to POTS speed calling map

POTS option	POTS equiv.option	Table CUSTSN AMBISC option	SCL option	Speed call list mapping	Truncated SC codes	Mapping code
SCS	SC1	N	N/A	(2-9)→(2-9)	0, 1	5
SCS	SC1	Y-L6	N/A	(2-7)→(2-7)	None	3
SCS	SC1	Y-L6	N/A	(2-9)→(2-9)	None	3
SCL/ SCU	SC2	N	L-30	(00-29)→(20-49)	None	5
SCL/ SCU	SC2	N	L-50	(00-29)→(20-49)	30-49	5
SCL/ SCU	SC2	N	L-70 (Note)	(00-29)→(20-49)	30-69	5
SCL/ SCU	SC2	Y	L30	(20-29)→(20-49)	None	3
SCL/ SCU	SC2	Y	I-50	(20-29)→(20-49)	50-69	5
SCL/ SCU	SC2	Y	L-70 (Note)	(20-29)→(20-49)	50-69	5

The following table applies to both IBN to RES and RES to IBN LCC changes. Original SC configuration refers to the SC configuration before the LCC change is attempted. Target SC configuration refers to the SC configuration after the LCC change is completed.

IBN to RES or RES to IBN speed calling map (Sheet 1 of 2)

Original SC configuration	Target SC configuration	Speed call list mapping	Truncated SC codes	Mapping code
SCS-A	SCS-C	(2-9)→(2-9)	0, 1	2
SCS-B	SCS-A	(2-7)→(2-7)	None	1
SCS-B	SCS-B	(2-7)→(2-7)	None	1

Change Line CLASS Codes via SERVORD (continued)

IBN to RES or RES to IBN speed calling map (Sheet 2 of 2)

Original SC configuration	Target SC configuration	Speed call list mapping	Truncated SC codes	Mapping code
SCS-B	SCS-C	(2-7)→(2-7)	None	1
SCS-C	SCS-A	(2-9)→(2-9)	None	1
SCS-C	SCS-B	(2-7)→(2-7)	8, 9	2
SCS-C	SCS-C	(2-9)→(2-9)	None	1
SCL-A	SCL-A	(00-29)→(00-29)	None	1
SCL-A	SCL-D	(00-29)→(20-49)	None	2
SCL-B	SCL-B	(00-49)→(00-49)	None	1
SCL-B	SCL-E	(00-49)→(20-69)	None	2
SCL-C	SCL-B	(00-49)→(00-49)	50-69	2
SCL-C	SCL-E	(00-49)→(20-69)	50-69	2
SCL-D	SCL-A	(20-49)→(00-29)	None	2
SCL-D	SCL-D	(20-49)→(20-49)	None	1
SCL-E	SCL-B	(20-69)→(00-49)	None	2
SCL-E	SCL-E	(20-69)→(20-69)	None	1
SCL-F	SCL-B	(20-69)→(00-49)	None	2
SCL-F	SCL-E	(20-69)→(20-69)	None	1

The following comments apply to the previous tables:

- When SC options are mapped between LCCs, most of the datafill is copied from the old option's datafill to the new option's datafill. The only exception is LISTTYPE for SCL in IBN and RES. This field is datafilled through SERVORD.
- For an IBN/RES to POTS change, an SCU to SC2 map is direct. Mapping is almost identical to mapping from SCL to SC2. The difference is additional data store for the SC2 list. Therefore, a warning message is first displayed, indicating that additional data store is required for the new LCC. The end user can then either continue with or abort the change.

- For an IBN to RES or RES to IBN change, an SCU to SCL map is direct and identical to an SCU to SC2 map.
- If an IBN LCC with option SCL L70 is changed to a RES LCC, the option is mapped directly to SCL L50, and the following warning message is displayed:

```
Warning:  SCL 70 option to be changed to SCL 50 option
Any SC cells which cannot be retained are deleted.
```

- If a 1FR or 1MR LCC with option SC2 is to be changed to a RES LCC and the end user enters L70 for LISTTYPE, the option is mapped to SCL L50 instead, and the following warning message is displayed:

```
Warning: SC70 not compatible with RES - SC50 datafilled
instead:
Any SC cells which cannot be retained are deleted.
```

Mapping call waiting between POTS, IBN, and RES

Call waiting (CWT) is common to POTS, IBN, and RES. Call waiting intragroup (CWI) is only common to IBN and RES.

In IBN and RES, option CWT applies only to calls from outside the customer group, whereas option CWI applies only to calls from inside the same customer group. Both options CWT and CWI are required to apply CWT to all calls. The following LCC options are changed in these cases: POTS to IBN/RES and IBN/RES to POTS.

The following table shows how call waiting options map from POTS to IBN or RES LCCs.

POTS to IBN/RES call waiting map

POTS option	IBN/RES equivalent option	Additional SERVORD prompts
CWT	CWT+CWI	None

Change Line CLASS Codes via SERVORD (continued)

The following table shows how call waiting options map from IBN or RES to POTS LCCs.

IBN/RES to POTS call waiting map

IBN/RES option	POTS equivalent option	Additional SERVORD prompts
CWT	CWT	None
CWT+CWI	CWT	None

Translations table flow

Change Line Class Codes via SERVORD does not affect translations table flow.

Limitations and restrictions

The following limitations and restrictions apply to Change Line Class Codes via SERVORD:

- Use of the CHG and DSP commands is restricted to operating company and privileged CDC users. If the queried DN or line equipment number (LEN) is not owned by the CDC user, use of the command is prohibited.
- The LCCs that are compatible with CDC are IBN, MDC, and any of the M5000 series. Therefore, LCC changes for a CDC user are Meridian business set-type LCC changes. If a CDC user attempts to change the LCC of an IBN line that the CDC user owns, the NEW_LCC prompt only allows entry of IBN, MDC, or any of the M5000 series. None of these LCC changes are allowed, so the command fails with an error message. Any attempt by a CDC user to change the LCC of a POTS or RES line is also blocked.
- Changing the LCC of a hunt group member or hunt group pilot is not supported by the CHG command. If an attempt is made to change the LCC of a pilot or hunt group member, an error message is displayed.
- Option HOT is compatible with all 1FR, 1MR, PBX, PBM, IBN, and RES LCCs. However, since internal datafill of option HOT is different for POTS lines than for IBN/RES lines, option HOT is deleted when an LCC is changed from IBN/RES to POTS or from POTS to IBN/RES. Option HOT is retained when an LCC is changed from POTS to POTS, from IBN to RES, or from RES to IBN.
- LCCs that are compatible with option MDN are IBN, MDC, and any of the M5000 series. If an IBN LCC with option MDN is changed to RES, 1FR, 1MR, PBX, or PBM, a warning message is displayed after the new LCC is entered. The end user is then prompted for the new DN and must enter a

Change Line CLASS Codes via SERVORD (continued)

valid, unused DN. If the change is successful, the LCC is changed, option MDN is deleted, and the new DN is assigned to the line.

Interactions

Change Line Class Codes via SERVORD has no functionality interactions.

Activation/deactivation by the end user

Change Line Class Codes via SERVORD requires no activation or deactivation by the end user.

Billing

Change Line Class Codes via SERVORD does not affect billing.

Station Message Detail Recording

Change Line Class Codes via SERVORD does not affect Station Message Detail Recording.

Datafilling office parameters

Change Line Class Codes via SERVORD does not affect office parameters.

Datafill sequence

The following table lists the tables that require datafill to implement Change Line Class Codes via SERVORD. The tables are listed in the order in which they are to be datafilled.

Datafill tables required for Change Line Class Codes via SERVORD (Sheet 1 of 2)

Table	Purpose of table
LENLINES (Note)	Line Assignment. This table contains (for each datafilled line) the site name assigned to the remote location (if the line is remote), the LEN, the party to which the DN is assigned, the DN, the signal type, the index into table LINEATTR, and options assigned to the line.
IBNLINES (Note)	IBN Line Assignments. This table contains the line assignments for data channel links for the Bulk Calling Line Identification (BCLI) feature under the format name of BL.
KSETLINE (Note)	Business Set And Data-Unit Line Assignment. This table contains the DN appearances for business sets and data units. One entry is required for each DN-related key on a business set and a data unit.
Note: This table is datafilled through SERVORD; therefore, no datafill procedure or example is provided. Refer to “SERVORD" for an example of using SERVORD to datafill this table.	

Change Line CLASS Codes via SERVORD (continued)

Datafill tables required for Change Line Class Codes via SERVORD (Sheet 2 of 2)

Table	Purpose of table
LENFEAT	Line Feature. This table lists the features that are assigned to a specific line in table LENLINES.
SCUFEAT	Speed Calling User Feature. This table enables a subscriber to place calls to any number within a previously designated list of frequently called numbers by dialing a two-digit speed calling code instead of the complete number.
CFX	Call Forwarding. This table stores DN information for various flavors of IBN Call Forwarding, such as CFU; CFI; CFF; and CFK; or CFB and CFD, or both.
SCALLTAB	Speed Calling. This table is a read-only table that contains various speed calling codes that are set by the subscriber using a telephone. This table is required for journal file records and for dump and restores.
IBNSC	IBN Speed Calling List. This table stores information for each number of an IBN station, data unit or P-phone speed calling list, or for each number of a data unit or P-phone automatic dial list. It stores information on an individual LEN basis that specifies which SC flavor is being used, which cell number is affected, and the contents of the cell.
Note: This table is datafilled through SERVORD; therefore, no datafill procedure or example is provided. Refer to “SERVORD" for an example of using SERVORD to datafill this table.	

Translation verification tools

Change Line Class Codes via SERVORD does not use translation verification tools.

SERVORD

SERVORD limitations and restrictions

Change Line Class Codes via SERVORD expands the SERVORD CHG and DSP commands. The DSP command displays the LCC of any line. The CHG command changes these LCCs: 1FR, 1MR, PBX, PBM, IBN, and RES.

Change Line CLASS Codes via SERVORD (continued)

SERVORD prompts

The following table shows the SERVORD prompts used to assign Change Line Class Codes via SERVORD to a line.

SERVORD prompts for Change Line Class Codes via SERVORD (Sheet 1 of 2)

Prompt	Valid input	Explanation
CFXNCOS	0 to 511	Indicates the call forwarding NCOS
DN_OR_LEN	7-digit DN or LEN	Specifies the 7-digit DN or LEN of the line to be changed or displayed
GROUP	up to 8 alphanumeric characters, beginning with an alphabetic character	Indicates the customer group identified with the LCC
LATA NAME	alphanumeric	Indicates the calling local access and transport area (LATA) name associated with the originator of the call
LINE_ INFO	LCC	Indicates the line information to be changed or displayed
LIST TYPE	L30, L50, L70	Indicates the length of the SC list
LTG	0 to 511	Indicates the line treatment group member
NCOS	0 to 511	Indicates the NCOS value used to determine call privileges for calls using the network
NEW_DN	7-digit DN	Indicates the DN that replaces the current DN
NEW_ LCC	1FR, 1MR, PBX, PBM, IBN, RES	Indicates the LCC that replaces the current LCC
NUMCFBL	1 to 1024	Specifies the maximum number of calls concurrently forwarded for option CFBL
NUMCFDA	1 to 1024	Specifies the maximum number of calls concurrently forwarded for option CFDA
NUMCFW	1 to 1024	Specifies the maximum number of calls concurrently forwarded for option CFW

Change Line CLASS Codes via SERVORD (continued)

SERVORD prompts for Change Line Class Codes via SERVORD (Sheet 2 of 2)

Prompt	Valid input	Explanation
SCREEN	Y, N	Indicates the call forwarding screening capability
SCRNCL	alphanumeric	Specifies screening by class of service. Enter the screening class from table CLSVSCRC (Class of Service Screening Control)
SNPA	3-digit SNPA	Indicates the serving numbering plan area
SUBGRP	0 to 7	Indicates the subgroup number of the customer group to which the station or DN belongs
WHAT	LINE	Indicates the aspect of the line to be changed or displayed

SERVORD example for changing Change Line Class Codes via SERVORD

The following SERVORD example shows how the LCC of a 1FR line with LEN 0101 is changed to CFU C, CFBL, and SC1.

Change Line CLASS Codes via SERVORD (continued)

SERVORD example for Change Line Class Codes via SERVORD in prompt mode

```
>CHG
SONUMBER: NOW 93 A 2 AM
>
WHAT:
> LINE
DN_OR_LEN:
> 0 1 0 1
LINE_INFO:
> LCC
NEW_LCC:
> 1FR
Warning: MDN DN to be deleted from the line.NEW_DN:
> 7227001
LATANAME:
> LATA1
LTG:
> 0
CFU option to be changed to CFW C option.CFB option to
be changed to CFBL option.SCRNCL:NSCR
>
NUMCFW:
> 3
NUMCFBL:
>5
Warning: The following options will be deleted from the
line:
RAG PRK CPU MDN
Warning: CFU option to be changed to CFW C option.
        CFB option to be changed to CFBL option.
        SCS option to be changed to SC1 option.
```

SERVORD example for Change Line Class Codes via SERVORD in no-prompt mode

```
> CHG $ LINE 0 1 0 1 LCC 1FR 7227001 LATA1 0 $ 3 5
```

The following SERVORD example shows how the LCC of a 1FR line with LEN 0 1 2 4 is changed to RES using the CHG command.

Options CFW F, CFDA, CFBL, SC1, and CWT are changed to their RES equivalents. The SC list has all of members 2 to 9 programmed, and option AMBISC with LISTTYPE set to L6 is datafilled in table CUSTSTN for customer group POTSDATA. Entries 8 to 9 are deleted from the SC list.

Change Line CLASS Codes via SERVORD (continued)

SERVORD example for Change Line Class Codes via SERVORD in prompt mode

```
>CHG
SONUMBER: NOW 93 A 2 AM
>
WHAT:
> LINE
DN_OR_LEN:
> 0 1 2 4
LINE_INFO:
> LCC
NEW_LCC:
> RES
GROUP:
> POTSDATA
SUBGRP:
>0
 NCOS:
> 0
SNPA:
> 613
CFW F option to be changed to CFF + CFS option.CFDA
option to be changed to CFD +CDU + CFS option.CFBL
option to be changed to CFB +CBU + CFS option.
SCREEN:
> y
CFXNCOS:
>2
Warning:    CFW F option to be changed to CFF+CFS
            option.
           CFDA option to be changed to CFD +CFS+CDU
            option.
           CFBL option to be changed to CFB +CFS+CBU
            option.
           SC1 option to be changed to SCS option.
            CWT option to be changed to CWT + CWI
             option.

Warning:    Entries 8 to 9 will be deleted from the
           SC Short list.
```

SERVORD example for Change Line Class Codes via SERVORD in no-prompt mode

```
> CHG $ LINE 0 1 2 4 LCC RES POTSDATA 0 0 613 Y 2
```

Change Line CLASS Codes via SERVORD (continued)

The following SERVORD example shows how the LCC of a 1FR line with LEN 0 1 0 0 is changed to IBN using the CHG command. In this example, options CFDA and SC2 are changed to their IBN equivalents. The SC list has members 20 to 49 programmed, and option AMBISC is not datafilled in table CUSTSTN for customer group MDCGRP1. An SCL LISTTYPE of L30 is selected, and the SC list is mapped to 00-29.

SERVORD example for Change Line Class Codes via SERVORD in prompt mode

```
>CHG
SONUMBER: NOW 93 1 2 AM
>
WHAT:
> LINE
DN_OR_LEN:
> 0 1 0 0
LINE_INFO:
> LCC
NEW_LCC:
> IBN
GROUP:
> MDCGRP1
SUBGRP:
> 0
NCOS:
> 1
SNPA:
> 919
CFDA option to be changed to CFD + CDU + CFS +
CFDVT option.
SCREEN:
>Y
CFXNCOS:
> 2
SC2 option to be changed to SCL option.
LISTTYPE:
>L30
Warning: CFDA option to be changed to CFD + CFS +
        CDU + CFDVT option.
        SC2 option to be changed to SCL option.
Warning: SC Long entries 20–49 are remapped to
         0–29.
```

Change Line CLASS Codes via SERVORD (end)

SERVORD example for Change Line Class Codes via SERVORD in no-prompt mode

```
> CHG $ LINE  0 1 0 0  LCC IBN MDCGRP1  0  1  919  Y  2  L30
```

Change Line Equipment Number for EBS

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS23 and later versions

Requirements

To operate, CLEN for EBS has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The CLEN for Electronic Business Systems (EBS) creates the CKLN (change keyset LEN) command in use with the Service Order System (SERVORD). The CKLN command allows an operating company to change the line equipment number (LEN) of a Meridian business set (MBS) automatically. When you enter the CKLN command, the system moves all directory number (DN) appearances and feature data for the previous LEN. The system associates all DN appearances and feature data with the new LEN. For example, the system associates the speed calling list contents from table IBNSC (IBN Speed Calling List) with the call forwarding status from table CFX (Call Forwarding).

The CLEN for EBS feature creates the office parameter MAX_MADN_MEMBERS_PER_LSG. This office parameter increases the flexibility of multiple appearance directory number (MADN) subgroup assignments.

Operation

The CLEN for EBS reduces the number of operations required to change the LEN. The set operator must not delete feature data for a previous LEN manually. The set operator must not enter the same data for a new LEN manually. The CKLN command automates this procedure. The CKLN command minimizes the work required to change the LEN of an MBS or data unit.

Change Line Equipment Number for EBS (continued)

Before the system performs the CKLN command, the system completes the following checks on both LENs. The system performs these checks to make sure the conditions for successful application of the request are present:

- In the LEN that the SERVORD prompt OLD_LEN specifies, the line class code (LCC) must be an MBS or a Datapath data unit. For other LCCs, use the CLN (change LEN) command. The station must have a minimum of one DN appearance. The station must be idle or out of service. Correct line states for successful application of the CKLN command are IDL, INB, LO, CUT, and LMB.
- In the LEN that the SERVORD prompt NEW_LEN specifies, enter the line card in table LNINV (Line Circuit Inventory). The line card must have a status of HASU or reserved. Do not enter the new LEN in table KSETINV (Business Set and Data Unit Inventory). Do not enter the new LEN in table IVDINV (Integrated Voice and Data Set Inventory). The card code assigned to the new LEN must be compatible with the LCC of the station to move.

Translations table flow

The CLEN for EBS translations tables appear in the following list:

- Table IVDINV (Integrated Voice and Data Set Inventory) specifies the business set and data unit hardware location for the M2000 digital series telephones. Table IVDINV specifies the associated options. The telephones offer the end user voice and data abilities at the same time. The telephones must connect to digital facilities. You can use the IVD digital lines in the Meridian SL-100 environment. The system enters data in this table through SERVORD. You must enter each line card slot in table LNINV before the CKLN command updates table IVDINV.
- The data for each line card slot appears in table LNINV (Line Circuit Inventory).
- Table KSETINV specifies the business set and data unit hardware location for the M5000 series, add-ons, and options for an MBS. Field SETDATA contains subfield KSET. Subfield KSET identifies the specified business set type. The system uses SERVORD to enter data in table KSETINV. You must enter each line card slot in table LNINV before the command updates table KSETINV.
- You can enter the CKLN command through SERVORD to change the LEN for an MBS. When you enter this command, table CKLN specifies one tuple for each data entry in table KSETINV or table IVDINV. Each tuple contains two fields. These fields are OLDLEN and NEWLEN. The two LENs are the same when a tuple from the table appears. Before the CKLN command, the previous LEN value is the same in field OLDLEN and field

Change Line Equipment Number for EBS (continued)

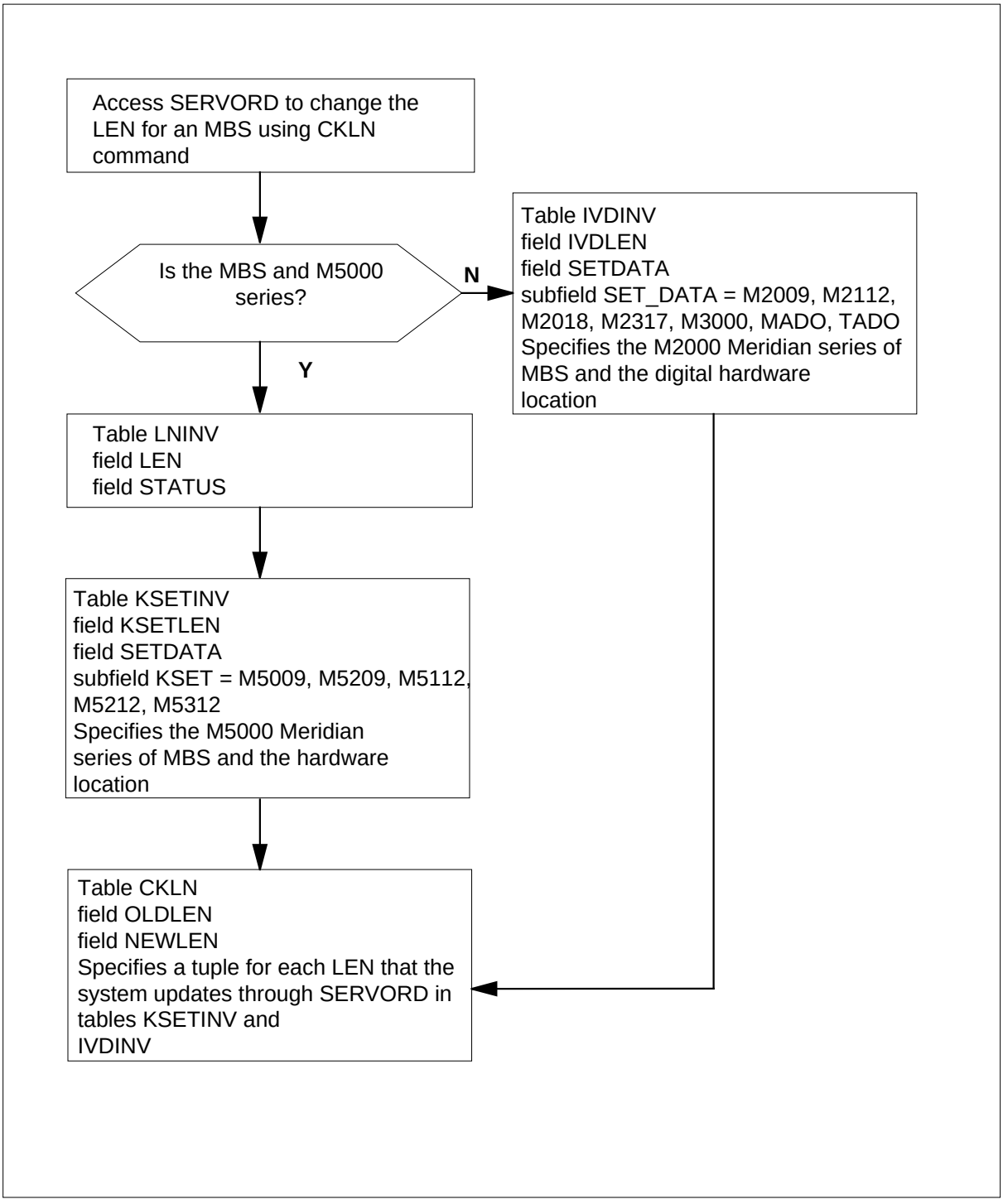
NEWLEN. When you enter a command to change the LEN, fields OLDLEN and NEWLEN display the new LEN.

Note: Table CKLN directly updates through application of the journal file or the CKLN command in SERVORD. The system rejects attempts to update table CKLN through the table editor. The system reports error messages.

The CLEN for EBS translation process appears in the following flowchart. The tables that the CKLN command in SERVORD affects, appear in the flowchart and data.

Change Line Equipment Number for EBS (continued)

Table flow for CLEN for EBS



Change Line Equipment Number for EBS (continued)

The datafill content for the flowchart appears in the following table.

Datafill example for CLEN for EBS

Item	Example data
Old LEN for M5009	HOST 02 0 00 13 (before CKLN execution)
New LEN for M5009	HOST 02 01 06 13
Old LEN for M2009	HOST 00 00 01 02 (before CKLN execution)
New LEN for M2009	HOST 01 01 02 04
IVDINV	HOST 01 01 02 04 M2009 FH $
LNINV	HOST 02 0 00 13 6X99AA NPDGP HAUS N NL Y NIL
KSETINV	HOST 02 0 00 13 M5009 $
CKLN	HOST 02 0 00 13 HOST 02 0 00 13 HOST 00 00 01 02 HOST 00 00 01 02

Limits

The following limits apply to CLEN for EBS:

- The card code assigned to the new LEN must be compatible with the following:
  - LCC of the station you move
  - an MBS data unit
  - a Datapath data unit
- A station you relocate has a minimum of one assigned DN appearance.
- The transferring station is idle or out of service. The line state is IDL, INB, LO, CUT, or LMB.
- A business set with assigned options BLF or DRING does not have the CKLN command in use.
- The CKLN does not operate with group-type options like call pick-up (CPU) or uniform call distribution (UCD).

Change Line Equipment Number for EBS (continued)

Interactions

The interactions between CLEN for EBS and other functionalities appear in the following paragraphs.

Automatic Call Distribution (ACD)

The CKLN command supports the ACD feature and the subscriber line usage (SLU) option. The CKLN command causes a check for MADN rule problems. An additional check occurs to determine if MADN bundling reordering is a requirement because of the new LEN value.

Bridged Night Number (BNN)

The CKLN command supports hunt group pilot and member DN appearances from a BNN group.

Directory Number Hunting (DNH)

The CKLN command supports hunt group pilot and member DN appearances from a DNH group.

Distributed Line Hunting (DLH)

The CKLN command supports hunt group pilot and member DN appearances from a DLH group.

Multiline Hunting (MLH)

The CKLN command supports hunt group pilot and member DN appearances from an MLH group.

Multiple Appearance Directory Number (MADN)

The MADN appearances with single call arrangement (SCA) or multiple call arrangement (MCA) transfer to the new LEN.

Activation/deactivation by the end user

The CLEN for EBS does not require activation or deactivation by the end user.

Billing

The CLEN for EBS does not affect billing.

Station Message Detail Recording

CLEN for EBS does not affect Station Message Detail Recording.

Datafilling office parameters

Office parameters for CLEN for EBS appear in the following table. Refer to *Office Parameters Reference Manual* for additional information about office parameters.

Office parameters by CLEN for EBS

Table name	Parameter name	Explanation and action
OFCENG	MAX_MADN_MEMBERS_PER_ LSG	Specifies the number of MADN group members allowed on one line subgroup. Enter a value from one to four. The default value is four.

Datafill sequence

Datafill to activate CLEN for EBS appears in the following table. The tables appear in the correct entry order.

Datafill requirements for CLEN for EBS

Table	Purpose of table
OFCENG	Office Engineering. This table contains data on engineering parameters for the office. See “Datafilling office parameters" for how CLEN for EBS affects office parameters.
IVDINV (Note)	Integrated Voice and Data Set Inventory. This table specifies the business set and data unit hardware location for the M2000 digital series and the associated options.
LNINV	Line Circuit Inventory. The data for each line card slot appears in this table. The line that contains the LEN appears in this table.
KSETINV (Note)	Business Set and Data Unit Inventory. This table specifies the business set and data unit hardware location for the M5000 series, add-ons, and options for an MBS.

Note: Enter this table through SERVORD. A data entry procedure or example is not available. See “SERVORD" for an example of how to use SERVORD to enter this table.

Datafilling table LNINV

The data for each line card slot appears in table LNINV. The line that contains the LEN appears in this table. The CLEN for EBS introduces the Service Order System (SERVORD) command CKLN. The CKLN command changes the LEN on a multiline set. The system moves DN appearances and feature data associated with the previous LEN. The system associates the data with the new LEN.

Change Line Equipment Number for EBS (continued)

Datafill for CLEN for EBS for table LNINV appears in the following table. The fields that apply to CLEN for EBS appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table LNINV

Field	Subfield or refinement	Entry	Explanation and action
LEN		see description	Line Equipment Number (LEN). This field specifies the site, frame, unit, drawer, shelf, slot, and circuit number for the line. Enter the LEN.
STATUS		HASU, WORKING, UNEQUIP, CUTOFF, or RESERVED	Line Inventory Availability Status. This field specifies the line card status of the LEN. Enter HASU, WORKING, UNEQUIP, CUTOFF, or RESERVED.

Datafill example for table LNINV

Sample datafill for table LNINV appears in the following example. The LEN for a line and the line card with a HASU status appears in the example.

MAP example for table LNINV

```
LEN           CARDCODE  PDGRP  STATUS GND  BNV  MNO  CAR
------------------------------------------------------------
HOST 00 1 18 08  6X99AA  NPDGP   HASU     N   NL   Y  NIL
```

Tools for verifying translations

The CLEN for EBS does not use tools for verifying translations.

SERVORD

The CLEN for EBS introduces the SERVORD command CKLN. The CKLN command changes the LEN on a multiline set. The system moves DN appearances and feature data associated with the previous LEN and associated with the new LEN. The CKLN command supports options that an MBS or Datapath data unit currently supports.

The CKLN command supports pilot and member hunt group DN appearances. The appearances are from the four hunt group types. These types are DNH,

DLH, MLH, and BNN. The MADN appearances with single call arrangement (SCA) or multiple call arrangement (MCA) transfer to the new LEN.

The CKLN command causes a check for MADN rule problems. The check determines if MADN bundling reordering is a requirement because of the new LEN value. If a problem with MADN rules occurs, the problem inhibits CKLN command operation.

SERVORD limits

The CLEN for EBS does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts used to assign CLEN for EBS to the current line appear in the following table.

SERVORD prompts for CLEN for EBS

Prompt	Current input	Explanation
OLD_LEN	Line equipment number (LEN)	Specifies the LEN that a CKLN service order command changes
NEW_LEN	Line equipment number (LEN)	Indicates the new LEN of the line to change

SERVORD example for implementing CLEN for EBS

The following SERVORD example describes how the CLEN for EBS changes the LEN with the line associated with LEN 2 0 1 14. In this example, the CLEN for EBS changes the LEN to 3 1 10 2.

Change Line Equipment Number for EBS (end)

SERVORD example for CLEN for EBS in prompt mode

```
SO:
> CKLN
SONUMBER: NOW 92 10 01 PM
>
OLD_LEN:
> 2 0 1 14
NEW_LEN:
> 3 1 10 2
```

SERVORD example for CLEN for EBS in no-prompt mode

```
>CKLN $ 2 0 1 14 3 1 10 2
```

Change Speeed Call Controller

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS29 and later versions

Requirements

To operate, Change Speed Call Controller requires MDC Minimum, MDC00001.

Description

Change Speed Call Controller allows the controller of a speed call user (SCU) group to change from one line equipment number (LEN) to another. The change does not delete the members of the SCU group associated with the current LEN and rebuild the group around the new LEN. The modified Service Order System (SERVORD) command CHG (change translation/routing information) enables operating company personnel to change the controller LEN of an SCU group. The system automatically associates the members of the SCU group with the new LEN.

Before Change Speed Call Controller, operating company personnel used the SERVORD command DEO (delete option) to change the controller of an SCU group. Operating company personnel deleted all members of the SCU group. With a new controller LEN, operating company personnel added each member to the new SCU group with the ADO (add option). A third command established the controller LEN of the new SCU group. The command assigned the Speed Call Long (SCL) feature to the new controller. An SCU group can contain a minimum of 50 members. This procedure can require much labor.

Operation

Change Speed Call Controller requires the new controller to have option SCL assigned before the execution of the SERVORD command CHG. The new controller must be a member of the same customer group as the current controller. Only the controller can add, change, or delete members of the SCL list. The other members of the SCU group can use the SCL list codes. The other members of the SCU group cannot affect the SCL list. The other members of the SCU group have option SCU assigned.

An SCU group is a logical grouping of several MDC lines that share the use of an SCL list. One group member is the controller of the SCU group.

Change Speeed Call Controller (continued)

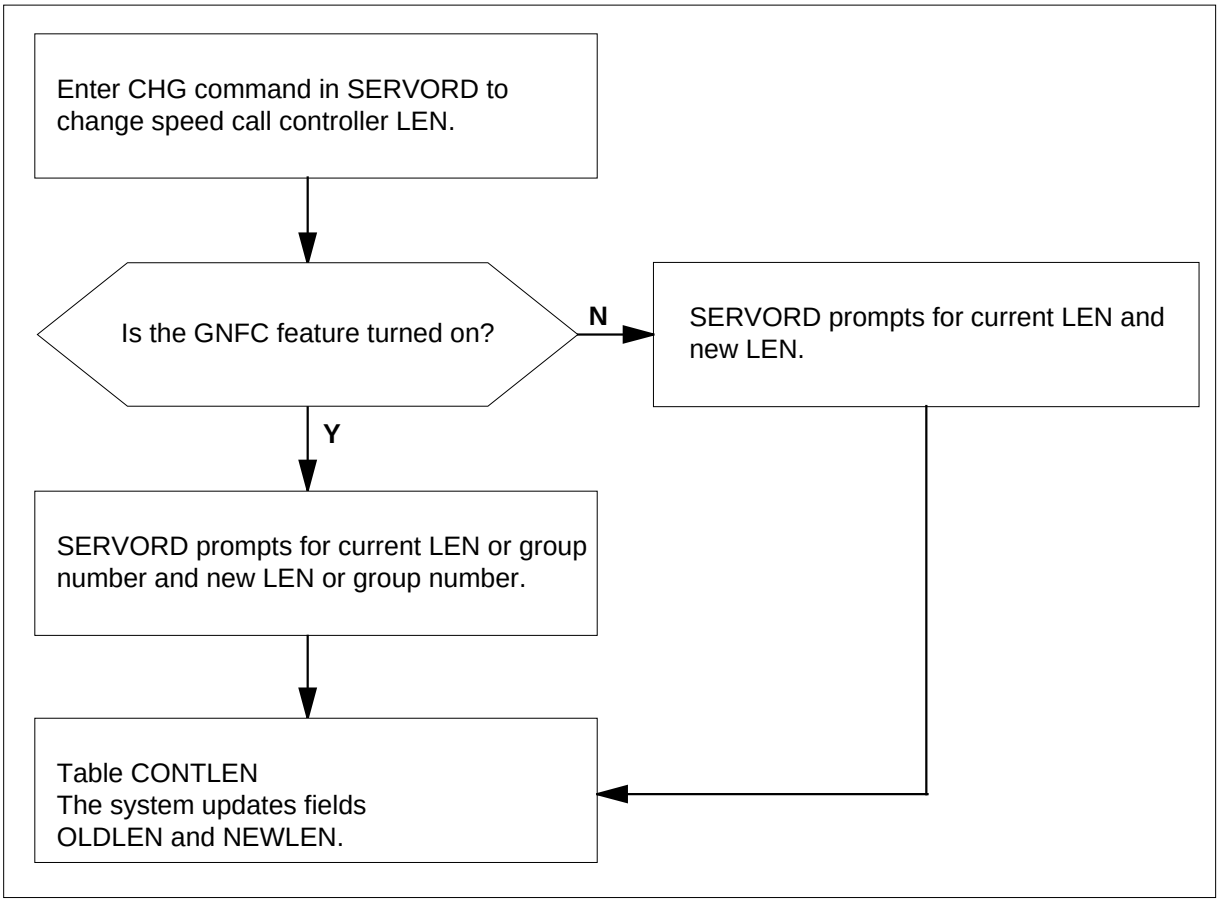
Translations table flow

The Change Speed Call Controller translations process appears in the following flowchart. The tuple added in table CONTLEN (Control Line Equipment Number) when the controller of an SCU group changes appears in the flowchart and data.

Table CONTLEN (Control Line Equipment Number) is a read-only logical table. Table CONTLEN contains one tuple for each LEN entered in table IBNLINES (IBN Line Assignment), KSETINV (Business Set and Data Unit Inventory), or IVDINV (Integrated Voice and Data Set Inventory). The system automatically adds the tuples when the controller of an SCU group changes.

The Change Speed Call Controller translation process appears in the following flowchart.

Table flow for Change Speed Call Controller



Change Speeed Call Controller (continued)

The datafill content used in the flowchart appears in the following table.

Datafill example for Change Speed Call Controller

Datafill table	Example data
CONTLEN	HOST 00 0 08 15 HOST 00 0 08 21

Limits

The following limits apply to Change Speed Call Controller:

- The new controller of the SCU group must have option SCL before the execution of the SERVORD command CHG.
- If the Group Number Feature Control (GNFC) feature is in use, the following change occurs. The current group number of the SCU group changes to the group number associated with the new controller.
- The current controller must be a member of an SCU group.
- The current controller and the new controller must be in the same customer group.
- Change Speed Call Controller only applies to MDC terminals that are members of an SCU group.

Interactions

Change Speed Call Controller does not have actions between functions. This feature enhances SERVORD. This feature does not interact with the other SERVORD features.

Activation/deactivation by the end user

Change Speed Call Controller does not require activation or deactivation by the end user.

Billing

Change Speed Call Controller does not affect billing.

Station Message Detail Recording

Change Speed Call Controller does not affect Station Message Detail Recording.

Datafilling office parameters

Change Speed Call Controller does not affect office parameters.

Change Speeed Call Controller (continued)

Datafill sequence

Datafill to implement Change Speed Call Controller appears in the following table. The tables appear in the correct entry order.

Datafill requirements for Change Speed Call Controller

Table	Purpose of table
CONTLEN (Note)	This table identifies the data to change or display.
Note: Table CONTLEN is a read-only table. The system enters data in table CONTLEN when the controller of an SCU group changes through SERVORD. This table does not provide the datafill procedure for table CONTLEN.	

Tools for verifying translations

Change Speed Call Controller does not use tools for verifying translations.

SERVORD

The Change Speed Call Controller modifies the SERVORD command CHG. The modification allows the change of the SCU group controller. Change Speed Call Controller requires that the new controller have option SCL before execution of the CHG command. The new controller must be a member of the same SCU group as the current controller.

Change Speed Call Controller also modifies the SERVORD command DSP (display translation/routing information). The modification allows the system to display the controller of an SCU group. The DSP command checks the accuracy of the SCU group. If any member of the SCU group uses a different SCL list than that of the controller, an error message displays. The error message directs the service order clerk to use the CHG command to change the current controller of the member. The service order clerk changes the current controller to the new controller.

The GNFC feature affects the SERVORD prompts for Change Speed Call Controller. When the GNFC feature is off, the system prompts the end user. The system prompts the end user for the LEN of the current controller and the LEN of the new controller. When the GNFC feature is on, the system prompts for the LEN or group number of the current controller. When the GNFC feature is on, the end user receives a prompt. The prompt is for the LEN or group number of the new controller. If the GNFC feature is active and you use a group number to enter the current controller, an LEN appears. The LEN displayed is the LEN associated with that group number.

SERVORD limits

Change Speed Call Controller does not have SERVORD limits.

Change Speeed Call Controller (continued)

SERVORD prompts

The SERVORD prompts for Change Speed Call Controller when the GNFC feature is off appear in the following table.

SERVORD prompts for Change Speed Call Controller

Prompt	Correct input	Explanation
WHAT	CONTLEN	Identifies the data to change or display. Enter CONTLEN.
CURRENT_LEN	LEN of the current controller	Identifies the current controller of the SCU group. Enter the LEN of the current controller.
NEW_LEN	LEN of the new controller	Identifies the new controller of the SCU group. Enter the LEN of the new controller.

The SERVORD prompts for Change Speed Call Controller when the GNFC feature is active appear in the following table.

SERVORD prompts for Change Speed Call Controller

Prompt	Correct input	Explanation
WHAT	CONTLEN	Identifies the data to change or display. Enter CONTLEN.
CURRENT_ LEN_GRPNUM	LEN or group number of the current controller (1 to 32,768)	Identifies the current controller of the SCU group. Enter the LEN or group number of the current controller (1 to 32,768).
NEW_LEN_ GRPNUM	LEN or group number of the new controller (1 to 32,768)	Identifies the new controller of the SCU group. Enter the LEN or group number of the new controller (1 to 32,768).
CURRENT_ GRPNUMBER_ OR_CONTLEN	LEN or group number of the current controller (1 to 32,768)	Identifies the current controller of the SCU group. Enter the LEN or group number of the current controller (1 to 32,768).

SERVORD example for changing Change Speed Call Controller

How the CHG command changes the Change Speed Call Controller appears in the following SERVORD example. This change occurs when the GNFC feature is off.

Change Speeed Call Controller (continued)

SERVORD example for Change Speed Call Controller on an existing line using SERVORD when the GNFC feature is off in prompt mode

```
SO:
>CHG
SONUMBER: NOW 88 2 1 PM
>
WHAT:
>CONTLEN
CURRENT_LEN:
>0 0 10 3
NEW_LEN:
>0 0 8 5
```

SERVORD example for Change Speed Call Controller in no-prompt mode

```
>CHG $ CONTLEN 0 0 10 3 0 0 8 5
```

How the CHG command changes Change Speed Call Controller appears in the following SERVORD example. This change occurs when the GNFC feature is on.

SERVORD example for Change Speed Call Controller in prompt mode

```
SO:
>CHG
SONUMBER: NOW 88 2 1 PM
>
WHAT:
>CONTLEN
CURRENT_LEN_GRPNUM:
>0 0 10 3
NEW_LEN_GRPNUM:
>0 0 8 5
```

SERVORD example for Change Speed Call Controller in no-prompt mode

```
>CHG $ CONTLEN 0 0 10 3 0 0 8 5
```

Change Speeed Call Controller (end)

How the DSP command changes Change Speed Call Controller appears in the following SERVORD example. This change occurs when the GNFC feature is off.

SERVORD example for Change Speed Call Controller when the GNFC feature is off in prompt mode

```
SO:
>DSP
WHAT:
>CONTLEN
CURRENT_LEN:
>0 0 10 3
```

SERVORD example for Change Speed Call Controller in no-prompt mode

```
>DSP CONTLEN 0 0 10 3
```

How to use the DSP command to display the speed call controller appears in the following example. This change occurs when the GNFC feature is on.

SERVORD example for Change Speed Call Controller when the GNFC feature is on in prompt mode

```
SO:
>DSP
WHAT:
>CONTLEN
CURRENT_GRPNUMBER_OR_CONTLEN:
>0 0 10 3
```

SERVORD example for Change Speed Call Controller in no-prompt mode

```
>DSP CONTLEN 0 0 10 3
```

Control of Multiple Call Forwarding

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS35 and later versions

Requirements

To operate, Control of Multiple Call Forwarding (CMCF) has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The CMCF allows operating companies to specify a limit. This limit is on the number of simultaneous calls that forward through a Meridian Digital Centrex (MDC) base station. The limits this feature imposes apply to all concurrent calls forwarded. Calls terminating inside the customer group intragroup have limits assigned. Calls terminating outside of the customer group external calls have limits assigned. The CMCF feature is like Call Forwarding Simultaneous/Screening (CFS). The CMCF values apply to the customer group as opposed to individual lines. In addition to the values assigned to the customer group, programmed lines can forward more intragroup and external calls.

When several directory numbers (DN) keys on a Meridian business set (MBS) share the same call forwarding features, the system maintains a separate count. The count includes the number of active calls that forward through each DN key base station for intragroup and external calls.

Operation

The operation of Control of Multiple Call Forwarding appears in the following paragraphs.

Background

The Call Forwarding feature permits the simultaneous forwarding of more than one call through a call forwarding base station. The MULTICFA, MULTICFB, and MULTICFD options do not limit the number of calls that MDC end users can forward. With option CFXTRK, forwarded calls can route

Control of Multiple Call Forwarding (continued)

over trunks. These options do not impose a limit on the number of calls that can forward at the same time.

The CFS allows separate limits for each type of call forwarding, like NCFUIF, NCFB or NCFD. The CFS does not distinguish between calls forwarded to internal customer group DNs, or external DNs that are not customer group.

Feature groups interactions

Feature groups allow the telephone operating company to group features in packages called feature groups. Individual lines in a single command can have assigned feature groups.

The CMCF is a correct feature group option. A feature group that contains a minimum of one call forwarding variant can have an assigned CMCF. The feature group must be private and must not contain option CFS SIMULT.

A line can have a feature group that contains CMCF assigned later if the following condition is present. The line must have an assigned customer group associated with the feature group. A line can have an assigned feature group that contains CMCF if the following condition is present. The customer group associated with the feature group must have an assigned CMCF. A line can have an assigned feature group that contains option CFS if the following condition is present. The customer group associated with the feature group does not have an assigned CMCF.

IBN/RES/POTS conversions

The following IBN/RES/POTS conversions apply to lines with option CMCF:

- Option CMCF removal occurs when the line class code (LCC) of an IBN line with option CMCF changes to RES or POTS.
- The CMCF group values are in use when a line moves to a group with option CMCF. Option CFS removal occurs.
- When a change from IBN to POTS occurs on a line with option CMCF, the following event occurs. The operator receives a prompt for the number of calls to allow at the same time.
- If the original customer group does not have option CMCF present, mapping occurs like previous mapping occurred. If the customer group after the LCC conversion does not have option CMCF present, mapping occurs like previous mapping occurred.

Control of Multiple Call Forwarding (continued)

Translations table flow

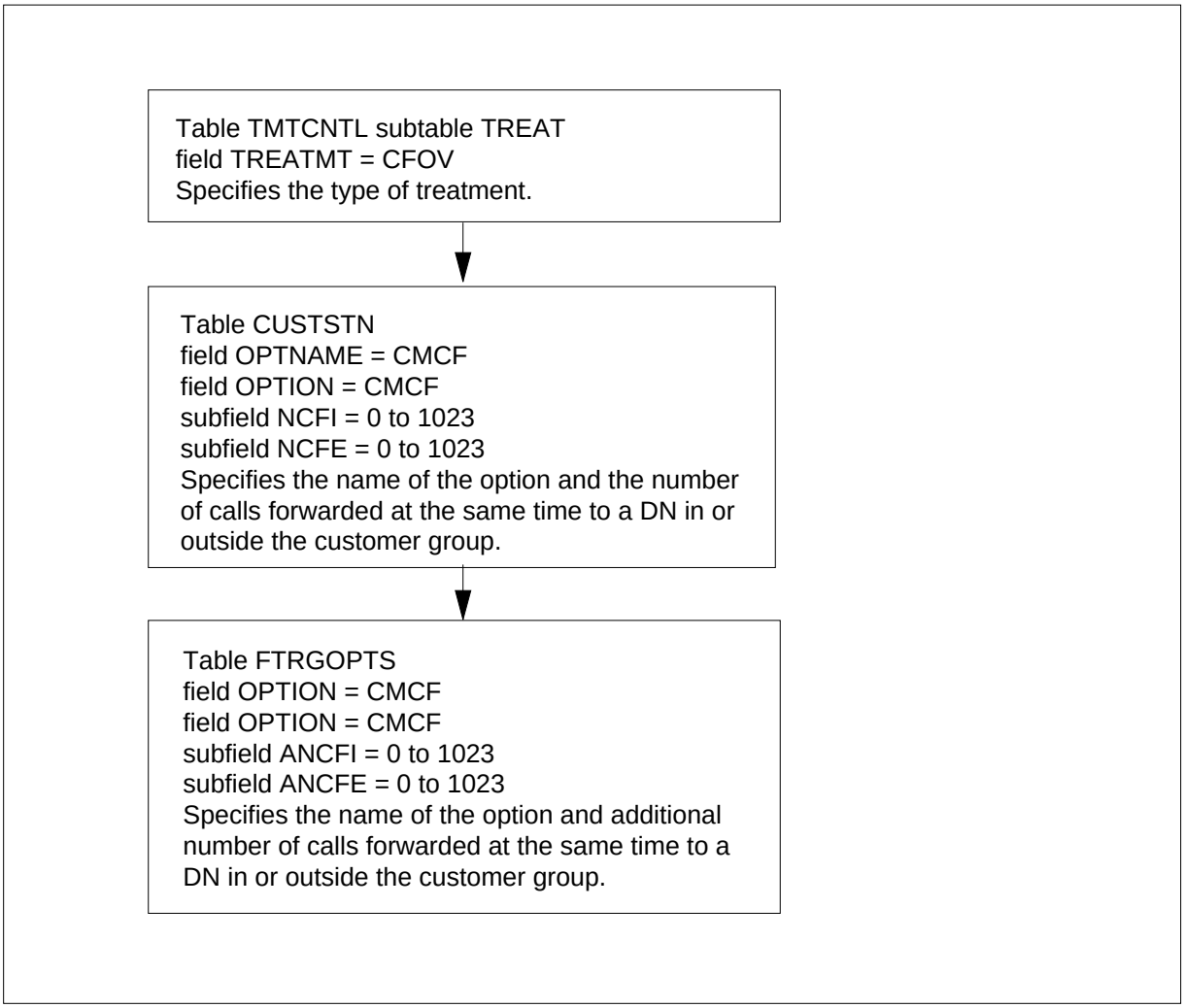
The Control of Multiple Call Forwarding translations process appears in the flowchart in the following figure. How lines in the customer group have CMCF added appears in the flowchart and data.

The Control of Multiple Call Forwarding translations tables appear in the following list:

- Table CUSTSTN (Customer Group Station Option) contains station options assigned to each of the customer groups.
- Operating companies use table TMTCNTL (Treatment Control) to define tones, announcements, or states, or combinations. In call translations, an encountered specified treatment code causes one of these tones to return to the originator of a call. An entry in Table CMTCNTL subtable TREAT is a requirement for treatment call forwarding overflow (CFOV).
- Feature groups a switching unit defines. Table FTRGOPTS (Feature Group Options) assigns the line options. Option CMCF is correct for PRIVATE feature groups only. The feature group class must be MBS, IBN, or DATA.

Control of Multiple Call Forwarding (continued)

Table flow for Control of Multiple Call Forwarding



Note: The system enters data in tables IBNFEAT and KSETFEAT through SERVORD.

The datafill content the flowchart uses appears in the following table.

Datafill example for Control of Multiple Call Forwarding (Sheet 1 of 2)

Datafill table	Example data
TMTCNTL subtable TREAT	CFOV Y S T OFRT 120
CUSTSTN	MDCGRP1 CMCF CMCF 5 2

Datafill example for Control of Multiple Call Forwarding (Sheet 2 of 2)

Datafill table	Example data
IBNFEAT	HOST 11 05 11 0 CFX CFX CFU N N Y N N N N Y 5 0
KSETFEAT	HOST 11 0 25 1 3 CFX CFX CFU N Y N N N N Y 2 0 $
FTRGOPTS	IBNTST CMCF CMCF 5 2

Limits

The following limits apply to Control of Multiple Call Forwarding:

- The CMCF is not available for the POTS or RES lines.
- A difference is present between the value by the query line equipment number (QLEN) displays and the query directory number (QDN) commands for the Selective Call Forwarding (SCF) feature. This difference occurs when options CMCF and SCF are present. The differences occurs in the actual value that determines the maximum number of calls that can forward at the same time. Lines with option SCF default to 1 with the assignment of a CMCF to a customer group. This default occurs because of the following condition. The CMCF value that table CUSTSTN defines governs input prompt NUMCALLS with option SCF. If a customer group has an assigned CMCF and a QDN or QLEN command occurs on a line with option SCF, the following display occurs. Input prompt NUMCALLS displays 1. The CMCF limits are the most important and the system applies these limits.
- If lines of the group have option CFS SIMULT assigned, the assignment of option CMCF to the group does not occur.
- Subfield CFXTRK of option CFXOPT in Table CUSTSTN can have an N setting. If this subfield has an N setting and external call forwarding can occur, the following action occurs. The CFU customers can forward multiple simultaneous calls to external DNs in the switch. The NCFE + ANCFE must be greater than 1. Customers can only forward calls one at a time to external DNs located at a remote switch.
- You cannot remove option CFXOPT from a customer group when that customer group has CMCF assigned. When the customer group has CMCF assigned, the following condition applies. A minimum of one of the subfields MULTICFA, MULTICFB, MULTICFD of option CFXOPT must be set to Y. The system rejects attempts to set the subfields to N if CMCF is present.
- The use of separate keylists for call forwarding causes features CFUIF, CFB, and CFD to appear in table KSETFEAT as three tuples. Each tuple has a keylist. When separate keylists are not in use, the features appear as

Control of Multiple Call Forwarding (continued)

one tuple with one keylist. A separate keylist limit is that call forwarding options CFS, CFRA, SCF, and CMCF appear only in the CFUIF tuple. These options apply to the three tuples. Without the CFUIF tuple you cannot view, add, or change call forwarding options. This restriction occurs because the options do not appear in CFB or CFD tuples. This condition does not occur often. Telephones with call forward variants have CFUIF assigned normally.

- Office parameter CFX_SEPARATE_KEYLIST_FEATURE in Table OFCENG (Engineered Office) can have a Y setting. In this condition, the CFX tuple splits in CFUIF, CFB, and CFD tuples. Call forwarding options CFS, CFRA, SCF, or CMCF apply if the options were present before conversion to separate keylists. If the line does not have CFUIF features assigned, the following restriction occurs. The options do not appear in table KSETFEAT for that line after conversion to separate keylists. The options do not appear because the CFUIF tuple is not present. Before you convert an office to separate keylists, make sure that all lines with these call forwarding options have CFUIF. Only CFUIF allows the options to appear.
- When an office converts to separate keylists, the DNs on an MBS cannot each have different ANCFI and ANCFE limits. Application of these limits occurs on a line equipment number (LEN) basis.
- The CMCF limits the number of calls allowed by multiple call forwarding and multiple call forwards to trunks (CFXTRK). The customer group must have multiple call forwarding. With the multiple call forwarding option set to N, the CMCF values are not in use. With MULTICFB set to N, and MULTICFA and MULTICFD set to Y, the CMCF allows one CFB at a time. For CFUIF and CFD, the CMCF customer group and line values are in use. These values restrict the number of calls that can forward at the same time.
- The CMCF feature is more important than the maximum number of calls that can forward at the same time. These calls forward through the base station of a variant of call forwarding, including the SCF feature.

Interactions

The interactions between Control of Multiple Call Forwarding and other functionalities appear in the following paragraphs.

Call Forward Simultaneous/Screening

The Call Forward Simultaneous/Screening feature becomes only Call Forward Screening with the CMCF group assignment. Control of Multiple Call Forwarding does not affect other call forwarding features or limits.

Control of Multiple Call Forwarding (continued)

Ring Again

Table CUSTSTN with option CFXOPT and subfield BUSYTRMT describes CFU/CFI/CFF/CFB failure paths. These paths can prevent call forwarding. This action can cause a caller to receive a busy signal. A caller also can receive a busy signal when values exceed the CMCF limit of the called party. The caller can activate Ring Again when the BUSYTRMT setting is Y. When the BUSYTRMT setting is N, a treatment table can provide customized treatment. Activation of Ring Again cannot occur.

MADN

The CMCF limits applied to the primary LEN of a multiple appearance directory number (MADN) control the following number. The limits control the number of simultaneous calls that can forward through the station. If each LEN of a MADN with two members has different CMCF line limits, the following action occurs. The system applies the CMCF limits on the primary MADN, which are more important. This condition occurs when the MADN member that is not primary has a second DN that is not an MADN. An LEN with only an MADN appearance that is not primary cannot have call forwarding.

Activation/deactivation by the end user

Control of Multiple Call Forwarding does not require activation or deactivation by the end user.

Billing

Control of Multiple Call Forwarding does not affect billing.

Station Message Detail Recording

Control of Multiple Call Forwarding does not affect Station Message Detail Recording.

Datafilling office parameters

Control of Multiple Call Forwarding does not affect office parameters.

Control of Multiple Call Forwarding (continued)

Datafill sequence

The tables that require datafill to implement Control of Multiple Call Forwarding appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Control of Multiple Call Forwarding

Table	Purpose of table
CUSTSTN	Customer Group Station Option Table. This table is a requirement for a switching unit with North American translations and the MDC or the feature AG0508. Feature AG0508 is the Residential Enhanced Services (RES). The station options assigned to each of the customer groups appears in this table.
TMTCNTL subtable TREAT	Treatments Subtable
IBNFEAT (Note)	IBN Line Feature Table. Line features assigned to the IBN lines listed in table IBNLINES appear in this table.
KSETFEAT (Note)	Business Set and Data-Unit Feature Table. The line features assigned to the business sets and data units (DU) table KSETLINE lists appear in this table. The Meridian digital telephone sets and DUs table IVDINV appear in this table.
FTRGOPTS	Feature Group Options Table
Note: Enter this table through SERVORD. A datafill procedure is not available.	

Datafilling table CUSTSTN

Table CUSTSTN (Customer Group Station Option) contains station options assigned to each of the customer groups.

Datafill for Control of Multiple Call Forwarding for table CUSTSTN appears in the following table. The fields that apply to Control of Multiple Call

Forwarding appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTSTN

Field	Subfield or refinement	Entry	Explanation and action
CUSTNAME		Customer Group Name	Customer Group Name. This field specifies the name assigned to the customer group. Enter a 1-character to 16-character name.
OPTNAME		CMCF	Option Name. This field specifies the name of the option. Enter CMCF.
OPTION		CMCF	Option. This field specifies the name of the option. Enter CMCF.
If field OPTION setting is CMCF, subfields NCFI and NCFE require datafill.			
	NCFI	1 to 1023	Number of Call Forwarding Intragroup. This subfield specifies the number of simultaneous calls that a member of the customer group forwards to a DN. The DN belongs to the same customer group. Enter a value from 1 to 1023.
	NCFE	1 to 1023	Number of Call Forwarding External. This subfield specifies the number of simultaneous calls that a member of the customer group forwards to a DN. The DN is outside the customer group. Enter a value from 1 to 1023.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

MAP example for table CUSTSTN

```
 CUSTNAME            OPTNAME                                  OPTION
_____________________________________________________________________
SDA                  CMCF                                     CMCF 5 2
```

Datafilling table TMTCNTL subtable TREAT

Operating companies use table TMTCNTL (Treatment Control) to define tones, announcements, and states. Operating companies use this table to define one or more of these elements that return to the originator of a call. This condition occurs if the system encounters a specified treatment code during

Control of Multiple Call Forwarding (continued)

call translations. An entry in Table TMTCNTL subtable TREAT is a requirement to provide treatment CFOV. The system can route CFOV treatment to busy or reorder tone.

Datafill for Control of Multiple Call Forwarding for table TMTCNTL subtable TREAT appears in the following table. The fields that apply to Control of Multiple Call Forwarding appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table TMTCNTL subtable TREAT

Field	Subfield or refinement	Entry	Explanation and action
TREATMT		CFOV	Treatment. This field specifies the treatment name. Enter CFOV.
LOG		Y or N	Log. This field specifies if the system prints a log when the system routes translations to a treatment. Enter Y or N.
FSTRTE		see subfields	First Route. This field contains of subfields FSTRTSEL, TABID, and KEY.
	FSTRTSEL	S	First Route Selector. This subfield specifies the first route selector. Enter S.
	TABID	OFRT, OFR2, OFR3, or OFR4	Trunk Name. This subfield specifies the office route table name. Enter OFRT, OFR2, OFR3, or OFR4.
	KEY	1 to 1023	Key. This subfield specifies the index into the office route table to define the route list for the treatment. Enter a value from 1 to 1023.

Datafill example for table TMTCNTL subtable TREAT

Sample datafill for table TMTCNTL subtable TREAT appears in the following example.

MAP example for table TMTCNTL subtable TREAT

```
TREATMT    LOG                                  FSTRTE
_____________________________________________________
CFOV       Y   S                                T120
```

Datafilling table FTRGOPTS

Table FTRGOPTS (Feature Group Options) assigns line options to all feature groups a switching unit defines. This table specifies the characteristics of feature group options.

Datafill for Control of Multiple Call Forwarding for table FTRGOPTS appears in the following table. The fields that apply to Control of Multiple Call Forwarding appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table FTRGOPTS

Field	Subfield or refinement	Entry	Explanation and action
FTRGRP		alphanumeric	Feature Group Name. This field specifies the feature group name of an assigned option. Enter a 1- to 16-alphanumeric name.
OPTION		CMCF	Feature Group Option. This field specifies the name of the option. Enter CMCF.
OPTION		CMCF	Option. This field specifies the name of the option. Enter CMCF.
OPTVAR			Option Variable Area. This field contains of subfields ANCFI and ANCFE.
	ANCFI	0 to 1023	Additional Number of Call Forward Intragroup. This subfield specifies the number of additional calls that a group member can forward at the same time. The group member can forward these calls to a DN in the same customer group. The additional calls are calls above the group level. Enter a value from 0 to 1023.
	ANCFE	0 to 1023	Additional Number of Call Forward External. This subfield specifies the number of additional calls that a group member can forward at the same time. The group member can forward these calls to a DN outside the customer group. The additional calls are calls above the group level. Enter a value from 0 to 1023.

Datafill example for table FTRGOPTS

Sample datafill for table FTRGOPTS appears in the following example.

Control of Multiple Call Forwarding (continued)

MAP example for table FTRGOPTS

```
 FTRGRP          OPTION  OPTION                OPTVAR
_____________________________________________________
IBNTST            CMCF      CMCF                    5  2
```

Tools for verifying translations

Control of Multiple Call Forwarding does not use tools for verifying translations.

SERVORD

Line option CMCF is an acceptable option for the following SERVORD commands:

- ADO (add option)
- DEO (delete option)
- EST (establish a hunt or call pickup group)
- NEW (establish service)
- CHF (change feature information for feature that already exists)
- ADD (add line to a hunt group)

Table IBNFEAT

Line features assigned to the IBN lines table IBNLINES appear in table IBNFEAT (IBN Line Feature). The customer group in table CUSTSTN must have option CMCF assigned before modification of lines in table IBNFEAT occurs.

Table KSETFEAT

The line features assigned in table KSETLINE and assigned to sets and data units appear in table KSETFEAT (Business Set and Data Unit Feature). The customer group in table CUSTSTN must have option CMCF assigned before modification of lines in table occurs.

SERVORD limits

Control of Multiple Call Forwarding does not have SERVORD limits.

Control of Multiple Call Forwarding (continued)

SERVORD prompts

The SERVORD prompts used to assign Control of Multiple Call Forwarding to a line appear in the following table.

SERVORD prompts for Control of Multiple Call Forwarding

Prompt	Correct input	Explanation
DN_OR_LEN	7-digit DN or LEN	Specifies the 7-digit DN or LEN of the line to change. Enter the DN or LEN.
OPTION	CMCF	Specifies the name of the option. Enter CMCF.
ANCFI	0 to 1023	Specifies the number of additional calls that a group member can forward at the same time. A group member can forward these calls to a DN in the same customer group. The additional calls are calls above the group level. Enter a value from 0 to 1023.
ANCFE	0 to 1023	Specifies the number of additional calls that a group member can forward at the same time. A group member can forward these calls to a DN outside the customer group. The additional calls are calls above the group level. Enter a value from 0 to 1023.
Note: The system enters data in tables IBNFEAT, and KSETFEAT with the use of SERVORD to assign Control of Multiple Call Forwarding.		

SERVORD example for implementing Control of Multiple Call Forwarding

Operational measurement (OM) group CALLFWD provides information about incoming calls. The call forward features are in use to redirect the incoming calls. Control of Multiple Call Forwarding limits the number of simultaneous calls an MDC customer line forwards.

The addition of Control of Multiple Call Forwarding to a line with the ADO command appears in the following SERVORD example.

Control of Multiple Call Forwarding (end)

SERVORD example for Control of Multiple Call Forwarding in prompt mode

```
SO:
> ADO
SONUMBER: NOW 90 1 2 AM
>
DN_OR_LEN:
> 5551234
OPTION:
> CMCF
ANCFI:
> 4
ANCFE:
> 0
OPTION:
> $
```

SERVORD example for Control of Multiple Call Forwarding in no-prompt mode

```
> ADO 5551234 CMCF 4 0 $
```

Cut-Through Dialing

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS14 and later versions

Requirements

To operate, Cut-Through Dialing has the following requirements:

- BAS Generic, BAS00003
- MDC Standard, MDC00003

Description

The Cut-Through Dialing feature allows the DMS-100 switch to process calls in cut-through mode with the following two basic characteristics:

- Call progress tones from remote switches in the network return to the caller.
- The digits that the originator dials control the selection of routes used to complete the call.

The Cut-Through Dialing feature use occurs most often with normal tie trunk networks and with centralized attendant service (CAS).

Operation

After the calling party dials the access code digits, the calling party waits for the next node to return the dial tone. With the return of the dial tone, the calling party dials the digits required for the next link. The DMS-100/IBN switch recognizes the first set of incoming digits as a cut-through access code. The switch selects an outgoing trunk. The outgoing trunk can be a plain old telephone service (POTS) trunk or an Integrated Business Network (IBN) trunk. An established connection between the calling party and the outgoing trunk allows the call sequence tones to pass to the calling party. The tones are heard as the call progresses through the network until the calling party dials the extension number of the called party. The cut-through operation ends when one of the following occurs:

- cut-through time-out
- receipt of an octothorpe (#)
- called party answer

Cut-Through Dialing (continued)

User interface

Cut-Through Dialing does not affect user interface.

Translations table flow

Cut-Through Dialing does not affect translations table flow.

Limits

The following limits apply to Cut-Through Dialing:

- The Cut-Through Dialing feature allows dialing with or without waiting for dial tone. If the user dials without first receiving dial tone, the result can cause problems. A time delay occurs between the following action. A delay occurs between the cut-through access code description of the first set of digits and the collection of digits. If the user dials during this time, the system loses the digits dialed. The user must receive dial tone before the user dials the necessary digits.
- The feature does not support dialing an asterisk (*) equivalent from DP sets.
- Activation of the feature does not allow recognition of authorization and account codes.

- The feature does not allow the use of a tone detector.
- The feature is not compatible with the following features:
  - dial pulse conversion
  - alternate routing
  - ESN-network automatic route selection
  - time of day (TOD) routing
  - TOD NCOS
  - DTMF outpulsing on a line
  - variable types of outpulsing on the same call
  - ESN-network information signals
  - call back queuing
  - off-hook queuing
  - ESN NCOS
  - direct inward system access (DISA)
  - authorization code/account codes last
  - expensive route warning tone
  - busy verification trunks

Interactions

The following paragraphs describe Cut-Through Dialing interactions with other functionalities.

Speed calling lists can contain numbers that result in cut-through dialing to complete the speed call.

An asterisk (*) in a stored number is a pause. The pause length requires careful determination. The pause length must permit the connection switch to prepare for digit collection. The pause must be shorter than the cut-through time-out value of the originating and connecting switches. Table CUSTHEAD defines the cut-through time-out value.

A speed call number can store an infinite number of asterisks. The number of asterisks that can occur in order is infinite. The interdigital time-out parameter limits speed call pausing. When a node on the route of the call receives a digit, the following condition applies. The node must receive the next digit in the time-out period. If this action does not occur, digit collection halts. Digits received to that point determine call processing. If the speed call stored

Cut-Through Dialing (continued)

number has a long pause and goes over the interdigital-out, call dialing does not end. A long pause is a sequence of asterisks.

A hookswitch flash during the cut-through period terminates the Cut-Through Dialing feature.

Cut-through dialing establishes both legs of a three-way call. A flash during the cut-through period of the second leg of the call terminates the cut-through operation. The system releases the outgoing trunk. A second flash reconnects the user to the first leg of the call.

A user can use cut-through dialing to call a potential conferee. The conference can include this party.

A virtual facility group (VFG) allows cut-through dialing.

Activation/deactivation by the end user

Cut-Through Dialing does not require activation or deactivation by the end user.

Billing

Cut-Through Dialing does not affect billing.

Station Message Detail Recording

Cut-Through Dialing does not affect Station Message Detail Recording.

Datafilling office parameters

Cut-Through Dialing does not affect office parameters.

Datafill sequence

Datafill to implement Cut-Through Dialing appears in the following table. The tables appear in the correct entry order.

Datafill requirements for Cut-Through Dialing

Table	Purpose of table
CUSTHEAD	Customer Group Head table. This table lists the names assigned to the blocks of data in table IBNXLA. These blocks store the data for the translation of digits.
IBNXLA	IBN Translation table. This table stores data for the digit translation of calls from an IBN station, attendant console, and incoming IBN trunk group. This table stores data for the incoming side of a two-way IBN trunk group.

Datafilling table CUSTHEAD

Table CUSTHEAD (Customer Group Head) defines the public and private transaction capability application part (TCAP) translator names for each customer group. Enter data in table CUSTHEAD to assign the cut-through dial time-out and cut-through dial pause options. These options are assigned to the customer group. The default values of these options are as follows. The values are 4 s for cut-through dial time-out and 3 s for cut-through dial pause. Enter data in these options if the default values require a change for the customer group.

Datafill for Cut-Through Dialing for table CUSTHEAD appears in the following table. The fields that apply to Cut-Through Dialing appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTHEAD

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		CUTIMOUT	Options. This field specifies the cut-through dial time-out option. Enter CUTIMOUT.
	TIMEOUT	5 to 10	Cut Through Dial Pause. This field specifies the maximum number of seconds that the active Cut-Through Dialing feature, waits for digits. The seconds occur in intervals of 1 s. Enter a value from 5 to 10. ***Note:*** If the feature does not receive digits, the feature times out and deactivates the feature.
OPTIONS		CUTPAUSE	Options. This field specifies the cut-through dial pause option. Enter CUTPAUSE.
	PAUTIME	numeric	Cut Through Dial Pause. This field specifies the maximum number of seconds that the Cut-Through Dialing feature pauses when the caller dials an asterisk (*). The seconds occur in intervals of 1 s. Enter a value from 1 to 2 or from 4 to 7.

Datafill example for table CUSTHEAD

Sample datafill for table CUSTHEAD appears in the following example.

Cut-Through Dialing (continued)

MAP example for table CUSTHEAD

```
CUSTNAME  CUSTXL  DGCOLNM  IDIGCOL
                                                    OPTIONS
_____________________________________________________________
NETDMT1    CXNET    DCNET    NIL
               (VACTRMT  0) (CUTPAUSE 4) (CUTIMOUT  5) $
```

Datafilling table IBNXLA

Table IBNXLA (IBN Translation) stores the data for the digit translation of calls from an IBN station or an attendant console. Table IBNXLA can store the data for an incoming IBN trunk group. This table can store the data for the incoming side of a two-way IBN trunk group. Table IBNXLA requires data entry to define the access code and routing for the Cut-Through Dialing feature.

Datafill for Cut-Through Dialing for table IBNXLA appears in the following table. The fields that apply to Cut-Through Dialing appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	Key. This field contains subfields XLANAME and DGLIDX.
	XLANAME	alphanumeric	Translator Name. This subfield specifies the assigned translator name. Enter the 1- to 8-character name.
	DGLIDX	numeric	Digilator Index. This subfield specifies the access code. Enter the 1 to 18-digit number assigned as the access code.
RESULT		see subfield	Result. This field contains subfield TRSEL.
	TRSEL	CUTTD	Translations Selector. This subfield specifies the translations selector to use. Enter CUTTD. ***Note:*** If TRSEL has a CUTTD setting, subfields CLLI, ACR, SMDR, and INTRAGRP require datafill.

Datafilling table IBNXLA (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	CLLI	alphanumeric	Common Language Location Identifier. This subfield specifies the required CLLI. Enter CLLI.
	ACR	Y or N	Account Code Entry. This subfield specifies if an account code is a requirement. Enter Y or N.
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if SMDR is a requirement. Enter Y or N.
	INTRAGRP	Y or N	Intragroup. This subfield specifies if the call is intragroup. Enter Y of N.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

```
           KEY
                                                    RESULT
________________________________________________________________
C1LBR2   128         CUTTD           REGOEAS     N   N   N
```

Tools for verifying translations

Cut-Through Dialing does not use tools for verifying translations.

SERVORD

Cut-Through Dialing does not use SERVORD.

Cut-Through Dialing and Through Dialing Interaction

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS16 and later versions

Requirements

The Cut-Through Dialing and Through Dialing Interaction has the following requirements:

- BAS Generic, BAS00003
- MDC Standard, MDC00003

Description

The Cut-through Dialing feature allows a minimum of one cut-through operations during dialing. The DMS-100 switch recognizes the first set of incoming digits as an access code. The switch recognizes this code to activate the cut-through feature and to select an outgoing trunk. The outgoing trunk can be a POTS or an IBN trunk. A connection between the originator and the outgoing trunk occurs. This connection occurs for the call order tones that the system passes to the calling party. After this connection, the incoming peripheral module collects dialed digits one digit at a time. The incoming peripheral module sends these dialed digits to Central Control (CC). The CC sends the digits to the outgoing peripheral module to outpulse.

Operation

To place a call on a route that has limits, an IBN station user calls an attendant in the same customer group. The IBN station user dials the cut-through access code. The attendant presses the Release (RLS) key. The station user hears dial tone from the connecting switch. The station user dials the digits that remain to complete the call. This action allows the attendant to handle other calls.

Note: The attendant must dial the codes. The station user must dial the extension number.

Translations table flow

Cut-Through Dialing and Through Dialing Interaction does not affect translations table flow.

Cut-Through Dialing and Through Dialing Interaction (continued)

Limits

The following limits apply to Cut-Through Dialing and Through Dialing Interaction:

- To activate this feature, the party that requests the cut-through route must be an intragroup IBN station to attendant. Calls that come over trunks and intergroup stations cannot activate this feature.
- This feature is not compatible with Attendant Automatic Recall.
- The source party cannot use speed calling to dial the digits that remain after the attendant presses the RLS key.

Interactions

The following features interact with Cut Thru and Thru Dialing Interaction:

- Cut-Through Dialing for IBN Lines and Attendant Consoles

  A user that does not have authorization can attempt to dial to request through dialing. The attendant can dial the cut-through access code and press the RLS key. When this condition occurs, the user that does not have authorization receives partial dial tone. This event occurs after the cut-through dialing time-out.

- Cut-Through Dialing

  A call can come over a trunk or from another trunk group. When this event occurs, the attendant can extend the call over a cut-through route. The attendant can extend the call when the attendant dials all the digits.

Activation/deactivation by the end user

The Cut-Through Dialing and Through Dialing Interaction does not require activation or deactivation by the end user.

Billing

The Cut-Through Dialing and Through Dialing Interaction does not affect billing.

Station Message Detail Recording

The Cut-Through Dialing and Through Dialing Interaction does not affect Station Message Detail Recording.

Datafilling office parameters

The Cut-Through Dialing and Through Dialing Interaction does not affect office parameters.

Cut-Through Dialing and Through Dialing Interaction (continued)

Datafill sequence

Datafill for the Cut-Through Dialing and Through Dialing Interaction appears in the following table. The tables appear in the correct entry order.

Datafill requirements for Cut-Through Dialing and Through Dialing Interaction

Table	Purpose of table
CUSTHEAD	Customer Group Head table. This table contains the names assigned to the blocks of data in table IBNXLA. These blocks store the data for the translation of digits.
CUSTCONS	Customer Group Attendant Console Option Table. Switches with North American translations and the Intergrated Business Network (IBN) feature require this table. This table contains the attendant console options that you can assign to each customer group equipped with attendant consoles.
IBNXLA	IBN Translation table. This table stores data for the digit translation of calls from an IBN station and an attendant console. This table stores data for the digit translation of calls from an incoming IBN trunk group. This table can store data for calls from the incoming side of a two-way IBN trunk group.

Datafilling table CUSTHEAD

Table CUSTHEAD (Customer Group Head) contains cut-through dial time-out and cut-through dial pause options for the customer group.

The default value of these options is 4 s for cut-through dial time-out. The default value is 3 s for cut-through dial pause. Enter these options when the customer group requires a change of default values.

Datafill for Cut-Through Dialing and Through Dialing Interaction for table CUSTHEAD appears in the following table. The fields that apply to Cut-Through Dialing and Through Dialing Interaction appear in this table. See the data schema section of this document for a description of the other fields.

How to enter data into table CUSTHEAD (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		see subfield	Options. This field contains subfield OPTION.
	OPTION	CUTIMOUT	Option. This subfield specifies the cut-through dial timeout option. Enter CUTIMOUT.

Cut-Through Dialing and Through Dialing Interaction (continued)

How to enter data into table CUSTHEAD (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	TIMEOUT	5 to 10	Cut-Through Dial Pause. This subfield specifies the maximum number of seconds that the active Cut-Through Dialing feature waits for digits. This subfield specifies the number of seconds in intervals of 1 s. Enter a value from 5 to 10. ***Note:*** When the reception of digits does not occur, the feature times out and deactivates.
	OPTION	CUTPAUSE	Option. This subfield specifies the cut through dial pause option. Enter CUTPAUSE.
	PAUTIME	numeric	Cut-Through Dial Pause. This subfield specifies the maximum number of seconds that the Cut-Through Dialing feature pauses when the dialog of a star (*) occurs. This subfield specifies the number of seconds in intervals of 1 s. Enter a value from 1 to 2 or from 4 to 7.

Datafill example for table CUSTHEAD

Sample datafill for table CUSTHEAD appears in the following example.

MAP display example for table CUSTHEAD

```
CUSTNAME  CUSTXLA  DGCOLNM  IDIGCOL
_____________________________________________________

COREREGB  CXCOREB  DCCOREB    NIL
(VACTRMT 0) (EXTNCOX 0) (ACCT 2 N N ) (AUTH COREREGB N N)
(ACR AUTH 0) (CUTPAUSE 3) (CUTIMOUT 5) (ESPAPXLA COREREG)
(DISAFAC CFRAANN) $
```

Datafilling table CUSTCONS

Table CUSTCONS (Customer Group Attendant Console Option) contains the attendant console (AC) options. You assign these options to each customer group that has ACs.

Enter data in table CUSTCONS to assign the attendant immediate release option to the correct ACs in the customer group.

Cut-Through Dialing and Through Dialing Interaction (continued)

Datafill for the Cut-Through Dialing and Through Dialing Interaction for table CUSTCONS appears in the following table. The fields that apply to Cut-Through Dialing and Through Dialing Interaction appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTCONS

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		IMMREL	Options. This field specifies the list of options assigned to the customer group. Enter IMMREL for attendant immediate release.

Datafill example for table CUSTCONS

Sample datafill for table CUSTCONS appears in the following example.

MAP display example for table CUSTCONS

```
CUSTNAME
                                                    OPTIONS
_____________________________________________________________

 COREREGA
(SGRPNUM 2) (FLASHTHR 255) (ICINUM 50) (CWNATIM 30)
(LPKEY 6) (PEGLA 15) (NDSCTIM 30) (HLDRECTO 0) (ACCPKTIM
60) (IMMREL ) $
```

Datafilling table IBNXLA

Table IBNXLA (IBN Translation) contains the data for the digit translation of calls from the following:

- an IBN station
- an AC
- an incoming IBN trunk group
- an incoming side of a two-way IBN trunk group

Datafill for the Cut-Through Dialing and Through Dialing Interaction for table IBNXLA appears in the following table. The fields that apply to Cut-Through

Cut-Through Dialing and Through Dialing Interaction (end)

Dialing and Through Dialing Interaction appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfield	Result. This field contains subfield TRSEL.
	TRSEL	CUTTD	Translation Selector. This subfield specifies cut-through dialing. Enter CUTTD.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP display example for table IBNXLA

```
 KEY
                                                  RESULT
________________________________________________________
CXN2          18
                              CUTTD      OINTLDCM Y N N
```

Tools for verifying translations

The Cut-Through Dialing and Through Dialing Interaction does not use tools for verifying translations.

SERVORD

The Cut-Through Dialing and Through Dialing Interaction does not use SERVORD.

Cut-Through Dialing for IBN Lines and AC

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS15 and later versions

Requirements

The Cut-Through Dialing for IBN Lines and Attendant Consoles requires the following to operate:

- BAS Generic, BAS00003
- MDC Standard, MDC00003

Description

The Cut-Through Dialing for IBN Lines and AC feature makes cut-through dialing available to the following:

- 500/2500 sets
- business sets
- attendant consoles
- data units
- trunks that the new peripherals serve

This feature is different from the Cut-Through Dialing feature. The difference is that this feature allows business sets and data units to use the cut-through dialing feature. This feature uses the new peripherals for feature installation. See “Cut-Through Dialing" in this document for additional information.

Note: Examples of old peripherals include line modules, remote line modules, trunk modules, and digital carrier modules. Examples of new peripherals include line concentrating modules, remote line concentrating modules, line trunk controllers, and digital trunk controllers.

Operation

After the calling party dials each set of access code digits, the calling party waits for the return of the dial tone. The next node returns the dial tone. The calling party waits for dial tone before the calling party dials the digits required for the next link. The DMS-100/IBN switch records the first set of incoming digits as a cut-through access code. The DMS-100/IBN switch selects an

Cut-Through Dialing for IBN Lines and AC (continued)

outgoing trunk. The outgoing trunk can be a POTS trunk or an IBN trunk. After trunk selection, a connection establishes between the calling party and the outgoing trunk. This connection allows the system to pass the call progression tones to the calling party. The calling party hears the tones as the call passes through the network. The calling party hears the tones until the calling party dials the extension number of the called party. The cut-through operation ends when one of the following events occurs:

- cut-through time-out
- receipt of an octothorpe (#)
- called party answer

A cut-through call from a business set operates in the method described in the previous section. When you press the Release key or another DN key, you release the outgoing trunk. You will hear dial tone.

Translations table flow

The Cut-Through Dialing for IBN Lines and AC does not affect translations table flow.

Limits

The following limits apply to Cut-Through Dialing for IBN Lines and AC:

- The Cut-Through Dialing for IBN Lines and AC feature allows you to dial with or without waiting for dial tone. Problems can occur if you dial without waiting for dial tone. A delay occurs between the interpretation of the first set of digits and the collection of these digits. The interpretation of the first set of digits is as a cut-through access code. When you dial during this time, a loss of the digits dialed occurs. You must wait for a dial tone before you dial the necessary digits.
- This feature does not support dialing an asterisk (*) equivalent from a DP set.
- When cut-through dialing starts, the system does not record authorization and account codes.
- The system cannot uses a tone detector for cut-through dialing.

- You can go off-hook and dial an access code to activate features. You cannot activate these features during cut-through dialing.
- The Cut-Through Dialing for IBN Lines and AC feature is not compatible with the following features:
  - — dial pulse conversion
  - — alternate routing
  - — ESN-network automatic route selection
  - — time of day (TOD) routing
  - — TOD NCOS
  - — DTMF outpulsing on a line
  - — different types of outpulsing on the same call
  - — ESN-network information signals
  - — call back queuing
  - — off-hook queuing
  - — ESN NCOS
  - — direct inward system access (DISA)
  - — authorization code/account codes last
  - — expensive route warning tone
  - — busy verification trunks

Interactions

The following features interact with Cut-Through Dialing for IBN Lines and AC:

- Speed calling lists can contain numbers that cause the use of cut-through dialing use to complete the speed call.

  An asterisk (*) in a stored number represents a pause. Determine the length of the pause. Make sure that the pause is long enough to allow the connecting switch to prepare for digit collection. Make sure the pause is shorter than the cut-through time-out value of the originating and connecting switches. Table CUSTHEAD defines this value.

  The number of asterisks that a speed call number can store does not have a limit. The number of asterisks that can occur in sequence does not have a limit. Another parameter limits speed call pausing. This parameter is interdigital time-out. A node on the route of the call receives one digit. The system must receive the next digit in the time-out period or the system stops digit collection. The digits that the nodes received at this point

Cut-Through Dialing for IBN Lines and AC (continued)

determine how the system processes the call. The speed call stored number must not have a pause that exceeds the interdigital time-out. If the pause exceeds the time-out, the call is not completely dialed. The pause is a sequence of asterisks.

- A hookswitch flash during the cut-through period terminates the cut-through dialing feature.
- Cut-through dialing can establish two legs of a three-way call. A flash can occur during the cut-through period of the second leg of the call. The flash terminates the cut-through operation and releases the outgoing trunk. A second flash reconnects the user to the first leg of the call.
- You can use cut-through dialing to call a potential conferee and add this party to the conference.
- Cut-through dialing is possible with a virtual facility group (VFG).
- You can terminate a data unit originated cut-through call to a 500/2500 set in the far-end office.
- On a business set, the system ignores when you press the same DN key during cut-through dialing. When you press another DN key, the system terminates the call.
- On a business set, you can press the Hold key during cut-through dialing. The effect of this action is the same as going on-hook.
- A cut-through call can occur when the Make Set Busy lamp is on.

Activation/deactivation by the end user

The Cut-Through Dialing for IBN Lines and AC does not require activation or deactivation by the end user.

Billing

The Cut-Through Dialing for IBN Lines and AC does not affect billing.

Station Message Detail Recording

The digits that the calling party dials can be station message detail recorded.

Datafilling office parameters

The Cut-Through Dialing for IBN Lines and AC does not affect office parameters.

Cut-Through Dialing for IBN Lines and AC (continued)

Datafill sequence

The datafill for Cut-Through Dialing for IBN Lines and AC appears in the following table. The tables appear in the correct entry order.

Datafill requirements for Cut-Through Dialing for IBN Lines and AC

Table	Purpose of table
CUSTHEAD	Customer Group Head table. This table contains the names for the blocks of data in table IBNXLA. These blocks store the data for the translation of digits.
IBNXLA	IBN Translation table. This table contains data for the digit translation of calls from the following: • IBN station • attendant console • incoming IBN trunk group • incoming side of a two-way IBN trunk group.

Datafilling table CUSTHEAD

Table CUSTHEAD (Customer Group Head) defines the public and private transaction capability application part (TCAP) translator names for each customer group. Enter data into table CUSTHEAD to assign the cut-through dial time-out and cut-through dial pause options to the customer group. The default value for the cut-through dial time-out option is 4 s. The default value for the cut-through dial pause option is 3 s. Enter data into these options when the customer group requires a change of default values.

Datafill for Cut-Through Dialing for IBN Lines and AC for table CUSTHEAD appears in the following table. The fields that apply to Cut-Through Dialing for IBN Lines and AC appear in this field. See *Customer Data Schema* for a description of the other fields.

Datafilling table CUSTHEAD (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		see subfield	Options. This field contains subfield OPTION.
	OPTION	CUTIMOUT	Option. This subfield specifies the cut-through dial time-out option. Enter CUTIMOUT.

Cut-Through Dialing for IBN Lines and AC (continued)

Datafilling table CUSTHEAD (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	TIMEOUT	5 to 10	Cut Through Dial Pause. This subfield specifies the maximum number of seconds that the active cut-through dial feature waits for digits. This subfield specifies the maximum number of seconds in 1-s intervals. Enter a value from 5 to 10. ***Note:*** When the system does not receive digits, the feature times out and deactivates.
	OPTION	CUTPAUSE	Option. This subfield specifies the cut-through dial pause option. Enter CUTPAUSE.
	PAUTIME	numeric	Cut Through Dial Pause. This subfield specifies the maximum number of seconds that the cut-through dial feature pauses when an asterisk (*) is dialed. This subfield specifies the maximum number of seconds in 1-s intervals. Enter a value from 1 to 2 or from 4 to 7.

Datafill example for table CUSTHEAD

Sample datafill for table CUSTHEAD appears in the following example.

MAP example for table CUSTHEAD

```
CUSTNAME  CUSTXLA  DGCOLNM  IDIGCOL
                                                    OPTIONS
_____________________________________________________________

COREREGB  CXCOREB  DCCOREB     NIL
(VACTRMT 0) (EXTNCOS 0) (ACCT 2 N N ) (AUTH COREREGB N N)
(ACR AUTH 0) (CUTPAUSE 3) (CUTIMOUT 5) (ESAPXLA COREREG)
(DISAFAC CFRAANN) $
```

Datafilling table IBNXLA

Table IBNXLA (IBN Translation) contains the data for the digit translation of calls from the following:

- IBN station
- attendant console

- incoming IBN trunk group
- incoming side of a two-way IBN trunk group

Enter data into table IBNXLA to define the access code and routing for the cut-through dialing feature.

Datafill for Cut-Through Dialing for IBN Lines and AC for table IBNXLA appears in the following table. The fields that apply to Cut-Through Dialing for IBN Lines and AC appear in this table. Refer *Customer Data Schema* for a description of the other fields.

Datafilling table IBNXLA

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfield	Result. This field has subfield TRSEL.
	TRSEL	CUTTD	Translation Selector. This subfield specifies cut-through dialing. Enter CUTTD.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

```
KEY                                    RESULT
_____________________________________________________________

CXN2  18                 CUTTD      OINTLDCM Y N N
```

Tools for verifying translations

The Cut-Through Dialing for IBN Lines and AC does not use the tools that verify translations.

SERVORD

The Cut-Through Dialing for IBN Lines and AC does not use SERVORD.

Dialtone Passback through PX Trunks for MDC

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

Release applicability does not apply to Dialtone Passback through PX Trunks for MDC.

Requirements

The Dialtone Passback through PX Trunks for MDC has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The PX trunks and virtual facility groups (VFG) can provide dial tone and access to standard MDC dialing plans. The trunks and VFG can provide dial tone and access to plans at a second central office. This feature provides the call originator at the previous node with dial tone after the seizure of the trunk. When end user receives the dial tone, the end user can dial using the dial plan of the customer group.

Operation

With this translations plan, the end user can dial a three-digit access code and seize a trunk to a DMS-100 switch. After this event, the DMS-100 switch passes the dial tone back to the originating node. The DMS-100 switch contains an MDC dial plan. This dial plan includes four-digit extension dialing, 9+ seven-digit local calling, and a three-digit access code to another node. This three-digit code can pass dial tone back to the original node. Because the PX trunk can provide dial tone, the system routes the dial tone through a standard pretranslator in to an IBN route. This routing provides an entry to MDC translations through virtual facility groups.

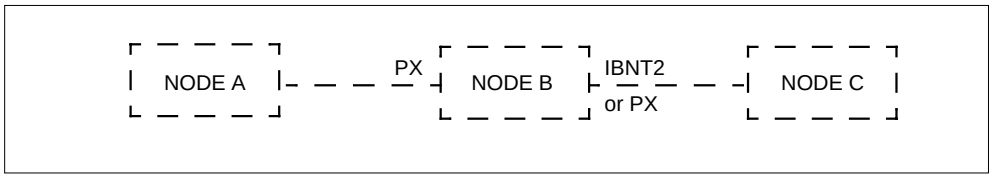
Cut-through dialing is not available because of the time required to outpulse digits in dial pulse (DP). Use of an IBNT2 trunk does not occur because this trunk cannot provide dial tone to the originating node.

Dialtone Passback through PX Trunks for MDC (continued)

The following figure indicates an example configuration where:

- Node A can be a PBX, a DMS-100 switch, or switch of another vendor.
- Node B is a DMS-100 switch.
- Node C can be a PBX, a DMS-100 switch, or switch of another vendor.

Note: Node C can be a DMS-100 switch. The ability to pass back dial tone to an earlier node can be a requirement. When these conditions occur, the incoming trunk must be of type PX.

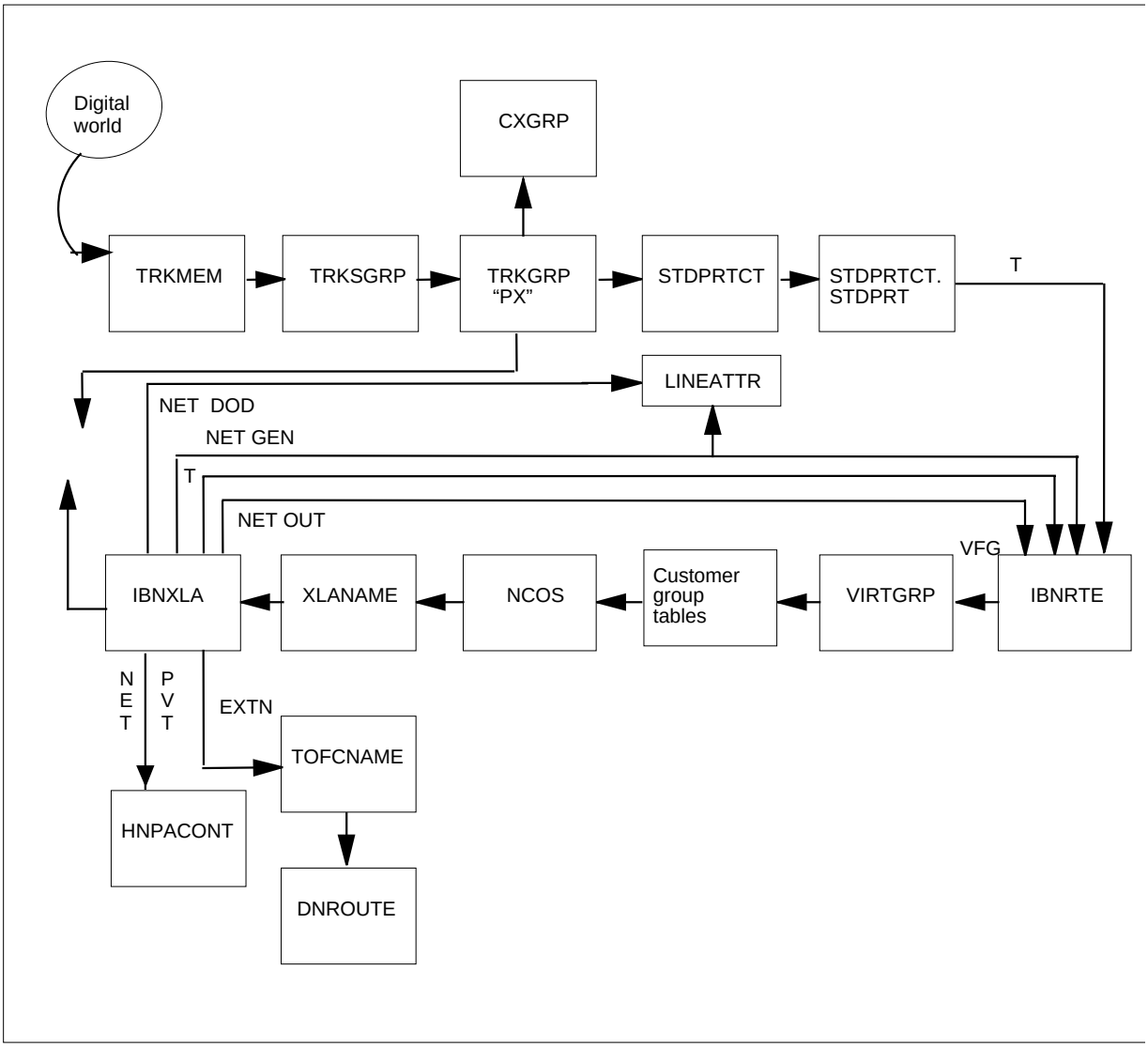


Translations table flow

The Dialtone Passback through PX Trunks for MDC translation process appears in the following flowchart.

Dialtone Passback through PX Trunks for MDC (continued)

Table flow for Dialtone Passback through PX Trunks for MDC



Limits

The following limits apply to Dialtone Passback through PX Trunks for MDC:

- Use of a PX trunk group type must occur incoming to the DMS switch.
- When the third node is a DMS switch and a previous node requires dial tone, the incoming trunk must be of type PX.
- The incoming trunk must have an incoming pulse type of DT and an incoming start signal of DIALTONE.

Dialtone Passback through PX Trunks for MDC (continued)

Interactions

The Dialtone Passback through PX Trunks for MDC does not have functionality interactions.

Activation/deactivation by the end user

The Dialtone Passback through PX Trunks for MDC does not require activation or deactivation by the end user.

Billing

The Dialtone Passback through PX Trunks for MDC does not affect billing.

Station Message Detail Recording

The Dialtone Passback through PX Trunks for MDC does not affect Station Message Detail Recording.

Datafilling office parameters

The Dialtone Passback through PX Trunks for MDC does not affect office parameters.

Datafill sequence

The datafill for Dialtone Passback through PX Trunks for MDC appears in the following table. The tables appear in the correct entry order.

Note: When the feature does not operate after data entry is complete, see "Defining MDC customer information". Verify that the IBN tables required for the customer group have data.

Datafill requirements for Dialtone Passback through PX Trunks for MDC (Sheet 1 of 3)

Table	Purpose of table
CUSTENG (Note)	Customer Group Engineering. This table contains the values for the engineering parameters and options for each customer group.
XLANAME (Note)	Translator Names. This table stores the default data, including the permitted digilator range, for each translator.
DIGCOL (Note)	IBN Digit Collection. This table indicates the action that the line module must perform according to the first digit dialed.
Note: The Dialtone Passback through PX Trunks for MDC requires the data entry of this table. This document does not contain a datafill procedure because special datafill is not a requirement.	

Dialtone Passback through PX Trunks for MDC (continued)

Datafill requirements for Dialtone Passback through PX Trunks for MDC (Sheet 2 of 3)

Table	Purpose of table
CUSTHEAD (Note)	Customer Group Head. This table contains the names for the blocks of data in table IBNXLA. These blocks store the data for the translation of digits.
NCOS (Note)	Network Class of Service. This table contains the network class of service (NCOS) number assigned to the following: • attendant consoles (AC) • Integrated Business Network (IBN) • Residential Enhanced Services (RES) stations • incoming or incoming side of two-way IBN trunk groups • authorization codes • customer groups
CLLI (Note)	Common Language Location Identifier. This table identifies the far end of each announcement, tone, trunk group, test trunk, national milliwatt test lines, and service circuit.
CXGRP (Note)	Customer Group Options. This table defines the options associated with a digital trunk group type private exchange (PX).
VIRTGRPS	Virtual Facility Groups. This table provides a mechanism to eliminate loop-around trunks.
IBNRTE	IBN Route. This table contains route lists that a route reference index number identifies.
STDPRTCT. STDPRT	List of Standard Pretranslation Tables table record - Standard Pretranslator subtable. This table is the first table that the received leading digits index. The originating line attribute or trunk must specify a pretranslator name other than NPRT (no pretranslator name). The index needs the preceding information to function.
TRKGRP	Trunk Group. This table contains information on trunk groups.
TRKSGRP	Trunk Subgroup. This table contains information about each subgroup associated with a trunk group that table TRKGRP defines.
Note: The Dialtone Passback through PX Trunks for MDC requires the data entry of this table. This document does not contain a datafill procedure because special datafill is not a requirement.	

Dialtone Passback through PX Trunks for MDC (continued)

Datafill requirements for Dialtone Passback through PX Trunks for MDC (Sheet 3 of 3)

Table	Purpose of table
TRKMEM (Note)	Trunk Member. This table contains the data for each trunk that the trunk group and subgroup tables specify.
IBNXLA (Note)	IBN Translation. This table stores data for the digit translation of calls. The calls are from an IBN station attendant console or an incoming IBN trunk group. The calls can be from the incoming side of a two-way IBN trunk group.
Note: The Dialtone Passback through PX Trunks for MDC requires the data entry of this table. This document does not contain a datafill procedure because special datafill is not a requirement.	

Datafilling table VIRTGRPS

Datafill for Dialtone Passback through PX Trunks for MDC for table VIRTGRPS (Virtual Facility Groups) appears in the following table. The fields that apply to Dialtone Passback through PX Trunks for MDC appear in this table. See the data schema section of this document for a description of the other fields.

Table VIRTGRPS provides a mechanism to remove loop-around trunks. Loop-around trunks implement IBN Inward Wide Area Telephone Service (INWATS) and Outward Wide Area Telephone Service (OUTWATS).

Datafilling table VIRTGRPS

Field	Subfield or refinement	Entry	Explanation and action
DATA		see subfields	Data. This field contains several subfields. Subfields VFGTYPE and INCTYPE relate to this feature.
	VFGTYPE	USES	Virtual Facility Group Type. This subfield specifies if this entry is the first entry for the VFG. Enter USES.
	INCTYPE	IBN	Incoming Type. This subfield specifies the incoming trunk type for the VFG. Enter IBN.

Datafill example for table VIRTGRPS

Sample datafill for table VIRTGRPS appears in the following example.

Example of MAP for table VIRTGRPS

```
TABLE: VIRTGRPS

KEY                                                    DATA
                                                       OPTIONS
_____________________________________________________________________
INWAT1    USES OWAT1 IBN 0131112 KDK1 0 3 17 N  Y  Y
                                        ( VFGAMA  TDMTT )  $
```

Datafilling table IBNRTE

Datafill for Dialtone Passback through PX Trunks for MDC for table IBNRTE appears in the following table. The fields that apply to Dialtone Passback through PX Trunks for MDC appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNRTE

Field	Subfield or refinement	Entry	Explanation and action
RTELIST		see subfield	Route List. This field contains several subfields. Subfield IBNRTESEL relates to this feature.
	IBNRTESEL	VFG	IBN Route Selector. This subfield specifies the IBN route selector. Enter VFG.

Datafill example for table IBNRTE

Sample datafill for table IBNRTE appears in the following example.

Example of MAP for table IBNRTE

```
TABLE: IBNRTE

RTE                                                  RTELIST
_____________________________________________________________________
10                          VFG  Y  Y  Y  TIETRK  0  $
```

Datafilling table STDPRTCT.STDPRT

Datafill for Dialtone Passback through PX Trunks for MDC for table STDPRTCT.STDPRT (Standard Pretranslator) appears in the following table.

Dialtone Passback through PX Trunks for MDC (continued)

The fields that apply to Dialtone Passback through PX Trunks for MDC appear in this table. See the data schema section of this document for a description of the other fields.

Table STDPRTCT.STDPRT is the first table that the received leading digits index. The originating line attribute or trunk must specify a pretranslator name other than NPRT (no pretranslator name) for indexing to occur. Table LINEATTR (Line Attribute), field PRTNM specifies the pretranslator for an originating line. Table TRKGRP (Trunk Group), field PRTNM specifies the pretranslator name for a trunk.

Note: When the incoming PX calls must use MDC translations, make sure that table STDPRTCT.STDPRT specifies the digits. When the digits are not specified, the system calls to the path that table HNPACONT sets up. When the system supports EXTN dialing in the customer group, you must specify the minimum and maximum digits.

Datafilling table STDPRTCT.STDPRT

Field	Subfield or refinement	Entry	Explanation and action
PRETRTE		see subfield	Pretranslation Route. This field contains subfield PRERTSEL.
	PRERTSEL	T	Pretranslator Route Selector. This subfield specifies the routing option. Enter T to indicate that calls do proceed to a test line or office route table.
When the setting of PRERTSEL is T, several subfields require data entry. Subfield TABID relates to this feature.			
	TABID	IBNRTE	Table Identification This subfield specifies the table to which the system routes translations. Enter IBNRTE.

Datafill example for table STDPRTCT.STDPRT

Sample datafill for table STDPRTCT.STDPRT appears in the following example.

MAP example for table STDPRTCT.STDPRT

```
TABLE: STDPRTCT.STDPRT

FROMDIGS  TODIGS                              PRETRTE
_____________________________________________________
5          5         T   x  IBNTRE   xx   4 4
```

Datafilling table TRKGRP

Datafill for Dialtone Passback through PX Trunks for MDC for table TRKGRP appears in the following table. The fields that apply to Dialtone Passback through PX Trunks for MDC appear in this table. See the data schema section of this document for a description of the other fields.

Table TRKGRP (Trunk Group) contains information on trunk groups. The PX trunk group type is a two-way trunk group in a DMS-100 end office. The PX trunk group interfaces with a digital private branch exchange (PBX) for direct inward dialing (DID), direct outward dialing (DOD), or DID and DOD.

Datafill example for table TRKGRP

Sample datafill for table TRKGRP appears in the following example.

Datafilling table TRKGRP (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
GRPINFO		see subfield	Group Information. This field contains several subfields. Subfield GRPTYP relates to this feature.
	GRPTYP	PX	Group Type. This subfield specifies the group type. Enter PX. ***Note:*** When you set GRPTYP to PX, several subfields require datafill. Subfields PRTNM, PXCGRP, and DTONE relate to this feature.
	PRTNM	character	Standard Pretranslator Table Name. This subfield specifies the standard pretranslator table assigned to the trunk group. Enter the table name.

Dialtone Passback through PX Trunks for MDC (continued)

Datafilling table TRKGRP (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	PXCGRP	32 to 255	PBX Customer Group. This subfield specifies an index in to table CXGRP (Customer Group Options). Table CXGRP contains the options for each customer group. Enter a value from 32 to 255.
	DTONE	DIALTN	Dial Tone for FX Circuits This subfield specifies if dial tone is a requirement. Enter DIALTN to provide dial tone.

MAP example for table TRKGRP

```
TABLE: TRKGRP

GRPKEY                                                GRPINFO
_____________________________________________________________
PXGRP     0  PAD1  NOSC  PX  2W  CLASS1  LIDL  Y
          STDPRT  NSCR  802  LCL  NONE  NONE  NLCA
          Y  Y  GROUP1  56  NIL  3227777  DIALTN
          Y  Y  CARR1  Y  LATA1  Y  54  $
```

Datafilling table TRKSGRP

Datafill for Dialtone Passback through PX Trunks for MDC for table TRKSGRP appears in the following table. The fields that apply to Dialtone Passback through PX Trunks for MDC appear in this table. See the data schema section of this document for a description of the other fields.

Table TRKSGRP (Trunk Subgroup) contains information about each subgroup associated with a trunk group that table TRKGRP defines.

Datafilling table TRKSGRP (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
CARDCODE		DS1SIG	Card Code. This field specifies the product engineering code (PEC) for the trunk card. Enter DS1SIG.
SGRPVAR		see subfields	Variable Subgroup Data. This field contains subfield DIR.

Dialtone Passback through PX Trunks for MDC (end)

Datafilling table TRKSGRP (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	DIR	2W	Direction. This subfield specifies the trunk group direction. Enter 2W.
When DIR is set to 2W, several subfields require datafill. Subfields IPULSTYP and ISTARTSIG relate to this feature.			
	IPULSTYP	DT	Incoming Type of Pulsing. This subfield specifies the type of pulsing. Enter DT (Digitone).
	ISTARTSIG	DIALTONE	Incoming Start Dial Signal. This subfield specifies the start dial signal. Enter DIALTONE.

Datafill example for table TRKSGRP

Sample datafill for table TRKSGRP appears in the following example.

MAP example for table TRKSGRP

```
TABLE: TRKSGRP

SGRPKEY    CARDCODE                                SGRPVAR
_____________________________________________________________
PXGRP  1   DS1SIG  STD  2W  DT  DIALTONE  5  5  DT
                   GD  99  2  N  NO  NO  F  N  N
                   C  3  INTERNAL  N  N
```

Tools for verifying translations

The Dialtone Passback through PX Trunks for MDC does not use tools for verifying translations.

SERVORD

The Dialtone Passback through PX Trunks for MDC does not use SERVORD.

Direct Inward System Access

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: NTX103AA

Release applicability

BCS10 and up

Prerequisites

To operate, Direct Inward System Access (DISA) has the following prerequisites:

- BAS Generic, BAS00003
- MDC Standard, MDC00003

Description

The DISA feature gives authorized outside callers the capability to dial from switched networks directly into a DMS-100 office. This feature also allows the caller to gain access to network facilities without the assistance of an attendant.

Operation

The caller dials a seven- or ten-digit DISA directory number or an inward wide area telephone service (INWATS) DISA directory number to access a DMS-100 office. Automatic answer is applied to the call, and the caller is prompted for the appropriate authorization code and the desired directory number. Once a valid authorization code and applicable directory number are received by the DMS-100 office, the call is completed.

Translations table flow

Translations for DISA can be set up to provide call prompter capability. Call prompting allows the subscriber to be prompted by an announcement and to then choose the action they want to take. In this way, the subscriber can choose the destination of the call.

The following procedure shows one way in which translations could be set up to enable call prompting. For this example, two unused direct inward dial (DID) numbers are required.

The Direct Inward System Access (DISA) translation process is shown in the flowchart that follows.

Direct Inward System Access (continued)

Table DNROUTE (Directory Number Route)

Enter the first DID number (the number to be dialed) with selector T to Table IBNRTE (IBN Route).

Table IBNRTE (IBN Route)

For the index number from Table DNROUTE, enter two routes:

- First route choice: Use selector S. Enter the common language location identifier (CLLI) name of the call prompter announcement.
- Second route choice: Use selector RX. Datafill all fields and the insert digit manipulation index to which the second DID number is identified. The digit manipulation index is the index into Table DIGMAN (Digit Manipulation).

Table DIGMAN (Digit Manipulation)

Next to the index number from the second route choice in Table IBNRTE, insert two digit commands:

- First command: Use selector REM to remove the appropriate number of digits received on the first DID number.
- Second command: Use selector INC to include the digits that will form the actual DN of the second DID number.

Table DNROUTE (Directory Number Route)

Enter the second DID number. Use the FEAT selector with DISA as the feature.

Table IBNXLA (IBN Translation)

Enter the call prompter access code(s) for the external network class of service (NCOS) translator. Let these codes route the call to the appropriate directory number (DN) of each department identified in the call prompter announcement. Call prompter is compatible with automatic call distribution (ACD) and uniform call distribution (UCD), so the call prompter access codes may route to an ACD DN or a UCD DN.

Set the call prompter announcement, and datafill the appropriate announcement tables.

- DID #1: 235-1000
- DID #2: 235-2000 (DISA number)

When the caller dials DID number 235-1000, the DMS switch receives the last five digits, 51000, from the DID trunk group. DN 51000 is identified in Table DNROUTE, and the call routes to Table IBNRTE, route number 10. Table

IBNRTE, route 10, first routes the call to the call prompter announcement. After the announcement, the call is routed to Table DIGMAN, which retranslates DID 51000 into DID 52000. Table DNROUTE has DID 52000 set up as a DISA number, so the DISA dial tone is returned to the caller. At this point, the caller can select one of the following four options:

- If the caller dials no digits, the call times out and is routed to the attendant console. (If Table DNROUTE has RTEOPT datafilled as an option in field DISAOPT, the call routes to Table OFRT [Office Route] or IBNRTE instead of the attendant when the call times out. Refer to “DISA Definable Timeout Destination" for more information.
- If authorization codes are not required for the DISA number (field AUTHREQ of Table DNROUTE is set to N) , the caller can dial a number that is allowed without the need for an authorization code, as specified by the external NCOS in Table CUSTHEAD (Customer Group Head).
- If authorization codes are required for the DISA number (field AUTHREQ is set to Y), the caller can dial a valid authorization code and then dial a number.
- The caller can dial digits to direct the call to a specific department as specified within the call prompter announcement.

Limitations and restrictions

The following limitations and restrictions apply to DISA:

- It is recommended that the authorization codes feature be used in conjunction with the DISA feature. For further information on the authorization codes feature, refer to “ESN - Authorization Codes" in this document.
- A call from an FX line to DISA is not allowed.

Interactions

Direct Inward System Access (DISA) has an E800 functionality interaction.

If the originating agent for an E800 query is supported for an E800 call:

- A caller can dial a DISA directory number and then make an E800 call.
- The pretranslator and other datafill of the originating agent for the E800 query translates and routes the call.

Activation/deactivation by the end user

Direct Inward System Access (DISA) requires no activation or deactivation by the end user.

Direct Inward System Access (continued)

Billing

Direct Inward System Access (DISA) does not affect billing.

Station Message Detail Recording

Direct Inward System Access (DISA) does not affect Station Message Detail Recording.

Datafilling office parameters

Direct Inward System Access (DISA) does not affect office parameters.

Datafill sequence

The following table lists the tables that require datafill to implement Direct Inward System Access (DISA). The tables are listed in the order in which they are to be datafilled.

Datafill tables required for Direct Inward System Access (DISA)

Table	Purpose of table
DNROUTE	Directory Number Route table. This table defines both the INWATS and DISA DNs.

Datafilling table DNROUTE

The following table shows the datafill specific to Direct Inward System Access (DISA) for table DNROUTE. Only those fields that apply directly to Direct Inward System Access (DISA) are shown. For a description of the other fields, refer to the data schema section of this document.

Datafilling table DNROUTE (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	Directory Number Results. This field consists of subfields DNSEL, FEATURE, DEST, DIDORG, CUSTNAME, and SUBGRP. Only subfields DNSEL and FEATURE specifically apply to this feature.
Note: An LDN tuple in Table DNROUTE cannot be changed; it must be deleted and then added again.			

Datafilling table DNROUTE (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	DNSEL	FEAT	Directory Number Selector. This subfield specifies the type of DN selector. Enter FEAT.
	FEATURE	DISA	Feature. This subfield specifies the name of the feature. Enter DISA.
Note: An LDN tuple in Table DNROUTE cannot be changed; it must be deleted and then added again.			

Datafill example for table DNROUTE

The following example shows sample datafill for table DNROUTE.

MAP display example for table DNROUTE

```
AREACODE OFCCODE STNCODE                        DNRESULT
_____________________________________________________________

619        675     2222     FEAT  DISA  BNR  0  N  N  N
Y  $
```

Translation verification tools

Direct Inward System Access (DISA) does not use translation verification tools.

SERVORD

Direct Inward System Access (DISA) does not use SERVORD.

DISA - Enhancements

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS25 and later versions

Requirements

The DISA Enhancements feature has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The DISA Enhancements feature extends the capabilities of the direct inward system access (DISA) software. This feature has the following functions:

- Fields ORIGTYPE and TERMTYPE contain the complete ten-digit DISA directory number (DN). This condition is present for station message detail recording (SMDR) records that contain information on DISA calls. Before this feature, fields ORIGTYPE and TERMTYPE contained the dialed digits.
- The DISA Enhancements feature provides software adaptability for features and abilities. These features and abilities include:
  - — Private Virtual Networking

    Private Virtual Networking uses the public and private switched network to provide private network abilities.
  - — Call prompter

    This capability allows the caller to interact with a series of announcements to control the movement and destination of a call.
  - — Per DISA network class of service (NCOS)

    This ability allows an NCOS to have a specified DISA DN.
  - — DISA Remove Authorization Code Timeout

    DISA Remove Authorization Code Timeout allows the association of a post-authorization code time-out value with a DISA DN.

To prepare for these features, the DISA Enhancements feature changes table DNROUTE (Directory Number Route).

DISA - Enhancements (continued)

Operation

The DISA Enhancements feature extends the capabilities of the direct inward system access (DISA) software.

Translations table flow

The DISA Enhancements does not affect translations table flow.

Limits

The following limit applies to the interactions between DISA Enhancements and other functionalities:

Table DNROUTE can enter a maximum of 1023 DISA DNs.

Activation/deactivation by the end user

The DISA Enhancements feature does not require activation or deactivation by the end user.

Interactions

The DISA Enhancements feature does not have functionality interactions.

Billing

The DISA Enhancements feature does not affect billing.

Station Message Detail Recording

The DISA Enhancements feature does not affect Station Message Detail Recording.

Datafilling office parameters

The DISA Enhancements feature does not affect office parameters.

Datafill sequence

The table that requires datafill to provide the DISA Enhancements feature appears in the following table:

Datafill requirements for DISA Enhancements

Table	Function of table
DNROUTE	Directory Number Route Table. Information for writable directory numbers in the switch appears in this table.

This feature adds three options to subfield DISAOPT in Table DNROUTE. These options are:

- PVNOPT—This option allows the end user to specify values to apply to private virtual network (PVN) DISA access. The subfields in this option are PINLENGTH NCOS and LINEATTR.
- NCOSOPT—This option allows the end user to specify an NCOS for the system to apply to the call. Application occurs when the caller enters an incorrect authorization code. The subfield in this option is NCOS.
- TIMEOPT—Collection from trunks. This time-out allows routing to the attendant console (AC). Routing occurs after the system applies dial tone to the calling party for the specified number of seconds. The system did not receive the first digit. This time-out is the amount of time in which the caller must dial. The field in this option is TIMEOUT. The user does not always enter data in this option. If the user does not enter data, the default time-out for digit collection on trunks is 4 s. This option allows the end user to specify a time-out value for digit c.

In BCS26, the DISA Call Prompting Default Destination feature allows the system to route calls to table IBNRTE or OFRT. Calls do not route to the AC when the time-out period stops.

Datafilling table DNROUTE

Table DNROUTE (Directory Number Route) contains information for writable directory numbers in the switch.

Datafill for DISA Enhancements for Table DNROUTE appears in the following table. The fields that apply to DISA Enhancements appear in this

DISA - Enhancements (continued)

table. See the data schema section of this document for a description of the other fields.

Datafilling table DNROUTE (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description and action
DNRESULT		see subfields	Directory number results. This field contains the following subfields: • DN_SEL • FEATURE • CUSTGRP • SUBGRP • AUTHREQ • SMDRTO • SMDRFROM • INTRAGRP • DISAOPT This feature affects the subfields that appear in this field. For information on all the subfields, refer to Customer Data Schema.
	DN_SEL	FEAT	Directory number selector. This subfield specifies the directory number selector FEAT. Enter FEAT.
	FEATURE	DISA	Feature. This subfield specifies the name of the feature. Enter DISA.
	DISOPT	PVNOPT	Direct inward system access options. This subfield specifies the DISA options for a customer group. Enter PVNOPT. The PVNOPT option allows the application of specified values to private virtual network (PVN) DISA access.
	PINLENGTH	1 to 15.	Personal identification number length. This subfield specifies the length of a personal identification number (PIN). Enter a value from 1 to 15.
	NCOS	0 to 511	Network class of service. This subfield specifies the NCOS. Enter a value from 0 to 511.

Datafilling table DNROUTE (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Description and action
	LINEATTR	0 to 2047	Line attribute. This subfield specifies the line attribute the system uses when the caller cannot enter the PIN and called number. Enter a value from 0 to 2047.
	DISAOPT	NCOSOPT	Direct inward system access options. This subfield specifies the DISA options for a customer group. Enter NCOSOPT. The NCOSOPT option specifies the NCOS applied to a call when the caller does not enter a correct authorization code.
	NCOS	0 to 511	Network class of service. This subfield specifies the NCOS. Enter a value from 0 to 511. If the user does not enter data in NCOSOPT, the default value is the external NCOS of the customer group. Table CUSTHEAD specifies the external NCOS.
	DISOPT	TIMEOPT	Direct inward system access options. This subfield specifies the DISA options for a customer group. Enter TIMEOPT. The TIMEOPT option specifies a timeout value to digit collection from trunks.
	TIMEOUT	4 to 40	Time out. This subfield specifies the length of time for digit collection from trunks. This interval occurs before the system routes the caller to an attendant when digit collection does not occur. Enter a value from 4 to 40 (seconds). If the user does not enter data in TIMEOPT, the default timeout value for trunks is 4 s.

Datafill example for table DNROUTE

Sample datafill for table DNROUTE appears in the following example.

DISA - Enhancements (end)

MAP example for table DNROUTE

```
 TABLE: DNROUTE

AREACODE OFCCODE  STNCODE                      DNRESULT
_____________________________________________________________
 613        528    3099 FEAT  DISA  MS1LB2 0 N Y Y Y
                             (PVNOPT 6 4 18) (TIMEOPT 4)
$
```

Tools for verifying translations

The DISA Enhancements feature does not use tools for verifying translations.

SERVORD

The DISA Enhancements feature does not use SERVORD.

DISA - Invalid Authcode Treatment Option

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BC31 and later versions

Requirements

The DISA - Invalid Authcode Treatment Option feature has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The DISA: Invalid Authcode Treatment Option feature provides an optional treatment. This treatment applies to callers that dial an incorrect direct inward system access (DISA) authorization code. Before this feature, the system routed these callers to reorder treatment. The system applies this current treatment according to the DISA directory number (DN).

Operation

The DISA feature allows an outside caller access to DMS-100 network facilities without attendant assistance. To access DISA, a caller dials a DN or inward wide area telephone service (INWATS) number and receives a special dial tone. The caller enters an authorization code in a specified time-out period. If a caller dials an incorrect authorization code, the system routes the call to reorder treatment.

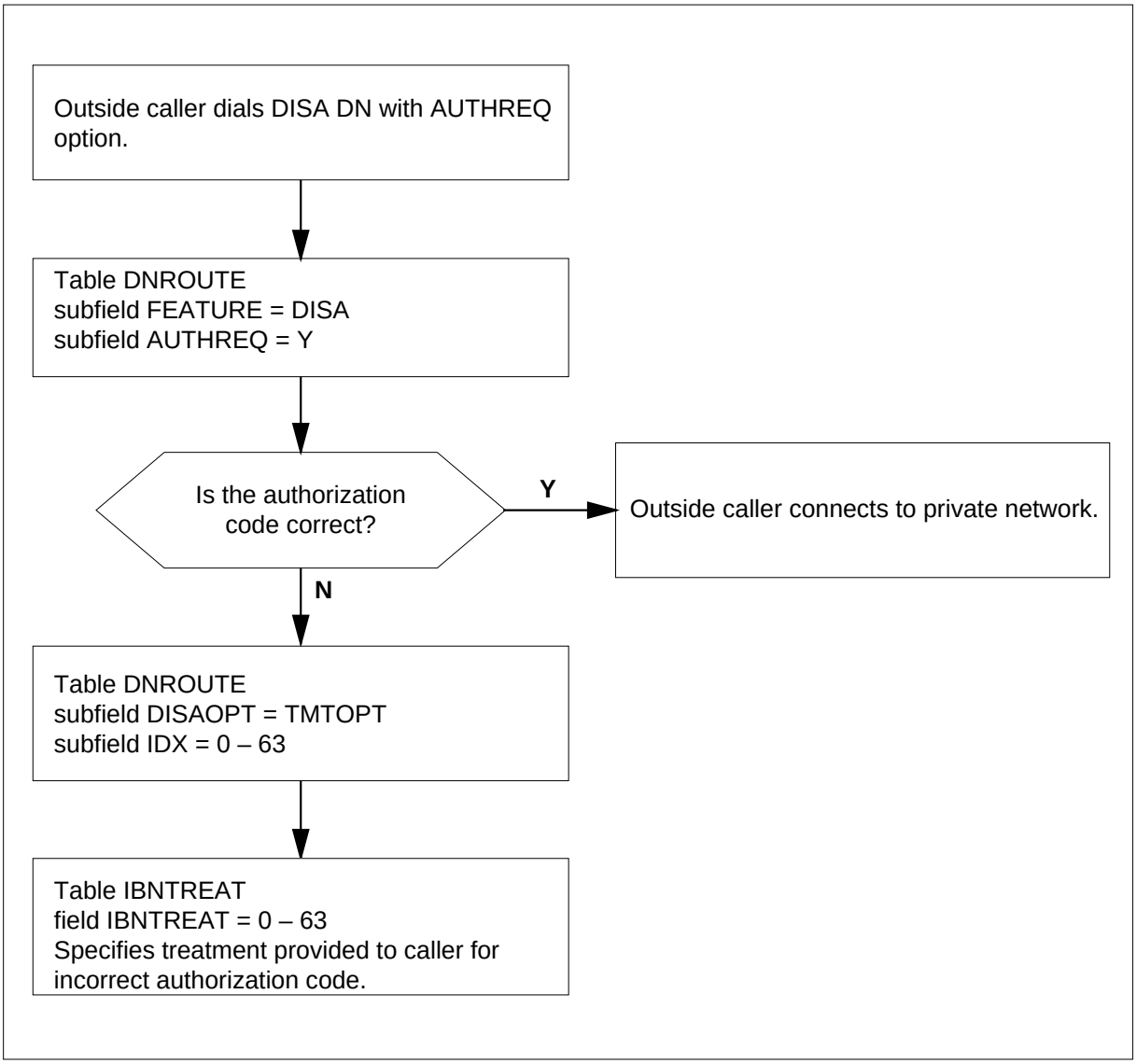
The DISA: Invalid Authcode Treatment Option feature allows end offices to specify a treatment other than reorder that the user can enter. An outside caller dials a DN or an INWATS number to access the network facilities. The caller receives a special dial tone and enters an authorization code. If the caller enters an incorrect code, the system routes the call to a treatment. Table IBNTREAT (IBN Treatment) contains this treatment.

Translations table flow

The DISA - Invalid Authcode Treatment Option translation process appears in the following flowchart. The flowchart and data describe the table flow for call processing for DISA: Invalid Authcode Treatment Option.

DISA - Invalid Authcode Treatment Option (continued)

Table flow for DISA - Invalid Authcode Treatment Option



The flowchart datafill content appears in the following table.

Datafill example for DISA - Invalid Authcode Treatment Option

Datafill table	Example data
DNROUTE	919 555 1234 FEAT DISA COMKODAK 0 Y N N N (TMTOPT 10) $
IBNTREAT	BNRMC 7 N TRMT VACT

DISA - Invalid Authcode Treatment Option (continued)

Limits

The following limits apply to the DISA - Invalid Authcode Treatment Option feature:

- Option TMTOPT is only correct for the DISA feature.
- The value the user enters for subfield IDX in Table DNROUTE must match a treatment index in Table IBNTREAT.
- Table TMTCNTL (Treatment Control) must define the treatment index in Table IBNTREAT.
- Subfield AUTHREQ in Table DNROUTE must be Y.
- The treatment that subfield IDX specifies applies only to incorrect and partially entered authorization codes.

Interactions

The DISA - Invalid Authcode Treatment Option feature does not have functionality interactions.

Activation/deactivation by the end user

The DISA - Invalid Authcode Treatment Option feature does not require activation or deactivation by the end user.

Billing

The DISA - Invalid Authcode Treatment Option feature does not affect billing.

Station Message Detail Recording

The DISA - Invalid Authcode Treatment Option feature does not affect Station Message Detail Recording.

Datafilling office parameters

The DISA - Invalid Authcode Treatment Option feature does not affect office parameters.

DISA - Invalid Authcode Treatment Option (continued)

Datafill sequence

Tables that require datafill to provide the DISA - Invalid Authcode Treatment Option feature appear in the following table. The tables appear in correct entry order.

Datafill requirements for DISA - Invalid Authcode Treatment Option

Table	Function of table
DNROUTE	Directory Number Route Table. Information for writable directory numbers in the switch appears in this table.

Datafilling table DNROUTE

Table DNROUTE (Directory Number Route) assigns treatment options to DISA DNs. The system sends callers that dial an incorrect authorization code to a customized treatment.

The DISA: Invalid Authcode Treatment Option feature adds option TMTOPT to subfield DISAOPT. This option allows the system to route calls with an incorrect authorization code to a different treatment. If subfield DISAOPT is set to TMTOPT, subfield IDX must have a value from 0 to 63. The value for subfield IDX must match a treatment index in Table IBNTREAT.

When adding option TMTOPT, subfield AUTHREQ must be Y. When subfield AUTHREQ is Y and subfield DISAOPT is set to TMTOPT, the system routes a call to the treatment. Subfield IDX indicates the treatment when the caller dials an incorrect authorization code.

The system routes the call to reorder treatment when the following events occur:

- the system does not select DISA option TMTOPT
- subfield AUTHREQ has a Y setting
- the caller dials an incorrect authorization code

This event occurs after the caller dials the directory digits.

An error message appears on the MAP (maintenance and administration position) when the following conditions occur:

- the selection of DISA option TMTOPT
- subfield AUTHREQ is not set to Y

The message indicates that you must set subfield AUTHREQ to Y:

DISA - Invalid Authcode Treatment Option (continued)

```
*WARNING*: AUTHREQ SET TO "NO"
                        TMTOPT WILL NOT BE UPDATED
```

Datafill for DISA - Invalid Authcode Treatment Option for table DNROUTE appears in the following fields. The fields that apply to DISA - Invalid Authcode Treatment Option appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table DNROUTE

Field	Subfield or refinement	Entry	Description and action
DNRESULT		see subfields	Directory number results. This field contains several subfields. Subfields AUTHREQ and DISAOPT relate to this feature.
	AUTHREQ	Y	Authorization required. This subfield specifies if the system must check an authorization code. This procedure occurs before the system allows callers to access the network facilities through DISA. Enter Y.
	DISAOPT	TMTOPT	DISA options. This subfield specifies the DISA options. Enter TMTOPT to specify a different treatment for callers that enter incorrect or incomplete DISA authorization codes.
	IDX	0 to 63	Index. This subfield specifies the treatment in table IBNTREAT that callers receive when DISA detects an incorrect authorization code. Enter a value from 0 to 63.

Datafill example for table DNROUTE

Sample datafill for table DNROUTE appears in the following example.

MAP example for table DNROUTE

```
AREACODE    OFCCODE STNCODE DNRESULT
_____________________________________________________
919     555 1234   FEAT DISA COMKODAK 0 Y N N  N
(TMTOPT 10) $
```

DISA - Invalid Authcode Treatment Option (end)

Tools for verifying translations

The DISA - Invalid Authcode Treatment Option feature does not use tools for verifying translations.

SERVORD

The DISA - Invalid Authcode Treatment Option feature does not use SERVORD.

DISA - Remove Auth Code Timeout

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS19 and later versions

Requirements

The DISA - Remove Auth Code Timeout feature has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

End users with a direct inward system access (DISA) system receive an immediate dial tone. This dial tone occurs after the users dial an authorization code (auth code), an optional account code and security code. Before this feature, a required time-out allowed the system to adjust for different code lengths. With the DISA - Remove Auth Code Timeout feature, the user hears a dial tone when the user enters the correct code. The end user can dial the directory number (DN).

Operation

The DISA - Remove Auth Code Timeout requires the customer group to define the number of digits in the different codes. The customer group identifies requirements for the group, auth code, and optional account or security code. Before the datafill process occurs, the customer group determines the number of codes and number of digits in each code.

The customer group selects the number of digits in the auth code. The customer group determines if the system requires an account code and a security code. The combined auth code, account code, and security code can have a maximum of 16 digits. The number of digits for the auth code determines if the system requires a security code.

The auth code assigned during datafill contains a fixed number of digits. The auth code has a maximum length of ten digits. When the system determines the length of the auth code, the system can assign the security code. The security code is optional. The code can have different lengths with a maximum of four digits. The account code is optional and contains a fixed number of

DISA - Remove Auth Code Timeout (continued)

characters. The auth code and security code determine the number of characters.

Translations table flow

The DISA - Remove Auth Code Timeout feature does not affect translations table flow.

Limits

The following limits apply to the DISA - Remove Auth Code Timeout feature:

- Correction of auth codes cannot occur in this feature.
- The optional entry of an auth code does not have an immediate time-out.

Interactions

The DISA - Remove Auth Code Timeout feature does not have functionality interactions.

Activation/deactivation by the end user

The end user dials to DISA and receives a special dial tone. The end user enters an auth code. The end user can also enter a security code, and account code, or both codes. When the system accepts and checks the codes, the end user receives a normal dial tone. The end user dials the DN.

If an end user enters a code that the database does not contain, the end user hears the normal dial tone. The end user dials the DN, and the system applies the correct treatment. If the user does not dial enough digits, the process stops when the system returns a treatment to the end user.

The feature provides continued dialing after an incorrect code entry. This feature provides additional security to the customer group. An end user that attempts to break the code sequencing cannot determine the length of the code sequence.

Billing

The DISA - Remove Auth Code Timeout feature does not affect billing.

Station Message Detail Recording

The DISA - Remove Auth Code Timeout feature does not affect Station Message Detail Recording.

Datafilling office parameters

The DISA - Remove Auth Code Timeout feature does not affect office parameters.

DISA - Remove Auth Code Timeout (continued)

Datafill sequence

Tables that require datafill to provide the DISA - Remove Auth Code Timeout feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for DISA - Remove Auth Code Timeout

Table	Function of table
CUSTHEAD	Customer Group Head Table

Datafilling table CUSTHEAD

Table CUSTHEAD (Customer Group Head) defines the public and private transaction capability application part (TCAP) translator names for each customer group. This feature in table CUSTHEAD affects field SEC. Enter Y in this field to activate the feature.

Datafill for DISA - Remove Auth Code Timeout for table CUSTHEAD appears in the following table. The fields that apply to DISA - Remove Auth Code Timeout appear in this table. Refer to the data schema section of the *Translation Guide* for a description of the other fields.

Datafilling table CUSTHEAD (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description and action
OPTIONS		AUTH	Options. This field specifies the options assigned to the customer group. Enter AUTH.
If field OPTIONS is AUTH, subfields OPTION, PARTNM, SEC, and COMB require datafill.			
	OPTION	AUTH	Option. This subfield specifies the authorization codes option. Enter AUTH.
	PARTNM		Authorization Partition Name. This subfield specifies the name assigned to the customer group in Table AUTHCDE (Authorization Code) and Table AUTHPART (Authorization Partition). Enter the authorization partition name.
	SEC	Y or N	Security. This subfield specifies if the user of an authorization code must indicate the end of dialing. To indicate the end of dialing, the user keys in an octothorpe or waits for the interdigit time-out to stop. Enter Y or N.

DISA - Remove Auth Code Timeout (end)

Datafilling table CUSTHEAD (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Description and action
If the system requires an authorization code for DISA access, set this field to Y.			
	COMB	Y or N	Combined Authorization and Account Code. This subfield specifies if the code is a combined authorization and account code. Enter Y or N.

Datafill example for table CUSTHEAD

Sample datafill for table CUSTHEAD appears in the following example.

MAP example for table CUSTHEAD

```
TABLE: CUSTHEAD

 CUSTNAME    CUSTXLA    DGCOLNM    OPTIONS
_____________________________________________________
 BNR          BNRXLA     NTIDIG     (AUTH BNR Y  N)    $
```

Tools for verifying translations

The DISA - Remove Auth Code Timeout feature does not use tools for verifying translations.

SERVORD

The DISA - Remove Auth Code Timeout feature does not use SERVORD.

DISA - Third Dial Tone

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS26 and later versions

Requirements

The DISA Third Dial Tone feature has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

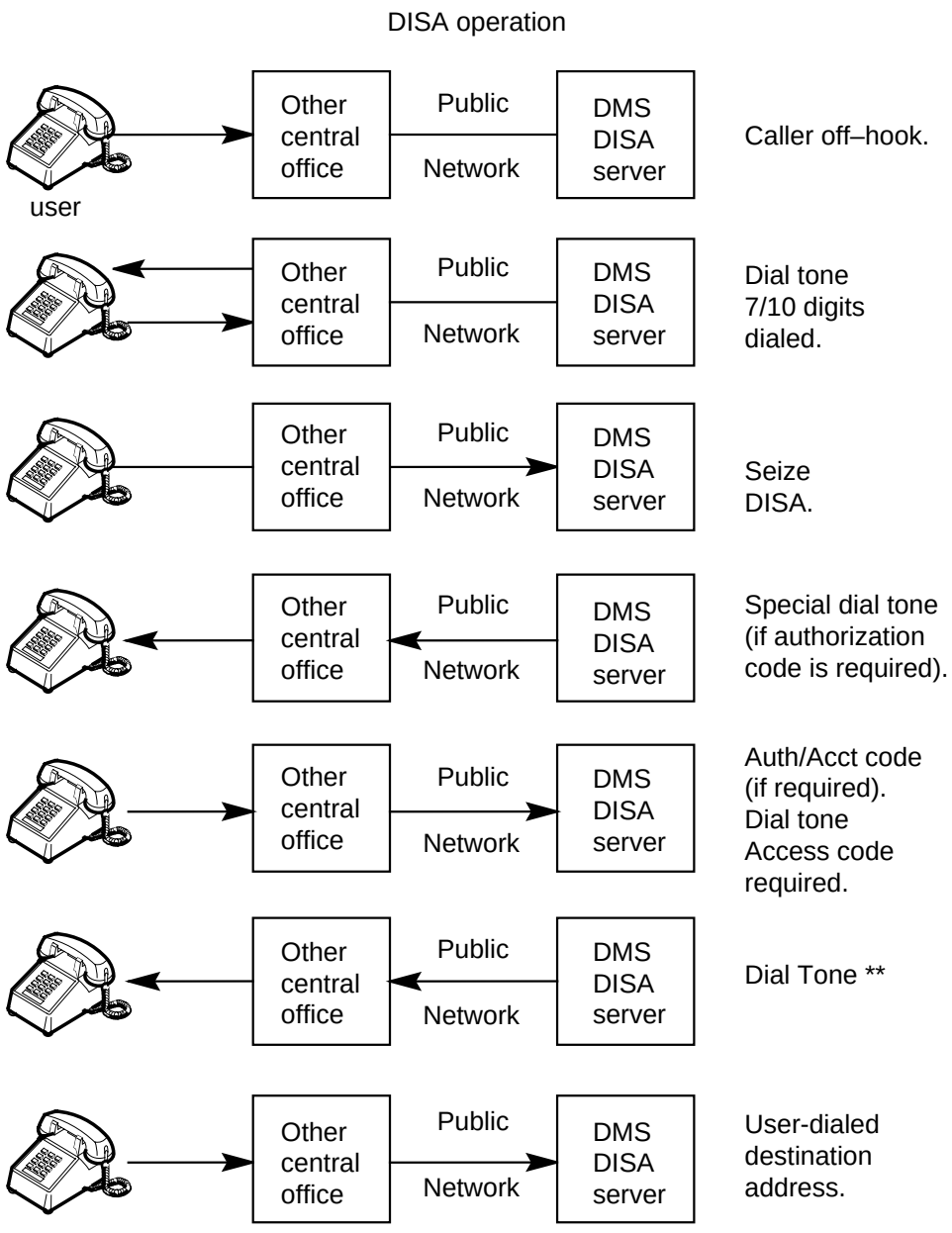
Description

The DISA Third Dial Tone feature allows direct inward system access (DISA) users to receive call progress tones. This process occurs as if the call started in the customer group. Before this feature, DISA users did not receive a dial tone between dialing an access code and the destination digits. Callers received a dial tone when the callers called from a connected station. With the current feature, dial tone application can occur at that location in the dialing sequence that the correct datafill is defined. Users on incoming trunks can input digits and receive the correct call progress tones.

This feature occurs when the customer group dialing plan applies dial tone after data entry of a trunk access code is entered. When the caller dials an access code, this feature provides a dial tone response to the access code. In all other conditions, the DISA Third Dial Tone feature does not change. The following flowchart describes these events.

DISA - Third Dial Tone (continued)

Table flow for DISA Third Dial Tone



** The DISA that serves office for this feature provides dial tone at this location.

DISA - Third Dial Tone (continued)

The DISA Third Dial Tone feature allows the authorized outside callers to dial from the switched network to the DMS-100 switch. These callers can access network facilities without attendant support.

The caller dials a seven- or ten-digit public switched telephone network (PSTN) number or an 800 service number. The PSTN or 800 service number routes the call to the DISA serving office. If the system requires an authorization and/or account code, the caller receives special dial tone. This tone prompts the caller to enter the code. Another dial tone occurs to indicate to the caller to continue with the called number.

Personnel that travel can use the DISA Third Dial Tone feature. A private company can request a DISA number for specified authorized employees on assignment. An authorized employee dials a toll-free DISA directory number (DN) and required authorization codes from the off-site location. This procedure allows the employee to access the local switch. When the employee accesses the switch, the employee can perform the following actions:

- talk with fellow employees
- dial up the company computer
- if authorized, dial out of the local switched network to call home
- make necessary long distance calls

For the employee, calls occur in the same method as calls that occur from the office telephone. This condition occurs when the system routes the call to the DISA serving office.

The DISA Third Dial Tone feature provides a security function for access to a computer from a dial-up modem. Colleges can allocate a DISA number to specified students for use during a semester course. A user must know the DISA access number and authorization code to log on with a correct password. The college can work with the operating company to provide different authorization codes that change at specified intervals.

Operation

The DISA Third Dial Tone feature changes how the collection of digits for DISA occurs. Before this feature, the system reported the routing digits when the following conditions occurred:

- 15 digits were in the buffer in the peripheral module (PM)
- the caller pressed the octothorpe (#) key
- a 10 s delay occurred after the preceding digit

DISA - Third Dial Tone (continued)

The operating company personnel can use table DIGCOL (Digit Collection) to specify the function of digit collection functions for DISA. If the DISA DN does not require an authorization code, the DISA call uses the external network class of service (NCOS). The DISA call uses the external NCOS for the customer group. Table CUSTHEAD specifies this procedure. If the caller enters an authorization code, the NCOS associated with the authorization code overrides the NCOS for the call. Table AUTHCDE specifies the NCOS associated with the authorization code. The digit collection name, field DGCOLNM in table NCOS, is the key to enter table DIGCOL. The data in table DIGCOL specifies the necessary action to the line module. The action depends on the first digit dialed. If field DTONE equals Y (yes), the caller receives the dial tone after the trunk access code.

The DISA Third Dial Tone feature does not have additional datafill requirements if the customer group dialing plan applies dial tone after the entry of a trunk access code (TAC).

Translations table flow

The DISA Third Dial Tone feature does not affect translations table flow.

Limits

The DISA Third Dial Tone feature does not have limits.

Interactions

The DISA Third Dial Tone feature does not have functionality interactions.

Activation/deactivation by the end user

The DISA Third Dial Tone feature does not require activation or deactivation by the end user.

Billing

The DISA Third Dial Tone feature does not affect billing.

Station Message Detail Recording

The DISA Third Dial Tone feature does not affect Station Message Detail Recording.

Datafilling office parameters

The DISA Third Dial Tone feature does not affect office parameters.

Datafill sequence

Tables that require datafill to provide the DISA Third Dial Tone feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for DISA Third Dial Tone

Table	Function of table
NCOS	Network Class of Service (NCOS) Table. This table contains: • service numbers assigned to attendant consoles (AC) • Integrated Business Network (IBN) • Residential enhanced Services (RES) stations • incoming or incoming side of two-way IBN trunk groups • authorization codes • customer groups
DIGCOL	IBN Digit Collection Table. This table is a requirement for the IBN and RES table-driven digit collection system.

Datafilling table NCOS

Table NCOS contains specified features or dialing patterns. These features and patterns are available to the stations, trunks, or consoles in a customer group.

Datafill for DISA Third Dial Tone for table NCOS appears in the following table. The fields that apply to DISA Third Dial Tone appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table NCOS

Field	Subfield or refinement	Entry	Description and action
OPTIONS		XLAS	Options. This field contains subfield NCOSOPTN. Subfield NCOSOPTN defines a maximum of 17 options and refinements associated with the NCOS. Enter XLAS for this feature.
	DGCOLNM	NDGT	Digit Collection Name. This subfield specifies the digit collection name. Enter NDGT.

Datafill example for table NCOS

Sample datafill for table NCOS appears in the following example.

DISA - Third Dial Tone (continued)

MAP example for table NCOS

```
TABLE: NCOS

       CUSTGRP   NCOS   NCOSNAME   LSC   TRAFSNO        OPTIONS
_____________________________________________________________
    MDCGRP1    40    MDCPBL    0     0
                                          XLAS   NXLA NXLA NDGT
```

Datafilling table DIGCOL

Table DIGCOL contains data that indicates an action for the line module. The action depends on the first digit dialed. If the system does not provide data for a digit, the digits defaults to the format with selector RPT.

Datafill for DISA Third Dial Tone for table DIGCOL appears in the following table. The fields that apply to DISA Third Dial Tone appear in this table. See the data schema section of this document for a description of the other fields.

Note: New datafill is not a requirement if the customer group dialing plan applies a dial tone after the entry of a TAC.

Datafilling table DIGCOL (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description and action
DGKEY		see subfields	Digit Collection Key. This field contains subfields DATNAME and DIGIT.
	DATNAME	1-8 alphanumeric name	Digit Collection Table Name. This subfield specifies the name assigned to the block of data in table DIGCOL. Enter the 1- to 8-alphanumeric name.
	DIGIT	0-9, STAR, or OCT	Digit. This subfield specifies the digit that applies to the record. Enter the digit (0 to 9), star (STAR), or octothorpe (OCT) that applies to the record.
DGDATA		see subfields	Digit Collection Data. This field contains subfields DGCOLSEL and DTONE.

Datafilling table DIGCOL (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Description and action
	DGCOLSEL	POTS	Digit Collection Selector. This subfield specifies the selector for normal digit translation. Enter POTS.
	DTONE	Y or N	Dial Tone. This subfield specifies if the system must activate a dial tone after the system receives the first digit. Enter Y or N.

Datafill example for table DIGCOL

Sample datafill for table DIGCOL appears in the following example.

MAP example for table DIGCOL

```
TABLE DIGCOL:

   DGKEY          DGDATA
_____________________________________________________________________
 DCN1  9       POTS    Y
```

Tools for verifying translations

The DISA Third Dial Tone feature does not use tools for verifying translations.

SERVORD

The DISA Third Dial Tone feature does not use SERVORD.

Distinctive Call Waiting Ringback

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS26 and later versions

Requirements

The Distinctive Call Waiting Ringback feature has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The Distinctive Call Waiting Ringback (CWR) feature allows callers to know when the terminating station applied call waiting to the callers.

This feature functions with the call waiting terminating feature on IBN lines, Meridian business set lines, and Subscriber Services (SS) lines.

A call can terminate to a line with call waiting terminating (CWT) and CWR. When this event occurs, CWR indicates the state of the terminating line to the caller. If the terminating line is busy with a call that is available for call waiting, the caller hears a distinct ringback tone. In all other conditions, the caller hears normal ringback or busy tone.

Before this feature, when a call terminated on a line with a CWT option, the caller received normal ringback. An idle destination or busy destination did not affect this procedure. If the destination was not available for call waiting, the system returned a busy tone to the caller.

When the caller received audible ringback, the caller did not know if the destination was busy with another call. The caller did not know if the call was call waited.

Distinctive Call Waiting Ringback (continued)

Operation

The Distinctive Call Waiting Ringback feature applies to the following lines with the CWT option:

- IBN lines
- business set lines
- SS lines

This feature creates the line option CWR. When CWR is on the terminating line, CWR identifies the status of the line to the caller. The line can be idle or busy with another call.

If the destination is idle, the system returns standard audible ringback to the caller as before. If the destination is busy with another call, the caller receives a distinct ringback. This ringback contains 1200 ms of ringing tone, 400 ms of silence, 400 ms of ringing tone, and 4 s of silence.

If the destination has the call waiting intragroup (CWI) option and CWT, the system provides distinct audible ringback. The system provides ringback for callers in the customer group and external callers.

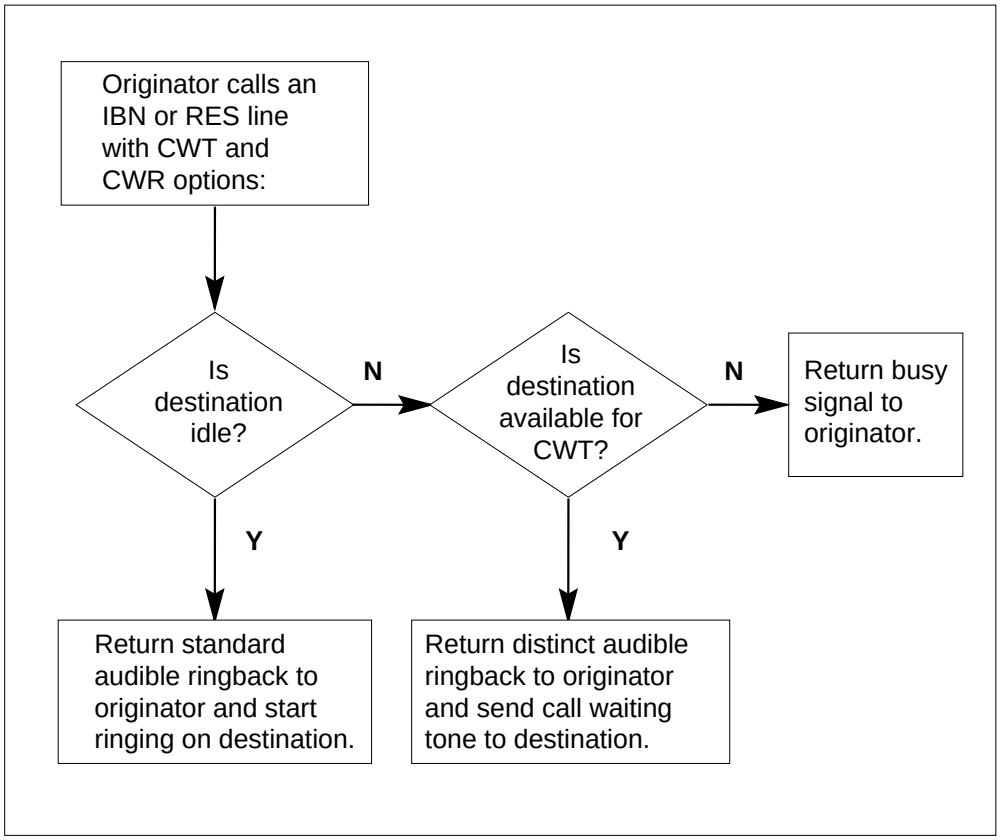
This feature does not affect conditions in which the destination is not available for call waiting. In these occurrences, the caller receives busy tone. Conditions in which the destination is not available for call waiting are as follows:

- The system forwards the destination.
- Another call is call waited on the destination.
- The destination originates a call.
- Another call terminated on the destination but the called party does not answer.
- The destination is the controller in a three-way call.
- The destination is in a conference call or call transfer.
- Cancel call waiting (CCW) is activated for the destination.

The Distinctive Call Waiting Ringback feature appears in the following figure.

Distinctive Call Waiting Ringback (continued)

Activating Distinctive Call Waiting Ringback



Translations table flow

The Distinctive Call Waiting Ringback feature does not affect translations table flow.

Limits

The following limits apply to the Distinctive Call Waiting Ringback feature:

- This feature is only available to IBN lines, business set lines, and SS lines that have the CWT option.
- This feature can only add to a line if the CWT is on the line.
- The Distinctive Call Waiting Ringback feature does not function for calls that arrive on ISUP trunks.
- The Distinctive Call Waiting Ringback feature is not available for attendant-extended calls. In this event, use attendant camp-on to indicate if the call is call waited.

Distinctive Call Waiting Ringback (continued)

Interactions

The following paragraphs describe the interactions between the Distinctive Call Waiting Ringback feature and other functionalities.

Call Waiting Intragroup

When the line with CWR has CWI and CWT, the system provides distinct audible ringback. The system provides this ringback for calls that start out of the customer group and in the customer group.

Call Waiting Originating and Dial Call Waiting

The CWR is a terminating line option. This feature does not affect Call Waiting Originating (CWO) and Dial Call Waiting (CWD). Features CWO and CWD are originating line options. If a line with CWO or CWD makes a call to a line with CWT and CWR, the originator receives ringback.

Activation/deactivation by the end user

The Distinctive Call Waiting Ringback feature does not require activation or deactivation by the end user.

Billing

The Distinctive Call Waiting Ringback feature does not affect billing.

Station Message Detail Recording

The Distinctive Call Waiting Ringback feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Distinctive Call Waiting Ringback feature does not affect office parameters.

Datafill sequence

Tables that require datafill to provide the Distinctive Call Waiting Ringback feature appear in the following table. The tables appear in the correct entry order.

Note: The data entry of these tables occurs through SERVORD. Datafill procedure or example is not provided. See “SERVORD" for an example of the use of SERVORD to enter data in these tables.

Datafill requirements for Distinctive Call Waiting Ringback

Table	Function of table
IBNLINES	IBN Line Assignments table. This table contains the line assignments data channel links for the Bulk Calling Line Identification (BCLI) feature under the format name BL.
KSETLINE	Keyset Line Table. This table associates call appearances (ISDN LT call activators and indicators) to directory numbers (DNs) and different feature options. This table is a current MDC table.

This feature changes tables IBNLINES and KSETLINE. The feature adds the line option CWR to table IBNLINES for IBN stations and SS lines. The feature adds the line option CWR to table KSETLINE for IBN business set lines.

Note: Service orders are the recommended method to assign CWR. When you assign CWR to a line in service orders, the system enters the correct table, IBNLINES or KSETLINE. Service orders perform feature compatibility checking. Table control does not perform this procedure. For example, CWR does not work. The entry of CWR must not occur for lines without CWT. Table control does not enforce this rule.

Tools for verifying translations

The Distinctive Call Waiting Ringback feature does not use tools for verifying translations.

SERVORD

The Distinctive Call Waiting Ringback feature creates the line option CWR. Feature CWR functions with IBN stations, SS lines, and business sets.

The following Service Order System (SERVORD) commands control CWR:

- ADO (add option)
- DEO (delete option)

Distinctive Call Waiting Ringback (continued)

- NEW (establish service)
- EST (establish a hunt or call pickup group)

The CWT option must be present on a line before the addition of CWR. The system cannot delete CWT from an IBN line or SS line with CWR. If the end user attempts this procedure, SERVORD returns an error message.

On business sets, you can assign the CWR option to each DN. You can assign CWR to any DN key on a business set with CWT. You can delete CWR option from all DN keys on the set. When this event occurs, the system deletes the CWT key from a business set with CWR on a DN key.

Feature CWT must be present on the line before the system can assign CWR. The options that do not function with CWT also do not function with CWR. The system checks these options when the system attempts to add CWT to a line.

Feature CWR functions with the following line class codes (LCC): IBN, SS, PSET, M2009, M2112, M2018, M2317, and M3000.

SERVORD limits

The Distinctive Call Waiting Ringback feature does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts that assign Distinctive Call Waiting Ringback feature to a line appear in the following table.

SERVORD prompts for Distinctive Call Waiting Ringback

Prompt	Correct input	Description
SNPA	3 digits	Specifies the service numbering plan area (area code).
LATANAME	Alphanumeric	Specifies the calling Local Access and Transport Area (LATA) name associated with the originator of the call.
Note: The system enters data in tables IBNLINES and KSETLINES when the system assigns Distinctive Call Waiting Ringback with SERVORD.		

SERVORD example for implementing Distinctive Call Waiting Ringback

The creation of an IBN line with Distinctive Call Waiting Ringback and CWT through the NEW command appears in the following SERVORD example.

SERVORD example for Distinctive Call Waiting Ringback using the NEW command in prompt mode

```
>NEW
SONUMBER: NOW 88 1 8 PM
>
DN:
>6211000
LCC:
>IBN
GROUP:
>IBNTST
SUBGRP:
>0
NCOS:
>0
SNPA:
>613
LATANAME:
>nillata
LTG:
>0
LEN:
>00 0 08 01
OPTION:
>CWT
OPTION:
>CWR
OPTION:
>$
```

SERVORD example for Distinctive Call Waiting Ringback using the NEW command in no-prompt mode

```
> NEW $ 6211000 IBN IBNTST 0 0 613 0 00 0 08 01 CWT CWR $
```

The addition of Distinctive Call Waiting Ringback to an SS or IBN line that has CWT using the ADO command appears in the following example.

Distinctive Call Waiting Ringback (continued)

SERVORD example for Distinctive Call Waiting Ringback using the ADO command in prompt mode

```
>ADO
SONUMBER: NOW 88 1 8 PM
>
DN_OR_LEN:
>6211001
OPTION:
>CWR
OPTION:
>$
```

SERVORD example for Distinctive Call Waiting Ringback using the ADO command in no-prompt mode

```
> ADO $ 6211001 CWR $
```

The deletion of Distinctive Call Waiting Ringback from an SS or IBN line can occur using the DEO command. A description of this process appears in the following SERVORD example.

SERVORD example for Distinctive Call Waiting Ringback using the DEO command in prompt mode

```
>DEO
SONUMBER: NOW 88 1 8 PM
>
DN_OR_LEN:
>6211001
OPTION:
>CWR
OPTION:
>$
```

Distinctive Call Waiting Ringback (continued)

SERVORD example for Distinctive Call Waiting Ringback using DEO command in no-prompt mode

```
> DEO $ 6211001 CWR $
```

The creation of a DN appearance on a business set with Distinctive Call Waiting Ringback and CWT can occur using the NEW command. A description of this process appears in the following SERVORD example.

SERVORD example for Distinctive Call Waiting Ringback using the NEW command in prompt mode

```
>NEW
SONUMBER: NOW 88 1 8 PM
>
DN:
>6212000
LCC:
>PSET
GROUP:
>BNTST
SUBGRP:
Z0
NCOS:
>0
SNPA:
>613
KEY:
>1
RINGING:
>Y
LATANAME:
>nillata
LTG:
>0
LEN:
>00 0 09 01
OPTKEY:
>4
OPTION:
>CWT
CWT:
>Y
RING:
>Y
```

Distinctive Call Waiting Ringback (continued)

SERVORD example for Distinctive Call Waiting Ringback using the NEW command in prompt mode (Continued)

```
PCWT:
>N
KEYLIST:
>1
KEYLIST:
>$
OPTKEY:
>1
OPTION:
>CWR
OPTKEY:
>$
```

SERVORD example for Distinctive Call Waiting Ringback using the NEW command in no-prompt mode

```
> NEW $ 6212000 PSET IBNTST 0 0 613 1 Y 0 00 0 09 01 4 CWT Y Y N 1
$ 1 CWR $
```

The addition of Distinctive Call Waiting Ringback to a business set DN can occur using the ADO command. A description of this process appears in the following SERVORD example. The DN must already have CWT assigned.

SERVORD example for Distinctive Call Waiting Ringback using the ADO command in prompt mode

```
>ADO
SONUMBER: NOW 88 1 8 PM
>
DN_OR_LEN:
>6212000
OPTKEY:
>1
OPTION:
>CWR
OPTKEY:
>$
```

Distinctive Call Waiting Ringback (continued)

SERVORD example for Distinctive Call Waiting Ringback using the ADO command in no-prompt mode

```
> ADO $ 6211001 CWR $
```

The deletion of Distinctive Call Waiting Ringback from a business set can occur using the DEO command. A description of this process appears in the following SERVORD example.

SERVORD example for Distinctive Call Waiting Ringback using the DEO command in prompt mode

```
>DEO
SONUMBER: NOW 88 1 8 PM
>
DN_OR_LEN:
>6212000
OPTKEY:
>1
OPTION:
>CWR
OPTKEY:
>$
```

SERVORD example for Distinctive Call Waiting Ringback using DEO command in no-prompt mode

```
> DEO $ 6212000 1 CWR $
```

The creation of a hunt group with Distinctive Call Waiting Ringback and CWT on the pilot DN can occur using the EST command. A description of this process appears in the following SERVORD example.

Distinctive Call Waiting Ringback (continued)

SERVORD example for Distinctive Call Waiting Ringback using the EST command in prompt mode

```
>EST
SONUMBER: NOW 88 1 8 PM
>
GROUPTYPE:
>DHN
PILOT_DN:
>6215000
LCC:
>IBN
GROUP:
>IBNTST
SUBGRP:
>0
NCOS:
>0
SNPA:
>613
LATANAME:
>nillata
LTG:
>0
PILOT_LEN:
>00 0 09 01
DN_LEN:
>$

OPTION:
>CWT
CWT:
>N
PCWT:
>N
OPTION:
>CWR
OPTION:
>$
GROUPSIZE:
>3
```

Distinctive Call Waiting Ringback (continued)

SERVORD example for Distinctive Call Waiting Ringback using the EST command in no-prompt mode

```
> EST $ DHN 6215000 IBN IBNTST 0 0 613 0 00 0 09 01 $ CWT N N CWR $ 3
```

An attempt to add Distinctive Call Waiting Ringback a line that does not have CWT using the ADO command. The lines IBN and SS appear in the following SERVORD example.

SERVORD example for Distinctive Call Waiting Ringback using ADO command in prompt mode

```
>ADO
SONUMBER: NOW 88 1 8 PM
>
DN_OR_LEN:
>6211002
OPTION:
>CWR
OPTION:
>$
COMMAND AS ENTERED:
ADO NOW 88 1 8 PM 6211002 (CWR) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>Y
CAN ONLY ADD CWR TO A LINE WITH CWT OPTION
CWR  DID NOT PASS CHECKING
*** ERROR – INCONSISTENT DATA ***
COMMAND AS ENTERED:
ADO NOW 88 1 8 PM 6211002
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>N
```

SERVORD example for Distinctive Call Waiting Ringback using ADO command in no-prompt mode

```
> ADO $ 6211002 CWR $ Y N
```

An attempt to delete CWT from an IBN or SS line that has Distinctive Call Waiting Ringback using the DEO command appears in the following SERVORD example.

Distinctive Call Waiting Ringback (end)

SERVORD example for Distinctive Call Waiting Ringback using the DEO command in prompt mode

```
>DEO
SONUMBER: NOW 88 1 8 PM
>
DN_OR_LEN:
>6211003
OPTION:
>CWT
OPTION:
>$
COMMAND AS ENTERED:
DEO NOW 88 1 8 PM 6211001 (CWR) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>Y
CANNOT DELETE CALL WAITING FROM A LINE
WITH CALL WAITING INTRAGROUP (CWI) OR
CALL WAITING RINGBACK (CWR) FEATURE.
*** ERROR _ INCONSISTENT DATA ***
COMMAND AS ENTERED:
DEO NOW 88 1 8 PM 6211001 (CWR) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
```

SERVORD example for Distinctive Call Waiting Ringback using the DEO command in no-prompt mode

```
> DEO $ 6211003 CWT $ Y
```

DT after DCW Cancel and Spd Call Programming

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS31 and later versions

Requirements

The DT after CFW Cancel and Spd Call Programming requires the following to operate:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The DT after CFW Cancel and Spd Call Programming provides a dial tone after an end user activates, deactivates, or programs any feature that uses a confirmation tone. If the installation of DT after CFW Cancel and Spd Call Programming occurs, the system provides a dial tone for the features. The features are in the plain old telephone service (POTS), MDC, and Subscriber Services (SS) environments.

Operation

Before BCS31, calls were in lockout state after the end user received a confirmation tone. End users had to go on-hook and then off-hook before the reception of a dial tone. End users had to wait for the dial tone before the end user started another call.

With DT after CFW Cancel and Spd Call Programming, end users can initiate another call. End users can initiate another call after the end user receives a confirmation tone. The end user receives a dial tone when the end user activates, deactivates or programs the following features:

- Call Forward All Calls
- Speed Calling Group - Long List
- Speed Calling Individual - Short List
- Call Back Queuing (Basic)
- Ring Again

DT after DCW Cancel and Spd Call Programming (continued)

Confirmation, lockout, and idle

Confirmation tone is a DMS-provided tone that is in use with feature to indicate activation, deactivation, or programming. Data entry of the tone occurs in Table OFRT (Office Route) as CONFMN.

Lockout state is the default state for the lines of the end user is successful after the confirmation tone. From lockout, the end user cannot initiate another call or request. The end user must first go on-hook and then off-hook to obtain dial tone. Data entry of lockout occurs in Table OFRT as LKOUT.

Another selection for feature processing is the idle state. A line is idle when the line is off-hook and has a dial tone. Idle appears in Table OFRT as IDLE.

Translations table flow

The DT after CFW Cancel and Spd Call Programming does not affect translations table flow.

Limits

The system screens the POTS options CFW F and CFBL for codes like the following: 911, 611, 411, 0+, 0-, 010, 011.

The system screens for codes to prevent the assignment of these codes as correct forward-to directory numbers (DN). The system does not screen the MDC options Call Forwarding Fixed (CFF) and Call Forwarding Busy (CFB) for these codes. These codes are correct forward-to DNs.

Interactions

The DT after CFW Cancel and Spd Call Programming interacts with the following features.

Call Back Queuing (Basic)

End users receive a confirmation tone followed by a dial tone when the end user activates Call Back Queuing (Basic).

Call Forward All Calls

End users receive a confirmation tone followed by dial tone when end users activate or deactivate Call Forward All Calls.

Ring Again

End users receive a confirmation tone followed by dial tone when end users activate Ring Again.

Speed Calling Group - Long List

End users receive a confirmation tone followed by dial tone when end users add, delete, or change numbers in speed calling lists.

Speed Calling Individual - Short List

End users receive confirmation tone followed by dial tone when end users add, delete, or change numbers in speed calling lists.

Activation/deactivation by the end user

The DT after CFW Cancel and Spd Call Programming does not require activation or deactivation by the end user.

Billing

The DT after CFW Cancel and Spd Call Programming does not affect billing.

Station Message Detail Recording

The DT after CFW Cancel and Spd Call Programming does not affect Station Message Detail Recording.

Datafilling office parameters

The DT after CFW Cancel and Spd Call Programming does not affect office parameters.

Datafill sequence

The tables that require datafill to install the DT after CFW Cancel and Spd Call Programming appear in the following table. The tables appear in the correct entry order.

Datafill requirements for DT after CFW Cancel and Spd Call Programming

Table	Purpose of table
OFRT	Office Route. The system uses this table to route all DMS except DMS-300.

Datafilling table OFRT

Datafill for DT after CFW Cancel and Spd Call Programming for table OFRT appears in the following table. The fields that apply to DT after CFW Cancel

DT after DCW Cancel and Spd Call Programming (continued)

and Spd Call Programming appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table OFRT

Field	Subfield or refinement	Entry	Explanation and action
RTE		1 to 1023	Route Reference Index This field indicates the route reference number assigned to the route list. Enter a value from 1 to 1023.
RTELIST		see subfields	Route List This field contains subfields RTESEL, CONNTYPE, and CLLI. ***Note:*** You can enter more than one tone or announcement for each route reference index.
	RTESEL	S	Route Selector This subfield indicates the route selector. Enter S to route calls to tones or announcements.
	CONNTYPE	D	Connection Type The subfield is not in use. Enter D for table control.
	CLLI	alphanumeric (1 to 16 characters)	Common language location identifier. This field identifies where the system routes translations for the call.

Datafill example for table OFRT

Sample datafill for table OFRT appears in the following example.

MAP example for table OFRT

```
TABLE: OFRT
RTE                                                    RTELIST
_____________________________________________________________

 10                        ( S D CONFMN ) ( S D IDLE ) $
```

Tools for verifying translations

The DT after CFW Cancel and Spd Call Programming does not use tools that verify translations.

DT after DCW Cancel and Spd Call Programming (end)

SERVORD

The DT after CFW Cancel and Spd Call Programming does not use SERVORD.

EAEO - IBN PIC Using SERVORD

Ordering codes

Operating group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS22 and later versions

Requirements

To operate, EAEO - IBN PIC Using SERVORD has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001
- EQA Local, EQA00001

Description

The EAEO - IBN PIC Using SERVORD feature allows the operating company to perform the following functions:

- use the PIC option in the Service Order System (SERVORD) to assign a primary inter-LATA carrier (PIC) to a separate Integrated Business Network (IBN) station.
- use the CTD (carrier toll denied) option in SERVORD to make sure an IBN station does not have toll access to specified carriers.
- allow the carrier in the first stage of translation to override the virtual facility group (VFG) carrier.

Operation

IBN PIC assignment

You can specify PICs in DMS-100 equal access end offices (EAEO) that have IBN software by two methods:

- by network class of service (NCOS)
- by customer group

Before the EAEO - IBN PIC Using SERVORD feature, the system created a separate NCOS for the station of an IBN line. The system created a separate NCOS if the line required a different PIC. The EAEO - IBN PIC Using SERVORD feature does not require the creation of a separate NCOS. Assignment of a PIC to an IBN station occurs with the PIC option in SERVORD. If assignment of a PIC to an IBN station occurs through

EAEO - IBN PIC Using SERVORD (continued)

SERVORD, the new PIC overrides other NCOS in translations. The PIC overrides other customer group PIC in translations.

This feature does not affect the translations for IBN stations that do not have a PIC assigned in SERVORD.

The following types of IBN stations can have PICs assigned through SERVORD:

- standard IBN 500/2500 set
- Meridian business set (MBS)
- data unit

Assignment of a PIC to attendant consoles (AC) cannot occur with SERVORD.

Equal access carrier toll denial

This feature provides the CTD option to IBN stations. The CTD option is a SERVORD option. The CTD option allows the system to deny an IBN station toll access to a maximum of three carriers. When entry of the CTD option occurs from SERVORD, the DMS switch prompts for the CARRIER. The switch prompts for a maximum of three carriers. In BCS26, feature AF1098, Equal Access Enhanced Carrier Toll Denial, allows entry of a maximum of 21 carriers. See “Equal Access Enhanced Carrier Toll Denial" for additional information on this feature.

Virtual facility group translations

The system routes IBN calls with VFGs. Translation for calls through VFGs occurs in two stages:

- from the IBN station to the trunk (incoming) side of the VFG
- from the (line) outgoing side of the VFG to the end office.

Before this feature, the system discarded the PIC or the dialed 10XXX digits before the second stage of translation. The system used the VFG carrier that the EA option specified in table VIRTGRPS. This condition did not occur when the save prefix digits (SPF) option was on the customer group translator in table IBNXLA. This condition did not occur when the SPF option was on the preliminary NCOS translator in table IBNXLA. This option caused the system to outpulse the 10XXX digits through the VFG. The requirement of these digits at the second stage of translation did not affect the outpulsing.

This feature adds the new option IBNPIC, to table VIRTGRPS. The IBNPIC option allows each VFG to choose the carrier to use in the second phase of translation. The IBNPIC option operates in the following method:

- Option IBNPIC can be in table VIRTGRPS. If this condition occurs, the IBN PIC or the dialed 10XXX digits in the first stage of translation override the VFG PIC. The second stage of translation uses the IBN PIC or the 10XXX digits.
- If the IBNPIC option is not in table VIRTGRPS, the second stage of translation uses the VFG PIC.

Refer to “Bellcore AMA - Enhanced ARS Translations" for additional information about how to use the IBNPIC option.

Note: In Table VFGDATA, the option appears as VIBNPIC.

Translations table flow

The EAEO - IBN PIC Using SERVORD does not affect translations table flow.

Limits

The following limits apply to EAEO - IBN PIC Using SERVORD:

- Assignment of the PIC option cannot occur to an AC. The NCOS PIC or customer group PIC is in use to translate calls from attendant consoles.
- The system can deny an IBN station toll access to a maximum of three carriers. To deny access to more than three carriers, the station must have a PIC of NILC (nil carrier). This PIC must have a CHOICE of N. In BCS26, feature AF1098, Equal Access Enhanced Carrier Toll Denial, allows the entry of a maximum of 21 carriers. See “Equal Access Enhanced Carrier Toll Denial" for additional information on this feature.
- Assignment of the CTD option cannot occur to ACs.

Interactions

Descriptions of the interactions between EAEO - IBN PIC Using SERVORD and other functionalities appear in the following paragraphs.

Activation/deactivation by the end user

The EAEO - IBN PIC Using SERVORD does not require activation or deactivation by the end user.

EAEO - IBN PIC Using SERVORD (continued)

The IBN stations can have PICs assigned in three different methods:

- a PIC assigned to the IBN station through SERVORD
- a PIC assigned NCOS preliminary translator of the station
- a PIC assigned to the customer group translator

The following hierarchy occurs when IBN translations have more than one PIC:

- The IBN PIC assigned in SERVORD overrides other NCOSs or customer group PICs.
- If assignment of the PIC to the IBN station did not occur through SERVORD, the NCOS PIC overrides the customer group PIC.
- If assignment of a PIC does not occur in SERVORD or to the NCOS preliminary translator, the customer group PIC is in use.
- The call routes default carrier or treatment of the office if the end user did not dial 10XXX and a PIC is not in one of the following locations:

  — SERVORD

  — the NCOS preliminary translator

  — the customer group translator

  Office parameter DEFAULT_CARRIER_OR_TREAT in table OFCENG specifies the treatment.

This feature changes table LCCOPT (Line Class Codes Option). The options compatible with line class codes IBN, PSET, and DATA are expanded to include PIC and CTD.

Billing

The EAEO - IBN PIC Using SERVORD does not affect billing.

Station Message Detail Recording

The EAEO - IBN PIC Using SERVORD does not affect Station Message Detail Recording.

Datafilling office parameters

The EAEO - IBN PIC Using SERVORD does not affect office parameters.

Datafill sequence

The tables that require datafill to implement EAEO - IBN PIC Using SERVORD appear in the following table. The tables appear in the correct entry order.

Datafill requirements for EAEO - IBN PIC Using SERVORD

Table	Purpose of table
IBNFEAT (Note)	IBN Line Feature Table. The line features assigned to the IBN lines in table IBNLINES appear in this table.
KSETFEAT (Note)	Business Set and Data-Unit Feature Table. The line features assigned to the business sets and data units (DU) in table KSETLINE appear in this table. This table contains the Meridian digital telephone sets and DUs in table IVDINV.
VIRTGRPS	Virtual Facility Group Table. This table provides a mechanism to eliminate loop-around trunks.
VFGDATA	Virtual Facility Group Data Table. This table contains the data for one end of a VFG. Each end of a VFG can be an IBN VFG or a plain old telephone service (POTS) VFG. Each end can be incoming or outgoing.
Note: Data entry of this table occurs through SERVORD. A datafill procedure is not available. See "SERVORD" for an example of how to use SERVORD to enter data in this table.	

Datafilling table VIRTGRPS

Table VIRTGRPS (Virtual Facility Groups) contains a mechanism to eliminate loop-around trunks. Loop-around trunks implement IBN Inward Wide Area Telephone Service (INWATS) and Outward Wide Area Telephone Service (OUTWATS). Loop-around trunks provide equal access abilities.

Datafill for EAEO - IBN PIC Using SERVORD for table VIRTGRPS appears in the following table. The fields that apply to EAEO - IBN PIC Using

EAEO - IBN PIC Using SERVORD (continued)

SERVORD appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table VIRTGRPS

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		VFGLSC, EA, IBNPIC	Options. This field specifies the options assigned to the VFG. Enter VFGLSC, EA and IBNPIC. ***Note:*** A space must separate each option and the associated subfield. Use as many records as required to enter data in the list of options and associated subfields.
If OPTIONS is VFGLSC, subfields LSC and LSCINT require entry.			
	LSC	0 to 255	Line Screening Code. This subfield specifies the line screening code number assigned to the VFG. Enter a value from 0 to 255.
	LSCINT	0 to 63	Line Screening Code Intercept Number. This subfield specifies the treatment number to which the system routes a call if line screening fails. The data for the treatment number is in Table IBNTREAT. Enter a value from 0 to 63.
If OPTIONS is EA, subfields PIC and CHOICE require datafill.			
	PIC	PIC name or NONE	Primary Inter-LATA Carrier. This subfield specifies the name assigned to the PIC in table OCCNAME. Enter the PIC name. ***Note:*** If a PIC is not a requirement, enter NONE.
	CHOICE	Y or N	Choice. This subfield specifies if the caller can dial a 10XXX prefix to choose a carrier manually. Enter Y or N.
If OPTIONS is IBNPIC, subfield OPTION requires datafill.			
	OPTION	IBNPIC	Option. This subfield specifies the IBN primary inter-LATA carrier option. Enter IBNPIC.

Datafill example for table VIRTGRPS

Sample datafill for table VIRTGRPS appears in the following example.

MAP example for table VIRTGRPS

```
TABLE: VIRTGRPS
   KEY
                          DATA
                                   OPIONS
_____________________________________________________________
 HOSTDD          SIZE 1024 POTS  6136215444  100  N
                      (EA  ATT Y) (IBNPIC) $
```

Datafilling table VFGDATA

Datafill for EAEO - IBN PIC Using SERVORD for table VFGDATA appears in the following table. The fields that apply to EAEO - IBN PIC Using SERVORD appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table VFGDATA

Field	Subfield or refinement	Entry	Explanation and action
DATA		Y of N	Choice. This subfield specifies the option to choose a carrier other than the PIC. Enter Y of N.
	OPTION	VFGEA	Option. This subfield specifies VFG options. Enter VFGEA.
If OPTION is VFGEA, subfields PIC and CHOICE require datafill.			
	PIC	PIC	Preferred Inter-LATA Carrier. This subfield specifies the PIC. Enter PIC.
	CHOICE	Y or N	Choice. This subfield specifies the option to choose a carrier other than the PIC. Enter Y or N.

Datafill example for table VFGDATA

Sample datafill for table VFGDATA appears in the following example.

MAP example for table VFGDATA

```
TABLE: VFGDATA
     KEY
                                   DATA
_____________________________________________________________
 OVFG  POTSVI
POTSVI  7372002  98  N  (VFGEA ARMCI Y) $
```

EAEO - IBN PIC Using SERVORD (continued)

Tools for verifying translations

The EAEO - IBN PIC Using SERVORD does not use tools for verifying translations.

SERVORD

The addition of a PIC to a standard IBN 500/2500 set can occur through SERVORD. When this condition applies, the system automatically assigns the PIC option to the station in table IBNFEAT. The system enters PICs automatically for business sets and data units in table KSETFEAT. Use the ADO (add option) command to assign a PIC to an IBN station in SERVORD. You must assign this PIC by the same method you assigned a PIC to a POTS line. The SERVORD command DEO (delete option) removes a PIC from an IBN station.

The addition of a CTD to a standard IBN 500/2500 set can occur. When this condition applies, the system enters the CTD option automatically in table IBNFEAT. The system can add a CTD to a business set or data unit. The system enters the CTD option in table KSETFEAT. The SERVORD command ADO adds the CTD option to a station. The SERVORD command DEO removes the CTD from a station.

SERVORD limits

The EAEO - IBN PIC Using SERVORD does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts used to assign EAEO - IBN PIC Using SERVORD to a line appear in the following table.

SERVORD prompts for EAEO - IBN PIC Using SERVORD

Prompt	Valid input	Explanation
CARRIER	C111 or CARRNAME	Specifies the interexchange carrier (IEC) of the station. The IEC is the PIC. Enter C111 or CARRNAME
CHOICE	N or N	Specifies if the end user can dial 10XXX. The XXX is the carrier access code of a carrier other than CARRIER. Enter Y or N.
Note: The system automatically enters data in tables IBNFEAT and KSETFEAT when you use SERVORD to assign EAEO - IBN PIC Using SERVORD.		

EAEO - IBN PIC Using SERVORD (continued)

SERVORD example for adding EAEO - IBN PIC Using SERVORD

The addition of EAEO - IBN PIC Using SERVORD to standard IBN station with the ADO command appears in the following SERVORD example.

SERVORD example for EAEO - IBN PIC Using SERVORD in prompt mode

```
SO:
> ADO
SONUMBER:     NOW  86  1  2 PM
>
DN_OR_LEN:
> 5551313
OPTION:
> PIC
CARRIER:
> C111
CHOICE:
> Y
OPTION:
> $
```

SERVORD example for EAEO - IBN PIC Using SERVORD in no-prompt mode

```
> ADO  $ 5551313 PIC C111 Y $
```

SERVORD example for adding EAEO - IBN PIC Using SERVORD

The assignment of EAEO - IBN PIC Using SERVORD to a business set with the ADO command appears in the following SERVORD example.

EAEO - IBN PIC Using SERVORD (continued)

SERVORD example for EAEO - IBN PIC Using SERVORD in prompt mode

```
SO:
> ADO
SONUMBER:     NOW  86  1  2 PM
>
DN_OR_LEN:
> 5551111
OPTKEY:
> 1
OPTION:
> PIC
CARRIER:
> CARRNAME
CHOICE:
> N
OPTION:
> $
```

SERVORD example for EAEO - IBN PIC Using SERVORD in no-prompt mode

```
> ADO $ 5551111 1 PIC CARRNAME N $
```

SERVORD example for adding EAEO - IBN PIC Using SERVORD

The addition of EAEO - IBN PIC Using SERVORD with CTD option to an IBN station appears in the following SERVORD example. The addition occurs with the use of the ADO command. The system denies station 555-1212 toll access to two carriers: C222 and C333.

EAEO - IBN PIC Using SERVORD (end)

SERVORD example for EAEO - IBN PIC Using SERVORD using CTD option in prompt mode

```
SO:
> ADO
SONUMBER:      NOW  86  1  2 PM
>
DN_OR_LEN:
> 5551212
OPTION:
> CTD
CARRIER:
> C222
CARRIER:
> C333
CARRIER:
> $
OPTION:
> $
```

SERVORD example for EAEO - IBN PIC Using SERVORD using CTD option in no-prompt mode

```
> ADO $ 5551212 CTD C222 C333 $ $
```

Enhanced SERVORD II

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS24 and later versions

Requirements

To operate, Enhanced SERVORD II has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The Enhanced SERVORD II feature enhances the current Service Order System (SERVORD) system. The SERVORD system allows telephone operating companies and Customer Data Change (CDC) users to perform the following functions:

- display information in the output of the QDN, QLEN, QDNWRK, and QLENWRK commands. These commands indicate if Call Forwarding Universal (CFU), and Call Forwarding Intragroup (CFI) are activated. The commands indicate to which directory number (DN) the system forwards the CFU and the CFI.
- use the CHG command to change the line class code (LCC) of a Meridian business set (MBS) to the LCC of other MBS. The DSP command can display the LCC of any line.
- change the subgroup for a line, trunk or incoming virtual facility group (VFG) with the CHG command. The DSP command can display the subgroup.
- use the called number (CDN) command to change the DN and the route associated with a DN. Enter this route first with the NEWDN command.
- change the primary or secondary status of a member of a multiple appearance directory number (MADN) group. The CHF command provides this ability.
- allows SERVORD end user to change an MDN DN with the CDN command.

Enhanced SERVORD II (continued)

- suspend (SUSGRP) and restore (RESGRP) a group of lines through the commands, SUSGRP and RESGRP. This feature only supports the network class of service group (NCOS).
- change the remote call forwarding (RCF) DN and other associated RCF data

Operation

Enhanced SERVORD II allows the CDC end user to change line options, features, and DN assignments. The end user can make these changes on MBSs, 500/2500 sets, and Datapath data units. The telephone operating company can deny or limit the end user access to data for these line types.

Enhanced SERVORD II allows the telephone operating companies to allow the end users to view and modify fixed translation and routing parameters. The end users can use SERVORD to view and modify the parameters from the premises of the end user.

The end user can be a CDC end user. This event occurs when the entry of the user name occurs during logon appears in table CDCLOGON (Customer Data Change Logon). Table CDCLOGON associates the logon, an owner ID, user name, a user class, and pending order file (POF) privileges for the end user.

To implement Enhanced SERVORD II, the telephone operating company defines the office data end users can view, query or modify. The telephone operating company defines the methods end users can use to access the office data. The telephone operating company defines the office data and methods through data tables.

Enhanced SERVORD II allows the SERVORD system to allow the CDC end user and telephone operating company to display additional information. The additional information includes the following:

- the LCC of any line
- the subgroups for lines, trunks, or VFGs
- the zones and routes for customer groups

- the output of the query commands to include call forwarding status and destination information
- the output of a DN query to include the following RCF information:
  - — forwarded DN
  - — serving number plan area (SNPA) for the DN the system forwards
  - — the RCF type (standard or equal access)
  - — maximum number of calls the system allows on the RCF DN
  - — parameter that indicates if the system blocks toll calls and the treatment to apply
  - — operational measurements (OM) index
  - — route or screen indicator
  - — office route index (Route) or screening class and name before translation (Screen)

User interface

Enhanced SERVORD II displays information in the output of the QDN, QLEN, QDNWRK, and QLENWRK commands. To obtain information about a line when you know the DN, use the QDN command. If you do not know the DN and you know the line equipement number (LEN), you can access another display. The second display is like the Enhanced SERVORD II display. To access the second display, use the QLEN command.

An example MAP (maintenance and administration position) example of the QDN command appears in the following figure.

Enhanced SERVORD II (continued)

MAP example of the QDN command

```
CI:
>QDN  3674741
_____________________________________________________________
DN:   3674741
TYPE: SINGLE PARTY LINE
SNPA: 919 SIG: DT LNATTIDX: 0
LINE EQUIPMENT NUMBER: HOST 00 0 03 24
LINE CLASS CODE: PSET (WITH DISPLAY)
CUSTGRP: COMKODAK  SUBGRP:  0  NCOS:  0  RING: Y
CARDCODE: 6X21AC GND: N PADGRP: PPHON BNV: NL MNO: Y
PM  NODE NUMBER:    16
PM TERMINAL NUMBER: 121
OPTIONS:
3WC  NAME  BNR  JOHN DOE SUPPRESS PUBLIC Y Y
```

A MAP example of the QLEN command appears in the following figure.

MAP example of the QLEN command

```
CI:
>QLEN  0 0 3 24
_____________________________________________________________
LEN:  HOST 00 0 03 24
TYPE: SINGLE PARTY LINE
SNPA: 919
DIRECTORY NUMBER:  3674741
LINE CLASS CODE: PSET (WITH DISPLAY)
CUSTGRP: COMKODAK  SUBGRP:  0  NCOS:  0  RING: Y
ADDONS:  NONE  EXTENSION:  N
CARDCODE: 6X21AC GND: N PADGRP: PPHON BNV: NL MNO: Y
PM  NODE NUMBER:    16
PM TERMINAL NUMBER: 121
DNGRPS OPTIONS:
OPTIONS:
3WC  NAME  BNR  JOHN DOE SUPPRESS PUBLIC Y Y

KEY        DN
---        --
  1        DN

KEY       FEATURE
---       -------
  5            3WC
```

Translations table flow

Enhanced SERVORD II does not affect translations table flow.

Limits

Telephone operating company users and CDC users can use the SERVORD commands that appear in this document. The CDC user must own the queried DN or LEN to use these commands.

Interactions

Enhanced SERVORD II does not have functionality interactions.

Activation/deactivation by the end user

Enhanced SERVORD II does not require activation or deactivation by the end user.

Enhanced SERVORD II (continued)

Billing

Enhanced SERVORD II does not affect billing.

Station Message Detail Recording

Enhanced SERVORD II does not affect Station Message Detail Recording.

Datafilling office parameters

Enhanced SERVORD II does not affect office parameters.

Datafill sequence

Enhanced SERVORD II does not affect datafill.

Tools for verifying translations

Enhanced SERVORD II does not use tools for verifying translations.

SERVORD

Enhanced SERVORD II allows the CDC user to query and modify information through SERVORD. The information includes DNs, line, trunks, routing and system parameters. The SERVORD commands allow the CDC end user to enter LENs and DNs. The LENs and DNs are associated with MBSs, 500/2500 sets, and Datapath data units.

SERVORD limits

Enhanced SERVORD II does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts appear in the following table. Use these SERVORD prompts to change a NCOS of a common language location identifier (CLLI). Use the prompts to change an authorization code for an owner, and the prompts that display CLLI and VFG information.

SERVORD prompts for Enhanced SERVORD II (Sheet 1 of 3)

Prompt	Valid input	Explanation
DN_OR_LEN	7-digit DN or LEN	Specifies the 7-digit DN or LEN of the line to change. Enter the DN or LEN.
WHAT	CLLI, AUTH, VFG	Indicates the aspect of the line to change. Enter CLLI, AUTH or VFG.

SERVORD prompts for Enhanced SERVORD II (Sheet 2 of 3)

Prompt	Valid input	Explanation
AUTHPART	1- to 16-character alphanumeric name	Indicates the authorization partition name for the customer group. Enter a 1- to 16-character alphanumeric name.
AUTHCODE	2 to 12 digits	Indicates the authorization code for the customer group. Enter 2 to 12 digits.
CLLI	1- to 8-character alphanumeric name	Indicates the CLLI for the trunk. Enter a 1- to 8-character alphanumeric name.
CDC_OWNER	1- to 8-character name	Indicates the owner ID for the CDC end user. Enter a 1- to 8-character name.
OPTKEY	1 to 69	Indicates the key on an MBS with an option assigned. Enter a value from 1 to 69.
OPTION	CDC	Indicates the name of the option. Enter CDC.
NCOS	0 to 511	Indicates the NCOS for MDC trunks. Enter a value from 0 to 511.
NCOS_OR_TOBE	NCOS, TOBE	Specifies if the user changes the NCOS or the authcode. Enter NCOS or TOBE.
OUTGO_INFO	ALL, ALSC, CUST, LSC	Specifies the type of information to display for an outgoing VFG. Enter ALL, ALSC, CUST or LSC.
TYPE_DIRECTION	IBNVI, IBNVO	Indicates the type and direction of the virtual facility group. Enter IBNVI or IBNVO.

Enhanced SERVORD II (continued)

SERVORD prompts for Enhanced SERVORD II (Sheet 3 of 3)

Prompt	Valid input	Explanation
TRK_INFO	ALL, ALSC, CUST, LSC, NOCOS, SUBGRP	Indicates the trunk information to changed or display. Enter ALL, ALSC, CUST, LSC, NOCOS, SUBGRP.
VIRTGRP	1- to 6-character alphanumeric name	Indicates the virtual facility group name. Enter a 1- to 6-character alphanumeric name.

SERVORD example for implementing Enhanced SERVORD II

How to use Enhanced SERVORD II with the add option (ADO) command to add option CDC appears in the following SERVORD example.

SERVORD example for the addition of option CDC with the ADO command in prompt mode

```
SO:
> ADO
SONUMBER:      NOW  90  1  2 AM
>
DN_OR_LEN:
> 7227000
OPTKEY:
> 2
OPTION:
> CDC
CDC_OWNER:
> CARLING
OPTKEY:
> $
```

SERVORD example for the addition of option CDC with the ADO command in non-prompt mode

```
> ADO $ 7227000 2 CDC CARLING $
```

How to use Enhanced SERVORD II to change the authorization code of owner NBR appears in the following example. The authorization code changes from 12345 to 22222. Enhanced SERVORD II uses the Change translation/routing

translation/routing information (CHG) command to change the authorization code.

SERVORD example for changing the authorization code of an owner in prompt mode

```
SO:
> CHG
SONUMBER:     NOW  90  1  2 AM
>
WHAT:
>AUTH
AUTHPART:
> NBR
AUTHCODE:
> 12345
NCOS_OR_TOBE:
> TOBE
AUTHCODE:
> 22222
```

SERVORD example for changing the authorization code of an owner in no-prompt mode

```
> CHG $ AUTH NBR 12345 TOBE 22222
```

How to use Enhanced SERVORD II with the CHG command to change the NCOS of a CLLI appears in the following example.

SERVORD example for changing the NCOS of a CLLI in prompt mode

```
SO:
> CHG
SONUMBER:     NOW  90  1  2 AM
>
WHAT:
> CLLI
CLLI:
> CARYPS
TRK_INFO:
> ALSC
NCOS:
>47
```

Enhanced SERVORD II (continued)

SERVORD example for changing the NCOS of a CLLI in no-prompt mode

```
> CHG  $  CLLI  CARYPS  ALSC  47
```

The Enhanced SERVORD II feature displays information in the output of the display translation/routing information (DSP) command. Use the DSP command to display information related to the following:

- the NCOS
- customer group
- subgroup
- ring option
- the LCC of DNs on single line and multiline telephone sets

SERVORD example for displaying the CLLI information of a line in prompt mode

```
SO:
> DSP
WHAT:
> CLLI
CLLI:
> CARYP2
TRUNK_INFO:
>NCOS
NCOS:
> 47
```

SERVORD example for displaying the CLLI information of a line in no-prompt mode

```
> DSP   $  CLLI  CARYPS  NCOS  47
```

How to use Enhanced SERVORD II with the SERVORD command to display VFG information the SERVORD command appears in the following SERVORD example.

SERVORD example for displaying VFG information through the use of SERVORD in prompt mode

```
SO:
> DSP
WHAT:
> VFG
VIRTGRP:
> NILVFG
TYPE_DIRECTION:
> IBNVO
OUTGO_INFO:
> LSC
```

SERVORD example for displaying VFG information through the use of SERVORD in no-prompt mode

```
> DSP  $ VFG NILVFG IBNVO LSC
```

ERWT for Lines, Trunks for ARS, CBQ Features

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS10 and later versions

Requirements

To operate, ERWT for Lines, Trunks for ARS, CBQ Features has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The ERWT for Lines, Trunks for ARS, Call Back Queue Features (ERWT) provides a warning tone to indicate the selection of an expensive route.

The system gives the ERWT when the following conditions occur:

- the automatic route selection (ARS) selects a route marked as expensive in a route list
- the call was not in queue
- the network class of service (NCOS) and customer group data are set to receive ERWT

Operation

The ERWT for Lines, Trunks for ARS, Call Back Queue Features activates automatically according to datafill, when the preceding conditions occur.

After the system gives ERWT, the end user has the following options:

- on hook to refuse to use the expensive route
- wait for time-out to occur (0 s to 10 s) and allow the call to terminate on the expensive route
- activate call-back queuing (CBQ)

ERWT for Lines, Trunks for ARS, CBQ Features (continued)

Use of service circuit NT3X68AC provides the ERWT feature. The ERWT is three 250 ms bursts of 440 Hz tone at -13 dBm. The system gives this tone to the first route labeled as expensive.

Note: The system considers that all routes after the first expensive route are also expensive.

Translations table flow

The ERWT for Lines, Trunks for ARS, Call Back Queue Features does not affect translations table flow.

Limits

If an end user makes a call and all inexpensive routes are busy, the end user hears an expensive route warning tone. The end user hears this tone when the expensive routes are busy. This tone occurs because the ERWT feature does not check for trunk availability before the feature sends the warning tone. A fast busy tone follows the expensive route warning tone.

Interactions

The system does not give ERWT to the following features and call types:

- three-way calling
- transferred calls
- calls with overlap outpulsing
- forwarded calls
- attendant consoles (AC). Interaction does not occur with the attendant input of authorization codes, busy verify trunk features, and attendant extension of calls.
- when LOD or LOR features are followed
- night station calls when a remote location serves as the night station
- VFGs associated with OUTWATS
- automatic lines

Activation/deactivation by the end user

The ERWT for Lines, Trunks for ARS, CBQ Features does not require activation or deactivation by the end user.

Billing

The ERWT for Lines, Trunks for ARS, CBQ Features does not affect billing.

Station Message Detail Recording

The ERWT for Lines, Trunks for ARS, CBQ Features does not affect Station Message Detail Recording.

Datafilling office parameters

The ERWT for Lines, Trunks for ARS, CBQ Features does not affect office parameters.

Datafill sequence

The tables that require datafill to implement ERWT for Lines, Trunks for ARS, CBQ Features appear in the following table. The tables appear in the correct entry order.

Datafill requirements for ERWT for Lines, Trunks for ARS, CBQ Features

Table	Purpose of table
CUSTHEAD	Customer Group Head. This table defines the public and private transaction capability application part (TCAP) translator names for each customer group.
CLLI	Common Language Location Identifier. This table contains the name that identifies each tone, announcement, or trunk group in the switch.
STN	Special Tone. This table contains tones that require trunk cards.
NCOS	Network Class of Service. This table contains NCOS numbers assigned to the following: • ACs • integrated business network (IBN) stations • Subscriber Services (RES) stations • incoming sides of two-way IBN trunk groups • authorization codes • customer groups

Datafilling table CUSTHEAD

Enter data in table CUSTHEAD to specify an expensive route delay time. This time is the number of seconds between the time the end user receives expensive route warning tone and connection to the expensive route. This time is the amount of time the end user has to hang up before connection to the expensive route. If you do not enter this option, the default is 6 s.

Datafill for ERWT for Lines, Trunks for ARS, CBQ Features for table CUSTHEAD appears in the following table. The fields that apply to ERWT

ERWT for Lines, Trunks for ARS, CBQ Features (continued)

for Lines, Trunks for ARS, CBQ Features appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTHEAD

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		ERDT	Options. This field specifies the list of options and associated subfields assigned to the customer group. Enter ERDT for expensive route delay time.
If OPTIONS is ERDT, enter data in subfields OPTION and ERDTTIME.			
	OPTION	ERDT	Option. This subfield specifies the expensive route delay time option. Enter ERDT.
	ERDTTIME	0-5, 7-10	Expensive Route Delay Time. This subfield specifies the time, in 1 s intervals, to elapse before a call terminates on an expensive route. Enter a value from 0 to 5 or from 7 to 10.

Datafill example for table CUSTHEAD

Sample datafill for table CUSTHEAD appears in the following example.

MAP example for table CUSTHEAD

```
CUSTNAME   CUSTXLA  DGCOLNM                          OPTIONS
_____________________________________________________________
POTSDATA POTSXLA RES (VACTRMT 0) (EXTNCOS 0) (ERDT 0) $
```

Datafilling table CLLI

Enter data in table CLLI to define the number of tone circuits for ERWT.

Datafill for ERWT for Lines, Trunks for ARS, CBQ Features for table CLLI appears in the following table. The fields that apply to ERWT for Lines,

Trunks for ARS, CBQ Features appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CLLI

Field	Subfield or refinement	Entry	Explanation and action
CLLI		ERWT	Common Language Location Identifier. This field specifies 1 to 16 characters to identify the far end of each announcement, tone, or trunk group. Enter ERWT for expensive route warning tone.

Datafill example for table CLLI

Sample datafill for table CLLI appears in the following example.

MAP example for table CLLI

```
CLLI     ADNUM     TRKGRSIZ                        ADMININF
_____________________________________________________________
SYNCH     14        10                             ERWT
```

Datafilling table STN

Enter table STN to define the location and the maximum number of connections to each tone circuit. Tones that require trunk cards require this table. The ERWT is one of these tones.

Datafill for ERWT for Lines, Trunks for ARS, CBQ Features for table STN appears in the following table. The fields that apply to ERWT for Lines, Trunks for ARS, CBQ Features appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table STN (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SK		see subfield	Special Tone Key. This field contains subfields TONE and MEMBER. This feature only affects subfield TONE.

ERWT for Lines, Trunks for ARS, CBQ Features (continued)

Datafilling table STN (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	TONE	ERWT	Tone. This field specifies the pseudo fixed code assigned to the tone trunk circuit in table CLLI. Enter ERWT.
CARDCODE		3X68AC	Card Code. This field specifies the product engineering code of the tone trunk circuit. Enter 3X68AC.

Datafill example for table STN

Sample datafill for table STN appears in the following example.

MAP example for table STN

```
SK    TMTYPE   TMNO     TMCKTNO   CARDCODE   MAXCONN   TRAFSNO
_____________________________________________________________
ERWT  1     MTM      0        3        3X68AB        3          0
```

Datafilling table NCOS

Enter table NCOS to allow expensive route warning tone for a specified NCOS. Table IBNRTE marks routes as expensive or not expensive.

Datafill for ERWT for Lines, Trunks for ARS, CBQ Features for table NCOS appears in the following table. The fields that apply to ERWT for Lines, Trunks for ARS, CBQ Features appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table NCOS

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		see subfield	Options. This field contains several subfields. This feature only affects subfield NCOSOPTN.
	NCOSOPTN	ERWT	Network Class of Service Options. This field specifies a vector of a maximum of 17 option entries for the NCOS number. Enter ERWT.

Datafill example for table NCOS

Sample datafill for table NCOS appears in the following example.

MAP example for table NCOS

```
CUSTGRP   NOCOS   NCOSNAME   LSC   TRAFSNO            OPTIONS
_____________________________________________________________
POSTDATA    0      PDATA      0       0              (ERWT) $
```

Tools for verifying translations

The ERWT for Lines, Trunks for ARS, CBQ Features does not use tools for verifying translations.

SERVORD

The ERWT for Lines, Trunks for ARS, CBQ Features does not use SERVORD.

ESN - Answer Supervision Generation

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS13 and later versions

Requirements

To operate, ESN - Answer Supervision Generation has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

This feature allows a customer to use the DMS audio tone detector (ATD) to detect answer on terminating trunks at the end of impulsing. The terminating trunks are from the far end offices. A customer detects voice from the far end to detect answer. Answer is a requirement in the DMS switch to allow features, like three-way calling and call waiting to activate. The call must be in the talking state to allow these features to activate. Station Message Detail Recording (SMDR) uses voice detection by the ATD. The SMDR uses this voice detection for time-stamping purposes to indicate the start of conversation.

When a call involves an ATD for answer supervision purposes, the system detection of an answer can occur at any point in the call.

The system maintains the network connection between the outgoing trunk and the ATD. The ATD operates in a listen mode only. The ATD does not disturb the network connection made between the originator, the terminator, and the outgoing trunk.

The system does not record the call as answered until the detection of voice answer or time-out occurs.

Operation

This feature allows the DMS switch to send answer supervision to the incoming trunk on tandem trunk-to-trunk calls. When the ATD detects answer, the DMS switch signals off-hook toward the incoming trunk. The DMS switch performs this action if the incoming trunk is not in the off-hook

ESN - Answer Supervision Generation (continued)

state. This action allows the originating office to generate an accurate SMDR record.

If an ATD is not available for answer detection, the system generates a log to indicate this state.

Translations table flow

The ESN - Answer Supervision Generation does not affect translations table flow.

Limits

The following limits apply to ESN - Answer Supervision Generation:

- An attendant can originate the first leg of a call to a trunk using ATD answer supervision. In this event, the system does not allow call extension until the ATD detects answer or until ATD time-out occurs.
- The attendant can extend a call to a destination that uses answer detection. In this event, the attendant cannot release the call until the ATD detects voice answer.

Interactions

The ESN - Answer Supervision Generation feature interacts with the other IBN features as indicated in the following list:

- A station can originate the first leg of a call to a trunk using ATD answer supervision. In this event, the system ignores hookswitch flash to cause three-way calling/call transfer feature. The system ignores the flash until the ATD detects voice or until ATD time-out occurs.
- A station end user can flash the hookswitch to start the three-way calling/call transfer feature. The end user can dial a destination that uses ATD answer supervision. When these conditions occur, the station can flash one time. This flash connects the first leg of the trunk with the station end user and the trunk. A second flash disconnects the trunk. Answer supervision by the ATD is transparent to the end user.
- A station can have the call waiting feature and can originate a call to a trunk using ATD answer supervision. In this event, the station cannot have the call waiting feature until the ATD detects answer or time-out occurs.

Activation/deactivation by the end user

The ESN - Answer Supervision Generation does not require activation or deactivation by the end user.

ESN - Answer Supervision Generation (continued)

Billing

The ESN - Answer Supervision Generation does not affect billing.

Station Message Detail Recording

The ESN - Answer Supervision Generation does not affect Station Message Detail Recording.

Datafilling office parameters

The ESN - Answer Supervision Generation does not affect office parameters.

Datafill sequence

The tables that require datafill to implement ESN - Answer Supervision Generation appear in the following table. The tables appear in the correct entry order.

Datafill requirements for ESN - Answer Supervision Generation

Table	Purpose of table
CLLI	Common Language Location Identifier. Enter data in table CLLI to define the audio tone detector CLLI.
CUSTSMDR	Customer Group SMDR Option. Table CUSTSMDR contains the SMDR options assigned to each customer group.
DIGMAN	Digit Manipulation. Enter data in table DIGMAN when the audio tone detector answers on terminating trunks from the far end switching unit. This action occurs to generate for answer supervision.

Datafilling table CLLI

Datafill for ESN - Answer Supervision Generation for table CLLI appears in the following table. The fields that apply to ESN - Answer Supervision Generation appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CLLI

Field	Subfield or refinement	Entry	Explanation and action
CLLI		RCVRATD	Common Language Location Identifier. This field specifies 1 to 16 characters to identify the far end of each announcement, tone, or trunk group. Enter RCVRATD for audio tone detector.

ESN - Answer Supervision Generation (continued)

Datafill example for table CLLI

Sample datafill for table CLLI appears in the following example.

MAP example for table CLLI

```
CLLI ADNUM TRKGRSIZ                          ADMINIF
_____________________________________________________
    RCVRATD    51       32        RCVR, AUDIO, TONE, DET
```

Datafilling table CUSTSMDR

Enter data in table CUSTSMDR to assign the answer timing allowance (ANSTIMAL) option. This option allows the customer to compensate for not enough correct answers from specified trunks. These trunks have supervision types of DISCONLY (disconnect only) and NODISC (no disconnect). The ATD can detect answer on DISCONLY and NODISC supervision type trunks. In this event, you do not need to enter data in the ANSTIMAL option. This condition applies because the ATD detects true answer.

Datafill for ESN - Answer Supervision Generation for table CUSTSMDR appears in the following table. The fields that apply to ESN - Answer Supervision Generation appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTSMDR

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		ANSTIM	Options. This field specifies the list of options and subfields assigned to the customer group. Enter ANSTIM.
If OPTIONS is ANSTIM, enter data in subfields OPTION and ANSTIMAL.			
	OPTION	ANSTIM	Option. This subfield specifies the answer timing option. Enter ANSTIM.
	ANSTIMAL	2 - 14, 16 - 31	Answer Time Allowed. This subfield specifies the time allowed, in 1 s intervals, before the system records a call on a no answer trunk answered. Enter a value from 2 to 14 or 16 to 31.

Datafill example for table CUSTSMDR

Sample datafill for table CUSTSMDR appears in the following example.

MAP example for table CUSTSMDR

```
   CUSTNAME   BUSNSID
                                                          OPTIONS
_____________________________________________________________________
    MS1LBR2         0
                                                  ( ANSTIM 15)  $
```

Datafilling table DIGMAN

Enter data in table DIGMAN (Digit Manipulation) when the ATD answers on terminating trunks from the far end switching unit. This action occurs to generate answer supervision.

Datafill for ESN - Answer Supervision Generation for table DIGMAN appears in the following table. The fields that apply to ESN - Answer Supervision Generation appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table DIGMAN

Field	Subfield or refinement	Entry	Explanation and action
DMIDATA		see subfield	Digit Manipulation Data. This field contains subfield DIGCOM.
	DIGCOM	ANS	Digit Command. This subfield specifies the digit command ANS. Enter ANS.
If you enter ANS, enter data in subfield ANSTYPE.			
	ANSTYPE	VOX, ELEC, ALL	Answer Type. This subfield specifies the answer type. Enter VOX if dial tone or voice is a requirement to answer and the answer for SMDR updating and progressing the call to the talk state. Enter ELEC if an electrical answer returns from trunk for SMDR updating and allows the system to outpulse more digits. Enter ALL if tone or ELEC return.

Datafill example for table DIGMAN

Sample datafill for table DIGMAN appears in the following example.

ESN - Answer Supervision Generation (end)

MAP example for table DIGMAN

```
DMIKEY
                                                        DMIDATA
_____________________________________________________________
    7
                                                  ( ANS VOX) $
```

Tools for verifying translations

The ESN - Answer Supervision Generation does not use tools for verifying translations.

SERVORD

The ESN - Answer Supervision Generation does not use SERVORD.

ESN - Authorization Codes

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS13 and later versions

Requirements

To operate, ESN - Authorization Codes has the following requirements:

- BAS Generic, BAS00003
- MDC Standard, MDC00003

Description

An authorization code is a specified set of digits assigned to and used by station end users. These codes can range in length from 2 to 14 digits. When set, the length does not change for the customer group. Authorization codes provide cost control. These codes control access to specified networks. Authorization codes raise or lower the network class of service (NCOS) of a call. An Integrated Business Network (IBN) end user can enter an authorization code voluntarily at the start of the call. The authorization code provides the necessary user identification. If the end user does not provide an authorization code, the DMS-100 office switch can request the code. This action can occur when the end user attempts to establish station connections. The DMS-100 switch can request the code after recognition of specified digits in the called number, compulsory or on demand. These codes can be voluntary authorization/account codes, compulsory authorization codes, or compulsory account codes.

Another name for the voluntary authorization/account code feature is the authorization/account unconditional first feature. The end user implements this feature with the authorization codes and account codes features.

Another name for the compulsory account code feature is the account code conditional last feature. The end user implements this feature with the account codes feature. The compulsory account codes feature provides the following:

- lifts the restrictions on the signaling types
- adds an optional announcement to the account code last prompt
- uses flexible treatment for an incorrect account code last
- makes this feature a customer group option

ESN - Authorization Codes (continued)

Another name for the compulsory authorization code feature is the authorization code conditional last feature.

Operation

When a caller attempts to establish a call, the system prompts the caller for the code. When the caller attempts to access the network if authorization codes are a requirement, the system prompts the caller for the code. The calling party can enter the code during the first attempt to establish a connection. The caller can wait for a prompt from the serving DMS-100 controlling office. If the caller does not enter the code when the call establishes the call, the caller receives normal dial tone. The caller receives normal dial tone when the end user goes off-hook. After the caller dials the number, the system prompts the caller for a correct authorization code. If the code is correct, the call can proceed. If the authorization code is not correct, the call cannot complete. The call forwards to a treatment.

Translations table flow

ESN - Authorization Codes does not affect translations table flow.

Limits

The following limits apply to ESN - Authorization Codes:

- The signaling type for this feature is dual tone multiple frequency (DTMF) only.
- Only correct authorization codes can access a network if codes are a requirement.
- For direct outward dial (DOD) call types, if the customer group sets the station message detail recording billable (SMDRB) option to Y, the following occurs. The system suppresses authorization code requests in the translator. The system suppresses these requests for all nonbillable calls.

Interactions

The interactions between ESN - Authorization Codes and other functionalities appear in the following list.

- A DMS-100 office can have authorization and account code last features. Another name for the authorization and account code last features are authorization and account codes features. A customer group can have authorization or account codes last. A customer group cannot have both

features. This condition occurs because both types of codes use code requests in the digit translator.

- The authorization codes last feature is like the account codes last feature. The authorization code last feature does not correspond to the rest of the account code feature. The availability of account codes through voluntary entry of the code does not affect the prompts of authorization codes.
- If the customer group has authorization and account codes, the end user must enter the account codes part. This action must occur when the DMS-100 office prompts for the codes.
- If an end user voluntarily enters an authorization code that is not correct, the ESN - Authorization Codes feature discards the code. The feature allows the call to proceed with the original NCOS of the calling station. The feature treats the call as if the end user does not enter an authorization code. If prompting conditions are satisfied, the system implements the authorization code last feature.
- If an end user initiates a direct inward system access (DISA) call to another customer group, the system can prompt the end user. The system can prompt the end user for the authorization code twice. The other customer group must be from a station that terminates at the same switch as the DISA line. The first time, the originating customer group requires the code. The second time, the terminating customer group requires the code. An optional announcement with special dial tone that follows can prompt the originating customer group. The special dial tone always prompts the terminating customer group.

Activation/deactivation by the end user

ESN - Authorization Codes does not require activation or deactivation by the end user.

Billing

ESN - Authorization Codes does not affect billing.

Datafilling office parameters

ESN - Authorization Codes does not affect office parameters.

ESN - Authorization Codes (continued)

Datafill sequence

The tables that require datafill to implement ESN - Authorization Codes appear in the following table. The tables appear in the correct entry order.

Datafill requirements for ESN - Authorization Codes

Table	Purpose of table
AUTHPART	Authorization Partition. This table defines the partition in the authorization code database. The partition stores the authorization codes for a customer group or Call Forwarding Remote Access (CFRA) line.
AUTHCDE	Authorization Code. This table defines the authorization code and, if active, the NCOS account option and security digits for entries with format IBN.
CUSTHEAD	Customer Group Head Table. This table is a requirement for a switching unit with North American translations and feature package NTX100AA. This table is a requirement for a switching unit with IBN or basic feature package NTXA94AA, RES features. This table is a requirement for an international switching unit with universal translations and the IBS feature.
NCOS	Network Class of Service. This table contains NCOS numbers assigned to attendant consoles, IBN or Subscriber Services, RES, stations. This table contains NCOS assigned to incoming sides of two-way IBN trunk groups, authorization codes, and customer groups.
IBNXLA	IBN Translation. This table stores the data for the digit translation of calls from an IBN station and attendant console. This table stores the data for the incoming side of a two-way IBN trunk group.

Datafilling table AUTHPART

Table AUTHPART, Authorization Partition, defines the partition in the authorization code database. The partition stores the authorization codes for a customer group or CFRA line.

Datafill for ESN - Authorization Codes for table AUTHPART appears in the following table. The fields that apply to ESN - Authorization Codes appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table AUTHPART

Field	Subfield or refinement	Entry	Explanation and action
FORMAT		IBN	Format. This field specifies the format. Enter IBN, where the customer group has the assigned authorization code and can be in use.

Datafill example for table AUTHPART

Sample datafill for table AUTHPART appears in the following example.

MAP example for table AUTHPART

```
          PARTNM FORMAT LENGTH    MAXSIZE
_____________________________________________________
        REGAUTH    IBN       4          10
```

Datafilling table AUTHCDE

Table AUTHCDE, Authorization Code, defines the authorization code and, if active, the NCOS account option and security digits for entries with format IBN.

Datafill for ESN - Authorization Codes for table AUTHCDE appears in the following table. The fields that apply to ESN - Authorization Codes appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table AUTHCDE (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FORMAT			Format. This field specifies the format. Enter IBN, where the customer group has the assigned authorization code and can be in use.
If the FORMAT has a setting of IBN, subfields NCOS, ACCT, SECDIGS, and AUTHTYPE require datafill.			
	NCOS	0 to 511	Network Class of Service. This subfield specifies the network class of service associated with the authorization code. Enter a value from 0 to 511.
	ACCT	Y or N	Account Option. This subfield specifies if an account code is a requirement. Enter Y or N.

ESN - Authorization Codes (continued)

Datafilling table AUTHCDE (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	SECDIGS	one to four digit security code or $	Security Code Digits. This subfield specifies the one to four digit security code. Enter the security code or enter $ if a nil security code is a requirement.
	AUTHTYPE	SSAC, SW, SUPAC or ASR	Authorization Code Type. This subfield specifies the authorization code type. Enter SSAC for a station-specified AUTHTYPE. Enter SW for a system wide AUTHTYPE. Enter SUPAC for a super AUTHTYPE. Enter ASR for an automatic set relocation AUTHTYPE.

Datafill example for table AUTHCDE

Sample datafill for table AUTHCDE appears in the following example.

MAP example for table AUTHCDE

```
      AUTHPART    AUTHCODE                        INFO
 ________________________________________________________
     AIN        1234     IBN  0  N  $    SW         $
```

Datafilling table CUSTHEAD

Table CUSTHEAD is a requirement for a switching unit with North American translations and feature package NTX100AA, IBN. This table is a requirement for a switching unit with North American translations and basic feature package NTXA94AA, RES features. This table is a requirement for an international switching unit with universal translations and the IBS feature.

Datafill for ESN - Authorization Codes for table CUSTHEAD appears in the following table. The fields that apply to ESN - Authorization Codes appear in

this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTHEAD (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		AUTH, ACR, or ACRANN	Options. This field specifies the list of options and associated subfields assigned to the customer group. Enter AUTH, ACR, or ACRANN.
If the setting of OPTIONS is AUTH, subfields OPTION, PARTNM, SEC, and COMB require datafill.			
	OPTION	AUTH	Option. This subfield specifies the authorization codes option. Enter AUTH.
	PARTNM	alphanumeric	Authorization Partition Name. This subfield specifies the assigned name of the customer groups in Tables AUTHCDE and AUTHPART. Enter the authorization partition name.
	SECRECY	Y or N	Security. This subfield specifies if the user of an authorization code must indicate end of dialing by keying in an octothorpe. This subfield specifies if the user of an authorization code must indicate end of dialing. The end user specifies end of dialing by awaiting the expiry of interdigit time-out. Enter Y or N.
	COMB	Y or N	Combined Authorization and Account Code. This subfield specifies if the code is a combined authorization and account code. Enter Y or N.
If the setting of OPTIONS is ACR, OPTION, AUAC, and FLEXINO require datafill.			
	OPTION	ACR	Option. This subfield specifies the authorization or account code last option. Enter ACR.
	AUAC	ACCT, AUTH, ARS, or AUARS	Authorization or Account Code Last. This subfield specifies the authorization or account code last. Enter ACCT, AUTH, ARS, or AUARS.
	FLEXINO	0 to 63	Flexible Intercept Number. This subfield specifies the treatment number, in table IBNTREAT. A call that with an authorization or account code that is not correct must route to the specified treatment number. Enter a value from 0 to 63.
If the setting of OPTIONS is ACRANN, subfields OPTION and ANNCLLI require datafill.			

ESN - Authorization Codes (continued)

Datafilling table CUSTHEAD (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	ACRANN	Option. This subfield specifies the authorization or account code last announcement. Enter ACRANN.
	ANNCLLI	alphanumeric	Announcement CLLI. This subfield specifies the code, CLLI, of the announcement that prompts for the authorization or account code last. Enter the code.

Datafill example for table CUSTHEAD

Sample datafill for table CUSTHEAD appears in the following example.

MAP example for table CUSTHEAD

```
     CUSTNAME   CUSTXLA  DGCOLNM  IDIGCOL
                                                    OPTIONS
_____________________________________________________________
      REGIBNGRP   REGXLA1 REGDGTC1      NIL
(VACTRMT 0) (EXTNCOS 0) (ACCT 4 N N ) (AUTH REGAUTH N N)
(ACR ACCT 0) $
```

Datafilling table NCOS

Table NCOS contains NCOS numbers assigned to attendant consoles, IBN or Subscriber Services, RES, stations. Table NCOS contains NCOS numbers assigned to incoming sides of two-way IBN trunk groups, authorization codes, and customer groups.

Datafill for ESN - Authorization Codes for table NCOS appears in the following table. The fields that apply to ESN - Authorization Codes appear in

this table. See the data schema section of this document for a description of the other fields.

Datafilling table NCOS

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		see subfield	Options. This field contains subfield NCOSOPTN.
	NCOSOPTN	ACR	Network Class of Service Options. This subfield specifies a vector of a maximum of 17 option entries for the NCOS number. Enter ACR for account/authorization code last.
If the setting of NCOSOPTN is ACR, subfield ANNREQD requires datafill.			
	ANNREQD	Y or N	Announcement Required. This subfield specifies if an announcement is a requirement to prompt for the authorization/account code last. Enter Y or N.

Datafill example for table NCOS

Sample datafill for table NCOS appear in the following example.

MAP example for table NCOS

```
CUSTGRP     NCOS   NCOSNAME   LSC    TRAFSNO          OPTIONS
_____________________________________________________________
NETWORK       1     NCNET      0        0   (XLAS  PX1NET NDGT
                                              NXLA) (ACR Y) $
```

Datafilling table IBNXLA

Table IBNXLA, IBN Translation, contains the data for the digit translation of calls from an IBN station and attendant console. This table contains the data for the digit translation of calls from an incoming side of a two-way IBN trunk group.

Datafill for ESN - Authorization Codes for table IBNXLA appears in the following table. The fields that apply to ESN - Authorization Codes appear in

ESN - Authorization Codes (continued)

this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	Key. This field contains subfields XLANAME and DGLIDX.
	XLANAME	alphanumeric	Translator Name. This subfield specifies the assigned name of the translator. Enter the one to eight character name.
	DGLIDX	alphanumeric	Digilator Index. This subfield specifies the access code. Enter the 1-digit to 18-digit number assigned as the access code.
RESULT		see subfield	Result. This field contains subfield TRSEL.
	TRSEL	FEAT	Translations Selector. This subfield specifies the translations selector to use. Enter FEAT.
If the setting of TRSEL is FEAT, subfields ACR, SMDR, and FEATURE require datafill.			
	ACR	Y or N	Account Code Entry. This subfield specifies if an account code is a requirement. Enter Y or N.
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if SMDR is a requirement. Enter Y or N.
	FEATURE	AUTH	Feature. This subfield specifies the feature assigned to a line. Enter AUTH.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

```
        KEY
                                                      RESULT
 ____________________________________________________________
   NTIXLA     123                    FEAT N Y N AUTH
```

Tools for verifying translations

The ESN - Authorization Codes does not use tools for verifying translations.

SERVORD

The ESN - Authorization Codes does not use SERVORD.

ESN - Call-Back Queuing

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS13 and later versions

Requirements

To operate, ESN - Call-Back Queuing has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The ESN - Call-Back Queuing allows a station end user that encounters an all-trunks-busy condition to receive notification when a trunk becomes idle. The end user can automatically connect to the called number using the CBQ feature.

The following are two enhancements to the basic ESN - Call-Back Queuing:

- CBQ activation during a no circuit route treatment (NCRT). This enhancement activates CBQ when NCRT uses announcement and does not use tone. The NCRT has one cycle of announcement. Another announcement channel can be specified to accommodate the requirement for unilingual/bilingual announcements.
- CBQ option 1. This enhancement does not allow a call to search the expensive route list. The expensive route set is all route list elements that follow the first queue head. When the following conditions occur, the call receives NCRT:
  - — an idle trunk is not available from the initial route set
  - — the call is not qualified for off-hook queueing or times out from OHQ

The CBQ can activate normally.

The following are four methods to activate CBQ with this enhancement:

- CBQ option 1—allows the caller to activate CBQ when the caller receives an NCRT announcement after the exhaustion of the initial route set.
- CBQ option 2—allows the caller to activate CBQ while the caller receives an NCRT. This condition occurs after a search of the complete route list.

ESN - Call-Back Queuing (continued)

- Expensive route warning tone (ERWT)—allows the caller to activate CBQ after the caller receives ERWT. The caller normally receives ERWT before the search of the expensive route set.
- OHQ tone or announcement—allows the caller to activate CBQ after the caller receives OHQ tone. The OHQ tone or announcement allows the caller to activate CBQ during or after the caller receives an OHQ announcement.

Operation

To activate ESN - Call-Back Queuing, the end user performs the following steps:

- receives a busy tone, NCRT, expensive route warning tone (ERWT) or off-hook queuing tone or announcement.
- flashes the hookswitch.
- hears a distinctive dial tone. The distinctive dial tone has three short bursts of tone that precedes steady dial tone.
- dials the CBQ feature access code. This code is the same as the RAG access code.

  Note: A station can have a ring again or a CBQ request activation. A station cannot have both requests at the same time.

- hears a confirmation tone. The confirmation tone begins with two short bursts of tone that precedes a steady dial tone.
- goes on-hook.

Several CBQ parameters are associated with each CBQ request. The customer group assigns some of these parameters. The station assigns some of these parameters. These parameters include the following:

- CBQ start priority—a parameter the station assigns that determines the level at which a CBQ request enters the queue. Zero is the lowest priority and three is the highest priority.
- CBQ maximum priority—a parameter the station assigns that determines the highest promotion level for a CBQ. The maximum priority of a station must be greater than or equal to the start priority of the station.
- CBQ priority promotion timer—a parameter the customer group assigns that determines the length of time a CBQ request remains in the queue. After this time, the promotion of the request to the next level occurs. The CBQ maximum priority of the request allows the promotion of the request. The CBQ priority promotion timer functions in 1 min intervals to a

maximum of 15 min. The time can be infinite. If the time is infinite, the time does not apply.

- CBQ route advance—a parameter the station assigns that specifies the CBQ allowed routes available to the station. The routes can be cheap and/or expensive routes.
- CBQ route advance timer—a parameter the customer group assigns that determines the length of time before a CBQ request can use expensive routes. The route advance of the request must allow the request to use expensive routes. The CBQ route advance timer functions in in 1 min intervals to a maximum of 15 min. The timer can be infinite. If the timer is infinite, the timer does not apply.

When ESN - Call-Back Queuing is active, the CBQ request is in a queue. The station start priority determines the order of the queue. The request is at the bottom of the specified priority. If the station maximum priority is greater than the start priority, the priority promotion timer begins. If the call has not received service when the timer expires, the request to the next priority level occurs. If the maximum priority remains greater than the current priority, the timer begins again. The system also checks the station route advance level. If the route advance timer expires before the call receives service, all CBQ allowed routes are available to the call.

When the station against which CBQ is active becomes idle, the ring again feature notifies the station end user. The station end user has a specified amount of time to answer the call. The ring-again timer determines the amount of time to answer the call. To answer the CBQ recall, the station end user goes off-hook. The called station rings, and the station end user hears an audible ringback tone.

When the trunk against which CBQ is active becomes idle, the ring again feature notifies the station end user. When the station end user goes off-hook to answer the CBQ recall, the DMS-100 switch makes a network connection to the trunk. The DMS-100 switch outpulses the called number. After the switch outpulses the called number, a voice connection occurs. The end user hears audible ringback tone, busy tone, reorder tone, or a no-circuit announcement.

To cancel a CBQ request, the station end user can go off-hook or flash the hookswitch. The station end user dials the CBQ activation code.

Note: The station end user can make and receive calls when ESN - Call-Back Queuing is active.

ESN - Call-Back Queuing (continued)

If the station end user does not respond and the ring again timer expires, the system deletes the CBQ request from the call-back queue.

Translations table flow

ESN - Call-Back Queuing does not affect translations table flow.

Limits

The following limits apply to ESN - Call-Back Queuing:

- To activate the CBQ feature, a line must have both the ring again and CBQ features.
- While trunk access control is active for a trunk group, the trunk group is not qualified for CBQ.
- Only allow the CBQ on one-way outgoing trunk groups because of the following conditions:
  - — When a trunk becomes available, the trunk is reserved and not seized.
  - — The station has a maximum of 30 s to respond. The other office has time to seize the trunk.
  - — Delays in the reception of a DTMF transmitter can occur.
- Optional OHQ is not compatible with CBQ option 1. A route list with multiple queue heads can be present. When this condition occurs, a call with CBQ option 1 receives NCRT. The CBQ option 1 receives NCRT when the call times out from the initial OHQ. The search does not continue after the initial route set.

Interactions

The ESN - Call-Back Queuing feature interacts with other IBN features as follows:

- Overlap outpulsing is not compatible with the CBQ feature.
- From BCS15 and later versions, CBQ follows the virtual facility group (VFG) if the original call transferred through a VFG.
- If a trunk that allows off-hook queuing and CBQ becomes idle, the off-hook queue has priority.
- The activation of the CBQ feature during a ring again request overwrites the ring again request. The activation of the ring again feature during a CBQ request overwrites the CBQ request.
- Automatic or manual lines cannot have the CBQ feature. Lines that do not have originating or terminating service cannot have automatic or manual lines.

- Hunt groups cannot have the CBQ feature.
- One CBQ is a station feature. A feature key on an attendant console cannot have the CBQ feature.
- The call pickup feature cannot pick up CBQ recalls.
- If call forward universal or call forward intragroup is active, the service of the CBQ request occurs. The CBQ recall does not follow the call forward feature.
- Recalled CBQ requests do not receive an expensive route warning tone. The requests do not receive an expensive route warning tone even if expensive facilities complete the call.

Activation/deactivation by the end user

To activate ESN - Call-Back Queuing, the end user performs the following steps.

Activation/deactivation of ESN - Call-Back Queuing by the end user

At the MAP

1 The end user receives a busy tone, NCRT, expensive route warning tone (ERWT), or off-hook queuing tone or announcement.

Response:

None

2 The end user flashes the hookswitch.

Response:

The end user hears a distinctive dial tone. Three short bursts of tone precedes a steady dial tone.

3 The end user dials the CBQ feature access code. The access code is the same as the RAG access code.

Note: A station can have an active ring again or a CBQ request. A station cannot have both requests.

Response:

Two short bursts of tone that precedes a steady dial tone is a confirmation tone. The end user goes on-hook.

ESN - Call-Back Queuing (continued)

Several CBQ parameters are associated with each CBQ request. The customer group assigns some of these parameters. The station assigns some of these parameters. These parameters include the following:

- CBQ start priority—a parameter the station assigns that determines the level at which a CBQ request enters the queue. Zero is the lowest priority. Three is the highest priority.
- CBQ maximum priority—a parameter the station assigns that determines the highest promotion level of a CBQ. The maximum priority of a station must be greater than or equal to the start priority of the station.
- CBQ priority promotion timer—a parameter the customer group assigns that determines the length of time a CBQ request stays in the queue. After this time, the request receives a promotion to the next level. The promotion occurs if the CBQ maximum priority of the request allows the promotion. The CBQ priority promotion timer functions in 1 min intervals to a maximum of 15 min. The promotion timer can be infinite. If the time is infinite, the time does not apply.
- CBQ route advance—a parameter the station assigns that specifies the CBQ allowed routes available to the station. The routes can be cheap and expensive routes.
- CBQ route advance timer—a parameter the customer group assigns that determines the length of time before a CBQ request can use expensive routes. The route advance of the request allows the use of expensive routes. The CBQ route advance timer functions in 1 min intervals to a maximum of 15 min. The advance time can be infinite. If the time is infinite, the time does not apply.

When ESN - Call-Back Queuing is active, the CBQ request is in a queue. The station start priority determines the order of the queue. The request is at the bottom of the specified priority. If the station maximum priority is greater than the start priority, the priority promotion timer begins. If the call has not received service when the timer expires, the request receives a promotion to the next priority level. If the maximum priority remains greater than the current priority, the timer begins again. The system also checks the station route advance level. If the route advance timer expires before the call receives service, all routes that. CBQ allows are available to the call.

When the station against which a CBQ is active becomes idle, the ring again feature notifies the end user. The station end user has a specified amount of time to answer the call. The ring again timer determines the specified amount of time. To answer the CBQ recall, the station end user goes off-hook. The called station rings. The station end user hears an audible ringback tone.

When the trunk against which CBQ is active becomes idle, the ring again feature notifies the end user. When the station end user goes off-hook to answer the CBQ recall, the DMS-100 switch makes a network connection to the trunk. The DMS-100 switch outpulses the called number. After the DMS-100 switch outpulses the called number, a voice connection occurs. The end user hears an audible ringback tone, busy tone, reorder tone, or a no-circuit announcement.

To cancel a CBQ request, the station end user goes off hook or flashes the hookswitch. The station dials the CBQ activation code.

Note: The station end user can make and receive calls while ESN - Call-Back Queuing is active.

The station end user can fail to respond before the ring again timer expires. If this condition occurs, the system deletes the CBQ request from the call-back queue.

Billing

The ESN - Call-Back Queuing does not affect billing.

Station Message Detail Recording

The ESN - Call-Back Queuing does not affect Station Message Detail Recording.

Datafilling office parameters

The ESN - Call-Back Queuing does not affect office parameters.

Datafill sequence

The tables that require datafill to implement ESN - Call-Back Queuing appear in the following table. The tables appear in the correct entry order.

Datafill requirements for ESN - Call-Back Queuing (Sheet 1 of 2)

Table	Purpose of table
CUSTSTN	Customer Group Station Option. Table CUSTSTN contains the station options for each customer group. Table CUSTSTN must contain data to assign the call-back queuing and ring again timer options.

ESN - Call-Back Queuing (continued)

Datafill requirements for ESN - Call-Back Queuing (Sheet 2 of 2)

Table	Purpose of table
NCOS	Network Class of Service. Table NCOS contains network class of service (NCOS) numbers for attendant consoles, IBN or Subscriber Services (RES) stations, and incoming sides of two-way IBN trunk groups. This table also contains NCOS numbers for authorization codes, and customer groups. Table NCOS must contain data to assign the CBQ option.
IBNLINES (Note)	IBN Line Assignments. This table contains the line assignments for data channel links for the Bulk Calling Line Identification (BCLI) feature. The feature is under the format name of BL. ***Note:*** The entry of data in this table is through SERVORD. A datafill procedure or example is not available. See “SERVORD" for an example of how to use SERVORD to enter data in this table.

Datafilling table CUSTSTN

Table CUSTSTN (Customer Group Station Option) contains the station options for each customer group. Table CUSTSTN must contain data to assign the call-back queuing and ring again timer options.

Datafill for ESN - Call-Back Queuing for table CUSTSTN appears in the following table. The fields that apply to ESN - Call-Back Queuing appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTSTN (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
OPTION		see subfields	Option. This field contains the subfields OPTION, CBQPPT, CBQRAT, CBQNUM, and CBQTYPE.
	OPTION	CBQ	Option Name. This subfield specifies the name of the option. Enter CBQ for call-back queuing.
	CBQPPT	0 - 15	Call-Back Queuing Priority Promotion Timer. This subfield specifies the time for the call-back queuing priority promotion timer. The time is in 1 min increases. Enter a value from 0 to 15.
	CBQRAT	0 - 15	Call-Back Queuing Route Advance Timer. This subfield specifies the time for the call-back queuing route advance timer. The time increases in 1 min intervals. Enter a value from 0 to 15.

Datafilling table CUSTSTN (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	CBQNUM	1	Number Enqueued. This subfield specifies the number enqueued. Enter 1.
	CBQTYPE	TRKONLY, IBNONLY, ALLTYPES	Call-Back Queue Types. This subfield specifies the call-back queuing type. Enter TRKONLY (IBN trunks), IBNONLY (TRKONLY and other customer group stations). You can enter ALLTYPES (IBNONLY and POTS lines).
OPTION		see subfields	Option. This field contains the subfields OPTION and RAGRECTO.
	OPTION	RAGTIM	Option Name. This subfield specifies the name of the option. Enter RAGTIM for the ring again timer.
	RAGRECTO	9 - 32	Ring Again Recall Time-out. This subfield specifies the time, in 1 s intervals, that ring code 4 applies to alert a line that the called party that was busy is idle. The line that ring code 4 alerts is a line with the ring again feature. Enter a value from 9 to 32.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following table.

MAP example for table CUSTSTN

```
CUSTNAME   OPTNAME                               OPTION
_______________________________________________________________
 NETWORK       CBQ               CBQ 0 0    1  ALLTYPES
 NETWORK    RAGTIM                           RAGTIM 30 30
```

Datafilling table NCOS

Table NCOS (Network Class of Service) contains NCOS numbers for attendant consoles and IBN or Subscriber Services (RES) stations. This table contains NCOS numbers for incoming sides of two-way IBN trunk groups, authorization codes, and customer groups. Table NCOS must contain data to assign the CBQ option.

Datafill for ESN - Call-Back Queuing for table NCOS appears in the following table. The fields that apply to ESN - Call-Back Queuing appear in this table.

ESN - Call-Back Queuing (continued)

See the data schema section of this document for a description of the other fields.

Datafilling table NCOS

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		see subfield	Options This field contains the subfield NCOSOPTN.
	NCOSOPTN	CBQ	Network Class of Service Options. This subfield specifies a vector to a maximum of 17 option entries for the NCOS number. Enter CBQ for call-back queuing.
If the setting of NCOSOPTN is CBQ, subfields CBQSP, CBQMP, CBQRA, and CBQOPTS require datafill.			
	CBQSP	0 - 3	Call-Back Queue Starting Priority. This subfield specifies the call-back queue starting priority level for the NCOS number. Enter a value from zero to three.
	CBQMP	0 - 3	Call-Back Queue Maximum Priority Level. This subfield specifies the call-back queue maximum priority level for the NCOS number. Enter a value from zero to three.
	CBQRA	Y or N	Call-Back Queue Route Advance. This subfield specifies if the station can route advance to expensive route after call-back route advance time-out. Enter Y or N.
	CBQOPTS	1 or 2	Call-Back Queuing Option. This subfield specifies the call-back queuing option. Enter 1 if a search of feature cheap route occurs before the activation of the CBQ feature. Enter 2 if a search of cheap and expensive routes occur.

Datafill example for table NCOS

Sample datafill for table NCOS appears in the following example.

MAP example for table NCOS

```
CUSTGRP   NCOS    NCOSNAME   LSC    TRAFSNO          OPTIONS
_____________________________________________________________
MS1LRB2     0      N1LBR       0       0         (CBQ 2 2 Y 2) $
```

Tools for verifying translations

The ESN - Call-Back Queuing does not use tools for verifying translations.

SERVORD

The ESN - Call-Back Queuing does not use SERVORD.

ESN - Off-Hook Queuing

Ordering codes

Functional group ordering code: MDC00003

Functionality ordering code: does not apply

Release applicability

BCS13 and later versions

Requirements

To operate, ESN - Off-hook Queuing has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

ESN - Off-hook Queuing allows a call that cannot complete to wait off-hook for an idle trunk. The call cannot complete because outgoing trunks are not available at a lower cost. An idle trunk is not in the inexpensive route set when automatic route selection encounters a queue head in the route list. Inexpensive routes are all routes before the queue head. When an outgoing trunk is available, the call continues in a normal method.

ESN - Off-hook Queuing includes the following improvements to the basic OHQ feature (BV0507):

- OHQ priority. The OHQ has two levels of priority. These levels are 0 and 1. Priority 1 is higher than priority 0. The system must assign incoming trunks a priority of 1 to minimize the waiting time. Lines normally receive a priority of 0. When a trunk becomes available, the system offers the trunk to priority 1 OHQ calls first. If priority 1 calls cannot use the trunk, the search expands to priority 0 calls and call-back calls in queue.
- OHQ announcements. This improvement allows the use of announcement, and not tone, to inform the caller of an offer of OHQ. Announcements are appropriate for end users. The end users do not normally hear the different tones.

  Audible ringback tone does not occur. The call is in queue before the announcement starts. If a trunk becomes available during the announcement, the announcement immediately disconnects. These announcements must be brief. The announcements must finish before OHQ times out.
- Discretionary OHQ. Discretionary OHQ activates when an OHQ encounters more than one queue head in the route list. A maximum of four

ESN - Off-Hook Queuing (continued)

queue heads can be present in a route list. This improvement increases the amount of time available before time-out occurs. The amount of time available at each queue head equals the amount of time specified for the specified queue head. The time available at each queue head equals the time specified for queue heads higher in the route list.

- Call-back queuing activation during OHQ tone or announcement. This improvement allows call-back queuing (CBQ) activation. To activate CBQ, the system flashes the hookswitch after the system receives OHQ tone or announcement. The system can activate the CBQ without waiting for the announcement to finish and OHQ to time out. This improvement allows a caller to make sure the route search does not continue to a more expensive level.

  If the call is a line-originated OHQ call, flashing the hookswitch causes special dial tone to be returned. The end user dials the CBQ access code and the system activates the CBQ in the normal method.

Operation

When you make a call, outgoing trunks in the inexpensive route list are not always available. When trunks are not available, the system inserts the call in the off-hook queue. The calling party receives an off-hook queuing tone or announcement. If the calling party remains off-hook, the call remains in the off-hook queue for 2 s to 60 s. If the calling party goes on-hook, the connection breaks.

Note: Off-hook queuing tone is a single 1-s burst of 440-Hz tone at -13 dBm.

If a trunk becomes idle when the call is in the off-hook queue, the system removes the call from the queue. The call continues normally. If the call is in the off-hook queue when the off-hook queue timer expires, the system removes the call from the queue. The system searches the rest of the route list for an idle trunk on which to send out the call. The elements that remain include inexpensive routes that do not allow OHQ and expensive routes. The subscriber can enter data to prevent the progression to expensive route list elements. If the system detects an idle trunk, the call continues normally. If the system does not detect an idle trunk, the call does not receive circuit treatment.

ESN - Off-hook Queuing does not affect translations table flow.

Translations table flow

ESN - Off-hook Queuing does not affect translations table flow.

Limits

The following limits apply to ESN - Off-hook Queuing:

- The OHQ feature terminates if the line or incoming trunk goes on-hook.
- The OHQ feature terminates if the line flashes the hookswitch.
- The average OHQ wait time for the route list must not exceed the threshold. The threshold can range from 2 s to 60 s.
- The average wait time must not exceed the entered OHQ wait time. The DMS switch calculates the average wait time. To estimate this average time, divide the average numbers of calls in the queue by the average call arrival rate.
- The system must not implement the OHQ on both ends of a trunk group . If OHQ is active on both ends, the occurrence of glare increases.
- Discretionary OHQ does not allow the examination of route list elements that do not qualify for OHQ in levels that follow. The route list elements can have idle trunks.
- Discretionary OHQ operates with one route list. The route search can encounter an RX retranslation, or T table selector that causes the call to branch to another route list. If this event occurs, discretionary OHQ terminates. The system dequeues the call.
- Off-hook tone or announcement occurs one time when the call first queues. The tones do not repeat when the call suspends at levels that follow. The tones do not repeat when the system offers OHQ in the new route list after branching. Branching uses the RX or T selector.
- Discretionary OHQ is not compatible with call-back queuing option 1. The system encounters a route list with more than one QH. In this event, a call with call-back queuing option 1 does not receive circuit recall treatment. the call does not receive treatment when the call times out from the first OHQ.
- The CBQ feature is only available to calls that originate from a line. The feature is not available to CBQ requests from trunks. If an OHQ call from a trunk flashes the hookswitch, the end user receives a special dial tone. The switch expects a three-way call. When the end user dials and receives the CBQ access code, the system returns the reorder tone. The end user

ESN - Off-Hook Queuing (continued)

can go on-hook and abandon the call or flash the hookswitch. The end user can:

— receive the remaining part of the announcement if the announcement is not complete

— not receive circuit recall treatment if the OHQ request times out

— receive silence if the OHQ request does not time out

— be in limbo because the called party does not hang up after the called party answers and finds the calling party is not present

— receive audible ringback tone if the call finds a trunk and rings the called party

Interactions

The interactions between ESN - Off-hook Queuing and other functionalities appear in the following list.

- Overlap outpulsing is not compatible with OHQ.
- A station can have OHQ and call-back queuing. The OHQ has priority over call-back queuing.
- A call can time out when waiting in the off-hook queue. If this call uses an expensive route and does not complete, expensive route warning tone does not occur.
- When a call does not receive circuit tone after searching the whole route list, the caller can activate call-back queuing.
- The OHQ can occur on inexpensive routes. If a subscriber activates OHQ and expensive route warning tone for a route list element, OHQ cannot occur. This condition is a datafill error.
- The OHQ does not apply for different types of call forward features.
- The OHQ does not apply if night service is in effect and the night service route is to another switch.
- The OHQ does not apply to busy hunt groups that route to another switch or a directory number that another switch serves.
- A station calling an off-hook queued station is not call waited.
- A station that calls an off-hook queued station can activate ring again.
- Time-of-day (TOD) routing control occurs when searching for the next QH and OHQ eligible route list elements. If the TOD schedule changes during the routing phase, the call stays with the first selected route list. The TOD reselection does not occur.

Activation/deactivation by the end user

ESN - Off-hook Queuing does not require activation or deactivation by the end user.

Billing

ESN - Off-hook Queuing does not affect billing.

Datafilling office parameters

The office parameters ESN - Off-hook Queuing uses appear in the following table. Refer to *Office Parameters Reference Manual.* for additional information about office parameters.

Office parameters by ESN - Off-hook Queuing

Table name	Parameter name	Explanation and action
OFCENG	AVG_NUM_TGS_PER_OHCBQCALL	Specifies the average number of trunk groups involved in CBQ or OHQ. Enter a value from 0 to 32 767. The default value is 0.
OFCENG	NUMOHCBQTRANSBLKS	Specifies the number of transaction blocks required for the OHQ and CBQ features. Enter a value from 0 to 32 767. The default value is 0.

Datafill sequence

The tables that require datafill to implement ESN - Off-hook Queuing appear in the following table. The tables appear in the correct entry order.

Datafill requirements for ESN - Off-hook Queuing (Sheet 1 of 2)

Table	Purpose of table
OFCENG	Office Engineering. This table contains data on engineering parameters for the office. See “Datafilling office parameters" for how ACRJ affects office parameters.
CLLI	Common Language Location Identifier. This table contains the name that identifies each tone, announcement, or trunk group in the switch.
CUSTHEAD	Customer Group Head. This table defines the public and private transaction capability application part (TCAP) translator names for each customer group.
STN	Special Tone. This table contains tones that require trunk cards.

ESN - Off-Hook Queuing (continued)

Datafill requirements for ESN - Off-hook Queuing (Sheet 2 of 2)

Table	Purpose of table
IBNRTE	IBN Route. This table contains route lists that a route reference index number identifies.
NCOS	Network Class of Service. This table contains network class of service (NCOS) numbers assigned to attendant consoles, IBN or Subscriber Services, RES, stations. This table contains NCOS numbers assigned to incoming sides of two-way IBN trunk groups, authorization codes, and customer groups.

Datafilling table CLLI

Table CLLI (Common Language Location Identifier) contains the name that identifies each tone, announcement, or trunk group in the switch. Data entry of table CLLI must occur to define the off-hook queuing tone and/or announcement.

Datafill for ESN - Off-hook Queuing for table CLLI appears in the following table. The fields that apply to ESN - Off-hook Queuing appear in this table. See the data schema section of this document for a description of other fields.

Datafilling table CLLI

Field	Subfield or refinement	Entry	Explanation and action
CLLI		OHQT	Common Language Location Identifier. This field specifies the 1 to 16 alphanumeric characters that identify the far end of each announcement, tone, or trunk group. Enter OHQT.

Datafill example for table CLLI

Sample datafill for table CLLI appears in the following example.

MAP example for table CLLI

```
CLLI   ADNUM   TRKGRSIZ   ADMININF
_____________________________________________________
OHQT    30       64        OFF-HOOK_QUEUING_CIRCUIT
```

Datafilling table CUSTHEAD

Table CUSTHEAD (Customer Group Head) defines the public and private TCAP translator names for each customer group. Data entry of table CUSTHEAD must occur to define the off-hook queuing announcement option.

Datafill for ESN - Off-hook Queuing for table CUSTHEAD appears in the following table. The fields that apply to ESN - Off-hook Queuing appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTHEAD

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		alphanumeric	Options. This field specifies the list of options and associated subfields assigned to the customer group. Enter OHQA for off-hook queuing announcement.
If the setting of OPTIONS is OHQA, subfields OPTION and ANNCLLI require datafill.			
	OPTION	OHQA	Option. This subfield specifies the off-hook queuing announcement option. Enter OHQA.
	ANNCLLI	alphanumeric	Announcement. This subfield specifies the code, CLLI, assigned to the off-hook queuing announcement. Enter the announcement code.

Datafill example for table CUSTHEAD

Sample datafill for table CUSTHEAD appears in the following example.

MAP example for table CUSTHEAD

```
CUSTNAME   CUSTXLA DGCOLNM  IDIGCOL                OPTIONS
_____________________________________________________________
PRADER      PRAXLA   NDGT     NIL          (OHQA    AUDIO1)
```

Datafilling table STN

Table STN (Special Tone) contains tones that require trunk cards. Data entry of table STN must occur to define the location and the maximum number of connections for each tone circuit. Table STN is a requirement for tones that require trunk cards. These trunks include OHQT. Data entry of this table can occur if the off-hook queuing tone is in use.

Datafill for ESN - Off-hook Queuing for table STN appears in the following table. The fields that apply to ESN - Off-hook Queuing appear in this table.

ESN - Off-Hook Queuing (continued)

See the data schema section of this document for a description of the other fields.

Datafilling table STN

Field	Subfield or refinement	Entry	Explanation and action
SK		OHQT	Special Tone Key. This field specifies the pseudo fixed code assigned to the tone trunk circuit in table CLLI and a value from 0 to 999. Enter OHQT.
CARDCODE		3X68AC	Card Code. This field specifies the product engineering code (PEC) of the tone trunk circuit. Enter 3X68AC.

Datafill example for table STN

Sample datafill for table STN appears in the following example.

MAP example for table STN

```
   SK
      TMTYPE   TMNO   TMCKTNO   CARDCODE   MAXCONN TRAFSNO
_____________________________________________________________
OHQT 1
       MTM      5        14      3X68AC       10         0
```

Datafilling table IBNRTE

Table IBNRTE, IBN Route, contains route lists that a route reference index number identifies.

Verify the data in table IBNRTE to make sure the selectors QH, S, N, OW, and VFG are in use with the OHQ feature. Selector QH is in use with off-hook and call-back queuing to separate the route list in inexpensive and expensive routes. The OHQ waiting time is associated with this selector. When you use selectors S, N, OW, and VFG, set field OHQ to Y if you want off-hook queuing. Set field EXP to N when you set field OHQ to Y.

Datafill for ESN - Off-hook Queuing for table IBNRTE appears in the following table. The fields that apply to ESN - Off-hook Queuing appear in

this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNRTE

Field	Subfield or refinement	Entry	Explanation and action
RTE		1 to 1023	Route Reference Index. This field specifies a route reference number. Enter a value from 1 to 1023.
RTELIST		see subfields	Route List. This field contains specified subfields. Subfields IBNRTSEL and CLLI apply to this feature.
	IBNRTSEL	S	IBN Route Selector. This subfield specifies the route selector that is a requirement. The route selector is a requirement when the digits the end user dials are the same as the digits that the system outpulses. Enter S.
	CLLI	alphanumeric	Common Language Location Identifier. This subfield specifies the name of the trunk to route to complete the translations. Table CLLI must first identify the name before this field references the name.

Datafill example for table IBNRTE

Sample datafill for table IBNRTE appears in the following example.

MAP example for table IBNRTE

```
RTE                                                    RTELIST
_____________________________________________________________
1                S      (N  N  N  N  N  OHQTRK1  1)  $
```

Datafilling table NCOS

Table NCOS contains NCOS numbers assigned to the following:

- attendant consoles
- IBN or Subscriber Services (RES)
- incoming sides of two way IBN trunk groups
- authorization codes
- customer groups

ESN - Off-Hook Queuing (end)

Data entry of NCOS must occur to assign the OHQ option.

Datafill for ESN - Off-hook Queuing for table NCOS appears in the following table. The fields that apply to ESN - Off-hook Queuing appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table NCOS

Field	Subfield or refinement	Entry	Explanation and action
NCOSOPTN		OHQ	Network Class of Service Options. This field specifies a vector of a maximum of 17 option entries for the NCOS number. Enter OHQ.
If the setting of NCOSOPTN is OHQ, subfields OHQPRIO and OHQNOTICE require datafill.			
	OHQPRIO	0 or 1	Off-hook Queuing Priority. This subfield specifies the off-hook queuing priority. Enter 0 if NCOS is assigned to lines. Enter 1 if NCOS is assigned to trunks.
	OHQNOTICE	TONE, ANNCMENT or SILENCE	Off-hook Queuing Notice. This subfield specifies the type of notice a caller receives when the system offers off-hook. Enter TONE OHQ, OHQ tone, ANNCMENT, OHQ announcement, or SILENCE (no notice).

Datafill example for table NCOS

Sample datafill for table NCOS appears in the following example.

MAP example for table NCOS

```
CUSTGRP   NCOS   NCOSNAME   LSC   TRAFSNO            OPTIONS
_____________________________________________________________
POTSDATA  0      PDATA       0      0   (OHQ  0  SILENCE)  $
```

Tools for verifying translations

ESN - Off-hook Queuing does not use tools for verifying translations.

SERVORD

ESN - Off-hook Queuing does not use SERVORD.

Flexible Station Controlled Conference (500/2500 Sets)

Ordering codes

Functional group ordering code: MDC00001, MDC00003

Functionality ordering code: does not apply

Release applicability

BCS12 and later versions. Modified for NA017 (LET0017).

Requirements

The Flexible Station Controlled Conference (500/2500 Sets) has the following requirement: BAS Generic, BAS00003.

Description

The Flexible Station Controlled Conference (500/2500 Sets) allows a station to establish a conference call without help from an attendant. The conference call can involve a maximum of 30 parties. This functionality requires additional conference bridges to allow for the extension of conferees.

The members of the conference can be from the following:

- the same customer group
- another customer group
- a station reached by way of a trunk.

This information applies to E911 as of NA007.

Note: The Flexible Station Controlled Conference (500/2500 Sets) combines earlier features F1633 and F1640. Feature F1633 is the Station Controlled Conference (Large). Feature F1640 is the Station Controlled Conference (Six Ports Maximum).

Operation

A primary conference bridge is the first conference bridge assigned to the station controlled conference. When the conference has more than six conferees, one conferee transfers from the primary conference bridge to a secondary conference bridge. The secondary conference bridge connects to the primary conference bridge through the port that the transferred conferee uses.

The maximum number of conference bridges that the system assigns to a station controlled conference is seven. These bridges contain one primary conference bridge and six secondary conference bridges.

Flexible Station Controlled Conference (500/2500 Sets) (continued)

A caller uses a conference release code to drop a conferee before the system adds another conferee to the conference call.

This feature requires the following two codes:

- To activate the conference feature, dial the conference (CONF) code. This code adds a conferee to the conference.
- Use the release (RLS) code to drop a party from the conference.

The following functions are important for E911 operation and compatibility of conferencing features.

- Selective Call Transfer - The public safety answering point (PSAP) attendant can use Selective Call Transfer to transfer calls to an agency that serves the type of emergency of the caller. These emergencies include fire, police, or ambulance. To add secondary PSAPs, the controller PSAP dials the CONF code for the secondary PSAPs.
- Speed Dialing - The controller PSAP can add another party with the use of a speed dialing code. Keys of MBS telephones cannot add conferees if these keys are programmed to the speed dial code. The CONF key is in use during a conference. Keys other than the CONF key are disabled during a conference.
- E911 212 log - The system generates this log at disconnect for each call answered. This condition applies for calls answered at an E911 Automatic Call Distribution (ACD), line, or line appearance on a digital trunk PSAP (LDTPSAP). The system generates a log for the conferencing features when the controller or the caller disconnects.
- Automatic Number Identifier (ANI) Display in EBS telephones - The PSAPs that use EBS sets with display capability display the ANI information of the calling party during a conference.
- Automatic Line Identification (ALI) - This feature operates like Three-way Calling (3WC) in a conference call.
- Remote Call Event Records (RCER) - The system generates these records for each PSAP that has data entries to receive RCER. The system generation these records when the add-on, controller, or caller disconnects from the conference.
- Alternate Routing - The PSAP that answers the emergency call can attempt to activate the conferencing feature. If this PSAP cannot reach the add-on, the system routes the call to the alternate route or DN. The PSAP cannot reach the add-on because the LOD, LOR, or Night Service is active. The LOR or LOD determines the alternate route or DN.

Datafill for subscriber usage billing

To activate subscriber usage billing, set option FTRCODE to ON in table AMAOPTS. See the following figure for an example of option FTRCODE in table AMAOPTS.

Example of option FTRCODE in table AMAOPTS

```
OPTION                                              SCHEDULE
-------------------------------------------------------------
FTRCODE                                                   ON
```

Translations table flow

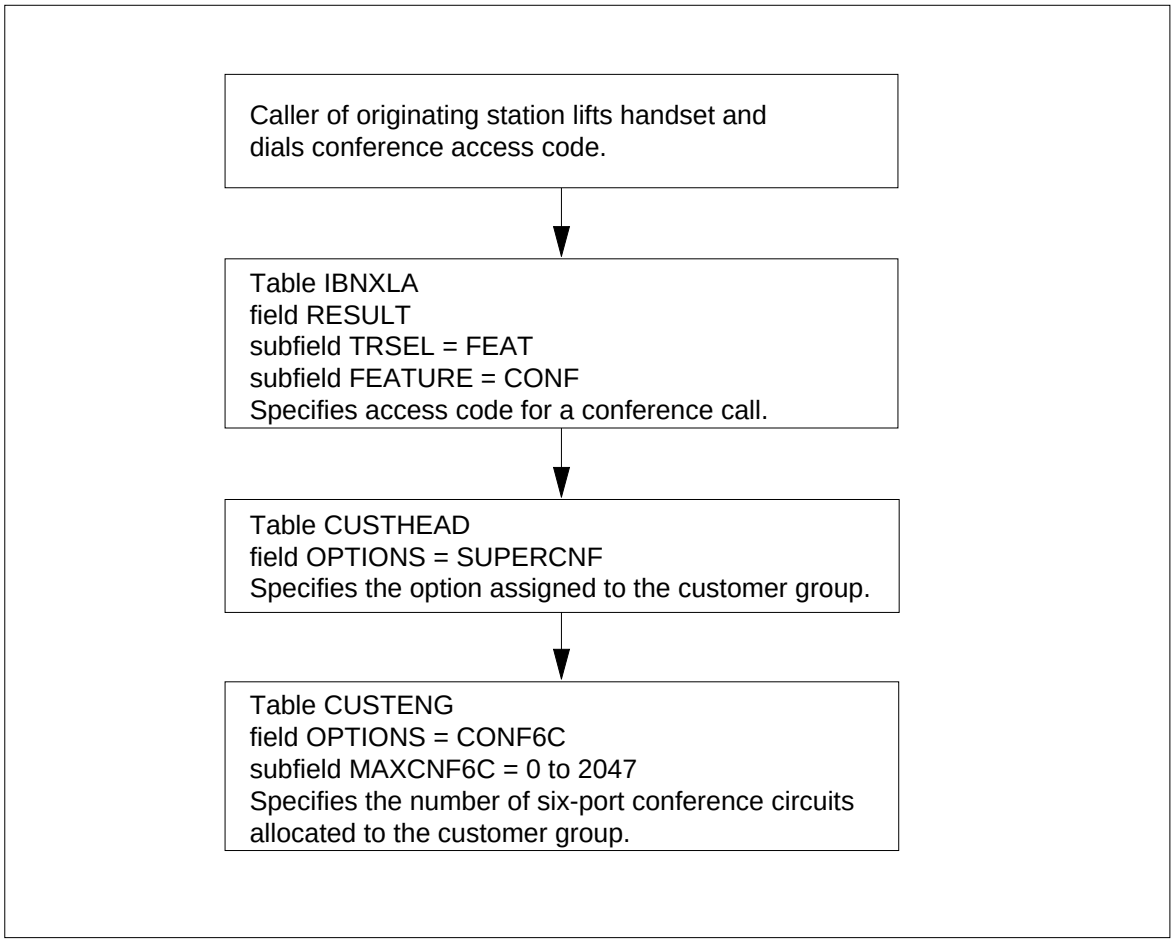
The Flexible Station Controlled Conference (500/2500 Sets) translations process appears in the following flowchart. The addition of the Flexible Station Controlled Conference to a 500/2500 set appears in the flowchart and data.

- Table CUSTHEAD (Customer Group Head) establishes the necessary customer group parameters and options for Flexible Station Controlled Conference (500/2500 Sets).
- Table CUSTENG (Customer Group Engineering) allocates six-port conference circuits to the customer group.
- Table IBNXLA (IBN Translation) contains the feature access codes for activation and release of Flexible Station Controlled Conference (500/2500 Sets)

The Flexible Station Controlled Conference (500/2500 Sets) translation process appears in the following flowchart.

Flexible Station Controlled Conference (500/2500 Sets) (continued)

Table flow for Flexible Station Controlled Conference (500/2500 Sets)



Datafill content for the flowchart appears in the following table.

Datafill example for Flexible Station Controlled Conference (500/2500 Sets)

Datafill table	Example data
IBNXLA	NTIXLA 123 FEAT N Y N CONFNTIXLA 123 FEAT N Y N CONF
CUSTHEAD	AREGMDCA CXAREGA OCAREGA NIL (SUPERCNF)
CUSTENG	MS1LBR2 256 63 Y N PRIVATE 0 (CONF6C 2)

Flexible Station Controlled Conference (500/2500 Sets) (continued)

Limits

The following limits apply to Flexible Station Controlled Conference (500/2500 Sets):

- The Flexible Station Controlled Conference (500/2500 Sets) applies only to 500/2500 and business set stations.
- Stations involved in the conference call cannot access other features with the access codes of the feature.
- A caller cannot access a conference feature when an attendant holds the call. The caller loses the conference bridge if the caller is in a call with an attendant.
- Speed Calling can call possible conferees.
- The system does not check for answer supervision for trunk-completed calls.
- The originating station is the only station in the conference that the system checks for permission to access the called parties.
- If the user of the station is in a call with a toll operator, the system ignores operator ringback. The same condition applies for calls to emergency service bureaus (ESB).
- When the caller accesses the Flexible Station Controlled Conference (500/2500 Sets), any or all trunks can be NDISC trunks.
- The system cannot park a call that uses Six Port Conferencing. A conference call established with six-point conference circuits cannot retrieve a parked call.
- An LDTPSAP cannot originate a conference.

Interactions

The following features interact with the Flexible Station Controlled Conference (500/2500 Sets):

Authorization Codes

The Flexible Station Controlled Conference (500/2500 Sets) is not compatible with Authorization Code First. This conference is compatible with Authorization Code Last.

Automatic Line

The Flexible Station Controlled Conference (500/2500 Sets) cannot operate with the Automatic Line (AUL).

Flexible Station Controlled Conference (500/2500 Sets) (continued)

Busy Verification

An attendant cannot camp on a call or use Busy Verification on a station that is in a station conference call. The Busy Verification refers to line and trunk.

Call Forward No Answer, Call Forward Busy

A call follows the CFD or CFB feature if a call to a station of a conferee has the following:

- Call Forward No Answer (CFD), and is not answered
- Call Forward Busy (CFB), and is busy.

Call Forward Universal, Call Forward Intragroup

Call Forward Universal (CFU) or Call Forward Intragroup (CFI) overrides Flexible Station Controlled Conference (500/2500 Sets). If the originating station calls a potential conferee that has CFI activated, the system forwards the call to the forwarded station. A caller can use Flexible Station Controlled Conference (500/2500 Sets) when the CFU/CFI is active on that station.

Call Pickup

Other callers can use Call Pickup (CPU) to answer a station that rings for a conference call.

Call Waiting, Ring Again, Call Back Queuing

The following features cannot interrupt the conference call:

- Call Waiting (CWT)
- Ring Again (RAG)
- Call Back Queuing (CBQ)

A conference call in progress does not affect pending RAG or CBQ requests by the caller or another conferee.

Denied Origination

The Flexible Station Controlled Conference (500/2500 Sets) is not compatible with Denied Origination (DOR).

Direct Inward System Access

If the originating station has Direct Inward System Access (DISA), one or all of the conferees have access.

Do Not Disturb

A caller can use Flexible Station Controlled Conference (500/2500 Sets) even if Do Not Disturb (DND) is active on that station.

Flexible Station Controlled Conference (500/2500 Sets) (continued)

Expensive Route Warning Tone

If an expensive route reaches a called station, a caller does not receive an expensive route warning tone (ERWT).

Loud Speaker & Radio Paging Access

A line that is a line-terminated loudspeaker paging device that a DMS-100 switch serves cannot be in a station controlled conference. The originating station receives busy tone.

MBS Call Park

A caller can use Flexible Station Controlled Conference (500/2500 Sets) when the MBS Call Park parks a call at the same time.

Meet-me Conference

The DN for a conferee cannot be a meet-me conference DN.

Malicious Call Hold

The system cannot activate a Malicious Call Hold when a station is in a station controlled conference.

Off-hook Queuing

The originating station is off-hook queued in the following conditions:

- An outgoing trunk reaches a called station.
- The originating station has Off-hook Queuing (OHQ).

During the OHQ period, the caller cannot flash the hookswitch. The OHQ period is customer-group defined. If the caller attempts to flash the hookswitch, the system removes the caller from OHQ. The caller receives special dial tone. After this event, the OHQ feature does not apply.

Originator Hold (ORIGHOLD)

If the 911 caller goes on-hook in a conference, the system holds the connection. If two conferees remain in the conference, the following condition occurs. The system does not provide the ORIGHOLD tone to the PSAP that remains when the 911 caller goes on-hook. The release of the conference bridge does not allow the conference features to proceed to a two-party call. The call remains a conference call when only two parties remain in the call.

Ringback to 911 Callers

This feature does not operate with the conferencing features in the following condition. This condition is when only two parties remain in the call and the 911 call is on-hook. This condition does not apply to Three-way Calling.

Flexible Station Controlled Conference (500/2500 Sets) (continued)

Three-way Calling with Public Announcement (3WCPUB)

A PSAP on a 500/2500 set cannot use Flexible Station Controlled Conference if 3WCPUB is active during a 911 call.

Activation/deactivation by the end user

Activation/deactivation of Flexible Station Controlled Conference (500/2500 Sets) by the end user

In the following examples, the controller can be an E911 PSAP with the Flexible Station Controlled Conference feature assigned. The first potential conferee can be a 911 caller. The controller plans to establish a conference call that contains a minimum of three parties. To establish a conference call, the controller can use the following two methods.

- The controller is not on an active call. The controller goes off-hook. The controller dials the CONF code.
- The controller is on a two-port call. The controller does a hookswitch flash. The controller dials the CONF code.

In the following example, the controller performs the actions. The controller is not on an active call.

How to activate/deactivate the Flexible Station Ontrolled Conference feature

At your telephone:

1 Go off-hook.

Response:

You hear dial tone.

2 Dial the CONF code.

If a 6-port conference bridge is available, you hear special dial tone. The bridge is reserved. The CONF key lamp turns on. The DN key lamp flashes.

If a 6-port bridge is not available, you hear the reorder tone. The lamps do not change.

3 Dial the directory number (DN) of the first potential conferee. Wait for the conferee to answer.

Response:

The conferee answers.

4 Flash the hookswitch.

Response:

You hear special dial tone.

5 Dial the CONF code.

The two parties are on two ports of a six-port bridge. The two parties are in a conference.

Flexible Station Controlled Conference (500/2500 Sets) (continued)

6 To exit the bridge, flash the hookswitch again.

Response:

You hear special dial tone.

7 To add additional conferees, flash the hookswitch.

Response:

You hear special dial tone.

8 Dial the DN of the next potential conferee.

Response:

The potential conferee answers. This call is a consultation call between the controller and the potentional new conferee.

9 Flash the hookswitch.

Response:

You hear special dial tone.

10 Dial the CONF code.

Response:

The conferee connects to the conference call. If the conference has at least three active members and the controller goes on-hook, the switch allocates a new controller at random from the members present on the conference. Any member on the conference with feature CNF assigned hears a special dial-tone on flashing. This member can now add new members to the conference as described in steps 7 through 10. Any member that adds new members to the call becomes the controller of the conference.

11 To release a conferee during a consultation call, flash the hookswitch.

Response:

You hear special dial tone.

12 Dial the RLS code.

Response:

The connection drops. You hear a special dial tone. The bridge is still reserved. You can dial another party or go on-hook. If you go on-hook and there are at least two members left on the conference, the switch allocates a new controller at random from the members present. Any member on the conference with feature CNF assigned hears a special dial-tone on flashing. This member can now add new members to the conference as described in steps 7 through 10. Any member that adds new members to the call becomes the controller of the conference.

The controller performs the actions in the following example. The controller is on a two-port call.

Flexible Station Controlled Conference (500/2500 Sets) (continued)

Controller actions on a two-port call

At your telephone:

1 You are in a two-port call with the conferee. Flash the hookswitch. Dial the CONF code.

Response:

If a six-port conference bridge is available, you and the conferee connect to the ports of the conference bridge.

If a conference bridge is not available, you hear reorder tone for 5 seconds. After 5 s, you reconnect with the conferee.

If you flash the hookswitch during reorder tone, the tone stops. You reconnect with the conferee.

2 Flash the hookswitch when the two parties connect to the conference bridge.

Response:

You hear special dial tone.

3 Dial the DN of the next potential conferee.

Response:

The potential conferee answers. This call is a consultation call between the controller and the potentional new conferee.

4 Flash the hookswitch.

Response:

You hear special dial tone.

5 Dial the CONF code.

Response:

The conferee connects to the conference call. If the conference has at least three active members and the controller goes on-hook, the switch allocates a new controller at random from the members present on the conference. Any member on the conference with feature CNF assigned hears a special dial-tone on flashing. This member can now add new members to the conference as described in steps 2 through 5. Any member that adds new members to the call becomes the controller of the conference.

6 To release a conferee during a consultation call, flash the hookswitch.

Response:

You hear special dial tone.

7 Dial the RLS code.

Response:

The connection drops. You hear a special dial tone. The bridge is still reserved. You can dial another party or go on-hook. If you go on-hook and there are at least two members left on the conference, the switch allocates a new controller at random from the members present. Any member on the conference with feature CNF assigned hears a special dial-tone on flashing. This member can now add new members to the conference as described in steps 2 through 5. Any member that adds new members to the call becomes the controller of the conference.

Flexible Station Controlled Conference (500/2500 Sets) (continued)

Billing

The Flexible Station Controlled Conference (500/2500 Sets) does not affect billing.

Station Message Detail Recording

The Station Message Detail Recording (SMDR) can apply to one, several, or all of the legs of the conference call. When the system adds a leg to the conference, the leg appears as a conference call in the SMDR record. This identification occurs through the use of the originating feature code for Flexible Station Controlled Conference (500/2500 Sets).

Datafilling office parameters

The Flexible Station Controlled Conference (500/2500 Sets) does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Flexible Station Controlled Conference (500/2500 Sets) appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Flexible Station Controlled Conference (500/2500 Sets)

Table	Purpose of table
IBNXLA	IBN Translation Table. This table stores data for the digit translation of calls from the following: • an IBN station • an attendant console • an incoming IBN trunk group • an incoming side of a two-way IBN trunk group.
CUSTHEAD	Customer Group Head Table. The names assigned to the blocks of data in table IBNXLA appear in table CUSTHEAD. These blocks store the data for the translation of digits.
CUSTENG	Customer Group Engineering. The values for the engineering parameters and options for each of the customer groups appear in this table.

Datafilling table CUSTHEAD

Table CUSTHEAD (Customer Group Head) establishes the required customer group parameters and options for Flexible Station Controlled Conference (500/2500 Sets).

Flexible Station Controlled Conference (500/2500 Sets) (continued)

Datafill for Flexible Station Controlled Conference (500/2500 Sets) for table CUSTHEAD appears in the following table. The fields that apply to Flexible Station Controlled Conference (500/2500 Sets) appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTHEAD

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		SUPERCNF	Options. This field specifies the options and associated subfields assigned to the customer group. Enter SUPERCNF.

Datafill example for table CUSTHEAD

Sample datafill for table CUSTHEAD appears in the following example.

MAP example for table CUSTHEAD

```
CUSTNAME     CUSTXLA DGCOLNM IDIGCOL
                                                    OPTIONS
_____________________________________________________________
   AREGMDCA CXAREGA OCAREGA NIL
                                                ( SUPERCNF )
```

Datafilling table CUSTENG

The values for engineering parameters and options for each customer group appear in table CUSTENG (Customer Group Engineering). Table CUSTENG includes the allocation of six-port conference circuits to the customer group.

Datafill for Flexible Station Controlled Conference (500/2500 Sets) for table CUSTENG appears in the following table. The fields that apply to Flexible

Station Controlled Conference (500/2500 Sets) appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTENG

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		CONF6C	Options. This field specifies the options and associated subfields assigned to the customer group. Enter CONF6C.
If the setting of OPTIONS to CONF6C, subfield MAXCNF6C requires datafill.			
	MAXCNF6C	0 to 2047	Maximum Six-Port Conference Circuits. This subfield specifies the number of six-port conference circuits allocated to the customer group. Enter a value from 0 to 2047.

Datafill example for table CUSTENG

Sample datafill for table CUSTENG appears in the following table.

MAP example for table CUSTENG

```
CUSTNAME NONCOS    NOIBNTMT CONSOLES DOMAIN    GROUPID
                                              OPTIONS
_____________________________________________________
  MS1LBR2  256      63         Y   PRIVATE     0
                                              ( CONF6C 2)
```

Datafilling table IBNXLA

Table IBNXLA (IBN Translation) contains the feature access codes for the activation and release of Flexible Station Controlled Conference (500/2500 Sets).

Datafill for Flexible Station Controlled Conference (500/2500 Sets) for table IBNXLA appears in the following table. The fields that apply to Flexible

Flexible Station Controlled Conference (500/2500 Sets) (continued)

Station Controlled Conference (500/2500 Sets) appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	Key. This field contains subfields XLANAME and DGLIDX.
	XLANAME	one to eight characters	Translator Name. This subfield specifies the name assigned to the translator. Enter the one- to eight-character name.
	DGLIDX	1 to 18 digits	Digilator Index. This subfield specifies the access code. Enter the 1- to 18-digit number assigned as the access code.
RESULT		see subfield	Result. This field contains subfield TRSEL.
	TRSEL	FEAT	Translations Selector. This subfield specifies the translations selector that the system uses. Enter FEAT.
If the setting of TRSEL is FEAT, subfields ACR, SMDR, and FEATURE require datafill.			
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if SMDR is a requirement. Enter Y or N.
	FEATURE	CONF RLS	Feature. This subfield specifies the feature assigned to a line. Enter CONF for Station Controlled Conference or RLS for Release.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

```
    KEY                             RESULT
_______________________________________________________
NTIXLA  123                         FEAT N Y N CONF
NTIXLB  124                         FEAT N Y N RLS
```

Tools for verifying translations

The Flexible Station Controlled Conference (500/2500 Sets) does not use tools for verifying translations.

Flexible Station Controlled Conference (500/2500 Sets) (continued)

SERVORD

The Service Order System (SERVORD) can add option CNF to a current line that uses the ADO (add option) command. Option CNF allows a station to establish a conference call with a maximum of 30 parties. This connection occurs without the help of an attendant.

SERVORD limits

The Flexible Station Controlled Conference (500/2500 Sets) does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts to assign Flexible Station Controlled Conference (500/2500 Sets) to a line appear in the following table.

SERVORD prompts for Flexible Station Controlled Conference (500/2500 Sets)

Prompt	Correct input	Explanation
DN_OR_ LEN	seven-digit DN or LEN	Specifies the seven-digit DN or LEN of the line to change. Enter the DN or LEN.
OPTION	CNF	Specifies the option assigned to the line. Enter CNF.
CONF_ TYPE	C06, C10, C14, C18, C22, C26, or C30.	Specifies the maximum number of stations that can connect to a station controlled conference. Enter C06, C10, C14, C18, C22, C26, or C30.

SERVORD example for adding Flexible Station Controlled Conference (500/2500 Sets)

You can use the ADO command to add Flexible Station Controlled Conference (500/2500 Sets) to a current line. This addition appears in the following SERVORD example.

Flexible Station Controlled Conference (500/2500 Sets) (end)

SERVORD example for Flexible Station Controlled Conference (500/2500 Sets) in prompt mode

```
> ADO
SONUMBER: NOW 88 1 8 PM
>
DN_OR_LEN:
> HOST 0 0 8 0
OPTION:
> CNF
CONF_TYPE:
> C30
OPTION:
> $
```

SERVORD example for Flexible Station Controlled Conference (500/2500 Sets) in no-prompt mode

```
> ADO $ HOST 0 0 8 0 CNF C30 $
```

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